Town of Hopkinton, NH
MASTER PLAN

Adopted: 2002
Revised: 2012 (Chapter XI Energy)

Cover Photo by Bruce Salisbury

Photo is showing the old mill pond on the John Brockway Nature Preserve, which is located on Farrington Corner Road. The land was acquired by the Town of Hopkinton in 1990, as part of its Open Space Preservation Program, through a generous donation by Dorothy Osborne and funding from the State of New Hampshire Land Conservation Investment Program. The Brockway Nature Preserve is one of thirteen Town Forests that are managed for timber production, wildlife habitat, recreation, education, and watershed protection.

CERTIFICATE OF ADOPTION

In accordance with New Hampshire RSA 674:4, Master Plan Adoption and Amendment, and New Hampshire RSA 675:6, Method of Adoption, the Hopkinton Planning Board, having held duly noticed public hearings on August 23, 2001, September 18, 2001, October 16, 2001, November 20, 2001, January 15, 2002, February 26, 2002, April 16, 2002, and May 21, 2002 hereby adopts and certifies the 2002 Hopkinton Master Plan.

Bruce Ellsworth, Chair

Jane Bradstreet, Member

Timothy Britain, Member

Peter Helm, Member

Clarke Kidder, Member

Michael Wilkey, Member

Celeste Hemingson, Selectmen's Representative

This document was received and recorded by the Town Clerk on 06/21/ **2002.**

Signed: Hopkinton Town Clerk **Seal:**

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Master Plan Participants

The Planning Board and Master Plan Steering Committee express their sincere appreciation and gratitude to the following people who assisted with the 2002 Hopkinton Master Plan. Their participation in this process was critical and helped community leaders better understand the values, goals, and needs of the community. Without their help, this Plan would not have been possible.

Master Plan Steering Committee

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Bruce Ellsworth (Planning Board Chair)
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In addition, the Planning Board and Master Plan Steering Committee would like to thank Thomas O'Donnell, Chairman of the Hopkinton Village Planning Board, for his time and efforts in assisting with this project. While the Planning Board and Steering Committee recognizes the fact that the Hopkinton Village Precinct maintains their own Master Plan, it should be noted that Mr. O'Donnell, representing the Hopkinton Village Precinct, attended and participated in the many meetings for this plan and deserves out thanks for his input and dedication to our community.

A Special Thank You To:

Alan Hall
Karen Robertson
Central New Hampshire Regional Planning Commission

A thank you also goes out to those we failed to include in the list above.
Your efforts and contributions did not go unnoticed or appreciated.

Chapter I
Introduction

A Master Plan is a living document that articulates the vision, desires, and concerns of a community, and provides recommendations on how to maintain or improve the features of a community. This plan is intended to serve as a blue-print for all future activities of Hopkinton, including future economic development efforts, amending of land use regulations, environmental and historic preservation efforts, as well as the development of affordable housing stock, the expansion of community facilities and services for the next five to ten years.

This Master Plan is Hopkinton's road map for the first quarter of the twenty-first century and beyond. It outlines what we are all about and where we as a community in central New Hampshire want to go. The Plan describes us today, and forecasts where we are heading. Most importantly, it defines what we will need to do over the next several years as we work together to shape the future of the Town of Hopkinton. What you now have in your hands is the result of the collective efforts of those who made generous contributions of time, energy, and ideas. The new "Master Plan of the Town of Hopkinton" is now a reality!

A Master Plan is intended to be the device that influences the making, interpretation, and implementation of laws and procedures that give shape and direction to the community. A Master Plan is required by law in the State of New Hampshire (RSA 674:2), but unlike other "master devices," it has no force of law and no way to generate the resources that may be required for implementation. The Master Plan can be a powerful tool that can be used to shape a community by giving direction to appointed and elected officials. However, the true power of the document is derived from the citizenry, as they will ultimately be the voice that approves the staffing, funding, regulatory alternatives and strategies identified by this Plan.

As this Master Plan was being written, it became evident that Hopkinton is at a crossroads in its history. As incremental growth creeps from southern portions of the State and the City of Concord continues to evolve and expand as a regional source of employment, Hopkinton will continue to grow and face new challenges and issues. Those who contributed to this plan did their best to plan for such changes and provide appropriate strategies that will accommodate reasonable growth while maintaining the rural atmosphere. It is the resolve of the Planning Board to faithfully and aggressively pursue the recommendations included in this document.

Plan Development Process

The process for this Master Plan update began in the Fall of 1999 when the Town entered into an agreement with the Central New Hampshire Regional Planning Commission. Funding for the project was provided by the Town, as well as matching grants from the New Hampshire Office of State Planning (NHOSP) and the New Hampshire Department of Transportation (NHDOT).

An abridged overview of the Master Plan process is as follows:

October – December 1999

- Planning Board and interested members of the public begin meeting to discuss the need for a Master Plan update. A contract is entered into with CNHRPC for assistance in updating the Master Plan.

- A Master Plan Steering Committee is formed to guide process of the update.

January – February 2000

- A community survey is developed. The survey is intended to gather detailed information regarding a variety of issues from residents.
- CNHRPC staff begins the process of gathering a variety of population, community facilities, economic, land use, and natural resources data.

March 2000

- An integral part of the process of updating the Town's Master Plan was to find out what Hopkinton residents and property owners' thought about important planning issues facing the community. The Planning Board, with the assistance of the Central New Hampshire Regional Planning Commission, prepared and mailed out 2,700 Community Survey forms to Hopkinton residents and property owners. A total of 973 surveys were completed and returned for an overall response rate of 36%. Response rates on individual questions vary since everyone completing and returning a survey did not answer all the questions or answered more than one response to a questions. Nevertheless, the results of the Community Survey have provided the Master Plan Steering Committee and Planning Board with valuable insight and feedback on key issues facing the community and have been incorporated as applicable throughout the Master Plan.

March – May 2000

- Community Survey results are compiled an analyzed by CNHRPC.

May 2000 – June 2000

- The Master Plan Steering Committee holds a community-visioning session with local officials and members of the public. Participants are divided into Working Groups to discuss various aspects of the Town, including Land Use, Population and Economics, Community and Recreation Facilities, and Natural and Cultural Resources. From these Working Groups, an inventory of community strengths, weaknesses, opportunities, and concerns, as well as preliminary goals and objectives related to the issues discussed is created.
- CNHRPC publishes summary of visioning session and distributes throughout the Town.

July 2000 – January 2001

- Community Facilities Chapter and Conservation, Preservation, and Open Space Chapter Working Groups develop chapters and review language and maps prepared by CNHRPC.

February 2001 – July 2001

- CNHRPC gathers data in preparation of Transportation Chapter, Current and Future Land Use Chapter, and Historic and Cultural Resources Chapter. These Working Groups develop chapters and review language and maps generated by CNHRPC.
- Steering Committee reviews and approves the Transportation Chapter and Conservation, Preservation, and Open Space Chapter.

August 2001 – December 2001

- Contoocook Chapter, Population and Economic Chapter, and Housing Chapter Working Groups develops chapters and review language and maps prepared by CNHRPC.
- Steering Committee reviews and approves the Contoocook Chapter, Population and Economics Chapter, Community Facilities Chapter, Current and Future Land Use Chapter, and Historic and Cultural Resources Chapter.
- Planning Board approves the Transportation Chapter, Conservation, Preservation, and Open Space Chapter, Community Facilities Chapter, Contoocook Village Chapter, and Historic and Cultural Resources Chapter.

January 2002-May 2002

- Technology and Public Utilities Chapter, Introduction Chapter, and Appendix items are developed and language and maps are reviewed by CNHRPC.
- Steering Committee reviews and approves the Population and Economics Chapter, Introduction Chapter, Housing Chapter, and Technology and Public Utility Chapter.
- Planning Board approves the Population and Economic Chapter, Introduction Chapter, Housing Chapter, Current and Future Land Use Chapter, and the Technology and Public Utility Chapter.
- Master Plan is complete. Final document and maps are published.

Throughout the development of this Plan, conflicts and contradictions between opinions were expected and experienced. However, in every case, compromises were established in order to create a plan that would represent the various views and opinions of the entire community.

The extent to which one element of the Master Plan is interwoven with other elements of the Plan becomes evident in developing the Master Plan. For example, housing is a land use that can affect the transportation system, community facilities and services, and the cultural resources of the Town. Separating these components into Chapters of the Master Plan simply provides an organizational structure to address the various areas. The more one works with these areas, the more one recognizes the links between them. This interconnectedness is evident when looking at the Key Findings for each Chapter.

Key Findings

What follows is the collective catalogue of our hopes and dreams for our town--what we want to achieve in a growing and vital town we call our own. These have been put down on paper for all to see and work towards. A chance to move and shape our little bit of the world and to make it a better place not only for us, but for our children and grandchildren, just as those who have gone before did for us. It is herein setforth as a living document. It will help us to focus on the important issues of our times.

Establishing a set of key findings or recommendations is an important task that requires considerable public input and debate. The key findings listed below are discussed in each specific Chapter of the Master Plan. These findings were created by analyzing the results of the Community Survey results **(Appendix A)** and reviewing input from the various Chapter Working Group participants.

Historic and Cultural Resources Chapter

- Establish a Heritage Commission to have the responsibility for implementing many of the recommendations proposed throughout this Chapter.
- Move town-owned historic information to a permanent location where it can be safely stored.
- Continue to map, inventory and inspect important historic sites in Hopkinton.
- Design and implement a program to increase the public awareness of historic and cultural resources located in Town.
- Protect historical and cultural resources other than buildings, such as stone walls, open spaces, landscapes, and scenic vistas.
- Create a management plan for all Town-owned historic buildings that includes scheduled maintenance and rehabilitation, proposed uses, and funding sources.

Population and Economics Chapter

- Hopkinton has a substantial economic base, a highly educated and industrious population, and is a prosperous community.
- Effectively manage the industrial, commercial, and business aspects of Hopkinton in order to maintain the rural character of the Town.
- Review and amend the zoning ordinance to assure the optimum use of land in the Industrial District and Commercial District.
- Review and revise, where necessary, zoning regulations for home occupations, home businesses, and telecommuting to encourage these economic development options within Town.
- Encourage new businesses to relocate and establish within existing facilities, where feasible and permissible, in order to create a thriving commercial base in areas of the community where similar businesses have been traditionally located.
- Monitor changes in the age of the population so that housing and social services meet the needs of the population.
- The Economic Development Committee should work as a liaison between the Town, Regional, and State economic development groups, and also between businesses interested in locating in Hopkinton and the Zoning Board of Adjustment, Planning Board, and Selectmen to strengthen the local economic base within Town.
- Prepare a user-friendly guide for businesses that explains local ordinances, development requirements, and contains clear application guidelines and approval procedures.

Current and Future Land Use Chapter

- The Town, in the site plan review regulations, should create specific architectural façade performance standards for multi-family and commercial/industrial structures to protect the scale and rural character of the community, as well as expand the taxable value of properties.
- The Planning Board should re-write the existing cluster subdivision ordinance so as to create real incentives for developers to use this approach or require them to use this approach, to better protect land, and create usable open space, as intended by this type of development.
- The Town should consider implementing environmentally-based zoning techniques to further protect key natural resources in the community and the rural character while providing reasonable opportunities for development.

- Contoocook Village and Hopkinton Village Precinct zoning issues should be reviewed and coordinated with the Town's goals to ensure that their historic nature and character are retained, while at the same time permitting reasonable and compatible development and growth.
- Develop and adopt a methodology for a formal impact fee schedule.
- Review the current R-4 and R-3 zoning districts, with regard to minimum lot size, road frontage, and set-backs, to ensure that the goals of such districts are being met.

Housing Chapter

- Review and update the current affordable housing and manufactured housing zoning ordinances to make sure that they meet their stated goals and objectives, and continue to encourage their development in town.
- Revise the zoning ordinance to include the provision for the development of market-rate elderly housing and affordable housing in Hopkinton.
- Formally adopt building codes and consider the creation of a professional Building Inspector position, and the adoption of a building code inspection fee schedule.

Transportation Chapter

- Utilize traffic count data to identify corridors that may become threatened in the future by development trends. In locations where traffic has increased significantly, land use trends, and access management policies should be closely examined and modified to best maintain and promote an efficient transportation network.
- Identify local residential roads that are not suited for heavy commuter traffic, and work to minimize "through-traffic" wherever viable alternatives can be provided.
- Review and consider the adoption of access management techniques into the Site Plan and Subdivision regulations.
- Identify and prioritize areas with existing pedestrian facilities for regular maintenance. Propose new areas for facilities that will extend and connect the existing infrastructure. Use innovative methods to increase pedestrian safety, which could include such things as raised cross-walks, stripped or colored cross-walks, increased signage, or walking paths separated from the road by landscaping. Education of drivers to alert them to the location of sidewalks and cross-walks would also be beneficial.
- Investigate the use of traffic calming measures to discourage high speeds and to direct traffic around neighborhoods.
- Review and evaluate the Town's current road standards and develop new road construction standards that allow for and encourage a variety of road types that enhance the uniqueness of Hopkinton's current and future transportation infrastructure.
- The design and planning of residential streets should follow natural contours and preserve natural features whenever practical; minimize traffic speed, volume, noise, congestion, and hazards to pedestrians; and minimize the amount of paved area to reduce stormwater runoff, and thereby protecting water resources and reducing construction costs.
- Research the possibility of developing flexible length requirements for cul-de-sacs, in consultation with the Fire Chief and Superintendent of Public Works.
- Identify, with the help of the Conservation Commission, Class VI roads, railroad beds, existing paths, and areas along the various water bodies in Town that connect open space, forest, conservation, and/or agricultural land and would help create a greenway trail network.

- Continue to research the available options for increasing transportation access to industrial land while reducing vehicle traffic through Contoocook Village. Environmental impacts, economic benefits, and efficiency should be kept in mind.
- Continue working with NHDOT to improve the control of traffic at the intersection of Routes US202/NH9 and Route NH 103 in Hopkinton Village.
- Work with regional, State, and Federal agencies and programs to prepare a comprehensive transportation plan that includes funding availability for projects and programs.
- Investigate the need for alternatives to single occupancy vehicles, such as Concord Area Transit (CAT) and Park & Ride facilities.
- Class V gravel roads and Scenic Roads are important historic assets, provide excellent recreational opportunities, and foster a sense of community. Changes to these roads should not be made without considering their historic importance, recreational opportunities, and sense of community.
- Encourage the planning and development of an efficient, regional and local bicycle route system, in coordination with other groups and municipalities, and increase public awareness of bicycling as a viable mode of transportation.

Public Utilities and Technology Chapter

- The Town of Hopkinton is well suited to embrace new technology, due to a variety of factors such as location, demographics, and interest on the part of local residents.
- The Town of Hopkinton should be prepared to adjust its ordinances to encourage the location of small office/home office (SOHO) uses and small information age businesses throughout the community.
- Three-Phase electric service will need to be bolstered in the Burnham-Intervale area if additional industrial users locate there in the future.
- Telephone service is provided by three distinct companies; Verizon, MCT Telecom, and Granite State Telephone.
- Three wireless telecommunications towers are located in Hopkinton. It is expected that additional tower locations will be proposed in the future as wireless communications becomes more ubiquitous.
- AT&T Broadband currently provides Cable Television service to many Hopkinton residents. The franchise agreement between the Town and AT&T originally signed in 1985 and revised in 1992 should be revisited.
- Hopkinton residents have a wide choice in Internet providers, from dialup to DSL (digital subscriber lines) and cable modem broadband service. When compared with many other New Hampshire municipalities, Hopkinton is currently well connected to the Internet.
- The combination of the town's existing digital parcel mapping with digital mapping prepared for the Master Plan as well as the recent automation of the Town's appraisal system have placed the Town in a good position for the future establishment of a GIS (geographic information systems) program.
- The development of a Community Network could aid in the enhancement of participation in local governmental affairs.

Community Facilities Chapter

- The Contoocook Fire Station will need some sort of addition, a second floor or an extension out toward Park Avenue, to accommodate male and female sleeping quarters and extra storage space.

- The number of volunteer firefighters has declined significantly over the past ten years. While not dangerously low, the Fire Department should take measures to recruit and train more volunteers.
- The interior of the Town Hall must be reconstructed to address ADA and Life Safety Code specifications, maximize workable space and safety of the office staff, and improve acoustics for continued use of the Town Hall in its intended capacity.
- Parking around the library must be increased as more sports fields are constructed at Houston Field.
- The Town must provide incentives for recycling.
- Town business in the future may become more internet-based. The Town should make preparations to allow its residents to conduct business via electronic means.
- The Community Center Inc. must address safety issues with respect to Columbia Hall.
- The Town should coordinate communications and the computer networks across the Town and the School Department.

Conservation, Preservation, and Open Space Chapter

- All land use activities that have a direct impact on the soil should be performed in such a way as to minimize any negative impacts and be located on sites suitable for such activity.
- The Town should provide for comprehensive protection of the wetlands and shoreland through regulatory, educational, and voluntary efforts.
- The Town should identify critical habitats and lands, including large blocks of undeveloped land, travel corridors, agricultural lands, scenic views, and other areas of conservation, recreational, and ecological value and initiate efforts to protect those areas.
- Research the possibility of creating an Aquifer Protection District that would provide comprehensive protection for the aquifer resource based on scientific findings, while at the same time ensuring the provisions are reasonable and enforceable.
- Develop a conservation development approach for the design of subdivisions and developments, particularly within those areas identified as unfragmented in town. A conservation development approach will recognize the right and ability of a landowner to use his/her land, but minimize the fragmentation of the habitat.
- Expand and strengthen the Hopkinton greenway system through the acquisition of land or conservation easements that would link conservation parcels that the Town currently owns or has easements on. This acquisition should be through donations, purchase, or partnerships with public or private conservation groups. A conservation fund should be maintained to allow the Town to qualify for matching funds, as opportunities arise.

Contoocook Village Chapter

- The Contoocook River, covered bridge, and depot area are great assets, and the Village should make better use of these resources.
- Truck traffic is a problem downtown and is an important issue that should be addressed, especially in relation to pedestrian safety.
- Maintain parking, while promoting pedestrian access and design at the same time.
- Improve the aesthetics of downtown and attract visitors into downtown.
- Respect the existing structures and integrity of the downtown.
- Connect Contoocook's multiple activity centers.
- Establish a Historic District to ensure the historic nature and integrity of the Village remains intact and is encouraged to flourish.

While the key findings are considered to be the most important and immediate concerns from each Chapter, there are numerous recommendations made throughout each Chapter. These recommendations range from simple wording changes in the Zoning Ordinance to long-range policy changes. The key findings and recommendations outlined in the Master Plan all stem from the goal of ensuring that Hopkinton remains a rural community with protected and preserved natural, historical, and cultural resources; high quality educational, housing, and employment opportunities for residents; and an infrastructure that can accommodate growth and change. Accomplishing all of the recommendations will be a large task but the groundwork has been laid for success by all of those participating in the Hopkinton Master Plan process.

The Master Plan is basically a road map that outlines who we are and where we as a community in central New Hampshire want to go. It describes us today, forecasts where we are heading and defines what we need to do over the next several years.

Most importantly, it is the collective catalogue of our hopes and dreams for our town--what we can achieve, put down on paper for all to see and work towards. A chance to move and shape our little bit of the world and make it a better place not only for us, but for our children and grandchildren, just as those who have gone before did for us.

To achieve this, it will take the collective efforts of all of us. It is to be a living document helping us to focus on the important issues of our times. We need your help to make this a reality!

Chapter II
Historic and Cultural Resources

Introduction

Daniel Webster once said, “A person who does not respect the past is not performing his or her duty to the future.” It is a community’s responsibility to plan a program of historical and cultural preservation and protection, and in Hopkinton this is a feeling voiced by a majority of the citizens in the Master Plan Community survey.

Gradual and pervasive erosion of the historical character can happen with the accumulation of incremental changes to buildings and places. It is our challenge to ensure that this does not happen in Hopkinton. Preservation should not be a reaction to a crisis, but part of the planning process. And, “preservation” does not have to be thought of as “prevention.”

Hopkinton settlement began in 1736 through a grant to citizens of Hopkinton, Massachusetts, and progressed into the incorporation of the Town in 1765. The presence of fertile land for farming and the proximity to waterpower for mills determined the location of three distinct areas: Hopkinton Village, Contoocook Village, and West Hopkinton.

Within two generations, Hopkinton became an influential town as farms prospered, mills were built, with churches, roads, and schools following. Trade and travel developed together. Political prominence emerged in Hopkinton, bringing with it twenty years of unprecedented prosperity as Hopkinton became a half-shire Town. The New Hampshire Legislature and the New Hampshire courts met in Hopkinton, and taverns, homes of distinction, a courthouse, and a jail were built.

This all changed when Concord became the permanent State Capital in 1814. By 1830, Hopkinton had lost the prominence it had once enjoyed, and over the course of the next century, the population dropped from a high of 2,474 in 1830 to a low of 1,438 in 1920. Nevertheless, it would be wrong to underestimate the importance of events, such as the railroads and business developments, which affected the Town in the intervening years. The Town never stopped moving forward.

This chapter looks to the past to highlight local historic and cultural resources, describes why they are significant, and looks to the future to provide the resources and tools to plan for the preservation, protection, and enhancement of those resources.

In this chapter, the following topics will be explored:

Key Findings
Community Survey and Visioning Session Results
Natural Register of Historic Places
Covered Bridges
Transportation Routes
Privately-Owned Historic Structures
Historic Preservation and Information Resources
Summary
Local Historic Markers
Cemeteries
Town-Owned Historic Structures
Architecture and Streetscapes
Cultural Resources

Key Findings

- Establish a Heritage Commission to have the responsibility for implementing many of the recommendations proposed throughout this Chapter.
- Move town-owned historic information to a permanent location where it can be safely stored.
- Continue to map, inventory and inspect important historic sites in Hopkinton.
- Design and implement a program to increase the public awareness of historic and cultural resources located in Town.
- Protect historical and cultural resources other than buildings, such as stone walls, open spaces, landscapes, and scenic vistas.
- Create a management plan for all Town-owned historic buildings that includes scheduled maintenance and rehabilitation, proposed uses, and funding sources.

Community Survey and Visioning Session Results

In March 2000, a Master Plan community survey was sent out to all households and non-resident land-owners of the Town. A total of 2,700 surveys were distributed with 973 returned, for a 36% response rate. The following questions and responses were those on the survey that related to the historic and cultural resources in Hopkinton.

What are the desirable qualities of Hopkinton? Check all that apply.

Feature	Total
Small Town/Rural Atmosphere	852
Historical Character	487
Villages	370

Does Hopkinton need to establish specific design or architectural requirements to regulate how buildings should look? Check all that apply.

	Total
Residential	62
Non-Residential	239
Both	219
None	386
No Opinion	84

If specific design or architectural requirements are desirable, what areas of Town would be most appropriate for such standards? Check all that apply.

Area	Total
In Hopkinton Village	425
In Contoocook Village	342
Along Routes 9 and 202	99
Along Route 103	124
Along Route 127 (Maple St.)	126
In Rural Areas	35
Throughout Town	183
None	222

Should the Town appropriate money to be used for the protection and preservation of natural, cultural, and historic resources?

	Total	Percent
Yes	589	60.5 %
No	117	12.0 %
No Opinion	168	17.3 %
No Answer	99	10.2 %
Total	973	100 %

Although this low number would seem to indicate a lack of interest by respondents for cultural activities, it may actually mean that most people feel that the services currently being provided are meeting the needs of the community.

In order to help Town Officials better direct their efforts to meet the needs of the community, we need your opinion on the relative importance/rating on the following Issues and Town Services

Issues	Effort Should Be (Please Check)				
	More	Same	Less	No Opinion	No Answer
Preservation of Historic Sites and Buildings through Zoning	356	390	61	69	97

Town Services	Please "Rate" These Town Services				
	Good	Fair	No Opinion	Poor	No Answer
Cemetery Care	454	110	295	13	101
Historical Preservation	388	255	199	27	104

Please indicate which community services and facilities you would like the Town to develop and/or improve in the future.

Community Service/Facility	Total
Cultural Activities	227

The ideas and attitudes expressed in the Master Plan visioning session are compatible to the results from an earlier report. According to the *1998 Natural, Cultural, and Historical Resources Inventory of the Central New Hampshire Region*, the following were identified as historical resource priorities in Hopkinton.

- Early schoolhouses
- Putney Hill historic sites
- West Hopkinton mill
- Fairgrounds
- Town pound
- Old mill sites scattered throughout Town
- Cellar holes
- Broad Cove and King Pines
- Covered bridges
- Cemeteries
- Stone walls
- Village centers

In May 2000, a visioning session was held, in which all members of the public were invited to attend and voice their opinion and vision for the future of Hopkinton. The following list is of the questions asked and also individual participant responses from the visioning session that relate to the historic and cultural resources in Town.

What are the Town's strengths and opportunities?

Rural atmosphere
Historic architecture in Hopkinton Village
Small rural town of Contoocook Village
Covered bridges in Town
National Register sites in Town
Hopkinton and Contoocook Villages
Historic residences on Class VI roads

The main issues identified in the vision session by participants were the high value placed on the rural atmosphere of Hopkinton, historic Village preservation, and architectural integrity.

National Register of Historic Places

Under the terms of the National Historic Preservation Act of 1966, the U.S. Department of Interior's National Park Service maintains the National Register, which lists the Nation's cultural resources worthy of preservation. The National Register is the Nation's roster of properties that are important in history, architecture, archeology, engineering, or culture. Properties may be nominated individually, in groups, or by Districts. The nomination process requires careful documentation as to a site's historical significance. In addition to buildings and bridges, other categories - such as Main Streets and roads, villages, parks, and monuments - can be listed. There are a number of benefits for properties listed on the National Register. These include the provision for special review and mitigation if a road widening, or other project using Federal funds, is undertaken in the vicinity, and the possible eligibility for Federal benefits. These include

charitable deductions for donations and easements, grants for preservation, and investment tax credits for the rehabilitation of income-producing buildings.

No additional regulative restrictions are placed upon those properties that are listed on the National Register; but instead, a listing in the Register recognizes the property's significance, encourages the stewardship of the property or resource, and stimulates local pride, appreciation, and commitment to preservation. Hopkinton currently has four exemplary sites located on the National Register, which are listed below. These can also be seen on the **National Register and Local Historical Marker Location Map**.

Rowell's Bridge
Built in 1853, it is classified as a combination of Long truss with Burr arches. It is maintained by the Town and was rehabilitated in 1982 and again in the late 1990's by the New Hampshire Department of Transportation. It is located on Clement Hill Road, north of NH127, in West Hopkinton. It was listed on the Register on November 21, 1976.

Covered Railroad Bridge
Built in 1849-1850, it is located in Contoocook Village on Route NH103, on the old Concord and Claremont Railroad line spanning the Contoocook River. There was reconstruction done to the bridge in 1889. The bridge was given to the New Hampshire Division on Historic Resources (NHDHR) in 1990 and is maintained by NHDHR. The site was listed on the Register on January 11, 1980.

William H. Long Memorial Building
This building was built in 1890 and is owned and maintained by the New Hampshire Antiquarian Society (NHAS). It is located at 300 Main Street in Hopkinton Village. It met the Registry criteria for its significance of architecture and social historical importance and was placed on the Register in July 1977.

Howe-Quimby House
This house was built around 1780 and is located at 861 Sugar Hill Road. It is currently a private residence. The reasons for qualification in the Register are numerous. The builder of the house, Howe, was a shipbuilder, and the framing in the attic reflects this profession. Half of the house represents the original construction. The second half of the house was updated by the son of the second owner. The site was placed on the Register on June 27, 1980.

Recommendations:

- Research other sites for potential National Register designation.
- Educate the public on the four National Register sites currently in Town and what such designation means.
- Support individuals and organizations that are proposing sites in Town to be placed on the National Register by providing applicable information and resources.

Local Historic Markers

At its Town Meeting in March 1892, Hopkinton voters approved the placing of nineteen historic markers at local sites of importance. The project was completed a year later. There were two original designs for the markers: one was an eight-sided marker that measured 18.5" long x 11.5" high, and a second style that was a four-sided marker that measured 20.5" long x 7.5" high.

The American Legion funded the placement of a marker, the 20th, in 1935, which measures 23 5/8" long x 7.5" high. Other markers, which are in other formats than those original twenty, have also been added, and are on a variety of granite posts and stones, monuments, and even a water trough.

Beginning in the early 1990's, the New Hampshire Antiquarian Society identified a need to replace damaged markers, restore others, remount some that were difficult to locate, and to research the placement of additional markers. Since 1892 a variety of sites have been marked: buildings, mill and garrisons, and meeting houses, for example. A complete list of these local markers can be found in **Appendix B**. These markers can also be seen on the **National Register and Local Historical Marker Location Map**.

Recommendations:

- Investigate the designation and placement of additional local historic markers at sites in Town.
- Establish a responsible organization and funding for the maintenance of existing local historic markers.
- Develop an informational brochure that outlines the locations and historical significance of each local historic marker, which can be displayed and distributed throughout Town.

Covered Bridges

Covered bridges were once an integral part of the transportation network of the 19th century. Today they are recognized for their beauty and uniqueness. Hopkinton is lucky in that it originally had five covered bridges, with two of the covered bridges still standing and listed on the National Register of Historic Places. The list of bridges can be seen below.

List of Covered Bridges in Hopkinton

Covered Bridge Name/Location	Date Built	Date Removed/Destroyed
Henniker Road	1862	1935
Contoocook Village	1853	1935
Tyler	1858	1938
Hopkinton Railroad Covered Bridge	1849-1850*	Standing
Rowell's Bridge	1853	Standing

1st version of the bridge, present bridge was constructed later

Hopkinton Railroad Covered Bridge in Contoocook Village

The Railroad Bridge is the oldest covered railroad bridge still standing in the United States. It is unknown who the builder was, but it is believed to be either Joseph Barnard of Contoocook or Dutton Woods of Henniker. The Railroad Bridge was originally built for the Concord and Claremont Railroad; by 1889 it became part of what was the Claremont Branch of the Boston and Maine Concord Division. The bridge washed off its abutments twice - once in 1936, when the river flooded and again in 1938, during a hurricane - and was brought back both times and restored. By 1962, the railroad was abandoned and the rails were torn up. The bridge was

privately owned and used as a warehouse from 1962 to 1990. The bridge is owned and protected by the NHDHR and is going to be part of a transportation museum planned for the near future.

Rowell's Bridge in West Hopkinton
The Rowell Bridge was named for the Rowell family, who owned the property adjacent to the bridge. Two unusual features about the arches in this bridge are that they were constructed of solid timbers rather than boards laminated together, and each arch was embedded within the truss, instead of along one side of it, as was typically done. After the bridge was built, it was accidentally moved off its abutments by a herd of cattle being driven through it too fast, but was put back in place immediately. In 1930, a cement pier was constructed under the bridge's center in the middle of the river to lend additional support. However, arched bridges are not meant to be supported in this fashion and the pier caused the bridge to wobble as traffic passed over it. To solve this problem, the top of the pier was chiseled away and the bridge functioned better without it.

The New Hampshire Department of Transportation closed the Rowell Bridge from 1993-1996 to do major repair work. Much of the original wood, particularly on the bottom half of the bridge, had rotted away so badly that it had to be replaced, although some of the wood was retained. Native wood was used on the outside of the structure and a green aluminum roof replaced the original wooden roof.

Recommendations:

- Highlight the fact, through public education and outreach, that these two bridges are in the community, their local history, and that they are listed on the National Register of Historic Places.
- Work to ensure that the historic nature of the areas around the bridges stay intact and that they are maintained to help contribute to the historic sense of place.
- Continue to take the necessary steps to preserve Rowell Bridge.

Cemeteries

Cemeteries, both Town-owned and small private family plots, are an important and personal link to the past. The Town is very fortunate to have seven attractive Town country cemeteries. It also maintains three private cemeteries. The Hopkinton Cemetery Board of Trustees, which is an elected Town board, is responsible for the maintenance and care of the cemeteries. The table below lists the known cemeteries located and marked within the Town. These can be seen on the **Cemetery and Town-Owned Historic Structure Location Map**.

Cemeteries Located in Hopkinton

Cemeteries	Owner	Location
Putney Hill (Oldest Cemetery in Town)	Town	E/S Putney Hill Road, about 4,000 feet south from Hopkinton Road in Contoocook. Includes 150 graves relocated from Stumpfield Cemetery.
Contoocook Village	Town	E/S Hopkinton Road, about 1/4 mile south of the Village in Contoocook
Old Hopkinton	Town	E/S Routes US202/NH9, NH103 and Main Street, adjacent to Town Hall, Hopkinton
New Hopkinton	Town	W/S Routes US202/NH, NH103 and Main Street, near exit 4, I-89 in Hopkinton
Blackwater	Town	N/S Dustin Road, about 900 feet west from Penacook Road, Contoocook
Stumpfield	Federal Govt.	End of Old Stumpfield Road. Graves relocated to Contoocook Cemetery in 1961.
Clement Hill	Town	W/S Clement Hill Road, about 1,000 feet south from Hopkinton Road in Contoocook
Hardy/Little	Private	W/S Bound Tree Road in Contoocook
Hues/Wilson/Koch	Private	S/S College Hill Road in Hopkinton
Putnam	Private	NE/S Kearsarge Avenue in Contoocook

Recommendations:

- Support the repair and maintenance of gravestones in the Town-owned cemeteries.
- Maintain a current inventory of gravesites and update cemetery maps.
- Create and follow a regular schedule for the cleaning of the headstones.
- Consider the historically significant areas of the existing cemeteries when expansion is proposed and try to ensure their preservation.
- Continue to photograph headstones and keep the file of records and photographs up-to-date.

Transportation Routes

The early transportation routes that are still evident throughout the Town are the railroad right-of-way, covered bridges, and the various types of gravel and scenic roads. Since covered bridges were described earlier in the Chapter, we will not discuss them here.

Railroads

From 1850 up to the early 1900's, the B&M Railroad was the heart of Contoocook. The many daily trains, the freight business, and the mail deliveries were the stimulus, not only for the industries in the Village, but also for the farmers and owners of the tourist homes, hotels, and mills. The first train left Concord for Contoocookville (now Contoocook) on August 25, 1849. However, as was the case in most towns, when the railroad stopped running through Contoocook,

many businesses that were dependent on the railroad failed and some residents moved away to find more prosperous areas in which to work and live.

The old railroad route can still be seen throughout the Town because many private landowners purchased the railroad right-of-way from the railroad when the rail line was abandoned. These right-of-ways are used today mainly as an informal trail network by residents and as a reminder of the Towns railroad history.

Rural Roads

One of the major components of Hopkinton's rural character is the abundance of "country" roads found throughout the Town. Some of them are still gravel, many have been formally declared Scenic Roads, and others are no longer maintained by the Town and have been classified as Class VI, subject to gates and bars. The rural roads are easily identified by their sometimes narrow character, by the stone walls that line them, by the lack of pavement, and by the forested canopy that covers them. At one time, these roads were very critical to the Town's livelihood as they were the only source of access to the outlying farms and water-powered mills. Due to the nature of the area's soils and topography, it was found that the farms could not sustain the families that owned them. The small water-powered mills were either replaced by bigger mills on the larger rivers or abandoned as the farms that made up their local markets disappeared. As a result, roads that no longer serviced mills or homesteads were abandoned. Fieldstone cellar holes and foundations can often be found along the Class VI roads in Town as a reminder of a time when the Town was almost self-sufficient. Some of the outlying farms shrank in size, but the houses remained occupied. Forests replaced the abandoned fields, and the roads once again became important to access the various woodlots that developed over time.

Because use of the rural roads was limited to access for the scattered homesteads and occasional timber harvesting, few of the roads were upgraded, allowing them to retain their 19th century character. Several roads have been declared Scenic Roads at Town Meeting in an attempt to retain their rural character. The unpaved roads have become ideal sites for a variety of recreational activities and provide a historical glimpse of the past. A complete list of designated Scenic Roads, Class V gravel roads, and Class VI roads in Hopkinton can be found in the Transportation Chapter.

Recommendations:

- Educate the public about the Towns historic roads by republishing historic maps.
- Create a set of criteria with which to evaluate proposals for work to be done along the designated Scenic Roads within Town, with an emphasis on historic and cultural resource protection.
- Protect and preserve the gravel roads. Changes in these roads should not be made without considering the historic evidence that these roads provide.

Town-Owned Historic Structures

The Town of Hopkinton currently owns five buildings of historic significance. These buildings, many of which house municipal departments and services, are key locations in Town. The Town-owned buildings are listed below with descriptions of their historic significance. These buildings can be seen on the **Cemetery and Town-Owned Historic Structure Location Map**.

The Horseshoe Trail Camps at Kimball Pond
In 1936, a 31-acre pond was created and stocked with trout. Twelve cabins were built to accommodate guests, who paid $1.50 per day per guest for their use. Boats could be rented for fishing and recreation. Currently, there are four Town-owned cabins at Kimball Pond that are used by various community organizations for meetings and by the Recreation Department for its summer programs.

John Derry Blacksmith Shop (Horseshoe Tavern)
The original 19th century building on this site was burned down in 1912 and was rebuilt shortly thereafter. The building is currently rented to Sandy Heino & Associates by the Town and was long thought of as The Horseshoe Tavern. The present tenant has repeatedly voiced concern about the horseshoes being taken as souvenirs and the stack being damaged as heavy truck traffic moves past on Route 202. An early photo shows a stack of horseshoes on the property almost double in height of what can be seen today.

Town Hall
The Town Hall was originally built as a court house in 1874 by Hillsborough County. It replaced an earlier structure that was destroyed by fire in 1873. The land it sits on was donated to the County by Benjamin Wiggin. It is built in the Greek Revival Style.

Columbia Hall
Columbia Hall was, at one time, the carriage house for the Davis House, which is across Maple Street. The upstairs was used for plays, dances, and graduations, while the downstairs was once a blacksmith shop and stable.

Barns at Houston Park
The original barns behind the Houston Farm were burned down in 1910-1912. The smaller of the two barns, referred to by the Houston family as the “red bard” is the older of the two and is thought to have been moved there from another location. A message carved on one of the beams in the “back barn” notes that the first load of hay was brought in 1913.

Recommendations:

- Assure that all Town-owned buildings are regularly maintained.
- Respect these building’s historic significance in the way they are used and when alterations or construction is considered.
- Increase education about the importance of these buildings through the use of historic photographs and brochures to be displayed at the various historic buildings and in other public places.
- Create a management plan that includes scheduled maintenance and rehabilitation, proposed uses, and funding sources for the preservation of these buildings.

Privately-Owned Historic Structures

Throughout the Town, there are many buildings, in addition to private homes, that have a variety of historic significance. The following list is a sampling of some of these buildings to illustrate the variety and importance of these structures. The following structures can be seen on the **Privately-Owned Historic Structure Location Map**.

One-Room Schoolhouses
Also known as the rural school, these schoolhouses were the earliest educational systems in America. At the 1768 annual Town Meeting in Hopkinton, it was voted to construct two schoolhouses for the next year. This was accomplished in1776. Eventually, 24 schoolhouses were erected in Town. Over the years they were closed, the last being in 1936. The remaining structures are privately owned and have been dramatically altered over the years from their original design.

Churches
Hopkinton has a rich religious history, with numerous churches being established in the community and contributing to the historical nature of the Town. These buildings contain some of the most beautiful and unique architecture, art, and craftsmanship from earlier times. The list below highlights the historical nature and significance of the church buildings in Hopkinton still standing today.

Countryside Community Church
The Free Will Baptist Church of Contoocook was founded September 17, 1823. The Church consisted of twelve members and was known by its corporate name of the Union Baptist Church. The Society was incorporated on June 30, 1827, and a public meeting house was constructed and dedicated on October 29, 1827. A bell was installed in 1873, and the church structure was moved forward 8-12 feet and a brick basement was built in 1897. The Church was later called the Contoocook Baptist Church and is now the Countryside Community Church.

Saint Mary of the Assumption
Prior to 1911, there was no Roman Catholic Church in Hopkinton. Those wishing to attend services had to travel to Saint John's in Concord. In order to provide religious leadership, services were held at the Town Hall in Hopkinton during the winters and at Columbia Hall in Contoocook during the summers from 1911-1929. In 1929, the present church was completed.

First Baptist Church of Hopkinton
This Church dates back to 1895, when it was the Congregational Westerly Meeting House. Meetings were held there for several years until it was torn down in 1831. Much of the original structure of the Meeting House was used to build the Calvinist Baptist Church, which was located in Hopkinton Village. Several years later, the name was changed to the First Baptist Church of Hopkinton. The Church was closed in 1965. In 2001 it is in use as an apartment building.

Saint Andrew's Episcopal Church
Originally called Christ Church, the name was changed to Saint Andrew's when the present building was erected in 1827. This Church is one of the oldest stone churches of Gothic style in New England. The building has an ashlar (stone) façade, granite walls, and gable ends of wood sheathing. This is the first stone church, with Gothic styling, to be built in New Hampshire. Tradition says that the granite used to build the Church came from an area off of South Road in Hopkinton. The building is famous for the three remaining original windows of hand-rolled glass. The present spire, which was designed by the famous church architect Ralph Adams Cram, was added in 1930. In 1964, Saint Andrew's was chosen as one of twelve buildings in Merrimack and Hillsborough Counties to be added to the Historic American Building Survey, which is on register at the Library of Congress.

Contoocook United Methodist Church
The Church was dedicated on November 16, 1871, with thirty-five members at the service, although there were approximately two hundred people in the Church membership list. Changes

have been made to the structure over the years. These changes included raising the Church to add a vestry under it in 1892, building an addition in 1912 to accommodate and install an organ, and constructing an eight-room education building in 1963.

First Congregational Church of Hopkinton
A Meeting house was first built on this site by the Town in 1766, which was destroyed by fire in February 1789. In May 1789, the Town erected a new building to replace it. For years local support of the ministry and meeting house had rested upon the Town by mandate of the State. In 1818, the Legislature lifted that burden. The First Congregational Society of Hopkinton became incorporated in 1819. The Society began maintaining the meeting house, even though it was still owned by the Town. In 1839, the Town conveyed the meeting house to the Society. The original tower was built in 1809 and a Revere Bell, with the inscription "Revere and Son, 1811" was hung. The Revere Bell is the second oldest bell in New Hampshire.

Swedenborgian Church
In 1851 Rev. Abiel Silver began discourses in the Union House on the works and teachings of Emanuel Swedenborg. In 1857 a permanent building was secured for the church. By 1946 the congregation had dwindled. The building was sold to the American Legion. The building, which now houses Provan & Lorber, Inc., is a unique, mid-nineteenth century building that has many of the original exterior features intact.

Farms and Barns
Hopkinton, like most New England towns, was an agrarian-based society. The original settlers cleared the wilderness and began a life of subsistence farming. Most families kept cows for milk, sheep for wool, chickens for eggs, pigs for meat, and horses for transportation.

In the early days, most of the important farms in Town were “hill farms,” perched on rolling hills with rock-strewn fields. “Hill farms” were located in every part of Town. In fact, most of the farms in Town remained small well into the 20th century, due to the amount of labor necessary to perform the work without the benefit of machinery. After the mid-1930’s, most farmers moved to the rock-free river bottom land. This type of soil was infinitely better-suited to the use of the large machinery which was to come. The introduction of tractors, trucks, and mechanized tools forever changed the nature of farming across the nation.

In the 1908 Census, over 150 residents of Hopkinton listed their occupation as “farmer.” Today farms and their associated structures are quickly being lost to development and disrepair. The New Hampshire Division of Historical Resources and the New Hampshire Preservation Alliance are currently conducting a barn survey, which will provide information on the remaining barns in the State, their historical nature, and current condition. To date, assessment grants have been awarded to two Hopkinton barn owners as a result of the survey. Resources like these are ones that preservation organizations consider to be under threat of being lost forever.

Fire Station, Hopkinton Village
The fire house was originally a barn belonging to the house at 357 Main Street. The house was built in 1799. The owners sold the barn to the Hopkinton Village Fire Department in 1898. The building now belongs to the Hopkinton Village Precinct.

Contoocook Depot
One of the oldest surviving railroad depots in New Hampshire, the station in the center of Contoocook Village was built in 1850. It was sold after the railroad left in 1959 and served as the home for Dodd Insurance and then as other offices. The Town of Hopkinton took it for back taxes

in 1998 and deeded it to the Contoocook Riverway Association. It is the only depot where you could watch a train emerge from a covered bridge. An early sign on the interior indicates that it also served as a post office at one time.

Recommendations:

- The Town should consider establishing a program, which will assure the preservation of privately owned historic structures.
- Support individuals and businesses that may want to purchase historic structures and make compatible changes with the building's historic nature and that of the Town.
- Make architectural and historical resource materials available to property owners who are interested in historic preservation to help them understand the historic and long-range value to the Town by protecting and preserving such pieces of property.

Architecture and Streetscapes

Hopkinton is the image of a typical early New Hampshire town. This results from the architecture of the individual houses, the streetscape, and the layout of the Town. The preservation of historical landscapes, vistas, and architectural resources are important in Hopkinton because they provide a link with the past that cannot be duplicated once altered. There are many buildings in Hopkinton that are relatively intact in that their architectural character has not been destroyed. On the other hand, there are other buildings that have been modified in ways that are not compatible with their original architecture.

Hopkinton Village has the appearance of New England in the 18th Century. Main Street in Hopkinton Village has a very strong sense of place because of the presence of unique architecture and streetscape design. The houses are roughly the same size and height, are set back from the road at similar distances, evenly spaced with side yards, and most date from the period 1790-1810. Together they comprise a remarkably intact historic grouping representative of the period. The few newer buildings on Main Street are not intrusive enough to disturb the historic appearance.

Contoocook Village represents the industrial revolution in New England and can be described as a busy center of business. Commerce revolves around a fountain where a wooden water pump once stood. It has been the location of mills on the Contoocook River, a hotel, department stores, hardware stores, doctors' offices, a newspaper printing house, post office, and railroad station. The homes and commercial buildings of varying architectural periods and styles are on small lots close to the street.

Many towns similar to Hopkinton, in that they have a rich architectural history, have developed design guidelines for development within specific sections of town. Design guidelines are to aid property owners, architects, and developers, by indicating how to remodel and update old structures for contemporary use without compromising the visual and historical character of the property. Guidelines outline appropriate materials, design, scale, and siting for new construction and for renovations. Guidelines may address the neglect of buildings and include measures to encourage and stimulate repair on the part of the property owner. Many towns have voluntary or suggested guidelines for new residential or commercial structures. Attempting to re-create architectural styles or the layout of a street once it has been altered is much more difficult to accomplish than preserving what is already existing.

Recommendations:

- Research development guidelines that are being used in towns similar to Hopkinton.
- Encourage the documentation of the Town's architectural styles pictorially and with written descriptions.
- Keep renovations to Town-owned buildings consistent with original architectural style.
- Encourage the retention of existing historical architectural styles and streetscapes that currently exist in Town.
- Encourage the use of buildings in the Villages in a manner which maintains their historical architecture.
- Develop walking paths and sidewalks to help the Villages retain their small-town neighborly look.
- Research the idea of establishing Historic Districts in the Villages.
- Continue to make attempts to become part of the New Hampshire Main Street Program.

Historic Preservation and Information Resources

There are many sources of historical information available about the Town of Hopkinton both in the Town itself and in outside repositories. The following is a partial list of available organizations and their resources, as they relate to the historical resources of Hopkinton.

Hopkinton Town Records
The Town records, including maps, deeds, and photographs are currently located in the basement of the Town Clerk/Tax Collectors Office in the former Bates Library building on Main Street in Contoocook. The storage facility for these documents, which are irreplaceable and many are one-of-a-kind, is below flood level and are currently not being preserved and protected in a manner that will ensure that these records will be available and usable in the future.

A sampling of early Town records currently held in the Town vault include:

Cattle Marks, 1766-1816
Military enrollment records, 1871-1886
Fires, 1889-1993
State Surveyor Enoch Long's Field book 1805
Oaths of Office, 1809
Perambulation of Town Lines, 1766
Hopkinton Village Precinct, 1849-1852
Birth, Marriage, and Death Records, 1737
Dog Licenses, 1893
Division of Fences, 1821-1902
Highways, 1827-1918
Early Tax Records
Early Mortgage Records
School Records, 1851
Town Clerk's Records, 1765
Selectmen's Accounts, 1774

New Hampshire Antiquarian Society
The services and resources the NHAS provides include photo collections, early Town maps, Town manuscripts, house files, and a material culture collection.

New Hampshire Heritage Commissions
These Commissions give local governments in New Hampshire the ability to recognize and protect historical and cultural resources. Heritage Commissions are intended to have a town-wide scope and a range of activities that is determined by each individual municipality. Heritage Commissions do for cultural resources what Conservation Commissions do for natural resources; they can have equal powers and roles within a community. While their primary duties are to advise, educate, and assist other local boards and commissions, including the Planning Board,

Heritage Commissions are also empowered to accept and expend funds for a non-lapsing heritage fund and to acquire and manage property and property rights.

Municipalities can establish a non-lapsing heritage fund, which the Heritage Commission can spend, after a public hearing and subject to the approval of the local governing body. This purchase can happen without going back to Town Meeting to acquire property and property interests, such as easements. To protect private property rights, neither the municipality nor the commission can condemn property for acquisition with the heritage fund. The Heritage Commission would be responsible for the management and control of the acquired property, just as Conservation Commissions are required to manage and control the property it acquires.

In January 2001, there were twenty-five towns in New Hampshire that had established Heritage Commissions. See **Appendix C** for the New Hampshire guidelines on Establishing a Heritage Commission and an example of a warrant article for doing so.

New Hampshire Historical Society
The New Hampshire Historical Society, Concord, NH, is an independent, nonprofit organization. It is accredited by the American Association of Museums. The services and resources the NHHS provides include the Museum of New Hampshire History, the Tuck Library, a museum store, a newsletter and quarterly calendar, and technical assistance to local libraries, historical organizations, and citizens.

New Hampshire Division of Historical Resources
The Division of Historical Resources, Concord, NH, was established in 1974 as the "State Historic Preservation Office." The resources and materials available at the NHDHR include National Register of Historic Places criteria; New Hampshire historical marker programs; the offices of the State Architectural Historian, State Curator, State Archeologist; preservation tax incentive programs; historical survey programs; and grant programs.

New Hampshire State Library
The New Hampshire State Library houses approximately 2,400 titles of published family histories for New Hampshire and New England. This collection is enhanced by the unique name index to early town records on microfilm. The town records, ranging in years for each town, but falling roughly between the years 1640-1830/1840, can provide birth, death, and marriage dates, as well as a listing of such items as tax inventories. Other major resources available include town and county histories, annual town reports, Federal census records for New Hampshire (1790-1920), local newspapers on microfilm, the genealogical column of the "Boston Transcript," legislative biographies (1890 +), city and county directories, and military records.

Recommendations:

- Immediately move the Town-owned and maintained documents to a safe, secure, environmentally-controlled stable storage location.
- Create an up-to-date inventory and shelf list for all documents located in the Town vault.
- Reproduce all early Town records held at the Bates Building, Antiquarian Society, and other locations and have copies sent off-site for storage.
- Create a database of all information available on the Town's history that is held by the various organizations and Departments, both within the Town and at other State locations, and make it available to the public.

- Research the establishment of a Heritage Commission that would be responsible for the maintenance of Town historic records, among other duties.
- Transcribe handwritten records into modern print with annotations to explain early meaning of terms, interrelationships of people, places, etc.

Cultural Resources

Cultural resources are difficult to isolate from historical resources because one is often, particularly in a Town like Hopkinton, part of the other. The following list highlights some of the Towns' resources, which are often described as being cultural. Some are functions specifically of the Town, while others have benefited from an association with the Town but are privately directed.

The New Hampshire Antiquarian Society
A private organization that mounts exhibits and plans programs to teach the community about the Town's history and, therefore, its present culture.

Community Center
The Hopkinton Community Center is located in the Town-owned turn-of-the-century Columbia Hall on Main Street in Contoocook. As a privately operated, non-profit organization, the Community Center provides a number of services to the residents of Hopkinton that range from preschool activities to senior citizen programs. Although many of the programs run by the Center are self-supporting, many others are based on the financial support of the Town, fund-raisers, and donations. Programs are offered based on demand and requests by members of the community.

Parks and Recreation Department
The Hopkinton Recreation Department has sponsored trips of cultural interest, including "Spirit of the Dance," the Boston Pops, and the New England Flower Show. A special program is offered to the senior citizens of the community in which they are offered shows coordinated through the 'Best of Times' Travel and Entertainment Company. The children's summer camp participates in theater performances as well.

Town Library
The Hopkinton Town Library, located on Houston Drive in Contoocook Village, was constructed in 1998 and is the successor to the Bates Library. The Library contains children's and adult texts, as well as audio books, periodical subscriptions, videocassettes, and compact discs. The summer reading program reaches over 200 children each year. Weekly story-time incorporates stories, songs, finger plays and crafts. There are discussion groups, as well as monthly programs sponsored by the Friends of the Library. These monthly programs have included magicians, chefs, musicians, puppeteers, slide shows, and on-site demonstrations. The New Hampshire Humanities Council sponsors one program every year at the library. In the past, these have included programs on spirituality, Celia Thaxter and the Isle of Shoals, public policy in the United States, and wildlife.

Contoocook Artisans
The Artisans started as a small group of Hopkinton and Contoocook residents interested in selling their crafts and art to the public in 1977. Membership of the group is, on average, around thirty-five people and artists are juried for membership. The main mission of the group is to promote the crafts of local town residents, although there have been out-of-town artists as members. Over the past 24 years that the Contoocook Artisans have been together, over one hundred people

have participated as members. The Town should feel fortunate that a group like the Contoocook Artisans is located here to provide residents an opportunity to support the local artisans in the community.

Hopkinton Fair
With the feeling that an agricultural fair was needed in Hopkinton, the Contoocook Board of Trade took the initiative to do just that. The first Fair was held at George's Park and it was a two-day event held on Tuesday and Wednesday, October 5 and 6, 1915. It was expected that the farmers would make this a success if the local agricultural interests gave the proper enthusiasm and support, which they did. The net profit for the two days was just under five dollars. With such a success, the event was made an annual affair becoming a three-day and then a five-day event.

These early Fairs were centered on the racetrack. In addition, baseball games, midway rides, livestock, fruits, vegetables and crafts were popular and still are today. The fair eventually outgrew the George's Park/High School location and moved to its present location in 1953.

Having had several names, the event is now called the "Hopkinton State Fair" and is considered to be one of the top-ranked agricultural fairs in the State.

Recommendations:

- Work with cultural organizations to locate presentation and display spaces within Town to highlight their work and/or programs.
- Work with cultural organizations to explore ways to meet the needs of residents not currently being served.
- Consider using the Library as a permanent location in which to securely store town-owned historic documents in a stabilized, environmentally controlled area.

Strategies to Meet Historic and Cultural Resource Goals

Aesthetics Based Land Use Regulations
There must be a priority placed on preserving the appearance of the community. Simple things like tree lined streets, as well as scenic views of the mixed farm land, forests, historic buildings and water resources that largely define Hopkinton's traditional landscape, are so important to the fabric of the community. Planning regulations addressing lot size, placement of buildings, signage, and landscaping are typically used to preserve and enhance aesthetic elements of the community.

Citizens for New Hampshire's Land and Community Heritage
A coalition of organizations that are working to protect the special places that define our state. Technical assistance, outreach, and education are available to communities.

Cooperative Ventures with Private Organizations
When the interests of the Town to conserve historic or cultural resources match with the interests of a private organization, the potential for a cooperative partnership exists. This tactic will require some creative thinking and introductory discussions by Town officials with area organizations that have, or could develop, an interest in conserving such resources.

Grants from Foundations
The Town should research available grants and develop proposals to seek funding to conserve particular pieces of property or types of historic resources within Town. Funding could be sought from foundations at the local, state, regional, and national level.

Heritage Commission
These Commissions give local governments in New Hampshire the ability to recognize and protect historical and cultural resources. Heritage Commissions are intended to have a town-wide scope and a range of activities that is determined by each individual municipality. Heritage Commissions do for cultural resources what Conservation Commissions do for natural resources; they can have equal powers and roles within a community. While their primary duties are to advise and assist other local boards and commissions, including the Planning Board, Heritage Commissions are also empowered to accept and expend funds for a non-lapsing heritage fund and to acquire and manage property and property rights.

Municipalities can establish a non-lapsing heritage fund, which the Heritage Commission can spend, after a public hearing and subject to the approval of the local governing body. This purchase can happen without going back to Town Meeting to acquire property and property interests, such as easements. To protect private property rights, neither the municipality nor the commission can condemn property for acquisition with the heritage fund. The Heritage Commission would be responsible for the management and control of the acquired property, just as Conservation Commissions are required to manage and control the property it acquires.

Historic Districts
Historic Districts have the virtues of stability and flexibility. They encourage continuity and the care of the existing properties, while respecting changes over time that add architectural richness and visual variety to townscapes. In 1963, the New Hampshire Legislature created historic district enabling legislation (RSA 31:89-a) which said:

> *The preservation of structures and places of historic and architectural value is hereby declared to be a public purpose. The heritage of the municipality will be safeguarded by:*
>
> - *Preserving a district in the municipality which reflects elements of its cultural, social, economic, political and architectural history*
> - *Conserving property values in such districts*
> - *Fostering civic beauty*
> - *Strengthening the local economy*
> - *Promoting the use of an historic district for the education, pleasure, and welfare of the citizens of the municipality*

In 1992, these purposes were broadened to include cultural resources and community history, and to recognize multiple districts. Historic districts are to be centers of civic and economic activity.

Land and Community Heritage Investment Program (LCHIP)
This State fund is designed to assist communities that want to conserve prominent natural, historic, and cultural resources. There will be the requirement that the Towns match the State money from this fund with a 50% match from other sources, some of which can be an "in kind" match, as well as funds from other sources.

Land Trust
The Town should support non-profit land trusts that accept and pursue property and easements for land of local historic and cultural concern.

New Hampshire Main Street Center
Dedicated specifically to maintaining, strengthening, and revitalizing the physical, economic, and cultural characteristics of the state's traditional and historic downtown urban and village centers by supporting and working with Main Street programs. The Center provides technical assistance, education, and outreach to interested communities.

New Hampshire Preservation Alliance
The Alliance was founded in 1985 and works to preserve New Hampshire's historic buildings, landscapes, and communities through leadership, advocacy, and education.

Overlay Districts
Overlay districts can be used by communities to define and apply special regulations to a particular resource. Once resource areas of concern are identified, the planning board must establish what kind of special regulations apply to that particular resource.

Preservation Easements
Preservation easements are initiated by landowners who wish to protect their land from future development, while still retaining owners rights. Farms, buildings and scenic and historic areas all have the right to be protected by an easement. Perpetual easements protect the land or structure through subsequent owners, while term easements have a set time period agreed to by the town and current owner. Perpetual easements often reduce the estate tax on large amounts of property, though the decision to award tax relief is officially decided by State Law, local officials, and town assessors.

Revolving Funds
Revolving funds help protect and preserve publicly significant historic properties by using options to purchase, direct acquisition, or deed of gift to acquire threatened or endangered properties. Profit from the sales are rolled back into the fund to help save other endangered properties and perpetuate the fund. The National Preservation Loan provides loans to establish or expand local and statewide preservation revolving funds.

State Historic Markers
The Historical Marker Program is one way that New Hampshire remembers its past. The New Hampshire Division of Historical Resources is responsible for approving the subject, location, wording, and accuracy of the state markers. The authorizing official of the historical marker program is the Commissioner of Transportation, who has the power to erect up to ten markers per year. The only way a marker can be placed in a Town is in response to a proposal and petition of twenty signatures from concerned citizens. These markers can be erected on State and local roads. However, the initial costs of the markers and on-going maintenance are local responsibilities.

Tax Rehabilitation Credits and Incentives
Income tax deductions may be granted for two types of historic properties, a historically important area, or a certified historic structure. A twenty percent tax credit is given by the government for rehabilitation of certified historic structures. The Bank of America Historic Tax Credit Fund grants equity investments for the rehabilitation of historic commercial and residential properties eligible for the federal and state historic tax credit, as well as the 10% non-historic federal tax credit.

Transportation Enhancement Funds (TE)
Transportation Enhancements Program (TE) is another viable source for improving roads in communities. Funding for the TE program is slightly more than $3 million dollars annually. These funds are provided in an 80/20 match, with the State paying for the majority of the project cost. Typical examples of projects eligible for TE funds include:

- Acquisition of scenic easements and scenic or historic sites
- Scenic or historic highway programs
- Historic preservation
- Rehabilitation and operation of historic transportation buildings, structures, and facilities
- Preservation of abandoned railway corridors
- Archaeological planning and research
- Establishment of transportation museums

Summary

The purpose of historic preservation is to enrich contemporary life by retaining historical assets and safeguard them for the future. Often when people think of historic resources they think of one handsome old house, a cemetery, or site of a famous event. The historic resources of Hopkinton are much broader than individual buildings or sites. “Historic” encompasses space as well as buildings. The term includes farms and barns, churches and town greens, streetscapes, bridges, streets, stonewalls - in short, the architectural, cultural, and aesthetic heritage of our community.

Historic resources are among a community's most significant and fragile assets. They give character and memory to a place. They are easily violated, blighted, or destroyed by intensive development. Street widening, asphalt parking lots, advertising signs, aluminum or vinyl siding, and increased development have all taken their toll on historic resources across New Hampshire, as well as here in Hopkinton. Hopkinton must be an advocate to ensure that its historic and cultural resources are protected, enhanced, maintained, and preserved. This Chapter is a first step in that process by outlining what resources currently exist in Town and what steps could be taken to enhance those resources for the future.

TOWN OF HOPKINTON, NEW HAMPSHIRE
National Register and Local Historical Marker Location Map

Ú Local Historic Markers

1. George Hamilton Perkins Birthplace
2. Poors Bridge and First Sawmill in Contoocook
3. Stumpfield Cemetery
4. Original Site of Stumpfield Cemetery
5. First Sawmill, 1753
6. Cloughville, 1806
7. John Brockway Nature Preserve
8. Boutwell Sawmill
9. First Ferry, 1766
10. WWII, Korean and Vietnam War Memorial
11. Mt. Lookout Sentinel Post, 1744-1763
12. Putneys Garrison, 1774
13. First Parsonage, 1757
14. Rev. James Scales, First pastor in Hopkinton, 1757-1770
15. Dr. John Clement, first physician in Hopkinton before 1776
16. A. Kimball and S. Putney captured by Indians, 1753
17. First Baptist Meeting House, 1795-1834
18. Town Pound, 1805
19. Woodwells Garrison and Stockade, 1744
20. Abraham Kimball, first white male born in Hopkinton, 1742
21. Revolutionary War, War of 1812, and Civil War Monument
22. Hopkinton Village Aqueduct Association, 1884
23. Chase Park
24. WWI Soldiers Monument
25. First Grist Mill, 1765
26. First Meeting House, 1766-1789
27. General Lafayette visit, 1825
28. Grace Fletcher Home, born 1782, first wife of Daniel Webster
29. Kimballs Garrison, 1744
30. Hillsborough-Merrimack County Jail, 1792-1852

Þ Historic Places

- HOPKINTON RAILROAD COVERED BRIDGE
- HOWE--QUIMBY HOUSE
- ROWELL'S COVERED BRIDGE
- WILLIAM H. LONG MEMORIAL

Scale 1" = 4,500' (1:54,000)

1 0 1 2 3 Miles

5000 0 5000 10000 15000 Feet

Legend

Base Legend

- Political Boundary
- Interstate Highways
- Class I & II Secondary State Highways
- Class V Town Maintained Roads
- Class VI Town Unmaintained Roads
- Other Roads (Private, Trails, etc)
- Rivers and Streams
- Intermittent Streams
- Water Bodies

Historic Structures Legend

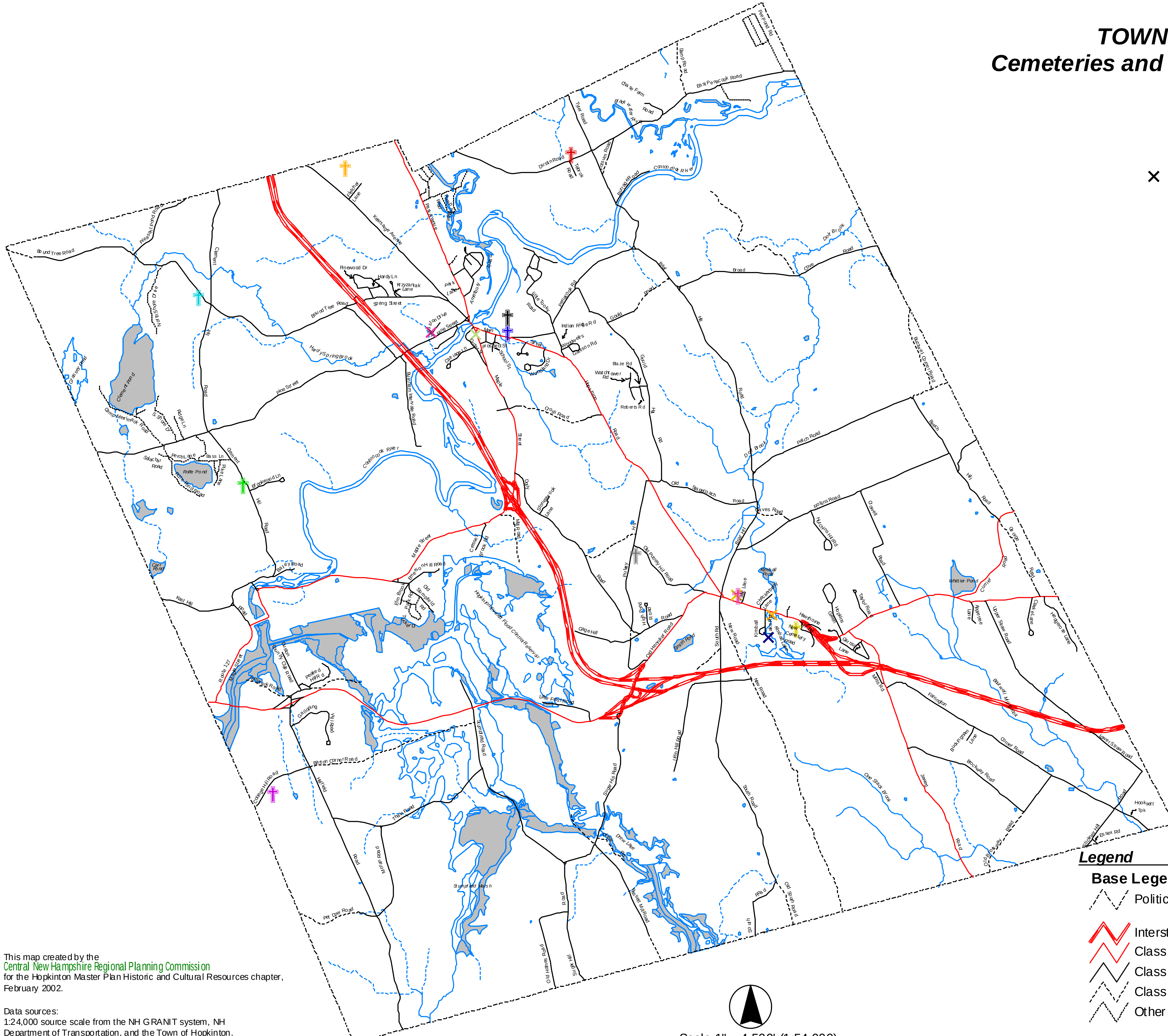
- Historic Marker
- National Register of Historic Places Site

This map created by the
Central New Hampshire Regional Planning Commission
for the Hopkinton Master Plan Historic and Cultural Resources chapter, February 2002.

Data sources:
1:24,000 source scale from the NH GRANIT system, NH Department of Transportation, and the Town of Hopkinton.
Corrections to base data made by NH Department of Transportation, the Town of Hopkinton, and CNHRPC.

This map is intended for planning purposes only and may not fully represent geographic conditions. Inaccuracies are known to exist in these data layers. Corrections, additions, or deletions are welcomed and should be directed to CNHRPC.

TOWN OF HOPKINTON, NEW HAMPSHIRE
Cemeteries and Town-Owned Historic Structure Location Map



× Town-owned Historic Structures

- Barns at Houston Park
- Columbia Hall
- Horseshoe Trail Camps
- John Derry Blacksmith Shop
- Town Hall

✝ Cemeteries

- Blackwater Cemetery
- Clement Hill Cemetery
- Contoocook Village Cemetery
- Hardy/Little Cemetery
- Hues/Wilson/Koch Cemetery
- New Hopkinton Cemetery
- Old Hopkinton Cemetery
- Putnam Cemetery
- Putney Hill Cemetery
- Stumpfield Cemetery

Scale 1" = 4,500' (1:54,000)

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Historic Structures Legend

- Cemetery
- Historic Building

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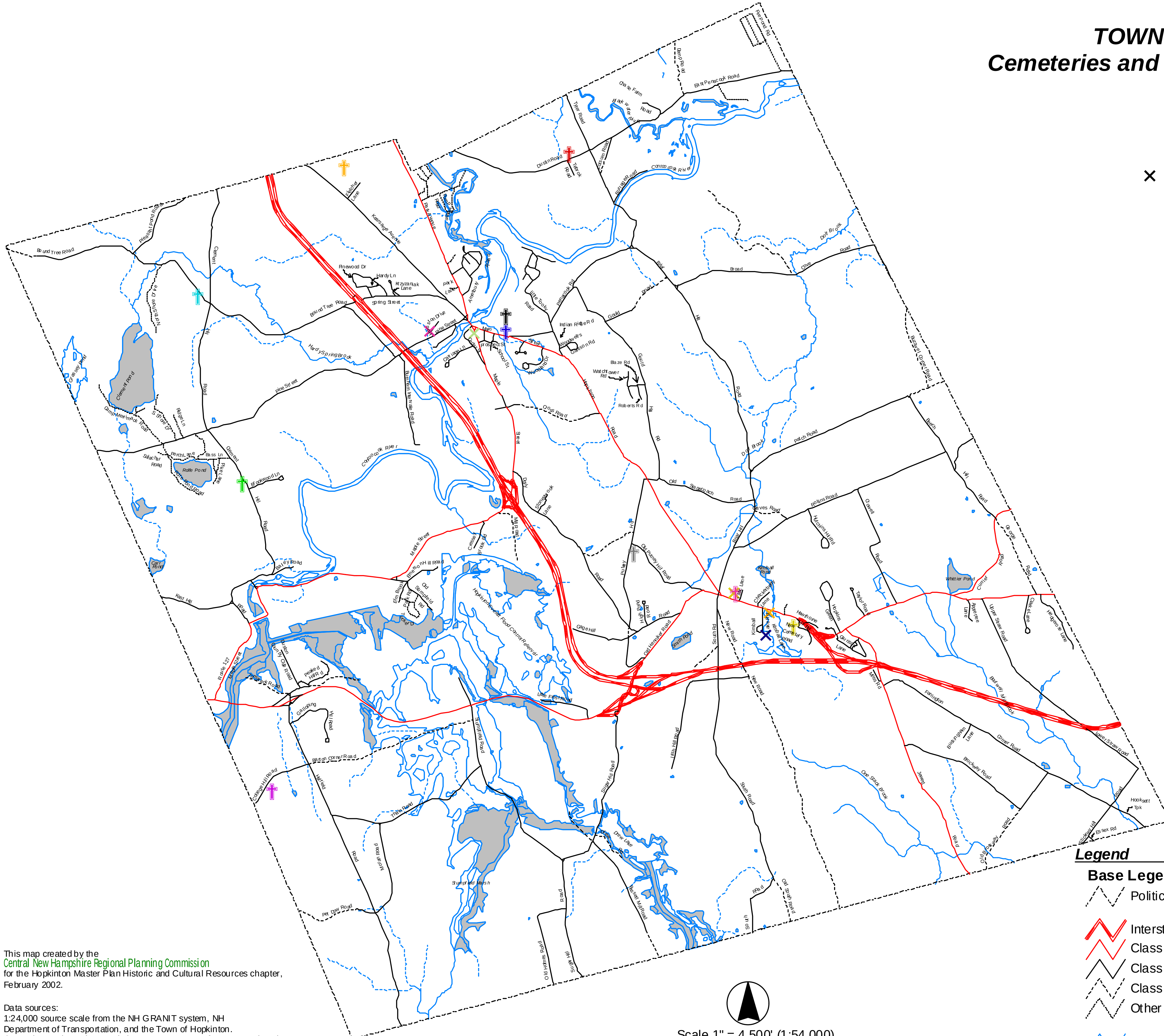

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Chapter III
Population and Economics

Introduction

The purpose of this Chapter is to delineate the elements that make up the economic life of the Town of Hopkinton and to consider how various elements should be managed to best achieve the type of community our citizens desire.

The Master Plan Community Survey indicated that the Town's citizens wish is to retain the rural atmosphere and "high quality of life" of the Town. One way to do this is to manage the growth of the Town by encouraging desirable industrial and commercial activities in properly zoned areas. The community visioning session, which was held in May of 2000, helped to identify how residents wanted Hopkinton to look in 75 years and what they felt were the Town's strengths and opportunities with regards to economic development.

The information in this Chapter is presented so that it may be compared with other municipalities in the central New Hampshire region. Information in this Chapter has been derived from the Office of State Planning (NHOSP), the United States Bureau of the Census (Census), the New Hampshire Bureau of Vital Statistics, the New Hampshire Bureau of Employment Security, and others.

Topics to be covered in this Chapter include:

Key Findings
Community Survey and Visioning Session Results
Population Characteristics
Employment, Education, and Commuting Characteristics
Income Characteristics of Residents
Tax Characteristics
Infrastructure Characteristics
Summary
Hopkinton Employers
Land Availability and Zoning
Home Businesses

Key Findings

- Hopkinton has a substantial economic base, a highly educated and industrious population, and is a prosperous community.
- Effectively manage the industrial, commercial, and business aspects of Hopkinton in order to maintain the rural character of the Town.
- Review and amend the zoning ordinance to assure the optimum use of land in the Industrial District and Commercial District.
- Review and revise, where necessary, zoning regulations for home occupations, home businesses, and telecommuting to encourage these economic development options within Town.
- Encourage new businesses to relocate and establish within existing facilities, where feasible and permissible, in order to create a thriving commercial base in areas of the community where similar businesses have been traditionally located.

- Monitor changes in the age of the population so that housing and social services meet the needs of the population.
- The Economic Development Committee should work as a liaison between the Town, Regional, and State economic development groups, and also between businesses interested in locating in Hopkinton and the Zoning Board of Adjustment, Planning Board, and Selectmen to strengthen the local economic base within Town.
- Prepare a user-friendly guide for businesses that explains local ordinances, development requirements, and contains clear application guidelines and approval procedures.

Community Survey Results

A Master Plan Community Survey was sent out to all households and non-resident landowners in Town at the beginning of the Master Plan process. A total of 2,700 surveys were distributed with 973 returned, for a 36% response rate. The following survey questions and responses relate to the population and economic patterns in Hopkinton.

How long have you lived in Hopkinton?

	Total	Percent
Less than 5 years	207	22.6%
5 - 10 years	131	14.3%
10 - 20 years	219	23.9%
Over 20 years	341	37.2%
No Answer	18	2.0%
Total	**916**	**100.0%**

What is the highest level of education completed by each adult in the household?

	Total	Percent
Some High School or Less	49	3.6%
High School Graduate/GED	227	16.8%
Technical or Junior College	87	6.4%
Some College	226	16.7%
College Graduate	409	30.2%
Post Graduate	356	26.3%

What are the desirable qualities of Hopkinton? Check all that apply.*

Feature	Total
Employment Opportunities	48

* Denotes only those answers that relate to the Chapter

Where do you work?

	Total Full Time	Percent Full Time		Total Part Time	Percent Part Time
Concord	350	41.4%	**Concord**	105	39.9%
Hopkinton	97	11.5%	**Hopkinton**	67	25.5%
Contoocook	82	9.7%	**Contoocook**	38	14.4%
Manchester	88	10.4%	**Manchester**	10	3.8%
Henniker	26	3.1%	**Warner**	7	2.7%
Bow	20	2.4%	**Bow**	4	1.5%
Hooksett	11	1.3%	**New London**	4	1.5%
Nashua	11	1.3%	**All Others**	28	10.6%
Boscawen	8	0.9%			
New London	8	0.9%			
Penacook	8	0.9%			
Weare	8	0.9%			
Hillsborough	8	0.9%			
Franklin	7	0.8%			
Bedford	6	0.7%			
Warner	6	0.7%			
Boston, MA	5	0.6%			
Pembroke	5	0.6%			
All Others	85	10.0%			

Of the survey respondents, 25.8% work in Hopkinton (full and part time), 67.1% work in Hopkinton or Concord (full and part time), and 74.3% work in Hopkinton or an abutting community (full and part time).

Should Hopkinton try to encourage commercial/non-residential growth to broaden its tax base?

	Total	Pct.
Yes	551	56.6%
No	257	26.4%
No Opinion	85	8.7%
No Answer	80	8.2%
Total	**973**	**100.0%**

Are current commercial and industrial zones in Hopkinton adequate?

	Total	Pct.
Yes	314	32.3%
No	225	23.1%
No Opinion	368	37.8%
No Answer	66	6.8%
Total	**973**	**100.0%**

Type of employment for each person employed:

Type of Employment	Total
Professional	196
Retired *	136
Health	115
Education	112
Retail	77
Government	69
Business Services	68
Homemaker *	66
Manufacturing	65
Student *	59
Computers / High Tech	54
Building Trades	46
Finance	43
Agriculture/Forestry	27
Non-profit	25
Telecommunications	22
Real Estate	10
Unemployed *	7
Other	105

* Denotes categories that are not types of employment

In order to help Town Officials better direct their efforts to meet the needs of the community, we need your opinion on the relative importance/rating on the following Issues and Town Services.

Issues	Effort Should Be (Please Check)				
	More	Same	Less	No Opinion	No Answer
Encourage Development of Light Industry	380	245	170	61	117
Encourage Commercial / Retail Growth	363	271	175	53	111
Expansion of Sewer System	222	380	90	160	121
Maintenance / Expansion of Town Water System	195	431	77	151	119

Which of the following commercial enterprises would you like to see in Town?
If you would like a particular type of development, please note where such development should be located.
Check all that apply.

	Location								
	Want in Town	Don't Want in Town	In Hopkinton Village	In Contoocook Village	With Access to Routes 9 and 202	With Access to Route 103	With Access to Route 127 (Maple St.)	Burnham Intervale	In Rural Areas
Professional Offices	550	86	198	325	222	193	188	91	35
Light Industrial Parks	406	209	24	37	197	142	166	219	65
Heavy Industrial Parks	79	500	12	15	57	34	35	65	17
Retail	417	178	187	322	108	96	87	36	13
Restaurants	543	83	337	395	133	115	107	28	26
Services	351	107	165	241	104	100	102	43	22
Home Businesses / Occupation	465	87	209	229	149	145	143	113	152
Recreational Businesses	349	174	81	140	112	109	98	53	78
Hotels / Motels / Inns	210	366	78	87	125	95	81	22	36
Major Shopping Malls	36	592	11	17	25	19	22	4	6
Major Grocery Store	118	508	30	60	48	34	31	8	5

Population Characteristics

Many aspects of Hopkinton's population are consistent with trends in other communities in the central New Hampshire region. The population of the community is older with fewer children, well educated, with higher income and lower poverty levels than the other towns in the region. In this section, population trends will be reviewed – historical, regional, and future – as well as the various breakdowns within the general population.

Historical Population Trends

Changes in the population of any community are influenced by a variety of factors, ranging from changes in the local economic base to national events, such as wars and recessions. From 1790 to 2000, Hopkinton has seen an increase in population of 3,684 people, or approximately 18 people per year. However, as can be seen from the following chart, this population grew in the 50-year period from 1790-1830 by 44%, adding 759 persons (15 per year average). The population decreased in the 90-year period from 1830-1920 by 42%, losing 1,038 persons (11 per year average). The population grew in the 80-year period from 1920-2000 by 275%, adding 3,961 persons (50 per year average).

The percent rate of growth per decade reached a maximum of 35% during the 1960's and has slowed steadily to 12% during the decade of the 1990's. Average growth during the 1990's was 59 persons per year.

Hopkinton Historical Population, 1790-2000

Year	Population	Percent Change
1790	1,715	--
1800	2,015	+ 17.49%
1810	2,216	+ 9.98%
1820	2,437	+ 9.97%
1830	2,474	+ 1.51%
1840	2,455	-0.77%
1850	2,169	-11.65%
1860	2,178	+ 0.41%
1870	1,814	-16.71%
1880	1,836	+ 0.99%
1890	1,817	-1.03%
1900	1,652	-9.08%
1910	1,578	-4.48%
1920	1,438	-8.87%
1930	1,485	+ 3.27%
1940	1,587	+ 6.87%
1950	1,831	+ 15.37%
1960	2,225	+ 21.52%
1970	3,007	+ 35.15%
1980	3,861	+ 28.40%
1990	4,806	+ 24.48%
2000	5,399	+ 12.34%

Source: US Census, NH Office of State Planning, CNHRPC

Regional Population Trends

During the period of 1970 through 2000, Hopkinton experienced a population increase of 79%, as can be seen below. The increase in population, though significant, is the lowest among the area towns, except the City of Concord. The rate of the increase has been slowing since its highest rate (35%) during the 1960's. The population growth has slowed from an average of 94 persons per year, during the 1980's, to 59 persons per year, during the 1990's.

Hopkinton and Abutting Communities Population Trends, 1970-2000

Town	1970 Population	1980 Population	1990 Population	2000 Population	Percent Growth 1970-2000
Bow	2,479	4,015	5,500	7,138	188%
Concord	30,022	30,400	36,006	40,687	35%
Dunbarton	825	1,174	1,759	2,226	170%
Henniker	2,348	3,246	4,151	4,433	89%
Hopkinton	3,007	3,861	4,806	5,399	79%
Warner	1,441	1,963	2,250	2,760	91%
Weare	1,851	3,232	6,193	7,776	320%
Webster	680	1,095	1,405	1,579	132%

Source: 1970 Census, 1980 Census, 1990 Census, 2000 Census

Population Projections

Based on observed past population estimates, it is difficult to develop population projections for future years. As noted in the Community Facilities Chapter of this Plan, predicting future population growth is crucial for planning the expansion of community services and facilities.

Prediction of future population changes can only serve as an estimate of what may happen in the future. As noted previously, population trends are affected by numerous variables, including economic shifts and other similar events. The local population projections are based on a community's historical share of its county's growth. These numbers can only serve as an estimate of what may occur over the next twenty years, with regards to population changes.

Hopkinton and Abutting Communities Population Projections (Office of State Planning), 2000-2020

Town	2000 Actual	2000 Projected	2005 Projected	2010 Projected	2015 Projected	2020 Projected	2000-2020 Projected Increase
Bow	7,138	6,280	6,597	6,787	7,127	7,501	19.4%
Concord	40,687	39,095	42,095	42,220	44,193	46,382	18.6%
Dunbarton	2,226	2,005	2,125	2,197	2,329	2,476	23.5%
Henniker	4,433	4,235	4,484	4,628	4,885	5,170	22.1%
Hopkinton	5,399	5,105	5,485	5,545	5,829	6,144	20.4%
Warner	2,760	2,522	2,641	2,710	2,830	2,962	17.4%
Weare	7,776	7,945	9,355	9,900	11,136	12,328	55.2%
Webster	1,579	1,498	2,583	1,632	1,720	1,817	21.3%

Source: October 1999 Population Projections NH Office of State Planning, 2000 Census

As can be seen above, all of the projected Office of State Planning 2000 population figures, with the exception of the Town of Weare, were lower than the actual 2000 Census figures. This shows that the population projections are too low and should be looked at as a very conservative estimate of future population growth in the region.

Population Densities

One common measure of population, in relation to community character, is population density (persons per square mile). These density figures are based on the total land area, not discounting for unbuildable land, roads, and permanently protected areas.

Population per Square Mile for Hopkinton and Abutting Communities, 1970 - 2000

Town	Land Area (Sq. Miles)	Persons per Square Mile 1970	Persons per Square Mile 1980	Persons per Square Mile 1990	Persons per Square Mile 2000
Bow	28.55	87	141	193	250
Concord	67.19	447	452	536	606
Dunbarton	31.32	26	37	56	71
Henniker	44.80	52	72	93	99
Hopkinton	45.08	67	86	107	120
Warner	55.47	26	35	41	50
Weare	60.09	31	54	103	129
Webster	28.79	24	38	49	55

Source: 1970 Census, 1980 Census, 1990 Census, 2000 Census

As noted above, Hopkinton has the fourth highest population per square mile, as compared to abutting communities. This indicates that although the population density of the community is increasing, the relative density among the communities has not changed substantially. Therefore, if population density remains constant as population grows, additional housing development in open space areas will fragment ecosystems and viewsheds, affecting the rural character of Hopkinton.

Characteristics

Knowing not only the numbers of people living in Hopkinton but also the characteristics of the residents, is key to adequately planning for Hopkinton's future needs.

Households with Children and Older Adults

By knowing the number of households with children, under the age of 18, and adults, over the age of 65, the community can better plan for the needs and wants of the residents.

Households with Children, 2000

Town	Number (%) of Households with People Under 18 Years	Number (%) of Households with No People Under 18 Years
Bow	1,177 (51.2%)	1,124 (48.8%)
Concord	5,248 (32.2%)	11,033 (67.8%)
Dunbarton	342 (42.0%)	472 (58.0%)
Henniker	620 (39.1%)	965 (60.9%)
Hopkinton	764 (36.7%)	1,320 (63.3%)
Warner	366 (34.9%)	682 (65.1%)
Weare	1,313 (50.2%)	1,305 (49.8%)
Webster	222 (38.2%)	359 (61.8%)

Source: 1990 Census, 2000 Census

As can be seen above, only the Towns of Bow and Weare have more households with people under the age of 18. Hopkinton has 36.7% of its households containing people under the age of 18.

Households with Older Adults, 2000

Town	Number (%) of Households with People 65 Years Old or Older		Number (%) of Households with No People 65 Years Old or Older	
Bow	411	(17.8%)	1,893	(82.2%)
Concord	3,606	(22.1%)	12,675	(77.9%)
Dunbarton	110	(13.5%)	704	(86.5%)
Henniker	280	(17.7%)	1,305	(82.3%)
Hopkinton	523	(25.1%)	1,561	(74.9%)
Warner	214	(20.4%)	834	(79.6%)
Weare	267	(10.2%)	2,351	(89.8%)
Webster	109	(18.8%)	472	(81.2%)

Source: 1990 Census, 2000 Census

Hopkinton has the largest percentage (25.1%) of households with residents 65 years of age and older, as compared to abutting communities.

Population by Age Group

Understanding population trends by age group can help communities allocate resources for public infrastructure and services to meet the needs of the population. As can be seen below, the age group with the largest number of people in it is 45-54 years of age.

Hopkinton Population by Age Group, 2000

Age Group	2000 Population	Group as % of 2000 Population
Under 5	281	5.2%
5 to 9 Years	417	7.7%
10 to 14 Years	482	8.9%
15 to 17 Years	252	4.7%
18 and 19 Years	94	1.7%
20 to 24 Years	135	2.5%
25 to 34 Years	445	8.2%
35 to 44 Years	925	17.2%
45 to 54 Years	1055	19.5%
55 to 59 Years	337	6.2%
60 to 64 Years	256	4.7%
65 to 74 Years	395	7.3%
Over 75	325	6.0%
Total	**5,399**	**100.0%**

Source: 2000 US Census

Employment, Education, and Commuting Characteristics of Residents

Hopkinton is often considered a "bedroom" community to nearby Concord, and most of the workforce is employed outside of Hopkinton. The employment characteristics of the Hopkinton workforce will be examined in this section.

Labor Force, Employment, and Unemployment

As Hopkinton's population has grown, so has the labor force. The labor force of a community is defined as the number of people who are over the age of 16, regardless of their employment status. In 2000, the population of Hopkinton was 5,399 people, with a labor force of 3,075 people, which is approximately 57% of the population. In 1990, the population was 4,806 people, with a labor force of 2,333 people, constituting 48.5% of the population. This shows that the population and labor force have grown together over the last ten years. As can be seen below, the changes in labor force, employment, and the unemployment rate for Hopkinton have kept pace with the surrounding communities.

1990-2000 Labor Force, Employment, and Unemployment

		1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Bow	Labor Force	2864	3278	3330	3455	3762	3841	3800	3933	4120	4199	4333
	Employment	2778	3154	3204	3347	3685	3781	3728	3855	4043	4134	4257
	% Unemployment	3.0	3.8	3.8	3.1	2.0	1.6	1.9	2.0	1.9	1.5	1.8
Concord	Labor Force	17372	19367	19181	19352	20479	20895	20631	20928	21365	21772	22438
	Employment	16432	18003	17942	18452	19832	20340	20057	20421	20876	21348	21980
	% Unemployment	5.4	7.0	6.5	4.7	3.2	2.7	2.8	2.4	2.3	1.9	2.0
Dunbarton	Labor Force	922	1023	1033	903	889	892	893	1215	1297	1332	1371
	Employment	898	985	987	860	851	873	861	1194	1270	1299	1338
	% Unemployment	2.6	3.7	4.5	4.8	4.3	2.1	3.6	1.7	2.1	2.5	2.4
Henniker	Labor Force	2040	2241	2109	2174	2322	2379	2357	2333	2376	2426	2502
	Employment	1956	2122	2022	2083	2256	2315	2283	2255	2306	2358	2428
	% Unemployment	4.1	5.3	4.1	4.2	2.8	2.7	3.1	3.3	2.9	2.8	3.0
Hopkinton	Labor Force	2333	2585	2557	2626	2842	2895	2869	2818	2911	2979	3075
	Employment	2235	2468	2445	2546	2772	2844	2805	2774	2847	2911	2997
	% Unemployment	4.2	4.5	4.4	3.0	2.5	1.8	2.2	1.6	2.2	2.3	2.5
Warner	Labor Force	1154	1288	1318	1302	1388	1418	1406	1462	1494	1524	1575
	Employment	1110	1234	1256	1254	1347	1382	1363	1428	1466	1499	1543
	% Unemployment	3.8	4.2	4.7	3.7	3.0	2.5	3.1	2.3	1.9	1.6	2.0
Weare	Labor Force	3724	3755	3716	3747	3846	3910	3811	3921	3937	4063	4228
	Employment	3548	3489	3460	3557	3683	3779	3694	3836	3863	3986	4127
	% Unemployment	4.7	7.1	6.9	5.1	4.2	3.4	3.1	2.2	1.9	1.9	2.4
Webster	Labor Force	715	825	819	791	819	831	836	919	959	974	1000
	Employment	696	794	792	772	799	820	809	898	934	955	983
	% Unemployment	2.7	3.8	3.3	2.4	2.4	1.3	3.2	2.3	2.6	2.0	1.7

Source: NH Department of Employment Security, 2000

Occupations

Since 2000 Census data was not available, 1980 and 1990 Census data were utilized for occupational information. The chart below outlines what types of employment the residents of Hopkinton were engaged in. The numbers below do not necessarily represent the types of occupations available in the Town of Hopkinton. In 1980 and 1990, the highest percentage of the Hopkinton work force was employed in the "Professional and Related Services" occupations. Hopkinton had the lowest percentage of people employed in "Transportation." These results are also comparable to the information gathered through the Master Plan Community Survey.

Occupations of Employed Hopkinton Residents, 1980 &1990

	Number Employed 1980	Percent Employed 1980	Number Employed 1990	Percent Employed 1990
Construction	144	7.6%	197	8.1%
Manufacturing	346	18.3%	333	13.7%
Transportation	19	1.0%	17	0.7%
Farming, fishing, and forestry	59	3.1%	26	1.1%
Communications and other public utilities	47	2.5%	49	2.0%
Banking, credit, insurance, real estate, and other finance	144	7.6%	216	8.9%
Business and repair services	65	3.4%	106	4.4%
Professional and related services	666	35.2%	991	40.8%
Personal, entertainment, and recreational services; private households	64	3.4%	98	4.0%
Retail Trade	260	13.7%	260	10.7%
Wholesale Trade	79	4.2%	137	5.6%
Total Employed Individuals Over Age 16	**1,893**	**100%**	**2,430**	**100%**

Source: 1980 Census and 1990 Census

Education Levels of Residents

Of the total population living in Hopkinton in 1990, 93.2% of Hopkinton residents had a high school degree or higher and 51.1% of the community had an associate degree or higher. These figures are higher than all the abutting communities. For more detail regarding the educational levels of Hopkinton and abutting communities, please refer to the table below.

Educational Levels of Persons 18 Years and Older, 1990

	Bow	Concord	Dunbarton	Henniker	Hopkinton	Warner	Webster
Less than High School Diploma	276	4521	187	321	243	288	114
% of Population	7.8%	16.3%	14.5%	9.6%	6.8%	17.2%	11.1%
High School Diploma	840	8598	341	715	887	512	413
% of Population	23.8 %	31.1%	26.4%	21.4%	24.7%	30.6%	40.3%
Some College	675	5416	243	1170	621	290	197
% of Population	19.1 %	19.6%	18.8%	35.0%	17.3%	17.3%	19.2%
Associates Degree	349	2003	91	205	415	161	76
% of Population	9.9%	7.2%	7.1%	6.1%	11.6%	9.6%	7.4%
Bachelors Degree	911	4442	283	642	861	289	148
% of Population	25.8 %	16.1%	21.9%	19.2%	24.0%	17.3%	14.4%
Post-Graduate Degree	474	2677	145	291	557	135	77
% of Population	13.4 %	9.7%	11.2%	8.7%	15.5%	8.1%	7.5%
Associates Degree or Higher	49.2 %	33.0%	40.2%	34.0%	51.1%	34.9%	29.4%
HS Degree or Higher	92.2 %	83.7%	85.5%	90.4%	93.2%	82.8%	88.9%

Source: 1990 Census

Commuting Patterns of Residents

The table below shows that most of Hopkinton's employed residents work outside of Hopkinton (75.9%), while 869 of the jobs in Hopkinton were occupied by a non-resident in 1990. Although the numbers are likely to have changed in the 2000 Census, the overall theme is anticipated to remain the same: the vast majority of residents travel outside of Hopkinton for employment. This assessment is also consistent with the findings from the Community Survey, which highlight the fact that 74% of residents work outside of Hopkinton.

Hopkinton Residents' Commuting Patterns, 1990

Number of Hopkinton Residents In the Labor Force	2,552 *	
Total Number of Jobs in Hopkinton	1,484	
Number of Hopkinton Residents Employed in Hopkinton	615 (24.1%)	
Number of Hopkinton Residents Commuting to Another Town for Employment	1,782 (75.9%)	
Where Hopkinton Residents Commuting to for Employment Top 3 Locations	Concord	1,033
	Manchester	201
	Bow	89
Number of Nonresidents Commuting Into Hopkinton for Employment	869	
Where Nonresidents Commuting into Hopkinton for Employment are From Top 3 Locations	Concord	164
	Henniker	88
	Warner 71	

Source: 1990 Census
* Census figure is inconsistent with number reported in "1990-2000 Labor Force, Employment, and Unemployment" table

Income Characteristics of Residents

The income characteristics of households, families, and individuals tell a tale of the economic conditions within a community. Income and poverty levels of a community serve as indicators of the types of social services that a municipality may require.

Per Capita Income
As can be seen below, Hopkinton has the lowest percent change in per capita income from 1980 to 1996. This low percentage is due, in part, to the fact that Hopkinton had such a high per capita income in 1980, as compared to other communities. Hopkinton had the ninth highest per capita income in New Hampshire in 1996.

Per Capita Income, 1980-1996

Town	1980 Per Capita Income	1990 Per Capita Income	1996 Per Capita Income	Percent Increase 1980-1996
Bow	$6,806	$19,752	$24,092	254%
Concord	$5,337	$15,981	$18,129	239.7%
Dunbarton	$5,333	$17,805	$21,422	300.7%
Henniker	$4,374	$14,005	$18,630	325.9%
Hopkinton	$10,842	$23,872	$31,761	192.9%
Warner	$4,848	$18,088	$23,056	375.6%
Weare	$4,895	$15,728	$18,698	282.0%
Webster	$4,476	$14,790	$16,257	363.2%

Source: 1980 Census, 1990 Census, NH Department of Revenue Administration, 2001

Using the Consumer Price Index (CPI) to show the effects of inflation will help to assess if there were real gains in the real per capita income. $10,000 in 1980 would be equal to $13,581 in 1990. The same $10,000 in 1980 would be equal to $20,896 in 2000. A way to understand these figures is – if you were to buy something in 2000 for $1, you would have been able to buy the same item in 1980 for $.48. Using the CPI information, Hopkinton has still made increases in the per capita income but some of those gains were due to wages keeping pace with inflation.

Median Household and Family Income

Household income is the total income of people living in one household. Family income is the total income of all family members who consider themselves members of one household. Median income is the middle figure in a series from lowest to highest. As can be seen below, Hopkinton has the second highest median household and family income in the region.

Median Household and Family Income 1980-1990

Towns	Median Household Income 1980	Median Household Income 1990	Median Household Income Percent Change 1980-1990	Median Family Income 1980	Median Family Income 1990	Median Family Income Percent Change 1980-1990
Bow	$25,915	$54,633	110.8%	$26,670	$56,855	113.2%
Concord	$15,933	$32,733	105.4%	$19,676	$39,531	100.9%
Dunbarton	$19,500	$44,250	126.9%	$21,528	$47,130	118.9%
Henniker	$15,911	$36,951	132.2%	$20,826	$45,153	116.8%
Hopkinton	$20,427	$46,810	129.2%	$22,009	$52,407	138.1%
Warner	$15,962	$37,917	137.5%	$17,261	$43,317	150.9%
Weare	$16,583	$41,647	151.1%	$17,486	$42,205	141.4%
Webster	$19,360	$40,043	106.8%	$20,530	$42,772	108.3%

Source: 1990 Census, NH Department of Employment Security, 2001

Poverty

The US Census Bureau uses a set of money income thresholds that vary by family size and composition to define poverty levels. If a family's total income is less than the Census Bureau's threshold, then that family, and every individual in it is considered below poverty level. The poverty thresholds are updated annually for inflation using the Consumer Price Index. The following table contains the poverty thresholds for 1980 and 1990 that the US Census Bureau used for their calculations.

Poverty Thresholds, 1980 & 1990

1980		1990	
Individual Person	$4,190	Individual Person	$6,652
2-Person Family	$5,363	2-Person Family	$8,509
3-Person Family	$6,565	3-Person Family	$10,419
4-Person Family	$8,414	4-Person Family	$13,359
5-Person Family	$9,966	5-Person Family	$15,792
6-Person Family	$11,267	6-Person Family	$17,839
7-Person Family	$12,761	7-Person Family	$20,241
8-Person Family	$14,199	8-Person Family	$22,582
9+ Person Family	$16,896	9+ Person Family	$26,848

Source: US Census Bureau

By looking at the table below, you can see that Hopkinton had, in 1990, a relatively low percent of families and persons in poverty. However, Hopkinton does not have the lowest percentage, and in fact, some communities with lower median and family incomes have a lower percentage of families and people in poverty. See the Median Household and Family Income section of this Chapter for more information.

Poverty Data for Hopkinton and Abutting Communities, 1980-1990

Town	1980 Population	% of Families Below Poverty 1980	% of Persons Below Poverty 1980	1990 Population	% of Families Below Poverty 1990	% of Persons Below Poverty 1990
Bow	4,015	.40%	1.1%	5,500	0.8%	1.6%
Concord	30,400	5.1%	9.0%	36,006	4.2%	6.7%
Dunbarton	1,174	4.4%	6.8%	1,759	4.2%	5.1%
Henniker	3,246	8.3%	15.0%	4,151	3.0%	6.3%
Hopkinton	3,861	6.6%	8.8%	4,806	1.3%	2.3%
Warner	1,963	10.2%	14.2%	2,250	3.9%	5.6%
Weare	3,232	7.8%	9.7%	6,193	3.2%	3.8%
Webster	1,095	8.1%	9.4%	1,405	N/A	2.2%

Source: 1980 and 1990 Census

Hopkinton Employers

Understanding historic trends in the local economic base can help the community better develop sound economic development strategies for the future. One key trend is the change in size and type of the local employment base. Local employment data (i.e., the number and types of jobs in community) is collected by various government agencies, including the US Census Bureau and the New Hampshire Office of Employment Security. Using a classification system, the number of employment positions for each business in the community can be identified and tracked over time.

From 1991-1999, there has been a steady increase in the number of Hopkinton employers and number of employees in all employment categories. "Private Services" has seen the largest increase in the number of employers (21) and "Private Manufacturing" has seen the largest increase in the number of employees (160). The average weekly wage for most employment sectors has also increased substantially, with the exception of the "Private Construction" and "Private Retail Trade" sectors. For more detail, please refer to the table below.

Trends in the Hopkinton Employment Base, 1991-1999

	1991	1992	1993	1994	1995	1996	1997	1998	1999
Private Finance, Insurance, and Real Estate									
# Employers	N/A	N/A	3	3	3	3	7	4	7
# Employees	N/A	N/A	3	4	5	5	16	6	17
Average Weekly Wage	N/A	N/A	$209	$314	$251	$305	$619	$262	$793
Private Services									
# Employers	18	21	31	39	48	50	46	41	39
# Employees	99	99	156	219	241	259	242	157	163
Average Weekly Wage	$414	$423	$514	$538	$556	$542	$637	$599	$706
Private Agriculture, Forestry, and Fishing									
# Employers	N/A	N/A	N/A	N/A	N/A	6	6	7	7
# Employees	N/A	N/A	N/A	N/A	N/A	22	24	26	26
Average Weekly Wage	N/A	N/A	N/A	N/A	N/A	$531	$601	$576	$621
Private Construction									
# Employers	9	11	14	17	17	17	17	15	15
# Employees	23	27	38	79	49	55	58	49	59
Average Weekly Wage	$553	$318	$407	$578	$443	$484	$503	$544	$554
Private Retail Trade									
# Employers	13	13	12	13	12	13	16	16	16
# Employees	83	69	111	120	147	149	161	149	137
Average Weekly Wage	$272	$307	$232	$237	$228	$236	$259	$273	$255
Private Manufacturing									
# Employers	6	6	6	6	5	4	7	4	10
# Employees	190	301	310	317	291	262	320	266	350
Average Weekly Wage	$601	$691	$673	$690	$776	$799	$836	$894	$764
Federal Government									
# Employers	1	1	1	1	1	1	2	2	2
# Employees	5	5	5	5	5	5	18	18	19
Average Weekly Wage	$570	$683	$745	$688	$701	$691	$681	$689	$651
NH State Government									
# Employers	N/A	2	2	2	2	2	N/A	N/A	N/A
# Employees	N/A	19	21	20	22	17	N/A	N/A	N/A
Average Weekly Wage	N/A	$314	$328	$359	$305	$381	N/A	N/A	N/A
Local Government									
# Employers	3	3	6	6	6	6	6	6	6
# Employees	193	194	212	234	217	237	241	235	229
Average Weekly Wage	$372	$421	$406	$395	$450	$441	$446	$506	$527

Source: NH Department of Employment Security, 2001

Within Hopkinton, there are numerous businesses. Knowing the size and type of employers located in Hopkinton is important in determining the amount of traffic generated and the adequacy of the current zoning districts for commercial and industrial uses. For the purposes of the table below, "major employers" are defined as employing five or more persons on a full or part-time basis, which may also include seasonal help.

Major Employers* in the Town of Hopkinton, 1999

Type of Business	Number of Employees	Number of Employers
Agriculture	29	4
Banking, Insurance, Real Estate	20	3
Construction	33	4
Distribution	436	2
Government	238	9
Manufacturing	398	10
Professional Services	25	3
Recreation	32	4
Religious	10	3
Service Industries	142	9
Social Services	20	2
Transportation	47	2
Utilities	110	2
Total	**1,540**	**57**

Source: GDT Technologies, Dunn and Bradstreet, 1999
* Five or more employees

Wage Comparisons

To gain a better understanding of the types and quality of the jobs located in Hopkinton we can compare wages paid by employers in Hopkinton to those in the surrounding communities. Although the figures below show average annual weekly wages for people who work within the Town of Hopkinton, they do not represent the average weekly wage of a Hopkinton resident. See the table below for more detail.

Average Annual Weekly Wage - Private Industries and Government, 1999

	Bow	Concord	Dunbarton	Henniker	Hopkinton	Warner	Weare	Webster
Private Manufacturing								
# Employers	26	72	N/A	12	14	6	4	4
# Employees	959	2,445	N/A	316	457	171	30	32
Avg. Weekly Wage	$679	$667	N/A	$622	$740	$677	$804	$980
Private Non-Manufacturing								
# Employers	189	1,740	N/A	96	135	59	123	14
# Employees	2,047	24,738	N/A	1,090	1,135	571	826	46
Avg. Weekly Waged	$753	$566	N/A	$524	$623	$408	$563	$368
Government								
# Employees	429	10,718	52	156	249	111	305	29
Avg. Weekly Wages	$522	$617	$348	$470	$534	$420	$502	$385
Total Private & Government								
# Employees	3,435	37,901	206	1,562	1,841	853	1,161	108
Avg. Weekly Wage	$704	$587	$565	$538	$640	$463	$553	$555

Source: NH Department of Employment Security, 2001

As can be seen above, the Town of Bow has the highest average weekly wage for “Total Private and Government,” with Hopkinton being second highest. Hopkinton has the highest “Private Manufacturing” average weekly wage and the second highest average weekly wage for “Private Non-Manufacturing” and “Government.”

Tax Characteristics

An examination of the tax rate helps to gauge the economic attractiveness of a community to businesses. As can be seen below, Hopkinton tax rates, from 1997 to 2001, had increased slightly.

Breakdown of Hopkinton Tax Rates, 1997-2001

Year	Municipal Tax	Local Education Tax	State Education Tax	County Tax	CVP	HVP	Total Tax
1997	4.35	21.10		1.82	1.87	.47	27.27
1998	4.39	22.06		1.95	2.10	.40	28.40
1999	4.39	12.68	6.28	1.98	1.94	.42	25.33
2000	4.49	14.59	6.18	2.26	1.89	.67	27.52
2001	4.49	12.12	5.90	2.28	1.78	.62	27.52

Source: NH Division of Revenue Administration, 2001; Hopkinton Town Hall, 2002
HVP – Hopkinton Village Precient CVP – Contoocook Village Precient

When compared to the tax rates of abutting communities, Hopkinton's tax rate for the year 2000 is in the middle range, with Henniker having the highest total tax rate and Dunbarton having the lowest total tax rate.

Tax Rates of Hopkinton and Abutting Communities, 2000

Town	Total Tax Rate
Bow	24.69
Concord	34.37 (average)
Dunbarton	20.76
Henniker	36.89
Hopkinton	27.52
Warner	31.28
Weare	23.27
Webster	22.96

Source: NH Department of Revenue Administration, 2001

Land Availability and Zoning

The Town of Hopkinton is slightly larger than 45 square miles and is currently divided into seven zoning districts, two of which are dedicated for industrial and commercial development.

Hopkinton's Industrial District (M-1) allows a wide range of uses by right or special exception. Allowed uses include businesses and professional offices; research and development; warehouse, wholesale, and bulk storage; and laundry and dry cleaning establishments. Uses requiring a special exception include hotels and motels; restaurants; filling stations, automobile dealerships, repair garages and body shops; retail stores; manufacturing; freight and trucking terminals; and fuel storage, among others. The minimum lot size is 2.5 acres and buildings may be 45 feet in height and cover 40% of the lot.

The industrial zoning is too flexible: the ordinance allows most nonresidential uses, even very small-scale retail and service uses. By not discriminating among uses, the Town runs the risk of losing its prime industrial sites to small-scale development, which are neither large job creators, nor the intent of industrially zoned areas.
The purpose of the Commercial District (B-1) is to provide limited commercial, institutional, professional, and personal service uses along with residential uses. The uses permitted in this District include home occupations, bed and breakfast inns, hotels, senior citizen centers, museums, medical clinics, professional offices, service businesses, retail uses, convenience stores, and research and development offices. Uses permitted by special exception include duplexes and multi-family dwellings, agriculture, drive-in restaurants, gas stations, vehicle dealerships, funeral homes, and adult entertainment establishments. The minimum lot size is .34 acres for this district.

As noted in the Current and Future Land Use Chapters, Hopkinton currently has approximately 1,063 acres of land, or 3.7% of the total land area of the community, zoned for commercial or industrial use. Of this total, 455 acres or 42.8%, of the commercially and industrially zoned land has already been developed. See the Current and Future Land Use Chapter for more information, as well as the **Current Zoning Map** and the **Current Land Use Map**. The goals and vision of how and where the community would like to see economic development can not be incompatible with the land available, if they are to succeed. The intent of zoning is to maintain the rural character of the town by concentrating industrial and commercial activities in limited and defined areas, rather than scattered throughout the community.

Recommendations:

- Consider refining the list of permitted uses in the M-1 and B-1 Districts to preserve industrially and commercially zoned land for those desired uses.
- Evaluate the currently zoned B-1 and M-1 areas to assess if they are adequate to meet the needs of future economic development.

Infrastructure Characteristics

Roads and Highways

A major infrastructure asset of Hopkinton is its direct access to I-89 and the Interstate Highway system, as well as to the State Highways.

Interstate 89 provides direct access to and from Concord, Manchester, Boston, and points South and West via I-93, I-95, I-90, etc; Montreal and points North and West via I-89; to the Lakes Region and White Mountains via I-93. Interstate I-89 serves the Town of Hopkinton with direct access from three Exits: 4, 5, and 6; and indirectly from Exits 3 and 7. Exit 6 gives access to Hopkinton's major industrial and commercially zoned areas. Access to the Burnham Intervale commercial/industrial area, however, requires travel of about three miles from Exit 6 on secondary State and Town roads.

US Route 202 and NH 9 pass through Hopkinton providing access to Keene and points southwest, as well as to Concord. Route 127 and 103 pass through Hopkinton and give access to points North and Northwest.

Hopkinton maintains many miles of quality paved and unpaved roads that are largely of rural character.

Railroads
There is no direct rail access, passenger or freight to Hopkinton at this time.

Bus Transit
There is currently no bus service to or from Hopkinton, at this time. The nearest access to bus transport is in Concord.

Airports
Commercial service is available via the Manchester Airport, which is approximately 30 miles away. General aviation services are also available via the Concord Airport, which is only 10 miles away.

Electric Power
The Town is serviced by Public Service of New Hampshire and Concord Electric. See the Technology and Public Utilities Chapter for more information on this subject.

Communication
Hopkinton is served by two land-line telephone companies, the MCT Telecom and Verizon, as well as many cellular/PCS companies. See the Technology and Public Utilities Chapter for more information on this subject.

Waste Water Treatment
The sewage treatment plant was established for residential users and is not equipped to treat industrial wastes. No major users are currently tied into the plant. Sewer extensions and pump stations would have to be installed and the plant would have to be significantly upgraded to serve additional industrial users. This is not a cost-effective option, particularly in the absence of grants for the required upgrades. The lack of industrial sewer infrastructure weakens the Town's competitive position for locating manufacturing firms in Hopkinton. See the Community Facilities Chapter for more information on this subject.

Water
The municipal water system is comprised of two systems. One is in the Precinct of Contoocook, which has an adequate supply for fire protection and light commercial use, in addition to the existing residential users that are utilizing the system. The Village of Hopkinton also has a water system that is intended for domestic use only. See the Community Facilities Chapter for more information on this subject.

Emergency Services
Hopkinton has its own Fire Department, with stations in Contoocook and Hopkinton Village; an Emergency Rescue and Ambulance service; and its own Police Department. See the Community Facilities Chapter for more information on these Departments.

Schools
The Town of Hopkinton maintains its own public school system and is not part of a regional school district. Students in the Hopkinton School District attend one of the three facilities: the Harold Martin School for Kindergarten to third grade, the Maple Street School for fourth to sixth grade, and Hopkinton Middle/High School for seventh to twelfth grade. See the Community Facilities Chapter for more information on this Department.

Library
The Hopkinton Town Library, located on Houston Drive in Contoocook Village, was constructed in 1998 and is the successor to the Bates Library. The Library contains children's and adult texts, as well as audio books, periodical subscriptions, videocassettes, and compact discs. See the Historic and Cultural Resources Chapter and the Community Facilities Chapter for more information on this subject.

Recommendations:

- Research the idea of rezoning land to permit industrial uses closer to Exit 6 and/or constructing better access to the commercially and industrially zoned land to make Hopkinton more economically competitive.
- Assess the current and anticipated capacity of the existing municipal water supply to see how much water could be available to commercial and industrial users without negatively impacting the resource.

Home Businesses

A substantial part, and often-unseen part, of the local economy are home businesses. Having home businesses and occupations located in Town helps to ensure that those who live in Hopkinton have the opportunity to work in the community and contribute to the local economy as a resident and as a business owner. In fact, 48% of the community survey respondents indicated that they wanted to encourage home businesses and home occupations in Hopkinton.

The Hopkinton zoning ordinance contains three separate provisions that allow various types of accessory business uses in a residence or accessory structure: “home business,” “home occupation,” and “telecommuting.” Home businesses entail contact with the general public at the premises and may employ one nonresident employee. Home occupations entail no direct contact with the general public and are conducted solely by the resident owner of the dwelling. Telecommuting entails use of a residence by the resident working as an employee of a business not located on the premises, who communicates with his/her place of business by telecommunications and postal or delivery services. Home occupations and telecommuting are permitted in all zoning districts, while a home business requires the granting of special exception.

These three provisions allow a wide range of uses to be established in residential areas, with adequate protections for the neighborhood. The definitions of “home business” and “home occupation” are very broad, which provides great flexibility as businesses and the economy evolve.

The current ordinance restricts the amount of floor area used for a home business or home occupation to 25% of the dwelling area or 500 square feet, whichever is less. This provision is common in zoning regulations for home occupations, but it may not be necessary to achieve the goals of the ordinance, and it may not be appropriate in the more rural areas of Town where outbuildings might be adapted for home business use.

Recommendations:

- Consider developing updated standards for home businesses.
- Consider adopting into the site plan ordinance a two-tiered system for home businesses based on impacts (noise, traffic, etc.), with one level of use allowed by right and a more intensive level requiring a special permit and approval.
- Create a "How To Guide" to assist home businesses in the site plan review process.
- Redefine "home business," "home occupation," and "telecommuting" as accessory uses rather than principal use in the zoning ordinance, since it is the intent of the ordinance that this use be secondary to the residential use of the dwelling.

Strategies to Promote Economic Development Goals

Architectural and Design Performance Standards

Perhaps the most important issue to the residents of Hopkinton is the preservation of the unique rural character of the community. This issue was expressed strongly by residents through the community survey and visioning sessions.

Undoubtedly, growth is the single largest threat to the rural character of Hopkinton. Residents are concerned that development of large structures, with significant amounts of impervious surface, would detract from the rural character of the community. The issue of aesthetic appeal and compatibility of commercial and industrial development with the Town's rural character has become increasingly important as growth in the community has increased.

In an effort to protect the character of the community, while providing opportunities for commercial growth, numerous municipalities in the State, including Concord, Bow, and Wolfeboro, have adopted architectural ordinances or guidelines to help developers plan projects so that they are more compatible with the community character. Standards typically enacted by communities relate to landscaping, façade, and buffering.

Capital Regional Development Council (CRDC)

CRDC is a non-profit organization that has been promoting economic development for the past 45 years. The organization serves Merrimack, Belknap, Grafton and Sullivan counties. The mission of CRDC is to create new and permanent jobs, enhance personal income of workers, and expand community tax bases through private investment. CRCD meets these goals by developing land and administration of various business loan programs, including the Small Business Administration (SBA) 504 debenture grant program.

Community Development Block Grants (CDBG)

CDBG funds are a valuable resource available for funding a variety of public needs. In addition to funding affordable housing programs and community centers, CDBG funds can also be used for economic development purposes, such as the expansion of public waterlines. For 2001, there was approximately $3.2 million dollars available in CDBG funds that, through the grant process, were allocated to communities across the State.

Community Development Finance Authority (CDFA)

The Community Development Finance Authority (CDFA) was established by legislation (RSA 162-L) in 1983 to address the issues of affordable housing and economic opportunity for low-income and moderate-income New Hampshire residents.

The Authority provides financial and technical assistance to community development corporations, worker cooperatives, and certain municipal entities. The Authority is unable to assist a for-profit business directly, but can work with a nonprofit partner.

CDFA administers numerous programs. One such program is the Economic Development Ventures Fund. This fund is to be used to support unique opportunities that may appear from time-to-time. For example, the fund may be used to cover a short-term funding gap in the event that access by a nonprofit community development organization to other public funding is delayed. The fund may also be used as a source for equity investment in a cooperative venture or nonprofit business opportunity. Terms and conditions of the funding are determined on a case-by-case basis. Funding levels of this program will be determined on an annual basis.

CDFA finances important community development projects primarily with the Community Development Investment Program. The Community Development Investment Program enables New Hampshire's businesses to donate funds or property, either in lump sum payments or pledged over a predetermined period, to fund economic development and housing projects throughout the state. Contributions made by these business donors entitle donors to a 75% state tax credit when the tax returns are filed with the New Hampshire Department of Revenue Administration. For example, a donor making a $10,000 cash donation to CDFA on behalf of an approved project will receive a tax credit for $7,500. This credit may be applied directly on a $1: $1 basis against the following state business taxes: (1) Business Profits Taxes imposed by RSA 77-A, (2) Insurance Premium Taxes imposed by RSA 400-A, and (3) Business Enterprise Taxes Imposed by RSA 77-E.

Performance Zoning

This approach to zoning is an alternative to conventional zoning approaches for non-residential development. As opposed to developing a prescriptive zoning scheme, which dictates permitted uses and uses by special exception, performance zoning allows a wide range of uses, provided that such uses meet environmental, aesthetic, and other performance standards. In addition to providing specific performance standards, such ordinances also include incentives for developers to develop better projects. Common examples include density, height, setback, and other dimensional bonuses in exchange for greater landscaping; donation of off-site property for a public purpose; location of parking to side or rear of buildings; or construction of public art.

Tax Increment Financing (TIF)

Tax increment financing (TIF) is an innovative tool that uses tax revenue from new developments, within certain designated areas of communities, to pay for new infrastructure to serve those new businesses, business expansions, and affordable housing projects.

TIF is a planning concept that was created in the 1970's and has been widely adopted by several states in the nation. The State of New Hampshire granted authority to municipalities to create tax increment finance districts in 1979, with passage of RSA 162-K: 1-15. Currently, nine (9) communities in State of New Hampshire have implemented tax increment finance districts. The most successful districts are located in the cities of Keene and Concord.

There are numerous legal and planning issues to consider when implementing tax increment finance districts. In New Hampshire, communities must adopt a TIF plan and development program to ensure that the community has a clear focus on what the TIF will accomplish. There are several legal considerations that communities must adhere to when instituting a tax increment finance district. These requirements are mandated by NH RSA 162-K: 1-15.

Also, before adopting a TIF, communities must establish the geographic boundaries of the proposed TIF district. In conjunction with this step, NH RSA 162-K: 6 requires that a development program be created for the proposed area. This program must contain " a complete statement as to the public facilities to be constructed within the district, the open space to be created, the environmental controls to be applied, the proposed reuse of private property, and the proposed operations of the district after the capital improvements within the district have been completed (RSA 162-K: 6)." Furthermore, state law requires that the development program "provide for carrying out relocation of persons, families, business concerns, and others displaced by the project, pursuant to a relocation plan, including the method for relocation of residents in decent, safe, and sanitary dwelling accommodations, and reasonable moving costs, determined to be feasible by the municipality (RSA 162-K:6)." Essentially, the program development plan is a master plan for the area to consider the broad social, environmental, and fiscal impacts of a proposed TIF.

The second major requirement of TIF enabling legislation is that communities must have a TIF Plan. Mandated by RSA 162-K:9, the plan must contain the following: "costs of development programs, sources of revenue to finance those costs including estimates of tax increments, amount of bonded indebtedness to be incurred, and the duration of the program's existence (RSA 162-k:9)." The plan must also contain "a statement of estimated impact of tax increment financing on the assessed values of all taxing Jurisdictions in which the district is located (RSA 162-K:9)." Prior to the adoption of this plan, State law requires that the County Commissioners and School Board or District be afforded the opportunity to meet with the governing body to voice concerns and understand how the tax burden will be shifted to maintain the revenue stream (NH RSA 162-K:1-15).

Tax increment financing is attractive to communities, as it can provide incentives for economic development in the community without taking resources away from other projects and community needs. However, TIF is complex and requires the assistance from legal, planning, and financial experts to make it successful.

Summary

In summary, the economy of Hopkinton is healthy. The number of jobs and businesses in the community has increased and the real wage rates for local jobs have also increased. Also, the local unemployment rate remains relatively low. In the long-term, Hopkinton desires to maintain and develop an economic base that complements the rural community character of the Town. Residents want to encourage well-designed, aesthetically pleasing commercial and industrial developments. Businesses that are environmentally sound and financially viable, with reasonable wages and benefits, help to stabilize the community and should continue to form an important piece of Hopkinton's economic base. Well-planned and well-placed retail, industrial, and commercial businesses contribute to the economic prosperity of Hopkinton, and further attention should be paid to the location of future economic development within Town.

Chapter IV
Current and Future Land Use

Introduction

Increased population growth, evolving housing needs, as well as changing social and economic trends discussed throughout the Master Plan have had a direct impact on the landscape of the community. Land is a finite resource and thoughtful use of land is a critical issue for all communities. How a community uses its land base has a direct impact on aesthetics, community character, transportation infrastructure, housing affordability, as well as the tax base.

The purpose of this chapter is to identify and explore land use trends in Hopkinton, discuss how regulations impact such trends, and offer recommendations as to what regulatory steps should be taken in the future to meet the growing housing, economic, environmental, and land use needs of the community.

Hopkinton's historic development pattern was determined long before there were any land use regulations in the State. Development occurred in those areas with good drainage, access to a water supply, access to transportation infrastructure, and to waterpower. Hopkinton's current development is being driven by the economic expansion of southern New Hampshire. This pressure is being felt primarily in the housing sector, as Hopkinton is viewed as an attractive bedroom community to Concord and Manchester. In order for Hopkinton to maintain its rural character, while at the same time accommodating its fair share of elderly and affordable housing, it is important for the Town to utilize progressive zoning techniques. These techniques include strengthening cluster zoning regulations (conservation subdivision design), adopting a methodology for the assessment of impact fees, encouraging elderly and affordable housing within Town, and developing overlay districts, as discussed herein.

Topics to be covered in this Chapter include:

Key Findings
Community Survey and Visioning Session Results
Land Use Categories
Current Zoning
Other Current Zoning Ordinance Provisions
Zoning District Recommendations
Site Plan Recommendations
Landscape & Screening Performance Standards
Strategies to Meet Land Use Goals
Current Land Use
Development Patterns, 1990-2000
Future Land Use
Overlay District Recommendations
Other Land Use Recommendations
Summary

Key Findings

- The Town, in the site plan review regulations, should create specific architectural façade performance standards for multi-family and commercial/industrial structures to protect the scale and rural character of the community, as well as expand the taxable value of properties.
- The Planning Board should re-write the existing cluster subdivision ordinance so as to create real incentives for developers to use this approach or require them to use this approach, to better protect land, and create usable open space, as intended by this type of development.
- The Town should consider implementing environmentally-based zoning techniques to further protect key natural resources in the community and the rural character while providing reasonable opportunities for development.
- Contoocook Village and Hopkinton Village Precinct zoning issues should be reviewed and coordinated with the Town's goals to ensure that their historic nature and character are retained, while at the same time permitting reasonable and compatible development and growth.
- Develop and adopt a methodology for a formal impact fee schedule.
- Review the current R-4 and R-3 zoning districts, with regard to minimum lot size, road frontage, and set-backs, to ensure that the goals of such districts are being met.

Community Survey and Visioning Session Results

A Master Plan Community Survey was sent out to all households and non-resident landowners in Town at the beginning of the Master Plan process. A total of 2,700 surveys were distributed with 973 returned, for a 36% response rate. The following survey questions and responses relate to the current land use and future land use patters in Hopkinton.

What are the desirable qualities of Hopkinton? Check all that apply.

Feature	Total
Small Town / Rural Atmosphere	852
Historical Character	487
Scenic Areas	431
Villages	370
Natural Resources	293

Does Hopkinton need to establish specific design or architectural requirements to regulate how buildings should look? Check all that apply.

	Total
Residential	62
Non-Residential	239
Both	219
None	386
No Opinion	84

If specific design or architectural requirements are desirable, what areas of Town would be most appropriate for such standards? Check all that apply.

Area	Total
In Hopkinton Village	425
In Contoocook Village	342
Along Routes 9 and 202	99
Along Route 103	124
Along Route 127 (Maple St.)	126
In Rural Areas	35
Throughout Town	183
None	222

What types of housing would you like to see Hopkinton encourage? Check all that apply.

Housing Type	Total
Single-Family	707
Two Family (Duplexes)	108
Multi-Family (3-4 units)	55
Elderly Housing	367
Conversion to Apartments	112
Manu. Housing on Individual Lots	70
Manufactured Housing in Parks	55
Condominiums/Town Houses	143
New Apt. Buildings (5+ units)	47
Cluster Developments	247

Are current commercial and industrial zones in Hopkinton adequate?

	Total	Percent
Yes	314	32.3%
No	225	23.1%
No Opinion	368	37.8%
No Answer	66	6.8%
Total	**973**	**100.0%**

Should the Town implement policies to limit the amount of new homes which are built in Town?

	Total	Percent
Yes	561	57.7%
No	189	28.4%
Unsure	148	13.1%
No Opinion	33	7.4%
No Answer	42	1.7%
Total	**973**	**100.0%**

In your opinion, which statement characterizes Hopkinton's rate of residential growth?

	Total	Percent
Hopkinton is growing too fast	213	21.9%
Hopkinton is growing too slow	22	2.3%
Hopkinton is growing as fast as appropriate	519	53.3%
No Opinion	165	17.0%
No Answer	54	5.5%
Total	**973**	**100.0%**

Which of the following commercial enterprises would you like to see in Town?
If you would like a particular type of development, please note where such development should be located.

	Location								
	Want in Town	In Hopkinton Village	In Contoocook Village	With Access to Routes 9 and 202	With Access to Route 103	With Access to Route 127/ Maple St	Burnham Intervale	In Rural Areas	Don't Want in Town
Professional Offices	550	198	325	222	193	188	91	35	86
Light Industrial Parks	406	24	37	197	142	166	219	65	209
Heavy Industrial Parks	79	12	15	57	34	35	65	17	500
Retail	417	187	322	108	96	87	36	13	178
Restaurants	543	337	395	133	115	107	28	26	83
Services	351	165	241	104	100	102	43	22	107
Home Businesses / Occupation	465	209	229	149	145	143	113	152	87
Recreational Businesses	349	81	140	112	109	98	53	78	174
Hotels / Motels / Inns	210	78	87	125	95	81	22	36	366
Major Shopping Malls	36	11	17	25	19	22	4	6	592
Major Grocery Store	118	30	60	48	34	31	8	5	508

According to the survey results, the top three commercial enterprises that people would like to see in Town include professional offices, restaurants, and home businesses/occupations. The most desirable location for these three enterprises is Contoocook Village. The three least desirable commercial enterprises include major shopping malls, major grocery stores, and heavy industrial parks.

In order to help Town Officials better direct their efforts to meet the needs of the community, we need your opinion on the relative importance/rating on the following Issues and Town Services

Issues / Town Services	**Effort Should Be (Please Check)**				
	More	**Same**	**Less**	**No Opinion**	**No Answer**
Protection of Ground and Surface Water	508	301	11	52	101
Protection of Woodlands and Wildlife Habitat	430	373	25	55	90
Preservation of Farmland and Pastures	430	351	31	68	93
Expansion of Town Forests/Conservation Lands	381	354	55	80	103
Encourage Development of Light Industry	380	245	170	61	117
Encourage Commercial / Retail Growth	363	271	175	53	111
Preservation of Historic Sites and Buildings through zoning	356	390	61	69	97
Designation and Protection of Wetlands	353	386	64	72	98
Expansion of Sewer System	222	380	90	160	121
Maintenance/Expansion of Town Water System	195	431	77	151	119

In May 2000, a community visioning session was held, in which all members of the public were invited to attend and voice their opinion on and their vision for the future of Hopkinton. The participants were asked the following questions.

What would you like Hopkinton to look like 75 years from now?

Maintain rural character
Facilities for older people
Unpaved roads
Cottage industries
Open land and tree farm encouragement
Expansion of sewer system
Wetlands protection
Better use of Town-owned land
Rezone areas of Town so as to not restrict development
All commercial developments should have green space
River access
Large blocks of wooded land
Grow existing business
Mix of housing types
Zoning to encourage open space
Continue to have operating farms
Historic character preservation

What are the Town's strengths and opportunities?

Rural Atmosphere
Hopkinton Village
Building/Architectural Standards
Historic/architecture – Hopkinton
Attractive housing
Big houses convert to apartments
Contoocook Village
Limit Industrial Locations
Open Space
Mix of open/wooded/landscape
Encourage farm use
Have Zoning
Mixed zoning for light commercial residential
Residential/commercial uses appropriate in many areas
Cluster housing pattern with open space between
Encourage cottage industry/small business

What are the Town's weaknesses or areas of concern?

Mega shopping complexes
Any large ugly development
Population growth
Cell towers
Strip commercial development
Urban spread
Access & define industrial areas with architecture & landscape controls
Transportation to industrial areas without impacting residential/light commercial
Bicycle and walking paths other than roads
Access to open space and private landowner liability

Current Land Use

Natural and man-made features have a significant impact on the development pattern of a community. This is especially true of Hopkinton. Shaped by such forces as rolling topography, the Contoocook River, floodplains, as well as the railroad and major highways, Hopkinton's development pattern is a by-product of these several influences.

Since the area was first settled, natural and man-made features have significantly impacted how the community was developed. Industrial areas first developed around the Contoocook River, a prime energy source for mill operators and larger establishments. High-density residential development was soon constructed to provide housing for the mill workers in Contoocook Village. With the advent of the railroad, the area continued to thrive. Though the railroad is now discontinued and many of the mills are no longer standing, the Village remains largely intact.

Dating back to before the American Revolution, the existing development pattern in Hopkinton Village is largely a by-product of the regional transportation network. Created in 1735, the Village developed around a central Main Street (Route 103) and was home to a small commercial, professional, and service base. With political prominence emerging in Hopkinton, the New Hampshire Legislature and Courts began meeting here, and taverns, homes, and jail were built. With Concord becoming the official State Capital and changes in the transportation system, the Village has become largely residential.

The following describes the Town: the types of land use, the patterns of development, and the current Town zoning.

Land Use Categories

The existing land use pattern in Hopkinton is typical of many rural communities in New Hampshire; commercial land uses are located along heavily traveled regional roadways while the majority of residential development is located in the back lands of the community. Please see the **Existing Land Use Map** for more detailed information. The following table is a summary of the current composition of land uses in Hopkinton.

Summary of Acreage used by Land Use Category

Category	Acres	Percent of Total Land
Agricultural & Open Space Lands	2,583	9.0%
Conservation Lands	3,312	11.5%
Commercial Lands	112	0.4%
Industrial Lands	343	1.2%
Public / Institutional Lands	259	0.9%
Recreational Lands	191	0.7%
Residential Lands	3,082	10.7%
Utility Lands	145	0.5%
Undeveloped Land	18,823	65.2%
Total	**28,850**	**100.0%**

Source: CNHRPC Geographic Information System (GIS), 2001

Agriculture and Open Space

These uses are located throughout the community and are especially prevalent along the Contoocook River, Kast Hill Road, Beech Hill Road, George Road, Stumpfield Road, Hatfield Road, and Gould Hill Road. Open space and agricultural lands are areas that are deemed to either be active or recently active agricultural lands or open fields. In total, agriculture and open space lands represent 9% of the total land area in Hopkinton.

Commercial

These land uses occupy less than 1% of Hopkinton's total land area. Commercial uses involve the sale or trade of goods and services, which can include restaurants, convenience stores, coffee shops, as well as others. Commercial uses are more concentrated in Contoocook Village, along Maple Street, Pine Street, and Bound Tree Road.

Public / Institutional

Public and institutional uses of land are primarily concentrated in Hopkinton and Contoocook Villages. In total, these types of land uses occupy approximately 1% of the community's land area. Examples of such uses include the Town Hall, Transfer Station, Community Center, Library, and local churches and cemeteries.

Industrial
These uses occupy slightly more than 1% of the community's total land area. Industrial uses can be thought of as any land use where raw materials are processed, modified, or assembled to create a finished or value added product. As is the case with commercial uses, the majority of these uses are located in Contoocook, primarily along Burnham Intervale Road, Pine Street, and Maple Street. Other areas with industrial development include Clement Hill Road. Examples of industrial uses in Hopkinton include Excaliber Shelving and the former Compaq site.

Residential
Residential land uses are also scattered throughout the community, with greater concentrations located in areas east of I-89. The majority of residential land uses are located along major collector roadways in the community. In total, residential land uses occupy nearly 11% of the community's land area.

Conservation
Conservation lands include land that has been permanently set aside for conservation and does not allow development on it. Such land can include Town forests, lands owned by private conservation organizations, as well as property with an easement on it. Occupying nearly 11.5% of the community's total land area, the majority of conservation lands are located south of Hopkinton near the Contoocook River Flood Mitigation Lands. Other larger parcels are located on Broad Cove Road, New Road, and Farrington Corner Road.

Undeveloped Lands
Lands that are undeveloped could be that way because of natural conditions or because the owners have chosen to leave the land untouched for now. Undeveloped lands comprise nearly two-thirds of the Town's entire land area. The majority of these areas are located on land with steeper slopes and other development constraints that make them much more difficult to develop.

Utility Lands
Utility lands include lands owned by the various public utilities located in Town or servicing the Town. These include lands held by the electric, telephone, and cable companies, as well as the land owned by the water district. This land use comprises less than one percent of the community’s land area.

Recreational Lands
Recreational lands can include such things as golf courses, private camps, soccer fields, as well as others. This land use comprises less that one percent of the community’s land area.

Development Patterns, 1990 – 2000
Subdivision Activity
During the period of 1990 through 2000, a total of 63 subdivisions were approved in Hopkinton. Of that total, 11 were considered major subdivision consisting of four or more lots. The largest development consisted of 8 new lots on Penacook Road. Outside of this, the typical subdivision in the community consisted of creating one or two lots along existing road frontage. Again, this is common among rural communities. As compared to abutting communities, Hopkinton had similar activity to most other abutting communities.

Number of New Lots Created, 1990-2000

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	Total
Bow	6	39	27	28	61	72	167	97	46	44	20*	**607**
Concord	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	**N/A**
Dunbarton	16	11	39	1	6	9	3	12	7	N/A	N/A	**N/A**
Henniker	22	8	0	4	0	5	15	6	2	8	17	**87**
Hopkinton	12	53	6	12	15	9	2	3	16	13	24	**165**
Warner	15	4	12	0	9	1	4	1	N/A	N/A	N/A	**N/A**
Webster	9	5	2	10	6	5	8	24	N/A	N/A	N/A	**N/A**

Source: Annual Town Reports and Town Staff
* One of the lots created was a 30 house condominium complex.

Non-residential Site Plan Activity

From 1990-2000, there were many site plans submitted to and approved by the Town. There were forty-seven site plans approved for modifications - a change of use from one commercial or industrial use to another - and seventeen new site plans approved, three of which were submitted by the Town. Twenty-four site plans were approved for home occupations/home businesses over the same time period.

Building Permit Activity

During the period of 1990 through 2000, Hopkinton issued 322 residential building permits and 4 commercial building permits. As compared to abutting communities, this was slightly lower.

Number of Building Permits Issued, 1990-2000

	Total Units in 1990	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	Total Units in 2000	% Increase From 1990-2000
Bow	1,860	32	34	35	48	51	63	89	54	47	32	35	2,380	28.0%
Concord	15,697	83	76	80	60	72	65	95	67	65	284	N/A	N/A	N/A
Dunbarton	685	14	14	11	16	9	18	24	36	25	28	36	916	33.7%
Henniker	1,558	10	11	8	8	14	8	15	11	14	11	22	1,690	8.5%
Hopkinton	1,924	40	13	16	19	23	15	38	44	52	39	23	2,246	16.7%
Warner	1,039	10	6	7	5	4	7	11	12	12	10	13	1136	9.3%
Webster	579	13	6	3	5	9	16	12	15	14	9	18	687	18.7%

Source: Annual Town Reports and Town Staff

Current Zoning

The power to regulate private property is one of the most important powers allocated to local government. Used properly, zoning can be a powerful tool to improve the aesthetics of a community, protect the natural environment, and increase the quality of life. Used improperly, zoning can serve special interests, diminish the natural environment, and increase disparities between socioeconomic classes.

In 1925, the New Hampshire State Legislature, using a United States Department of Commerce Model Standard Act, granted municipalities the ability to adopt zoning. Hopkinton first adopted zoning in March 1964 for all areas of town, except Hopkinton Village Precinct. This initial effort separated the community into four Districts, which required minimum lot areas ranging from 15,000 square feet to 40,000 square feet. The original Districts included a residential, commercial, agricultural, and industrial District. Later, rural residential and recreational Districts were created. Interestingly, this early zoning document contained many unique provisions, including affording property owners the ability to have flexible setbacks in areas where development already existed.

Today, Hopkinton relies on seven primary zoning Districts, as well as overlay Districts, to regulate land use within the community. The following is a summary of current zoning Districts and their associated performance requirements. The location of these Districts can also be seen on the **Zoning District Map**.

Residential - Agricultural (R-4)
This District governs nearly 57% of Hopkinton's total land area; however, 16% of the R-4 is in the Hopkinton-Everrett Flood Control Area. The purpose of the District is to "provide for open space conservation, agricultural use, and predominantly very low density residential development on individual lots or in cluster developments, which can be accommodated on the land without major disruptions of the natural terrain, vegetation, watercourses, or surface drainage."

Minimum lot area within this District is 120,000 square feet (2.75 acres). The minimum frontage is 300 feet with setbacks as follows: front and rear setbacks of 60 feet and side setbacks of 30 feet.

Permitted uses within the R-4 District are limited to residential and agricultural uses, including single-family homes, in-home day care centers, cluster developments, manufactured housing subdivisions, forestry and wildlife preserves, farming, and places of worship. Uses permitted by special exception include duplexes, home businesses, bed and breakfasts, campgrounds, year-round greenhouses, and veterinary clinics.

Low Density Residential (R-3)
The purpose of this District is the exact same as that of the R-4 District. The minimum lot area in this district is 120,000 square feet (2.75 acres). Minimum frontage is 300 feet with setbacks as follows: front and rear setbacks are 60 feet, the side setback is 30 feet. Permitted uses and uses allowed by special exception are similar to those of the R-4 District except that manufactured housing parks and affordable housing options are allowed in the R-3 District.

Medium Density Residential (R-2)
The purpose of the District is to provide for open space conservation, and predominantly medium density residential development, on individual lots or in cluster developments, which can be permitted to occur at more intense levels of development because of natural terrain, vegetation, watercourses, or surface drainage.

The minimum lot area allowed in this District is 80,000 square feet (1.84 acres). The minimum frontage is 250 feet with setbacks as follows: front and rear setbacks are 40 feet and the side setback is 20 feet.

Uses permitted in the R-2 District include single-family homes, cluster developments, manufactured housing subdivisions, forestry and wildlife preserves, museums, and non-profit recreational facilities. Uses permitted by special exception include, home businesses, bed and

breakfasts, medical clinics, manufactured housing parks, campgrounds, and year-round greenhouses.

High Density Residential (R-1)
The intent of this District is to "provide for open space conservation, and predominantly medium density residential development on individual lots or in cluster developments, which can, because of natural terrain, vegetation, watercourses, or surface drainage, or because of the availability of Precinct Water and sewer service, be permitted to occur at more intense levels of development."

Minimum lot area in this District is 60,000 square feet for residential uses and 15,000 square feet (1.83 acres and .34 acres, respectively) for non-residential uses. Minimum frontage is 160 feet for residential uses with setbacks as follows: front setbacks are 30 feet, rear setbacks are 40 feet, and side setbacks are 15 feet. Minimum frontage and setback requirements for nonresidential uses are as follows: frontage is 100 feet, front setback is 25 feet, rear setback is 40 feet, and the side setback is 15 feet.

Permitted uses in this District include single-family homes, duplexes, multi-family structures with up to eight units per building, manufactured home subdivisions, home occupations, bed and breakfast inns, senior citizen centers. Uses permitted by special exception include convenience stores, gas stations, professional offices, and funeral homes.

Commercial District (B-1)
The purpose of this District is to provide limited commercial, institutional, professionals and personal service uses along with residential uses. Minimum lot area in this District is 15,000 square feet (.34 acres). Minimum frontage is 80 feet, with setbacks as follows: front 30 feet, rear 40 feet, side 15 feet.

Uses permitted in the B-1 District include home occupations, bed and breakfast inns, hotels, senior citizen centers, museums, medical clinics, professional offices, service businesses, retail uses, convenience stores, and research and development offices. Uses permitted by special exception include duplexes and multi-family dwellings, agriculture, drive-in restaurants, gas stations, vehicle dealerships, funeral homes, and adult entertainment establishments.

Industrial District (M-1)
The purpose of this District is to "provide areas for research and development, manufacturing, processing, assembly, wholesaling, and transportation oriented activities and related services, such as trucking and warehousing providing that such uses are determined not to be injurious or hazardous to the public health, safety, and welfare."

Minimum lot area in this District is 110,000 square feet (2.53 acres). Minimum frontage is 250 feet with setbacks as follows: front and rear setbacks are 50 feet and the side setback is 40 feet. Uses permitted in this District include year round greenhouses, business offices, professional offices, research and development offices, warehousing, bulk storage, and laundries.

Hopkinton Village Precinct (HVP)
There are three Districts within the HVP: Hopkinton Village Residential District, Hopkinton Village-Special Residential District, and Hopkinton Village Commercial District. HVP is not part of the Town of Hopkinton’s zoning. Hopkinton Village Precinct maintains and enforces its zoning regulations through the authority granted to it by the New Hampshire Legislature in 1959.

The following is a summary of the amount of land area each primary district in Hopkinton regulates. The location of these Districts can also be seen on the **Zoning District Map**.

Zoning District	Area (Acres)	Percent of Total Land Area
Commercial District (B-1)	74	0.3%
Hopkinton Village Precinct (HVP)	814	2.8%
Industrial District (M-1)	989	3.4%
High Density Residential (R-1)	881	3.1%
Medium Density Residential (R-2)	2,676	9.3%
Low Density Residential (R-3)	7,022	24.3%
Residential/Agricultural (R-4)	16,420	56.9%
Total	**28,876**	**100.0%**

Source: CNHRPC Geographic Information System (GIS), 2001

Other Current Zoning Ordinance Provisions

In addition to the six zoning Districts, Hopkinton has adopted numerous other land use regulations that influence and help shape the land use patterns in Town. Some of these ordinances are specific to a District, while others can be applied to the entire Town, when certain criteria are met. The following is a summary of these other current zoning ordinance provisions.

Cluster Development

Originally adopted during the late 1980s, the purpose of cluster zoning is to allow for an increased density of housing in exchange for a developer preserving open space. The Town adopted this ordinance in 1988 and amended it in 1999. Hopkinton permits the use of cluster zoning in all zones. By employing the cluster provision, developers can reduce the minimum lot size required in the development. The following table compares the lot area required for a cluster development to the regular zoning.

Zoning District	Regularly Required Minimum Lot Area	Cluster Subdivision Minimum Lot Area
R-4 Residential-Agricultural	120,000 sq. ft.	60,000 sq. ft.
R-3 Low Density Residential	120,000 sq. ft.	60,000 sq. ft.
R-2 Medium Density Residential	80,000 sq. ft.	45,000 sq. ft. no water / sewer
		40,000 sq. ft. public water / no sewer
		35,000 sq. ft. public water & sewer
R-1 High Density Residential	60,000 sq. ft.	40,000 sq. ft. no water / sewer
		35,000 sq. ft. public water / no sewer
		30,000 sq. ft. public water & sewer

In order to be considered a cluster subdivision, the parent parcel must be a minimum of ten acres and at least 25% of the total area must be dedicated as common open space. The maximum density permitted in a cluster development cannot exceed that of a traditional subdivision.

Wireless Telecommunication Facilities

In response to the 1996 Telecommunications Act, the Town developed a wireless telecommunications ordinance that was adopted in 1997 and repealed in March 2001.

In 2001 a new telecommunications ordinance created an overlay district reducing the maximum height of such facilities from 180 feet to 20 feet above the average tree canopy, or 90 feet, whichever is less. It also created a provision that all facilities must employ stealth technology and required new facilities to be set back 125% of the height of the tower from any structure, unless it was included within or on a pre-existing structure.

Signs

Signage has a direct and significant impact on the character and visual appeal of a community. Size, height, placement, illumination, and materials are important in sign design. Restrictions on the type, location and size of signs protect the public from hazardous and distracting displays and creates an attractive environment that is conductive to business, industry, and tourism.

The current sign ordinance, which was adopted in 1988 and amended in 1997, specifies a maximum size for signs - 15 square feet in the B-1 District, 20 square feet in the M-1 District, and 4 square feet in all of the Residential Districts.

Parking Requirements

This requirement, which was adopted in 1988, and amended in 1994 and 2001, requires that all new structures and developments, as well as additions to or changes in use or intensification of use in existing structures, shall provide off-street parking. This parking shall be on the same lot as the principal use it is intended to serve or be no further than 200 feet from the principal use.

The number of required parking spaces for different uses is determined based on capacity of the structure, square footage of the structure, number of rooms, or a set number based on the use of the structure. Each parking space is not to be less than 10 feet wide, have a minimum area of 180 square feet, and preferably paved, though crushed gravel and stone dust may also be used. The use of landscaped islands to control traffic is also encouraged. The Planning Board has the ability to amend these requirements, if they feel it is in the best interest of the community.

Adult Businesses

As did many communities during the 1990s, Hopkinton adopted an adult business ordinance in 1997. The purpose of the ordinance is to ensure that if an adult-oriented business were to be established in Hopkinton, that it not be in close proximity to a church, cemetery, school, day care center, or residence. The only area where an adult business can be located is in the B-1 District by special exception.

Growth Management and Innovative Land Use Controls

The timing of growth is an important issue for municipalities across the country. Enacted in 1988 and amended/readopted in 1989, 1992, 1995, 1998, and again in 2001, the purpose of this ordinance is to manage Hopkinton's rate of growth in relation to abutting communities and the region. This helps to establish timing and growth limitations in order to minimize financial burdens on the community, as caused by excessive and rapid growth.

The ordinance contains 29 findings that are used to justify the enactment of growth management regulations. In order to enact such regulations, the Planning Board must monitor seven indicators of growth. These indicators are as follows:

a. The average percent increase in building permits for dwelling units in Town exceeds that of the combined seven abutting communities or Merrimack County.
b. The average annual percent increase in population growth, as reported by the New Hampshire Office of State Planning, exceeds the same average of the combined seven abutting communities.
c. The number of students enrolled or projected for the coming year for each school in the Hopkinton School System exceeds 90% of its stated capacity, as stated by the Hopkinton School Board.
d. The annual full valuation tax rate increase exceeds the same average of the combined seven abutting communities or Merrimack County for the same year.
e. The number of dwelling units of all projects combined, for which approval is being sought from the planning board, at any time of reporting, if approved could result in conditions of items 1-4.
f. The number of students enrolled or projected for the coming year for each school in the Hopkinton School System exceeds 100% of its stated capacity as stated by the Hopkinton School Board.
g. The annual capital expenditures including debt service and capital outlay for combined municipal and school expenditures exceeds 20% of the total municipal budget.

If the Planning Board determines that any of the indicators a-e has occurred, then they may issue a notice of Growth Impact and may implement phasing of development. This allows the Planning Board to require the phasing of a development for a period of up to five years for a project, which is proposed to have fifty lots or less. If the Planning Board determines that any of the indicators, a through e, plus either f or g has occurred, then they may issue a notice of Growth Impact and may implement permit limitations. This allows the Planning Board to limit the number of building permits to be issued over a certain period of time.

Excavation Regulations

The purpose of this section is to control the excavation of sand, gravel, rock, soil, or construction aggregate and to provide an orderly procedure for such removal to take place while protecting the health, safety, and general welfare of the community. This regulation was adopted in 1988 and amended in 1995. Excavation is allowed by special exception in the R-4, R-3, and M-1 Districts.

A permit is required for the excavation of sand, gravel, rock, soil or construction aggregate, with the exception of excavation for the construction or alteration of a structure, parking lot, or driveway; excavation that is incidental to agriculture, silvaculture, or normal landscaping activities; excavation from an area contiguous to an excavation operation that was in operation as of August 24, 1979; excavation from a granite quarry; or excavation performed for the construction, reconstruction, or maintenance of a Class I, II, III, IV, or V highway.

Within one year of the expiration of the permit or when the excavation is completed, whichever occurs first, the owner of the excavated land shall restore the affected area. The restoration plan shall include a diagram of the restored topography and drainage, a report explaining the phasing of the site restoration showing designated areas and completion dates, seeding and mulching specifications, vegetation to reduce erosion, slopes graded to natural response for their soil type,

the elimination of any standing bodies of water created in the excavation project, and any other information Regulators may require.

Wetlands Conservation District Overlay

The purpose of this section is to protect the public health, safety, and general welfare by controlling and guiding the use of land areas that have been found to be subject to high water tables for extended periods of time. This overlay District was adopted in 1988. Its further purposes are to control the development of structures and land uses on naturally occurring wetlands, which will contribute to the pollution of surface and ground water by sewage or toxic substances; prevent the destruction of, or significant changes to, natural wetlands that provide flood protection; protect unique and unusual natural areas; protect wildlife habitats and maintain ecological balances; protect potential water supplies, existing aquifers, and aquifer recharge areas; and prevent the expenditure of municipal funds for the purposes of providing and/or maintaining essential services and utilities that might be required as a result of the misuse or abuse of wetlands.

The Wetlands Conservation District is defined as those areas delineated as very poorly and poorly drained soils. The District also includes those areas as swamps, marshes, and bogs that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support a prevalence of vegetation adapted for life in saturated soil conditions.

The District is limited to areas of one acre or more in size, or of any size if contiguous to surface waters such as lakes, ponds, or streams, that are subjected to high water tables for extended periods of time and includes, but are not necessarily limited to, all such areas delineated as wetlands by on-site mapping. Where the Wetlands Conservation District is superimposed over another zoning District, the more restrictive regulations shall apply.

Recreational Camping Parks/Residential Tenting and Recreational Camping Vehicles

The purpose of this section is to allow for the placement of seasonal recreational camping parks and residential tenting and recreational camping vehicles within specific areas of the community and to provide for standards. This use is allowed by special exception in the R-2, R-3, and R-4 zones within Town. The minimum size of a recreational camping park is ten acres, with a minimum site size of 3,000 square feet per tenting/recreational vehicle site. Residential tenting/recreational camping vehicles shall not exceed a total of four weeks per year. This ordinance was adopted in 1988.

Fair District

This is an overlay District that was adopted in 1995 and revised in 1996. The allowed uses for the land located in the Fair District shall be those allowed in the underlying zoning Districts and those allowed by the provisions of the Fair District. Property in the Fair District may be used for the purpose of conducting the agricultural fair historically known as the Hopkinton State Fair, as well as other events similar in nature to an agricultural fair.

Manufactured Housing

The purpose of this section is to allow for the placement of manufactured housing within specific areas of the community and to provide for standards to do so. This section allows for the creation of manufactured housing parks and manufactured housing subdivisions. This provision was adopted in 1988 and revised in 1989.

Manufactured housing parks are allowed by special exception in the R-1, R-2, and R-3 Districts. Parks shall consist of a minimum of ten acres and at least two sites. The maximum number of

sites shall not exceed seventy. Open space shall not include wetlands, water bodies, roads, severe slopes, or open space on individual sites. The following dimensions must be met for all manufactured housing parks.

Max. # of Units	Min. % of Open Space	Min. Lot Size	Min. Street Frontage
50	30%	10,000 sq. ft.	100 ft.
60	40%	15,000 sq. ft.	125 ft.
70	50%	20,000 sq. ft.	150 ft.

Manufactured housing subdivisions are allowed in all Residential zones provided that they meet all the requirements that pertain to single-family homes. These subdivisions must consist of a minimum of twelve acres and the maximum number of units can not exceed fifty. Manufactured housing subdivisions may be developed as a cluster development provided that all cluster provisions are complied with.

Floodplain Development Ordinance

This ordinance applies to all lands designated as special flood hazard areas by the Federal Emergency Management Agency. All proposed development in any special flood hazard area shall require a permit. Enforcement of this Ordinance is placed with the Town Building Inspector. This Ordinance was adopted in 1988, revised in 1994, and amended in 1997.

Affordable Housing Innovative Land Use Control

The purpose of this section is to provide the opportunity for low and moderate income individuals and families to obtain affordable housing in Hopkinton, to provide appropriate incentives to encourage the production of such housing, and to provide standards and safeguards to make certain that the housing being produced remains affordable to those in need. The provision was adopted in 1988 and revised in 1989.

Affordable housing cluster developments are allowed in R-3, R-2, and R-1 Districts. Elderly affordable housing is allowed in the B-1 District and a portion of the R-1 District serviced by municipal water and sewer, by special exception. The following table shows the uses allowed in each District.

Zoning District	Development Configuration	Density per Dwelling Unit
Low Density Residential R-3	Single-Family detached or attached units with up to 4 units per building, providing all units have direct access to the ground and have some living area at ground level, either site built or pre-site built.	• 60,000 sq.ft.
Medium Density Residential R-2	Single-Family detached or attached units with up to 12 units per building providing all units have direct access to the ground and have some living area at ground level, either site built or pre-site built.	• 45,000 sq.ft. if no public water or sewer • 40,000 sq.ft. if public water but no sewer • 35,000 sq.ft. if public water and sewer
High Density Residential R-1	Single-Family detached or attached units with up to 12 units per building providing all units have direct access to the ground and have some living area at ground level, either site built or pre-site built.	• 40,000 sq.ft. if no public water or sewer • 35,000 sq.ft. if public water but no sewer • 30,000 sq.ft. if public water and sewer
High Density Residential R-1 *(Elderly Affordable Housing within the Contoocook Precinct serviced by Municipal water and sewer)*	Single-Family detached or attached units with up to 12 units per building providing all units have direct access to the ground and have some living area at ground level.	• 15,000 sq.ft. and 2,000 sq.ft. for each dwelling unit more than one in a building
Commercial B-1 *(Elderly Affordable Housing within the Contoocook Precinct serviced by Municipal water and sewer)*	Single-Family detached or attached units with up to 12 units per building providing all units have direct access to the ground and have some living area at ground level.	• 15,000 sq.ft. and 2,000 sq.ft. for each dwelling unit more than one in a building

This section of the zoning ordinance shall terminate when the Planning Board has approved the Town's "total theoretical fair share" of low- and moderate-income housing units for each decade. The Town's fair share is calculated every five years by the Central New Hampshire Regional Planning Commission. The theoretical share of affordable housing units that Hopkinton should have (1998) is 806 units. In 1998, there were 416 units of affordable housing in Town, which would mean that the future-planning goal for affordable housing would be 390 units.

Impact Fees
The impact fee ordinance was adopted in 2001 to:

1. Ensure that adequate and appropriate facilities are available to individuals who may come to be located in the Town of Hopkinton;
2. Prevent scattered or premature development of land as would involve danger or injury to health, safety, or prosperity by reason of the lack of water supply, drainage, transportation, schools, fire protection, or other public services, or necessitate the excessive expenditure of public funds for the supply of such services;
3. Provide for the harmonious development of the municipality and its environs;
4. Ensure the proper arrangement and coordination of streets; and,
5. Ensure streets of sufficient width to accommodate existing and prospective travel.

Impact fees are imposed upon development, including subdivision, building construction or other land-use change, in order to help meet the needs occasioned by the development for the construction or improvement of capital facilities owned or operated by the municipality, including and limited to water treatment and distribution facilities; wastewater treatment and disposal facilities; sanitary sewers; storm water, drainage and flood control facilities; public road systems and right-of-way; municipal office facilities; public school facilities; public safety facilities; solid waste collection, transfer, recycling, processing and disposal facilities; public libraries; and public recreational facilities, not including public open spaces.

Future Land Use

Preservation of the community's rural character, while providing reasonable opportunities for expansion of the commercial tax base and housing, is important for the future of Hopkinton. The current zoning and land use regulations achieves the separation of non-compatible uses, but it could be expanded upon to provide more opportunities for preservation of open space, prevention of sprawl, and creation of development more in keeping with Hopkinton's rural character. The following sections can serve as a general guide to assist the community in thinking about the various land use changes could be made in Hopkinton.

Zoning District Recommendations

Residential/Agricultural (R-4) and Low Density Residential (R-3) Districts
The R-4 and R-3 Districts are almost identical in their purpose, uses, and dimensional requirements, which is described in detail in the Current Land Use section of this Chapter. The only differences between the two Districts are that manufactured housing parks and an affordable housing option is allowed in the R-3 District and not in the R-4 District.

Recommendation:

- Consider revising the zoning ordinance to differentiate the R-4 and R-3 Districts, with regard to minimum lot size, frontage, and setbacks, in order to maintain the rural character of the community and a diversity of housing types.

Hopkinton Village Precinct

There are three Districts within the Hopkinton Village Precinct (HVP): Hopkinton Village Residential District, Hopkinton Village-Special Residential District, and Hopkinton Village Commercial District. HVP has its own land use regulations and ordinances administered by Village Boards.

Recommendation:

- There should be continued coordination between the Town of Hopkinton Planning Board and Zoning Board of Adjustment and that of the Hopkinton Village Precinct to ensure compatible land use and zoning decisions that will positively benefit both.

Contoocook Village District

Most of the downtown Village area of Contoocook is a mix of residential, mixed-use, and commercial development. The area is surrounded on the northern part of the Village by agricultural land and much of the commercial development is concentrated near Fountain Square and along Park Street, across the river.

Over the past few years, there has been a great emphasis on the revitalization and redevelopment of Contoocook Village. The goal of this effort is to encourage infill development, reduce sprawl, energize the economic base, and foster a pedestrian-friendly, community Village. For more information on these efforts, see the Contoocook Village Chapter.

The current zoning impacting the Village, which includes the Industrial District, Commercial District, and High-density Residential District, does not adequately allow for these goals to be met. An option available to help meet these goals is to rezone Contoocook Village.

Recommendations:

- Consider developing zoning districts for Contoocook Village that will allow the redevelopment vision and goals that are outlined in the Contoocook Chapter, to be realized.
- Ensure that any new zoning district would not negatively impact currently existing businesses or industries located in the Village.

Overlay District Recommendations

Overlay districts can be used by communities to apply special regulations to particular resources with definable site specific characterization – in other words, any features that can be clearly seen, or otherwise identified and delineated. Overlay districts have been used to protect a wide range of resource values. It is important to note that other uses of the land protected by an overlay may be allowed, if the use is compatible with the protection of the targeted resource.

Wetlands Conservation Overlay District

Wetlands have a multitude of value that include flood control, wildlife habitat, fish habitat, pollutant removal, recreation, groundwater protection, and stabilization and erosion control. A large number of wetlands can be found throughout Town. For more information regarding wetlands, see the Conservation, Preservation, and Open Space Chapter.

The primary threat facing the wetlands in Hopkinton is the effect of development within their buffers. Buffers adjacent to wetlands reduce the adverse effects of human activities in these resources by protecting water quality, protecting and providing wildlife habit and reducing direct

human disturbance, and maintaining aesthetic qualities and potential recreational value. The loss of wetland buffers should be minimized.

Recommendations:

- The Wetlands Conservation District Overlay should be revised to incorporate, as a minimum, protections afforded at the State level.
- The careful and strict enforcement of the Wetlands Ordinance should be a high priority for the Town.

Steep Slope Overlay District

Slope is a very critical consideration in land use planning because it affects the capability and suitability of land to support development, as it relates to the site and the building, septic system and building design costs, and environmental impacts such as runoff, erosion, sedimentation, and pollution. Slope is the ratio of change in vertical elevation in relation to the change in horizontal distance, multiplied 100 percent.

As the community continues to grow in the future, more desirable development locations, such as those with less restrictive soils and more gentle slopes will be developed. As this happens, more development pressure will be focused towards locations that are more costly and difficult to develop. Areas with steep slopes are such locations where development pressures will be focused and where protections will be needed to preserve those important resources.

Hopkinton contains approximately 770 acres of land having a slope of 15% or more, which represents about 3% of the total land area in the community. See the Conservation, Preservation, and Open Space Chapter for more information on this topic.

Recommendation:

- The Planning Board should investigate the need for a Steep Slope Overlay District.

Agricultural Overlay District

An overlay district for agriculture can apply to currently active farms, as well as areas with excellent soils for agriculture. An emphasis on policies that encourage farming businesses to succeed is a valuable planning strategy that can be used to retain rural character.

In designing an agricultural overlay district, care must be taken to encourage and protect agricultural uses and to avoid restrictions, which may lead to the loss of farmland to other more developed uses. Care must also be taken in considering the rezoning of agricultural land, because farmers may depend on the potential value of converting their land to other uses to leverage needed support from financial institutions, even if they never plan to convert the land to other uses.

A component to the overlay district could be agricultural buffers between residential and agricultural uses to ensure they do not adversely impact one another. There are a number of ways in which communities can provide for agricultural buffers, including:

1. Development in designated areas should contain a specified “buffer zone” setback.
2. Subdivision developments adjacent to agricultural lands could be constructed in a cluster form of development so as to place the dwellings as far as possible from the agricultural land.
3. Performance standards could require all residential building sites in a subdivision to be adequately insulated from direct contact with potential conflicts from farming activities.

Recommendations:

- Research the establishment of an Agricultural Overlay District.
- Provide flexibility in Zoning, Subdivision, and Site Plan review regulations for agricultural uses and/or related activities.

Site Plan Recommendations

Commercial and industrial development may have significant impacts on the community. The existing zoning and site plan review regulations do not contain performance standards related to the aesthetic or environmental impact of commercial and industrial developments. Such performance standards should be reviewed and considered by the Town as a way to retain the desirable qualities of Hopkinton.

Signs

Signage can have a significant impact on the character of a community.

Recommendations:

- For free standing signs, require landscaping to re-establish ground cover where disturbed by sign installation and to screen the foundation of monument or pedestal signs without blocking the view of signage information.
- Encourage freestanding monument signs and directory signs to be placed perpendicular to approaching vehicular traffic.
- Signs should establish a visual continuity with adjacent building façades and should be oriented to emphasize pedestrian visibility.
- In the case of buildings with multiple business tenants, only one (1) sign per tenant should be permitted. All signs at a multi-tenant commercial or industrial structure shall be complementary to each other.
- Review the current sign ordinance for adequacy and propose new language to ensure the visual elements and aesthetics of the Town are not negatively impacted by signage.

Parking Requirements

Parking requirements impact a community in numerous ways, including pedestrian and driver safety, visual appeal, aesthetics of building design, and environmental impacts. Parking is necessary for economic vitality, personal mobility, and convenience but if done improperly, it can create an increase in costs, inconvenience, and environmental degradation.

Recommendations:

- Parking area designs shall adequately consider pedestrian circulation to and from parking spaces and shall maximize opportunities for the safe maneuvering of all vehicles.
- Parking areas should not be permitted to be located less than ten feet from a rear or side lot line, provided that the parking area is screened from adjacent properties by fencing, plantings, or earthen berm, or combination thereof.
- Parking areas visible from adjacent public roadways should employ landscaping strips to soften the appearance of the parking areas.
- Where appropriate encourage the use of alternative pavement materials other than asphalt and concrete. These materials could include brick, crushed stone, pea stone, stamped concrete, cobblestone, and other similar materials. Allowing the use of such materials will preserve the rural character of the community and add to the aesthetic appeal of smaller commercial developments.

- Consider adopting provisions that would allow for shared parking between separate lots. Such a requirement would allow the Planning Board, when feasible, to reduce parking requirements for each lot, provided that the peak parking demand of each land use does not occur during the same time periods.
- To reduce congestion of streets and minimize traffic safety hazards consider requiring developments, at time of subdivision or site plan review, to provide rights-of-way to abutting parcels for the future interconnection of sites.
- The Conservation Commission should be notified about and comment on all proposals that would create new or expanded parking areas within the Town as to their environmental impact, where appropriate.
- All parking areas should be adequately lit for safety, while keeping in mind aesthetic and environmental concerns. See the Lighting Standards section of this Chapter for more information.

Landscaping and Screening Performance Standards

The intent of these standards would be to preserve and enhance the aesthetic qualities of the community by establishing landscaping and design standards, which would be proportionate to the intensity of the proposed land use(s). Landscaping should be required along all visible portions of the structures' perimeter, parking area, as well as the front, side, and rear lot lines where vegetation has been removed. Landscaping should also be required where the existing natural state of the area does not screen the view of parking, loading, and storage areas, dumpsters, or the structures on the site.

Recommendations:

- Diminish adverse impacts of structures, lighting glare, noise, wind, and odors, which may result from permitting widely varying land uses on adjacent parcels.
- Ensure that each tract of land has an adequate buffer from other properties in order to preserve property values and improve the aesthetic values of properties.
- Promote aesthetically pleasing development consistent with the character of the Town.
- A landscape strip should be provided along the perimeter of all structures with a foot print greater than 50 square feet in size that is visible from abutting properties or the public right of way.
- To promote the aesthetic quality of streets, a street landscape strip should be considered for all commercial and industrial subdivisions and site plans.
- Side and rear landscape strips should be considered for developments to promote proper visual separation and adequate buffering between adjoining properties. Parking areas, driveways, and buildings shall not be located within any required Side or Rear Landscape Strip.
- Promote an aesthetically pleasing relationship of scale between buildings and their natural surroundings.
- Redefine the character, image, and identity of the commercial areas of the community by promoting tree-lined streets through the planting of native trees, installation of underground utilities, and designing of monument or pedestal signage.

Exterior Building Façade Performance Standards

To protect the aesthetic character of the community and to improve the quality of development constructed within Town, the Town should consider instituting architectural design standards in the Zoning Ordinance and Site Plan review regulations.

Recommendations:

- Ensure that development of commercial and industrial structures are consistent with and improve the architectural character of the Town.
- Require that all rooftop mechanical equipment be screened from view with either building walls or roof forms. All sides visible to the public and abutters should have screen materials.
- Consider adopting architectural performance standards in the Site Plan Regulations for the Town.

Screening Performance Requirements

As an important aspect of commercial and industrial development design, screening can help preserve property values of abutting parcels and enhance the overall aesthetic impact of such developments.

Recommendations:

- The ground level view of all mechanical equipment with a footprint of fifty square feet or greater should be fully screened from contiguous properties and adjacent streets. Screening should be accomplished by architecturally integrating the equipment into the principle structure or by surrounding it with materials compatible with the principal structure.
- All materials and equipment should be stored within a building or fully screened so as not to be visible from adjoining properties. It should be required that no exterior storage shall be visible from any street. Exterior storage areas should be screened for the entire height and width of the aggregate storage area on all sides and screens should be constructed of materials designed for low maintenance and long life.
- All waste material be kept in an enclosed building or properly contained in a closed container designed for such purposes. All exterior trash containers shall be screened on each side and shall not be visible from any street.

Lighting Standards

Lighting is a critical component of non-residential site design. Often, site designs employ excessive amounts of lighting, thus having negative impacts on abutting properties. Also, excessive lighting acts as a form of signage, and should not be permitted. It is recommended that the Town consider enacting specific performance standards regarding lighting for non-residential sites.

Recommendations:

- Any lighting used to illuminate an off-street parking area, sign, or other structure, should be arranged as to deflect light away from any adjoining properties or from the public streets. Direct or sky-reflected glare should not be permitted.
- In order to minimize glare and other adverse effects associated with exterior lighting, all exterior lighting fixtures shall be of a design that provides for luminaire cutoffs with a total cutoff at an angle of seventy- five degrees from the vertical. Further, all fixtures shall be positioned and/or installed in such a fashion as to prevent unwanted incidental illumination of abutting properties and streets.
- Any light or combination of lights that cast light on a public street shall not exceed one (1) foot-candle (meter reading) as measured from the centerline of the street. Any light or combination of lights, which cast light on a residential property shall not exceed 0.1 foot candles (meter reading) as measured from the property.
- The Zoning Ordinance and/or Site Plan Review Regulations should stipulate that all

lighting fixtures be compatible to the architectural design of the proposed structures and abutting land uses.

- The Planning Board should require a detailed lighting plan for all non-residential site plans. Lighting plans should be required to incorporate standards and techniques included in the *Vermont Lighting Manual.*

Environmental Performance Standards

Environmental performance standards should be developed in order to protect the long term environmental quality and overall vitality of commercial and industrial districts. The variety of permitted uses, taken together with often intensive land use patterns and an inventory of environmental resources, necessitates environmental performance standards. Sample environmental performance standards are provided below:

Performance Standards Related to Odors

Uses and activities which produce continuous, regular, or frequent odors and/or emissions, detectable beyond the boundary of the property from which the odor originates, shall be prohibited, in whole or in part, if the odor or emission in question is a known health risk or danger or if the Planning Board judges such odor or emission to be harmful to the rights of others to enjoy their property(s).

This standard is not intended to discourage farming in any of the zoning districts, as long as the farms are following established best management practices and meeting all state and local health standards.

Performance Standards Related to Noise

The Performance Standards governing noise are intended to ensure that the rights of property owners, as well as the overall health and general welfare of the community, are not diminished by unreasonable noise levels generated by commercial and industrial uses. Specific items that should be in noise performance standards include:

1. The maximum permissible sound level produced by any continuous, regular, or frequent source of sound or noise, produced by any permitted use or activity.
2. Methods for measuring noise levels.
3. Provisions allowing the use of Sound or Noise Abatement techniques.
4. An inventory of activities and devices exempt from the Noise Performance Standards.

Performance Standards Related to Vibration

Heavy industrial operations can create significant vibrations that may have a negative impact on abutting properties. When developing overall performance standards, the Town should consider implementing standards related to vibration in the Zoning Ordinance. Earthborne vibrations generally should not be permitted to exceed those levels listed below, as measured at the property line.

Frequency in Cycles per Second	Displacement in Inches
0 to 10	0.001
10 to 20	0.0008
20 to 30	0.0005
30 to 40	0.0004
40 and over	0.0003

Source: Town of Bow Performance Zoning Ordinance, March 2001

Recommendations:

- Consider adopting specific environmental performance standards related to odors, noise, and vibrations.

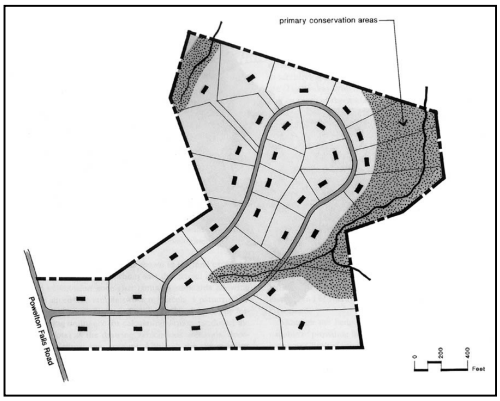
Other Land Use Recommendations

Conservation Subdivision Design

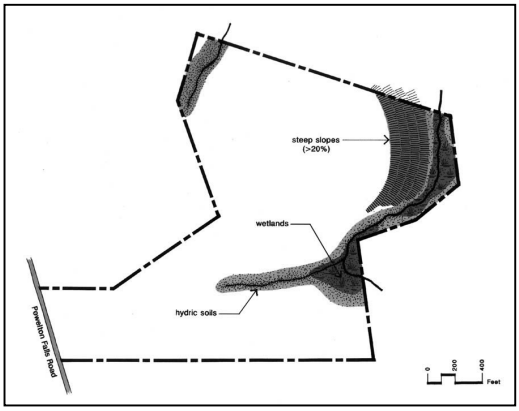
An answer to the sprawling landform created under conventional subdivisions is a new approach to subdivision design for rural areas, as outlined in the book entitled *Conservation Design for Subdivisions: A Practical Guide to Creating Open Space Networks*, by Randall Arendt (Island Press, 1996).

The current regulations do not reflect the Town's desire to preserve its rural character and open space. In order to preserve significant cultural, scenic, and natural features, as well as rural Town and neighborhood character, the Cluster Zoning ordinance should be revised.

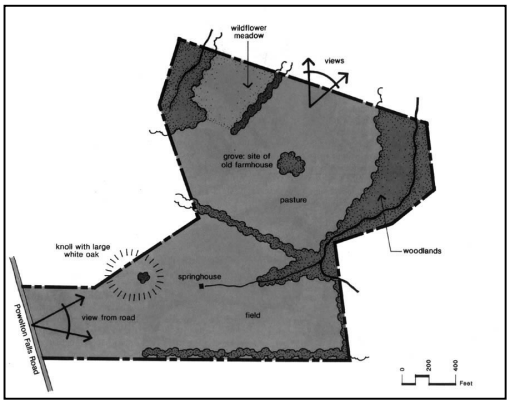
The figures below shows graphics from Arendt's book depicting the typical scenario for the development of a parcel under the conservation development design process. In its most basic form, the conservation development process can be broken into six logical steps, which are not the steps taken for a conventional subdivision. The six steps are as follows:



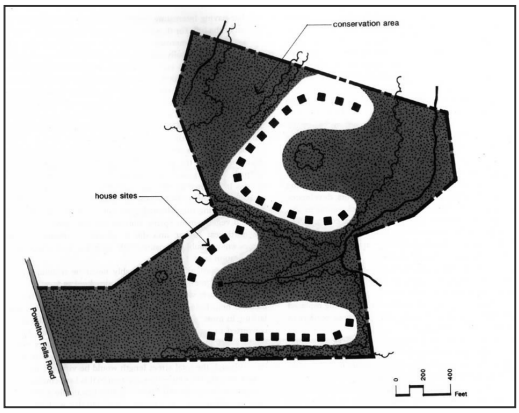
1) Create a "yield plan" for the site that assesses the number of viable building lots on the site under a conventional subdivision design. This plan establishes the density for the conservation development design. Although a yield plan is conceptual, it must be consistent with Town ordinances and regulations already in place.



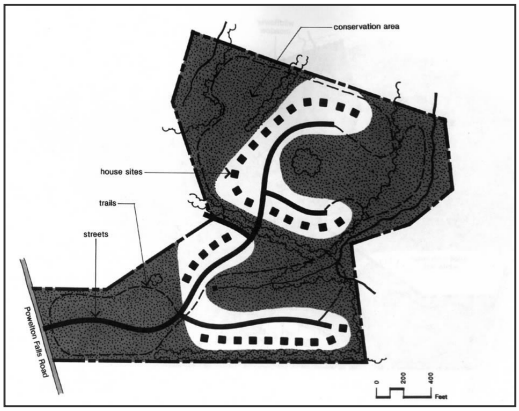
2) Prepare a conservation site analysis plan that identifies prominent open spaces and important natural features broken out into primary and secondary conservation areas. Primary conservation areas are those resources for which development should be excluded almost without exception. Secondary conservation areas are those that should not be developed, if at all possible.



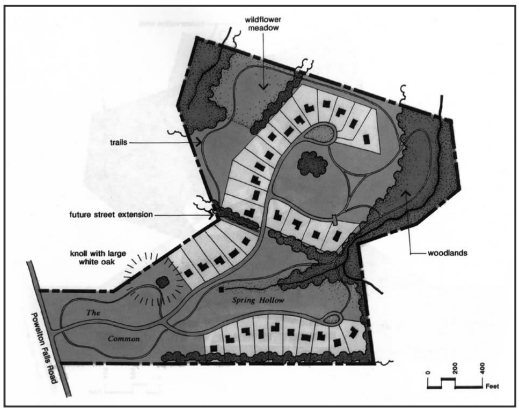
3) After evaluating the primary and secondary conservation areas, locate the portions of the site most suitable for development.



4) Locate dwelling unit sites using innovative arrangements to maximize views of open space and resources.



5) Locate and design the roadway and pedestrian travel ways. Maximize the protection of viewsheds and natural terrain in the design. Locate septic fields.



6) Delineate lot lines.

Under this approach, use existing minimum lot sizes as the basis for conventional residential density on the best soils, with reduced densities according to declining soil quality. The minimum lot sizes that are currently in place for residential uses should represent the maximum aggregate density on the best soils under the soils-based lot sizing approach. Lower-quality soils would require lower density development.

Primary conservation areas may include wetlands, steep slopes, aquifer recharge zones, and floodplains. Secondary conservation areas may include stonewalls, viewsheds, prominent vegetation, prominent landforms, prime agricultural soils, historic sites and features, archeological sites, and communities and species identified in the Natural Heritage Inventory.
To help ensure successful conservation subdivision designs, the following provisions should be followed:

1. Clearly state the goals and objectives of the regulation.
2. Clearly explain how much of the unbuildable land can be used towards the minimum open space requirement.
3. Require that the conservation land have good access and be well marked.
4. Provide performance standards to ensure a quality development.
5. Ensure workable tax collection on common land.
6. Secure developer follow-through on plan commitments.
7. Clarify application requirements to encourage more desirable plans and avoid unnecessary costs for the developer.

Recommendations:

- Change the name “Cluster Zoning” to “Conservation Subdivision Design” in the zoning ordinance.
- Eliminate current "cookie cutter" lot zoning and "frontage lot" zoning along existing roads in Conservation Subdivision Design. Require buffer zones from existing roadways in rural areas to retain maximum setbacks, views, and forested areas.
- For the more rural areas of Town, revise the road regulations and subdivision regulations so that new roads and neighborhoods in these areas are in keeping with the rural character of the area, yet still provide adequate provisions for safety measures. Changes to the regulations should vary the scale, scope, and length of required roadways and right-of-way clearings, with respect to vegetation and stone walls, traffic sight distances, minimum vertical and horizontal curves and related construction. Factors should all be re-evaluated in order to limit disturbance to existing areas.
- Employ all possible measures to create open space that is protected in perpetuity through conservation easements, an association of all the home owners, or by deeding the land to the Town or to a conservation organization.
- Ensure that the open space is usable for the desired use, such as farming, recreation, and/or wildlife habitat.
- Allow more flexibility in the minimum lot size, lot frontage and the side, rear and front setbacks.
- Consider creating a sliding scale for lot density in exchange for more open space.

Impact Fees

The amount of any assessed impact fee should be a proportional share of the municipal capital improvement costs, which are related to the capital needs created by the new development. These impact fees can not pay for the upgrading of existing facilities and infrastructure, the need for which is not created by the specific new development.

By having an impact fee ordinance and assessing these fees on new development, Hopkinton is ensuring that the increase in development and population utilizing Town services is being paid for by the associated development.

Recommendation:

- Develop and adopt a methodology for a formal impact fee schedule.

Growth Management and Innovative Land Use Controls

The last five years in central New Hampshire have been a time of great economic growth. Economic prosperity in the region has triggered a significant increase in the amount of new residential development, as builders have been aggressively developing land to meet renewed housing demands. Because of this phenomenon, pressures have begun to strain critical public resources and services.

In reaction to the significant amount of development that has occurred in the region, several communities, including Hopkinton, have enacted a variety of growth management policies. Based on the likelihood that Concord's role as a regional employment center will increase in the future, the Town will have continued development pressure focused on it, and therefore, its Growth Management Ordinance should be as up-to-date and reflective of current conditions as possible.

Recommendations:

- Update the current "Findings" section of the ordinance to reflect recent population and development trends and 2000 Census data.
- Consider including the loss of open space as an "Indicator of Growth Impact."
- Revise "Indicators of Growth Impact" to combine c and f (listed on page 73).

Excavation Regulations

The Town of Hopkinton issues permits for commercial sand and gravel excavation and has the authority to adopt regulations that apply to this excavation. However, the current ordinance is not based on scientific findings, nor does it require, in all cases, scientific site-specific data. These regulations, along with the process of reviewing permit applications for gravel removal areas, should be designed to ensure that science, public health, environmental concerns, and the reuse of the property are placed at the forefront.

Recommendations:

- Update and modify the current Excavation Ordinance so that it will be a comprehensive, science-based set of regulations that will work to protect the water quality and environmental resources located in Town.
- As part of the reclamation of the sand and gravel pits, develop reuse plans for the sites. Any reuse of the excavation sites should be evaluated as to the appropriateness for the proposed activity, and best management practices should be used to prevent contamination of subsurface water bodies, as well as adjacent streams, ponds, rivers, or wetlands.
- The spent gravel and sand pits should be managed to their fullest and best potential, while considering environmental quality and protection.
- An evaluation process should be undertaken by the Town, which will include an evaluation of the needs, costs, and benefits of the Town-owned gravel pits once they are reclaimed and prepared for reuse.
- The Town should establish standards/guidelines to be followed by those using the excavation sites. These standards/guidelines should place public health and safety, environmental quality, and the impact to abutting landowners at the forefront.

Soil Based Lot Sizing

Soil based lot sizing first gained attention in New Hampshire in the early 1990's with the publication of *Model Subdivision Regulations for Soil-Based Lot Size*, June 1991, by the Rockingham County Conservation District. The theory behind soil based lot sizing is to encourage a development pattern that can be supported by soils in the community. For example,

areas with well-drained soils could allow a smaller minimum lot size, and those with more development restrictions, such as steep slopes and short depth to restrictive features, such as ground water or ledge, could be allowed to have a larger lot size.

Soil should be respected and protected as a valuable resource. Land use activities should be performed in such a way as to minimize any negative impacts and be located on sites suitable for such an activity.

Recommendations:

- Soil based lot sizing requirements should be reviewed and considered for addition into the Site Plan and Subdivision Regulations.

Strategies to Meet Land Use Goals

Density Bonuses
This strategy is used to provide a little extra encouragement so developers will more readily see the benefits from innovative zoning. Developers are allowed some flexibility in regulations, such as approval for a limited number of additional units on a site, or the reduction in the road width or set back requirements, in exchange for providing something else that the community desires. This strategy is most commonly applied to cluster developments, affordable housing, or performance zoning.

Development Review Committee
The Town could implement a design review committee to review all development proposals before they are formally submitted to the Planning Board. This Committee should consist of the Planning and Zoning Coordinator, a representative of the Fire Department, representatives of the water and sewer precincts (as necessary), a representative of the Police Department, the Superintendent of Public Works, and the Town's consulting engineer. This Committee would be advisory only and would serve to be used to screen applications in order to identify potential issues and concerns before it gets to the Planning Board. By having such a Committee, the development review process would be expedited and less confusing for applicants and the Town.

Incentive Bonuses
Often employed as part of a performance-zoning ordinance, incentives encourage developers to build projects above and beyond base line standards included in the zoning ordinance. Incentive zoning is a voluntary exchange of development incentives for public benefits between a community and a developer. There are three basic categories of incentive bonuses: (1) intensity incentives, (2) use incentives, and (3) inclusionary incentives.

Intensity incentives allow developers a greater or more intensive use of the property. Such incentives usually allow developers to construct more units on a property, have greater amounts of impervious surface, or more square footage for commercial buildings. A typical example of an incentive usually included in this type of ordinance could be a density bonus in exchange for setting aside open space in a development for public use, construction of trails, or construction of recreational facilities.

Land use incentives permit mixing of uses in a development or provide for unspecified uses. For example, a convenience store may be permitted in a housing development, or residential units may be allowed as part of a retail development. In exchange for such benefits, developers are usually required to provide the town with construction of public infrastructure, such as parks, boat

ramps, swimming areas, recreational facilities, pedestrian infrastructure, public parking spaces, or open space.

Lastly, inclusionary incentives (also known as inclusionary zoning) help implement public policy goals to expand housing for low income or elderly segments of the population. The inclusion of a specified number of affordable housing units or elderly units is tied to a development incentive. For example, in exchange for constructing elderly units as part of a traditional subdivision or condominium development, a developer could be permitted to increase his overall density from one unit per acre to two units per acre.

Performance Zoning
Performance zoning establishes both the standards that must be met by development and the process that determines the impact that development would have on the physical, social, economic, and environmental conditions in the community. Performance standards establish definite measurements that determine whether the effects of a particular use will be within permissible levels. Performance standards commonly employed include standards related to noise, vibration, odor, illumination, signs, ground water, road impact (i.e. number of trips generated by a use), landscaping, multi-family and commercial building aesthetics, and school impact.

Purchase of Development Rights
The voluntary sale of the rights to develop a piece of property by the owner to a government agency or land trust. The development rights are separated from the bundle of rights that go with the land and are independently purchased. The seller gives up the right to develop the land but otherwise retains the rights and responsibilities that go with ownership. The sale is usually in the form of an conservation easement.

Transfer of Development Rights
Transfer of development rights (TDR) programs are designed to use market forces to transfer development from one area (the sending area) to another (the receiving area), thereby permanently preserving open space in the sending area. TDR programs allow a community to preserve open space without imposing on the private landowner significant financial loss.

To implement a TDR program a town must add a section to their zoning ordinance that defines the program. For a basic TDR program, the ordinance should describe the procedures for transferring development rights, define who is eligible to participate, specify the administrative procedures, define how TDRs will be allocated to “sending” properties and using “receiving” properties, and assign responsibility for overseeing and implementing the program.

In addition, the Planning Board might identify specific “sending” and “receiving” areas and may simultaneously change the zoning in the receiving areas to create an incentive for developers to purchase and apply TDRs.

Zone by Lot Line
The current zoning scheme in Hopkinton creates Districts based on measurements off the centerline of roadways. It is recommended that when rezoning occurs in the future that the Town define Districts by lot line. By doing so, the likelihood that some parcels will be divided into multiple zones, thus reducing confusion in the long run.

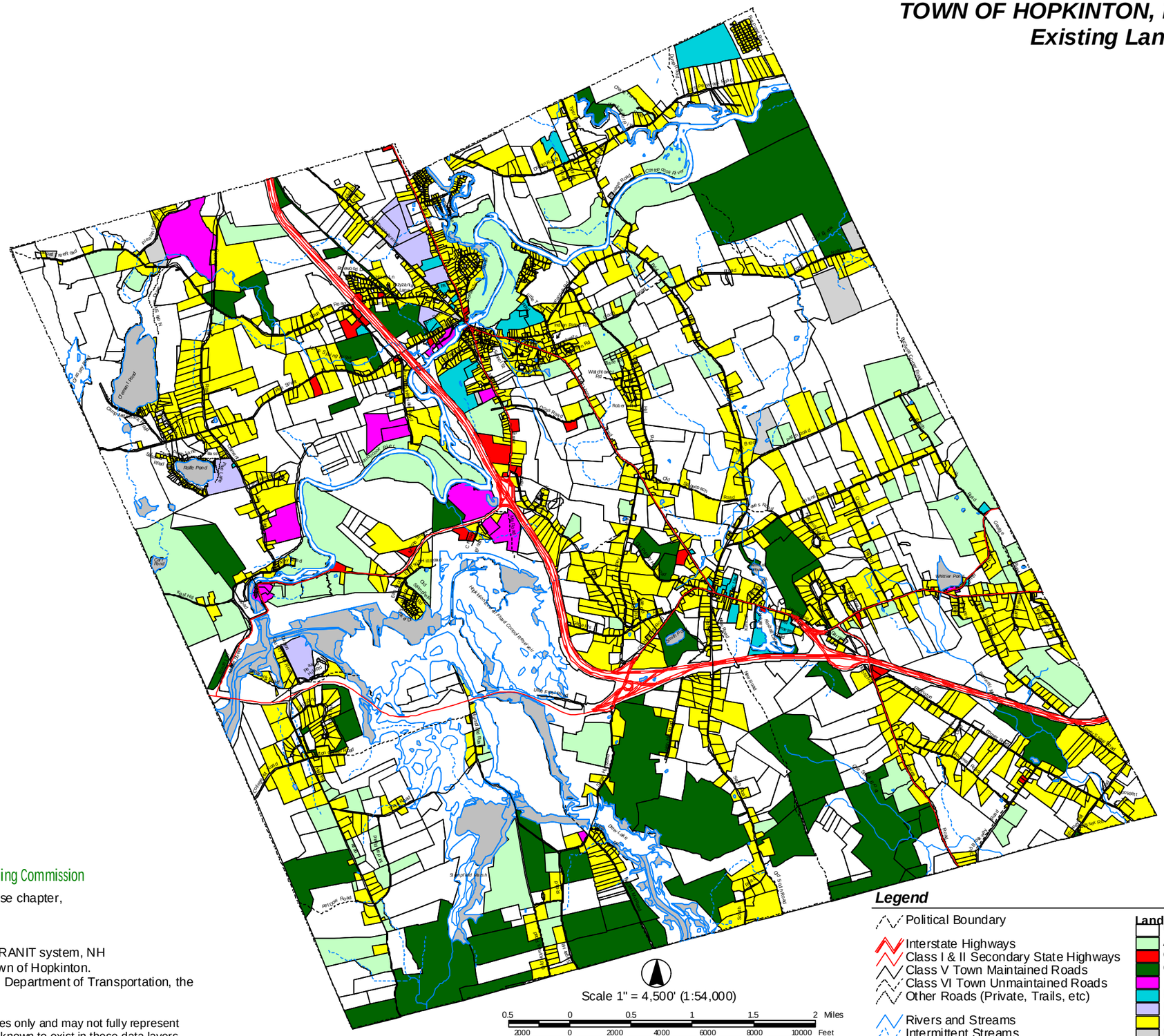
Summary

Sound land use policies are critical for the protection of community character, preservation of natural resources, economic stability of the community, protection of public health, as well as preservation and enhancement of the quality of life.

Historically, Hopkinton has regulated land use in the community with a conventional approach. However, increases in population, development pressures, and changing economic needs of the community have shown that more dynamic land use regulations are now needed.

Hopkinton desires to attract quality non-residential development, protect sensitive environmental features, as well as provide opportunities for all types of housing development, including elderly and affordable housing. The community also wants to preserve its rural character and historic nature. The residents of Hopkinton value its small-town flavor and rural characteristics, and desire to maintain these qualities in the face of increasing pressure for residential and commercial growth.

TOWN OF HOPKINTON, NEW HAMPSHIRE
Existing Land Use



This map created by the

Central New Hampshire Regional Planning Commission

for the Hopkinton Master Plan Land Use chapter,
August 2001.

Data sources:
1:24,000 source scale from the NH GRANIT system, NH Department of Transportation, the Town of Hopkinton.
Corrections to base data made by NH Department of Transportation, the Town of Hopkinton, and CNHRPC.

This map is intended for planning purposes only and may not fully represent geographic conditions. Inaccuracies are known to exist in these data layers. Corrections, additions, or deletions are welcomed and should be directed to CNHRPC.

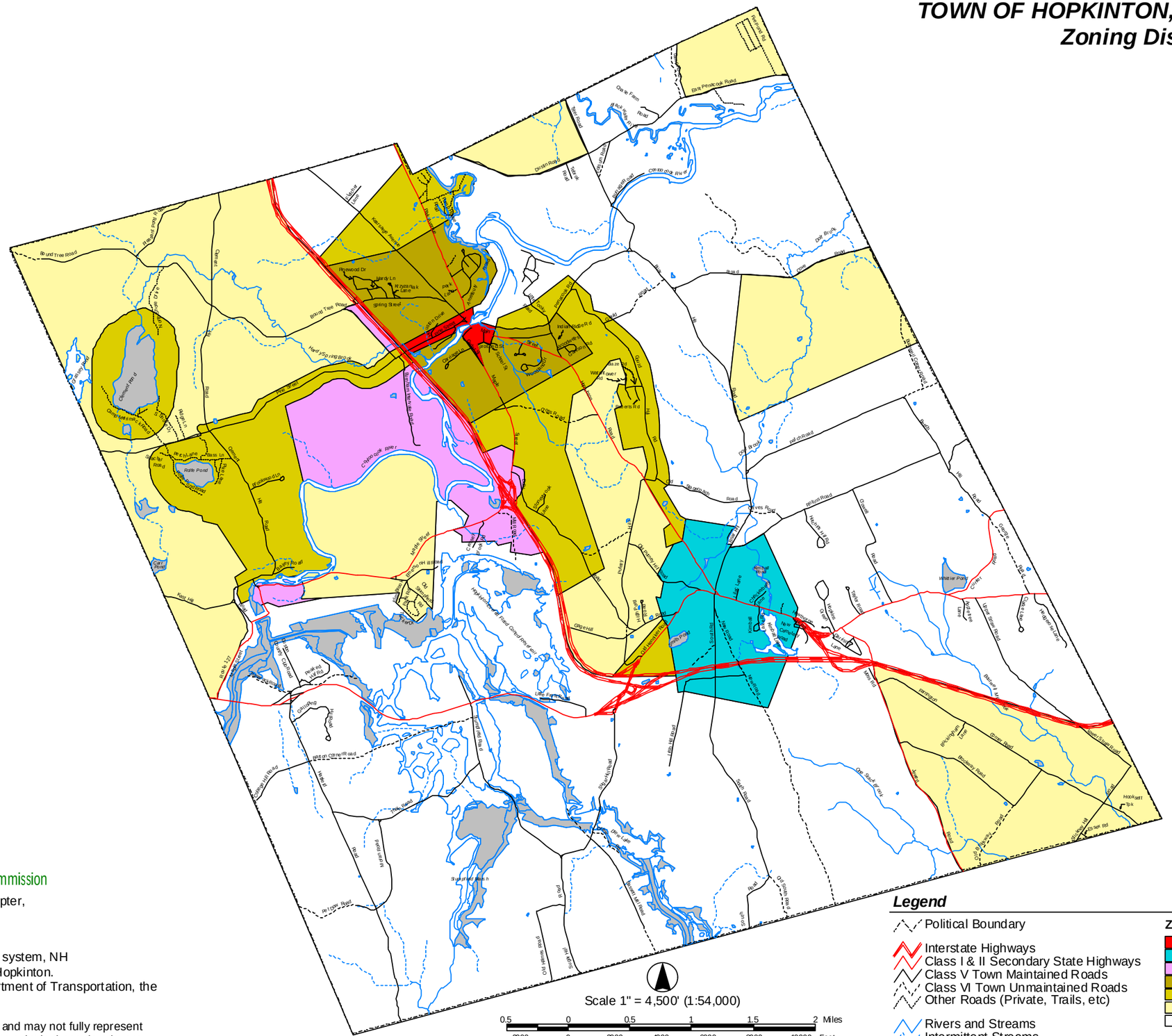
Legend

- Political Boundary
- Interstate Highways
- Class I & II Secondary State Highways
- Class V Town Maintained Roads
- Class VI Town Unmaintained Roads
- Other Roads (Private, Trails, etc)
- Rivers and Streams
- Intermittent Streams
- Water Bodies

Land Uses

- Undeveloped/Wooded
- Agricultural/Open Space/Fields
- Commercial
- Conservation
- Industrial
- Public/Institutional
- Recreational
- Residential
- Utility

TOWN OF HOPKINTON, NEW HAMPSHIRE
Zoning Districts



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- Rivers and Streams
- Intermittent Streams
- Water Bodies

Zoning Districts

- Commercial (B-1)
- Hopkinton Village Precinct (HVP)
- Industrial (M-1)
- High Density Residential (R-1)
- Medium Density Residential (R-2)
- Low Density Residential (R-3)
- Rural Residential (R-4)

Chapter V
Housing

Introduction

The purpose of the Housing Chapter in this Master Plan is to identify Hopkinton's current housing inventory, discuss short-term housing needs, and denote guidelines for the development of long-range plans for single-family, multi-family, elderly, and affordable housing.

The type of housing within a community is an important indicator of the quality of life in that community. Hopkinton's housing generally reflects safe, sanitary, and quality structures. Much of the housing consists of single-family dwellings on one or more acre of land. Relatively few multifamily or manufactured housing units are present in today's inventory of housing types.

The overall goal is to maintain the current quality of Hopkinton's housing while promoting the provision of affordable housing for residents. The vision of the town is to maintain the rural character of the community and to meet the needs of a growing and aging population.

Items to be discussed in this Chapter include:

Key Findings
Community Survey and Visioning Session Results
1970-2000 Housing Units
Owner- and Renter-Occupied Information
Age of Homeowners
Home Size
Rents and Home Price Trends
Affordable Housing
Elderly Housing
Accessory Apartments
Strategies to Promote Housing Goals
Housing Stock Composite
Household Size
Age of Housing Stock
Vacancy Rates
Housing Density
Manufactured Housing
Multifamily Housing
Building Code and Inspection Issues
Summary

Key Findings

- Review and update the current affordable housing and manufactured housing zoning ordinances to make sure that they meet their stated goals and objectives, and continue to encourage their development in town.
- Revise the zoning ordinance to include the provision for the development of market-rate elderly housing and affordable housing in Hopkinton.
- Formally adopt building codes and consider the creation of a professional Building Inspector position, and the adoption of a building code inspection fee schedule.

Community Survey and Visioning Session Results

In March 2000, a Master Plan community survey was sent to all households and non-resident land-owners of the Town. A total of 2,700 surveys were distributed with 973 returned, for a 36% response rate. The following questions and responses are those on the survey that relate to housing in Hopkinton.

If you are a resident of the town, what general area do you consider yourself a resident of?

	Total	Percent
Contoocook	452	49.3%
Hopkinton	260	28.4%
Hopkinton Village	120	13.1%
West Hopkinton	68	7.4%
No Answer	16	1.7%
Total	973	100.0%

How long have you lived in Hopkinton?

	Total	Percent.
Less than 5 years	207	22.6%
5 - 10 years	131	14.3%
10 - 20 years	219	23.9%
Over 20 years	341	37.2%
No Answer	18	2.0%
Total	**916**	**100.0%**

Do you believe the Town should adopt building codes?

	Total	Percent.
Yes	391	40.2%
No	301	30.9%
Unsure	159	16.3%
No Answer	83	8.5%
No Opinion	39	4.0%
Total	**973**	**100.0%**

In order to help Town Officials better direct their efforts to meet the needs of the community, we need your opinion on the relative importance/rating on the following Town Services.

Town Services	Please "Rate" These Town Services				
	Good	Fair	No Opinion	Poor	No Answer
Building Code Enforcement	213	148	390	91	131

What types of housing would you like to see Hopkinton encourage?

Housing Type	Total
Single Family	707
Elderly Housing	367
Cluster Development	247
Condominiums/Town Houses	143
Conversion to Apartments	112
Two-Family (Duplexes)	108
Manufactured Housing on Individual Lots	70
Multi-Family (3-4 Units)	55
Manufactured Housing in Parks	55
New Apartment Buildings (5+ units)	47

Should the Town implement policies to limit the amount of new homes that are built in Town?

	Total	Percent
Yes	561	57.7%
No	189	28.4%
Unsure	148	13.1%
No Opinion	33	7.4%
No Answer	42	1.7%
Total	**973**	**100.0%**

In your opinion, which statement characterizes Hopkinton's rate of residential growth?

	Total	Percent
Hopkinton is growing too fast	213	21.9%
Hopkinton is growing too slow	22	2.3%
Hopkinton is growing as fast as appropriate	519	53.3%
No Opinion	165	17.0%
No Answer	54	5.5%
Total	**973**	**100.0%**

In May 2000, a visioning session was held, in which all members of the public were invited to attend and voice their opinion and vision for the future of Hopkinton. The participants were asked to recognize the Town's strengths and opportunities. The following list contains individual participant responses from the visioning session that relate to housing in Hopkinton.

What are the Town's strengths and opportunities?

Cluster housing pattern with open space in-between
Have zoning
Small rural Town
Big houses converted into multi-family

What would you like Hopkinton to look like 75 years from now?

Maintain rural character
Encourage young to come and live
Find ways to allow seniors to live in Town
Houses should be coordinated with retail
Zoning to encourage open space development
Facilities for older people
Mix of housing types

1970-2000 Housing Units

By understanding past housing trends, Hopkinton can better predict future housing booms and needs. Since 1970, construction of new housing in Hopkinton has been steady. Over the past 30 years, Hopkinton has averaged 36 units per year in the 1970's, 53 units per year in the 1980's, and 29 units per year in the 1990's. Since 1970, the total number of housing units has increased by over 114%. Compared to abutting communities, this is the second lowest percent increase. See the table below for these comparisons.

Number of Housing Units, 1970 - 2000

Town	1970 Housing Units	1980 Housing Units	% Change 1970-1980	1990 Housing Units	% Change 1980-1990	2000 Housing Units	% Change 1990-2000	% Change 1970-2000
Bow	742	1,284	73.0%	1,860	44.9%	2,330	25.3%	214.0%
Concord	9,489	12,100	27.5%	15,697	29.7%	16,881	7.5%	77.9%
Dunbarton	286	428	49.5%	685	60.0%	858	25.3%	200.0%
Henniker	745	1,060	42.3%	1,558	47.0%	1,679	7.8%	125.4%
Hopkinton	1,031	1,396	35.4%	1,924	37.8%	2,210	14.9%	114.4%
Warner	569	765	34.4%	1,039	35.4%	1,228	18.2%	115.8%
Weare	616	1,243	101.8%	2,417	94.4%	2,828	17.0%	359.1%
Webster	264	389	47.3%	577	48.3%	672	16.5%	154.5%

Source: 1970-2000 Census

Housing Stock Composite

A well-balanced housing stock is important for all communities. A diversified housing stock provides for housing opportunities for all members of the community at various income levels and personal needs. The figures below are estimates that were compiled using 1990 Census figures and local building permit data. As of 1999, Hopkinton's housing stock estimate was comprised of 81.8% single family housing units, 8% manufactured housing units, and 10.2% multifamily housing units, which can be seen below.

Housing Composites for Hopkinton and Abutting Communities, 1999

Town	Total Units of Housing, 1999 Est.	# Single-Family Units, 1999 Est.	Single Family Units as % of Total, 1999 Est.	# Manuf. Housing Units, 1999 Est.	Manuf. Housing Units as % of Total, 1999 Est.	# Multi-Family Units, 1999 Est.	Multi-Family Units as % of Total, 1999 Est.
Bow	2,340	2,304	98.5%	5	0.2%	31	1.3%
Concord	16,644	6,535	39.3%	1,255	7.5%	8,854	53.2%
Dunbarton	923	820	88.8%	50	5.4%	53	5.7%
Henniker	1,676	1,069	63.8%	134	8.0%	473	28.2%
Hopkinton	2,194	1,795	81.8%	176	8.0%	223	10.2%
Warner	1,165	834	71.6%	164	14.1%	167	14.3%
Weare	2,859	2,267	79.3%	324	11.3%	268	9.4%
Webster	657	590	89.8%	51	7.8%	16	2.4%

Source: "Current Estimates and Trends in New Hampshire's Housing Supply, Update: 1999" NHOSP, November 2000

Owner-Occupied and Renter-Occupied Information

Knowing what percentage of the occupied housing units in a community are owner-occupied and which ones are renter-occupied helps to create a picture of the types of housing options available. As can be seen below, Hopkinton has 86.3% of its occupied housing units owner-occupied and 13.7% renter-occupied, in 2000. These figures are in the middle range for abutting communities.

Breakdown of Occupied Housing Units, 1990-2000

Towns	1990			2000		
	Total Occupied Units	Owner-Occupied (%)	Renter-Occupied (%)	Total Occupied Units	Owner-Occupied (%)	Renter-Occupied (%)
Bow	1,813	1739 (95.9%)	74 (4.1%)	2,304	2,195 (95.3%)	109 (4.7%)
Concord	14,222	7443 (52.3%)	6,779 (47.7%)	16,281	8,373 (51.4%)	7,908 (48.6%)
Dunbarton	642	568 (88.5%)	74 (11.5%)	814	729 (89.6%)	85 (10.4%)
Henniker	1,405	949 (67.5%)	456 (32.5%)	1,585	1,083 (68.3%)	502 (31.7%)
Hopkinton	1,759	1525 (86.7%)	234 (13.3%)	2,084	1,799 (86.3%)	285 (13.7%)
Warner	845	675 (79.9%)	170 (20.1%)	1,048	797 (76.0%)	251 (24.0%)
Weare	2,125	1864 (87.8%)	260 (12.2%)	2,618	2,278 (87.0%)	340 (13.0%)
Webster	491	440 (89.6%)	51 (10.4%)	581	531 (91.4%)	50 (8.6%)

Source: 1990 and 2000 Census

Household Size

The average household size in a community is an indicator of how the population is arranged. In 1990, Hopkinton had an owner-occupied and renter-occupied average household size of 2.80 and 2.26, respectively. In 2000, however, it had the third lowest owner-occupied average household size (2.70) and the lowest renter-occupied average household size (1.92), as can be seen below.

Average Household Size, 1990-2000

Town	1990		2000	
	Owner-Occupied Avg. Household Size	Renter-Occupied Avg. Household Size	Owner-Occupied Avg. Household Size	Renter-Occupied Avg. Household Size
Bow	3.04	2.89	3.11	2.94
Concord	2.64	2.04	2.62	1.96
Dunbarton	2.77	2.46	2.75	2.60
Henniker	2.84	1.94	2.80	1.94
Hopkinton	2.80	2.26	2.70	1.92
Warner	2.77	2.19	2.68	1.98
Weare	2.95	2.66	3.03	2.59
Webster	2.83	2.90	2.71	2.74

Source: 1990 and 2000 Census

Age of Homeowners

As of 2000, 69.7% of homeowners in Hopkinton were 45 years of age or older. The Town of Warner has the largest percentage of older homeowners, with Hopkinton second. See the table below for a comparison of homeownership trends between Hopkinton and abutting communities.

Age of Homeowners, 2000

Town	% of Homeowners 34 Years Old or Younger	% of Homeowners 35-44 Years Old	% of Homeowners 45-64 Years Old	% of Homeowners Over 65 Years Old
Bow	7.9%	30.0%	47.0%	15.1%
Concord	11.9%	24.6%	40.5%	23.1%
Dunbarton	13.0%	32.6%	42.2%	12.2%
Henniker	10.6%	30.1%	44.0%	15.2%
Hopkinton	7.7%	22.5%	47.3%	22.4%
Warner	9.9%	25.8%	45.2%	29.1%
Weare	16.8%	37.1%	37.1%	9.0%
Webster	14.1%	26.2%	44.9%	15.8%

Source: 2000 Census

Age of Housing Stock (Units)

The majority of the housing stock (units) in Hopkinton (22.3%) was constructed during the period of 1980-1989. This is typical of most communities in New Hampshire. The information below is an estimate of the age of the current housing stock using 1990 Census data.

Summary of Age of Housing Stock for Hopkinton and Abutting Communities

Towns	Year Housing Built							
	1939 or earlier	1940-1949	1950-1959	1960-1969	1970-1979	1980-1989	1990-2000	Total Housing Units, 2000
Bow	153	53	86	373	579	616	470	2,330
	6.6%	2.3%	3.7%	16.0%	24.8%	26.4%	20.2%	100%
Concord	5,878	664	922	1,343	2,431	4,459	1,184	16,881
	34.8%	3.9%	5.5%	8.0%	14.4%	26.4%	7.0%	100%
Dunbarton	158	35	97	81	143	171	173	858
	18.4%	4.1%	11.3%	9.4%	16.7%	19.9%	20.2%	100%
Henniker	425	55	67	125	325	556	126	1,679
	25.3%	3.3%	4.0%	7.4%	19.4%	33.1%	7.5%	100%
Hopkinton	442	68	197	334	391	492	286	2,210
	20.0%	3.1%	8.9%	15.1%	17.7%	22.3%	12.9%	100%
Warner	493	37	62	94	141	212	189	1,228
	40.1%	3.0%	5.0%	7.7%	11.5%	17.3%	15.4%	100%
Weare	386	22	117	210	516	1,166	411	2,828
	13.6%	0.8%	4.1%	7.4%	18.3%	41.2%	14.5%	100%
Webster	129	16	29	125	118	160	95	672
	19.2%	2.4%	4.3%	18.6%	17.6%	23.8%	14.1%	100%

Source: 1990 and 2000 Census

Home Size

The size of the housing units in a municipality is one measure of the quality of life of its residents. The Census defines rooms in a housing unit as: “living rooms, dining rooms, kitchens, bedrooms, finished recreation rooms, enclosed porches suitable for year-round use, and lodger’s rooms.” In 1990, the largest percentage of homes in Hopkinton (19.6%) had 9 or more rooms, which is a higher percentage than all abutting communities.

Median Home Size in Hopkinton and Abutting Communities, 1990

Towns	# 1-Room Housing Units (%)	# 2-Room Housing Units (%)	# 3-Room Housing Units (%)	# 4-Room Housing Units (%)	# 5-Room Housing Units (%)	# 6-Room Housing Units (%)	# 7-Room Housing Units (%)	# 8-Room Housing Units (%)	# 9+ Room Housing Units (%)
Bow	0 (0%)	0 (0%)	25 (1.6%)	86 (5.5%)	209 (13.0%)	364 (22.7%)	477 (29.7%)	418 (26.0%)	28 (1.7%)
Concord	248 (1.6%)	536 (3.4%)	2422 (15.4%)	3754 (23.9%)	2702 (17.2%)	2589 (16.5%)	1706 (10.8%)	910 (5.8%)	831 (5.3%)
Dunbarton	0 (0%)	14 (2.0%)	16 (2.3%)	58 (8.5%)	162 (23.6%)	152 (22.2%)	125 (18.3%)	77 (11.2%)	81 (11.8%)
Henniker	1 (0.1%)	101 (14.7%)	173 (11.1%)	258 (16.6%)	287 (18.5%)	270 (17.4%)	212 (13.6%)	135 (8.7%)	117 (7.5%)
Hopkinton	0 (0%)	9 (0.5%)	84 (4.4%)	165 (8.6%)	366 (19.0%)	315 (16.4%)	349 (18.1%)	259 (13.5%)	377 (19.6%)
Warner	25 (2.4%)	40 (3.8%)	66 (6.4%)	197 (19.0%)	197 (19.0%)	164 (15.8%)	133 (12.8%)	81 (7.8%)	136 (13.1%)
Weare	1 (0.0%)	19 (0.8%)	195 (8.1%)	451 (18.7%)	478 (19.8%)	447 (18.5%)	465 (19.2%)	174 (7.2%)	187 (7.7%)
Webster	5 (0.9%)	3 (0.5%)	17 (2.9%)	95 (16.5%)	119 (20.6%)	131 (22.7%)	94 (16.3%)	55 (9.5%)	58 (10.1%)

Source: 1990 Census

Vacancy Rates

Vacancy rates are important to monitor, as they are a reflection of the amount of choice available to those seeking housing. Vacancy rates provide one gauge of how housing supply (available units) and demand (number of prospective renters or owners) match up – in other words, of the availability of housing for families needing it. A very high vacancy rate can be disastrous for housing sellers and providers, as it may indicate a glut in the market, thus resulting in deflated housing prices. On the other hand, a very low vacancy rate can indicate an inadequate amount of housing available in the market, inflated housing prices, and the need to develop more housing opportunities.

Merrimack County has had a vacancy rate under 2% since 1996. For rental units, a vacancy rate below 2% is considered negligible, accounting for natural turnover in the units. In 2000, both rental and home ownership vacancy rates were below 1% in Merrimack County.

According to the 2000 Census, 0.3% of the rental units were vacant in Hopkinton and 0.9% of the owner occupied units were vacant, as can be seen below. These figures are comparable to abutting communities and the State due to the housing shortage New Hampshire is experiencing.

Vacancy Rates for Hopkinton and Abutting Communities

Town	1990 Owner-Occupied Vacancy Rate	2000 Owner-Occupied Vacancy Rate	1990 Renter-Occupied Vacancy Rate	2000 Renter-Occupied Vacancy Rate
Bow	1.3%	0.4%	0.2%	0.0%
Concord	1.3%	0.4%	6.4%	1.4%
Dunbarton	1.6%	0.3%	1.5%	0.1%
Henniker	1.7%	0.4%	2.2%	1.0%
Hopkinton	1.5%	0.9%	1.1%	0.3%
Warner	1.9%	0.9%	2.0%	0.7%
Weare	3.0%	0.8%	1.0%	0.5%
Webster	0.9%	0.4%	0.0%	0.0%

Source: 1990 and 2000 Census

Vacancy rates are constantly changing and this information should be viewed as a snapshot of the conditions present at the time when the data was collected. Vacancy rates are influenced by a variety of factors, including the economy, land use regulations, and rate of new growth in the community and region as a whole.

Rents and Home Price Trends

Since 1980, the cost of housing in the central New Hampshire region has increased significantly. This increase can be attributed to numerous factors including market demand, interest rates, property tax rates, quality of community facilities, and location.

Since 1980, the median price for homes in Hopkinton has increased dramatically. Over the period of 1980 to 1990, the median home value in Hopkinton increased 150% from $59,600 to $149,000, as reported by the Census. However, this increase was the smallest as compared to abutting communities.

Comparison of Median Single-Family Home Value 1980-1990

Town	1980 Median Home Value	1990 Median Home Value	% Change in Median Home Value, 1980-1990
Bow	$64,100	$164,900	157.3%
Concord	$43,200	$112,400	160.2%
Dunbarton	$46,300	$134,100	189.6%
Henniker	$47,900	$124,000	158.9%
Hopkinton	$59,600	$149,000	150.0%
Warner	$41,100	$116,800	184.2%
Weare	$47,600	$124,000	160.5%
Webster	$43,200	$128,200	196.8%

Source: 1980-1990 Census

In 1999, the median new home price in New Hampshire was $180,000 and the median existing home price was $120,000. The table below is a sample of home sales, both new homes and existing homes, from January 1998 through November 2001, in Hopkinton.

Sample of Hopkinton Home Sales, January 1998-November 2001

	1 Bedroom House	2 Bedroom House	3 Bedroom House	4 Bedroom House	5+ Bedroom House
1998					
Median Lot Size*	299,132 sqft	65,441 sqft	238,523 sqft	204,428 sqft	369,700 sqft
Median Selling Price	$50,000	$100,300	$153,881	$198,087	$280,714
1999					
Median Lot Size*	24,950 sqft	96,175 sqft	153,284 sqft	172,874 sqft	249,785 sqft
Median Selling Price	$53,167	$99,668	$165,045	$245,000	$293,157
2000					
Median Lot Size*	150,282 sqft	172,521 sqft	140,263 sqft	220,551 sqft	196,472 sqft
Median Selling Price	$83,500	$102,542	$173,609	$246,050	$200,675
2001					
Median Lot Size*	43,560 sqft	725,328 sqft	112,998 sqft	175,636 sqft	79,627 sqft
Median Selling Price	$52,500	$109,510	$174,789	$281,633	$215,180

Source: J. Hampe Associates, LLC; December 2001

* 1 acre = 43,560 sqft

Cost of rental housing has also increased significantly since 1980. In Merrimack County, the median rents have increased from $688 per month, in 1988, to $832 per month, in 2001, for a two-bedroom apartment. This is an increase of 20.9% over thirteen years. From 1980 to 1990, the cost of rent in Hopkinton increased an average of $289, or 136.3%. Rental figures for Merrimack County and Hopkinton can be seen below.

Median Rent for a Two-Bedroom Unit in Merrimack County, 1988-2001

Year	Median Rent
1988	$ 688
1989	$ 680
1990	$ 653
1991	$ 595
1992	$ 587
1993	$ 660
1994	$ 632
1995	$ 616
1996	$ 663
1997	$669
1998	$ 718
1999	$ 748
2000	$ 814
2001	$ 832

Source: NH Housing Finance Authority 2001 Rental Cost Survey

Median Rent 1980 – 1990 for Hopkinton and Abutting Communities

Town	1980 Median Rent	1990 Median Rent	% Increase 1980-1990 Median Rent
Bow	$266	$588	121.1%
Concord	$213	$485	127.7%
Dunbarton	$244	$595	143.9%
Henniker	$186	$429	130.6%
Hopkinton	$212	$501	136.3%
Warner	$272	$450	65.4%
Weare	$214	$661	208.9%
Webster	$157	$432	175.2%

Source: 1980-1990 Census

Housing Density

The density of housing is often employed as a measure of rural character. As of 2000, Hopkinton contained 51.07 housing units per square mile. This represents an increase of 14.9% since 1990, as can be seen below. The housing density for Merrimack County is 58.90 dwelling units per square mile, using 2000 Census figures.

Changes in Housing Density for Hopkinton and Abutting Communities, 1990-2000

Town	Land Area (Sq. Mi.)	# of Dwelling Units, 1990	Dwelling Units/Sq. Mi., 1990	# of Dwelling Units, 2000	Dwelling Units/Sq. Mi., 2000	% Change # of Dwelling Units/Sq. Mi. 1990-2000
Bow	28.17	1,860	66.03	2,330	82.71	25.3%
Concord	63.95	15,697	245.46	16,881	263.97	7.5%
Dunbarton	30.83	685	22.22	858	27.83	25.2%
Henniker	44.11	1,558	35.32	1,679	38.06	7.8%
Hopkinton	43.27	1,924	44.46	2,210	51.07	14.9%
Warner	55.23	1,039	18.81	1,228	22.23	18.2%
Weare	59.05	2,417	40.93	2,828	47.89	17.0%
Webster	28.26	577	20.42	672	23.78	16.5%

Source: 2000 Census, NH OSP

These densities should be viewed as an estimate because the land area figures used include land that would not be considered as "available land" for housing. This unavailable land includes wetlands, steep slopes, and roads in the final land area figure.

Affordable Housing

Affordable housing is an issue that is considered and worked on by all levels of government. The Federal government has long been promoting affordable housing through various programs administered by the Department of Housing and Urban Development. State government has promoted affordable housing through the passage of several laws requiring communities to provide affordable housing. Furthermore, New Hampshire has also created several commissions and Departments, such as the New Hampshire Housing Finance Authority, to examine and foster the development of affordable housing opportunities.

Affordable housing is just that – what a family can afford. The current standard states that housing should cost no more than 30% of a family's income in order for there to be enough money for food, clothing, transportation, child care, medical care, etc. A homeowner with a mortgage and taxes of $1,200/month needs an annual income of $48,000 ($23/hr.), while a renter with rent of $832/month (the median cost of a 2 bedroom unit in 2001) needs an income of $33,280 (17.53/hr) to remain below 30%. An estimated 30% of all households (renter and owner) in New Hampshire paid more than 30% of their income for housing in 2000.

State and Local Regulations

The New Hampshire Legislature has promoted the need for communities to develop affordable housing through the creation of NH RSA 674:2,III; RSA 672:1, IIIe; and RSA 674:32.

NH RSA 674:2, III, requires communities preparing Master Plans to include an analysis regarding the existing and anticipated affordable housing needs of the community. This portion of the Master Plan is to be based on the most recent regional housing need assessments, as prepared by all Regional Planning Commissions, in addition to other pertinent data.

NH RSA 672:1, IIIe, specifies the purpose and benefit of local land use regulations and zoning. This section states:

> *"All citizens of the state benefit from a balanced supply of housing which is affordable to persons and families of low and moderate income. Establishment of housing which is decent, safe, sanitary, and affordable to low and moderate income persons and families is in the best interests of each community and the state of New Hampshire, and serves a vital public need. Opportunity for development of such housing, including so-called cluster development and the development of multi-family structures, should not be prohibited or discouraged by use of municipal planning and zoning powers or by unreasonable interpretation of such powers."*

Lastly, NH RSA 674:32, bars the regulatory prohibition of manufactured housing and sets specific standards for the location of such housing in all municipalities. This is discussed in more detail in the Manufactured Housing section of this Chapter.

Currently, Hopkinton has an Affordable Housing Innovative Land Use Control provision in its zoning ordinance. The purpose of this provision is to provide the opportunity for low and moderate income individuals and families to obtain affordable housing in Hopkinton, to provide appropriate incentives to encourage the production of such housing, and to provide standards and safeguards to make certain that the housing being produced remains affordable to those in need. See the Current and Future Land Use Chapter for more information on this zoning provision.

Hopkinton's Theoretical Fair Share of the Regional Affordable Housing Stock

As a result of the growing concern over access to affordable housing, all Regional Planning Commissions in New Hampshire have been charged by the Office of State Planning to develop affordable housing needs assessments for each community, within their region, every five years.

Because of the lack of 2000 Census data when the *Affordable Housing Needs Assessment* report was written, CNHRPC determined that it would be more appropriate to develop estimated based upon a variety of reliable data, rather than base the report on 1990 Census data. The vast majority of the data utilized in the preparation of this assessment was provided by the New Hampshire Office of State Planning, the New Hampshire Department of Employment Security, and the New Hampshire Department of Revenue Administration.

The analysis conducted in this report utilizes the following formulas and definitions.

<u>Estimated Number of Households at 80% of Median Income</u>

The Department of Housing and Urban Development defines low to moderate-income households as those that earn 80% of the communities median income, or less. To better estimate the number of low to moderate-income households in the central New Hampshire region, a proportion using 1990 census data and 1998 estimated population was developed.

$$\text{Formula} = \frac{\text{1990 Households @ 80\% of Median Income}}{\text{1990 Community Population}} \times \frac{\text{X}}{\text{1998 NHOSP Est. Community Population}}$$

Averaged Result

The "averaged result" factors the communities share of the regional population, the communities share of the regional job base, the communities share of the regional income (wages paid), and the communities share of the region's total assessed property values. These figures are considered generation and capacity factors for affordable housing. These figures are added together and then averaged into a single figure for purposes of determining theoretical need.

Formula =

$$\frac{\begin{array}{l}\text{Community Share of Regional Population} \\ +\text{Community Share of Regional Employment} \\ +\text{Community Share of Total Regional Wages Paid} \\ +\text{Community Share of Regional Assessed Value}\end{array}}{4}$$

Theoretical Community Share of Affordable Housing for CNHRPC Region

This figure uses the variables of the "averaged result" and the total number of low to moderate-income families, and generates a figure that explains how many affordable housing units a community should theoretically provide based upon generation and capacity figures existing in the community.

Formula = (Averaged Result for community) X (13,770*)

*Note that 13,770 is the most recent estimate of the number of low to moderated income households in the Central New Hampshire Region.

Total Credits (a.k.a. the number of affordable housing units existing in the community)

Total Credits accounts for all housing in each community which is suspected to be affordable. The formula is dependent upon the assumption that all manufactured and multifamily housing units are affordable.

Formula =

$$\frac{\begin{array}{l}(2 \text{ X Number of Multifamily and} \\ \quad \text{Manufactured Housing in Community}) \\ +\ (\text{Estimated Number of Households at} \\ \quad 80\% \text{ of Community Median Income})\end{array}}{3}$$

Future Planning Goal

This figure indicates how many affordable housing units a community should strive to develop in the near future to meet its theoretical share.

Formula = (Theoretical Share) – (Total Affordable Housing Credits)

Based on the affordable housing need assessment conducted by CNHRPC, Hopkinton currently has less than its theoretical fair share of the affordable housing base for the central New Hampshire region. The formula used by CNHRPC indicates that Hopkinton contains approximately 416 units of affordable housing. This figure is 390 units less of affordable housing than its theoretical fair share of 806 units. Based upon this formula, Hopkinton should continue to support the development of affordable housing. In Hopkinton there are many factors influencing

the availability of affordable housing, including land availability, the cost of land, and the desire of developers to build affordable housing in town.

The table below compares Hopkinton's affordable housing stock and future goals to all other communities in the central New Hampshire region.

Summary of Affordable Housing Needs for the Central New Hampshire Region

Town	Theoretical Community Share of Regional Affordable Housing Stock	Total Number of Existing Affordable Housing Units	Future Planning Goal (Number of Units Community Should Develop)
Allenstown	392	1,054	0
Boscawen	308	490	0
Bow	1,072	176	896
Bradford	171	147	24
Canterbury	225	75	150
Chichester	236	149	87
Concord	6,150	8,849	0
Deering	167	192	0
Dunbarton	245	103	142
Epsom	415	448	0
Henniker	493	557	0
Hillsborough	563	648	0
Hopkinton	806	416	390
Loudon	502	402	100
Pembroke	735	996	0
Pittsfield	374	772	0
Salisbury	122	69	54
Sutton	190	107	83
Warner	310	317	0
Webster	158	87	71

Source: CNHRPC *Affordable Housing Needs Assessment*, May 2000

Recommendations:

- Work with State agencies and non-profit organizations to assist in the development of affordable housing in Hopkinton.
- Review current zoning districts and subdivision regulations to ensure that they continue to encourage the development of affordable housing in town.
- Provide incentives to developers to include affordable housing options as part of the development plan, such as density bonuses or a reduction in the setback or frontage requirements, for example.
- Review the current Affordable Housing Innovative Land Use Control zoning provision to make sure that it meets its stated goals and objectives.
- Encourage the development of quality elderly affordable housing in the zoning regulations.

Manufactured Housing

In an effort to provide for affordable housing options, the Legislature has acted to increase opportunities for the siting of manufactured homes in New Hampshire municipalities. RSA 674:32 requires municipalities to provide "reasonable opportunities" for the siting of manufactured housing and prohibits the complete exclusion of manufactured housing from a municipality.

Municipalities have several options regarding the siting of manufactured housing within their community. They can choose to allow manufactured homes on individual lots "in most, but not necessarily all" districts zoned for residential use. They can also permit manufactured housing parks or manufactured housing subdivisions where manufactured homes are places on individually owned lots. If one or both of these options is chosen, the parks or subdivisions must be permitted "in most, but not necessarily all" districts zoned for residential use in the town. Municipalities may also permit all three manufactured home options: individual lots, manufactured home parks, and manufactured home subdivisions.

Manufactured homes permitted on individual lots must comply with the same lot size, frontage requirements and space limitations as conventional single-family housing in the same district, and special exceptions or special permits can not be required of manufactured homes located on individual lots or subdivisions unless required for single-family homes. The provisions of the statute that prohibit treating manufactured homes differently from conventional single-family homes in the same district are important to keep in mind in the context of affordable housing.

Towns that permit manufactured housing parks "shall afford reasonable opportunities" for the parks development and expansion. Therefore, lot size and density requirements for such parks must be reasonable.

The Hopkinton Zoning Ordinance allows for the placement of manufactured housing parks and manufactured housing subdivisions within specific areas of the community. This provision was adopted in 1988 and revised in 1989. Manufactured housing parks are allowed by special exception in the R-1, R-2, and R-3 Districts. Parks shall consist of a minimum of ten acres and at least two housing sites. The maximum number of sites shall not exceed seventy. Open space shall not include wetlands, water bodies, roads, severe slopes, or open space on individual sites. Manufactured housing parks also require a 25 foot buffer strip around the perimeter of the park, which is not considered part of the required open space.

The following dimensions must be met for all manufactured housing parks:

Max. # of Units	Min. % of Open Space	Min. Lot Size	Min. Street Frontage
50	30%	10,000 sq.ft.	100 feet
60	40%	15,000 sq.ft.	125 feet
70	50%	20,000 sq.ft.	150 feet

Hopkinton currently has three manufactured housing parks, information on which can be seen below.

Name of Park	Deer Meadows Mobile Home Park	Elm Brook Village	Meadows of Hopkinton
Total Size of Park	55.58 acres	22.35 acres	62 acres
Size of Developed Area	32.38 acres	8.26 acres	N/A
# of Homes in Park	60 Homes	36 Homes	70 Homes

Manufactured housing subdivisions are allowed in all Residential zones, provided that they meet all the requirements that pertain to single-family home subdivisions. These subdivisions must consist of a minimum of twelve acres and the maximum number of units can not exceed fifty. Manufactured housing subdivisions may be developed as a cluster development, provided that all cluster provisions are complied with.

Recommendations:

- Review the current Manufactured Housing zoning provision to ensure that it is adequate and affords real opportunity to develop such housing options in Hopkinton.
- Work with the New Hampshire Community Loan Fund, State agencies, and non-profit organizations to ensure that existing and proposed manufactured housing parks and subdivisions use best management practices.

Elderly Housing

With the aging of the “baby boom” generation, the demand for quality elderly housing will continue to increase in Hopkinton. This feeling was highlighted in the Community Survey, with 367 respondents wanting to encourage more elderly housing in Town. Hopkinton currently has one subsidized housing complex for elderly residents. The Park Avenue Apartment complex has 30 units of subsidized housing available to elderly residents.

The current zoning ordinance is designed to encourage the development of affordable elderly housing, not market rate elderly housing developments. With the changing demographics of the town and region, there has been an increase in the desire for elderly residents to remain in their community but not necessarily in their current home for economic or social reasons. By encouraging affordable and market-rate elderly housing development within the community, a more diverse housing market emerges that will benefit the Town.

Recommendations:

- Consider revising the zoning ordinance to include a provision for the development of market-rate elderly housing, which would be separate from the Affordable Housing Option in the current zoning ordinance.

Multi-family Housing

Hopkinton residents recognize the need to provide a variety of housing in Town, but express a desire to have the housing reflect the historic and rural character of Hopkinton. This philosophy is reflected in the community survey and visioning session responses, which emphasizes Hopkinton’s trend to avoid large multifamily developments. Through the use of façade design,

landscaping, and the buffering of new multi-family developments, this type of housing can be developed to complement the rural character of the community that the residents wish to preserve.

Multi-family housing that has between three and eight units is permitted in the R-1 zone, and in by special exception the R-2 and R-3 zones. There is also a provision for multi-family housing in the Affordable Housing Option and the Cluster Development ordinance under the current zoning, which is discussed in the Current and Future Land Use Chapter.

Recommendations:

- Review the current zoning ordinance to ensure that there are no deterrents to building multi-family housing in Hopkinton.
- Consider revising the zoning ordinance to include a provision for the development of multi-family housing that would not be considered under the Affordable Housing Option of the current zoning ordinance.
- Consider amending the zoning ordinance to include a provision for duplexes in the R-1 and R-2 zones, with special exception in the R-3 zone.

Accessory Apartments

Accessory apartments, also known as in-law apartments, are a viable method of meeting a variety of housing needs by providing affordable housing options that are not imposing on the character of the community. Hopkinton currently classifies these types of apartments as two-family housing in the zoning ordinance and allows their construction in the R-2 and R-1 zones, and by special exception in the other zones.

Recommendations:

- Review the current zoning regulations to ensure that it does not discourage or unduly burden applicants from creating accessory apartments.
- Reclassify this type of housing from “two-family housing” to “accessory apartments” in the zoning ordinance and subdivision regulations, which is more in keeping with the intent of this type of housing.

Building Code and Inspection

The adoption and enforcement of Building Codes is the best way to ensure the development of safe, sanitary, and quality housing within a community. Currently, Hopkinton is one of six communities – Boscawen, Epsom, Henniker, Hillsborough, Hopkinton, Webster - within the central New Hampshire region that has not adopted building codes. As of 1999, 71% of all communities in New Hampshire have adopted building codes (NH OSP, 1999).

In the absence of such regulations, the community relies upon codes required by the State. The Hopkinton Fire Department enforces the New Hampshire Fire Code, although the town has not officially adopted the code at Town Meeting. In the community survey, 40.2% of the respondents feel that the Town should adopt building codes.

The State, through RSA 674:51, grants communities the power to adopt building codes, including the Building Officials and Code Administrators International (BOCA) National Building Code, as well as the Council of American Building Officials (CABO) Code for One and Two-Family

Dwellings. Both are codes prepared and adopted by national associations of building professionals and are widely used throughout New Hampshire.

Recommendation:

- Research the adoption of Building Codes, the creation of a professional Building Inspector position, and the adoption of a building inspection fee schedule.
- Ensure that the regulations adopted help to off-set the cost of a professional Building Inspector through an adequately set building inspection fee schedule.
- Officially adopt the New Hampshire Fire Code.

Strategies to Promote Housing Goals

Cluster Developments

As is implied by the title, this type of development allows for the grouping of detached housing units as opposed to traditional subdivisions by reducing lot sizes and setbacks. While the individual lot associated with each home is far smaller than a traditional subdivision, the development density of the original track is the same or sometimes less as compared to a traditional subdivision. Though there is typically a reduction in the cost of road construction and utilities that may translate into lower home prices, the real benefit of this type of development is preservation of open space. To be a viable option for affordable housing, multifamily units must be permitted in cluster developments.

Multi-family Housing

Perhaps the most traditional method of providing affordable housing, multi-family housing is the development of housing at a greater density than most other developments. Typically, multi-family housing consists of apartments, town homes, and condominiums and is developed in locations with access to public water, public or community sewer systems, and major roadways. Historically, multi-family housing is the foundation of the rental-housing base of the community.

Accessory Dwelling Units

Accessory Dwelling Units, sometimes known as “in-law” apartments, provide a low-cost housing alternative for community residents. These units are constructed within a single family home and are generally inhabited by older relatives or young, unmarried family members in tradition single-family subdivisions. Although some communities treat these units as duplexes, demand for this type of housing is increasing in large part do to the aging “baby boomer” population in the State.

Accessory apartments can be constructed in such a way as to preserve the appearance of a single family home thereby minimizing the impact on the character of a neighborhood. Typical regulations used by communities to accomplish this include restricting the size of the accessory dwelling unit, limiting the number and locations of exits, as well as limiting the number of mailboxes which can be located on the property.

Manufactured Housing

Often viewed as the most undesirable form of housing in a community, manufactured housing, or mobile homes, have received a great deal of attention in recent years. Recently, the State enacted legislation requiring communities be more permissive in the way they regulate manufactured housing. RSA 674:32 requires that manufactured homes be permitted to be located on individual lots in most, but not all zoning districts.

Communities generally discourage manufactured housing because of aesthetic qualities and character of those types of development. Some communities have recognized these issues and have crafted zoning regulations to address those community concerns. For example, some communities have limited the size and density of mobile home parks, created specific buffering requirements, and have dictated that manufactured homes be HUD certified. Other communities, where mobile home parks are not as desirable, have encouraged the development of manufactured housing on traditional residential lots.

Inclusionary Housing Programs

Inclusionary housing programs are other methods used to encourage the development of quality affordable housing for low-income individuals by private developers. Generally, a developer can request a greater than normal development density in exchange for setting aside a certain percentage of a development for low to moderate-income households. Set-aside requirements for inclusionary developments range from 5% to 40% of the entire acreage being developed. Aside from the important fact that the private sector is providing affordable housing, segregation of income levels is reduced, as lower income homes are integrated into the overall residential development of the community.

To make such a program a success, developers must still be afforded reasonable profits. In most communities, inclusionary housing programs are not mandatory. However, developers wishing to use the program must secure a special exception before proceeding to the planning board. Some zoning ordinances that permit inclusionary zoning require a cluster provision for such developments, while others require below market rate units to be distributed equally throughout developments.

Community Development Block Grants

One popular source of funding to meet this end is the Community Development Block Grant (CDBG) Program. Administered by the Office of State Planning, the New Hampshire CDBG Program receives several million dollars annually which communities may compete for to finance affordable housing projects, including rehabilitation of affordable housing units, or expansion of infrastructure to serve affordable housing units. Since its inception in 1983, the CDBG program has renovated or purchased over 8,500 dwelling units in New Hampshire.

Common CDBG projects include:

- Acquisition and rehabilitation of properties through Housing Trusts;
- Single family housing rehabilitation loans and grants;
- Loans and grants for land lords that provide decent, safe, and sanitary affordable housing to low to moderate-income renters; and,
- The acquisition and rehabilitation of structures to provide alternative living environments, such as elderly homes, group homes, and boarding houses.

Communities that apply for CDBG funds are required to have a properly adopted Community Housing Plan. Such a plan must be adopted by the Selectmen or Town / City Council at a properly noticed public hearing, and is considered valid for 3 years by the NHOSP CDBG program.

New Hampshire Community Development Finance Authority

The Community Development Finance Authority (CDFA) is also an important public source for the purchase and/or rehabilitation of low to moderate-income housing. CDFA provides funds by "pooling" money from various banks and lending institutions to provide grants or very low interest

loans to groups developing affordable housing. In addition to this source, CDFA has the unique ability to grant tax credits to private developers who provide properties for rehabilitation into low to moderate-income housing. In 1996, CFDA provided funds for the renovation of 220 dwelling units throughout New Hampshire.

New Hampshire Housing Finance Authority
Created in 1981 by the State Legislature, the New Hampshire Housing Finance Authority (NHHFA) is a nonprofit entity committed to developing affordable housing opportunities in New Hampshire. NHHFA is funded through the sale of tax exempt bonds. The authority has created several multifamily housing development programs which provide investors with incentives such as tax credits, deferred mortgage payments, low interest loans, and grants. In recent years, the NHHFA has been involved in the creation of Mobile Home Park Co –Ops as well as construction and rehabilitation of rental housing and single family homes.

New Hampshire Community Loan Fund
Founded in 1983, this organization helps connect low-income households with lending institutions willing to invest in housing projects to serve low-income housing opportunities. In 1999, the organization loaned $2,130,643 to start 12 low-income housing projects throughout New Hampshire. Projects which this organization has helped to develop include Meadow Brook Elderly Housing in Epsom and the Riverbend Special Needs Housing Facility in Boscawen.

Department of Housing and Urban Development (HUD)
The Federal Department of Housing and Urban Development (HUD) has been fostering affordable housing in many of the nation's communities since its inception in 1965. HUD administers numerous programs to provide housing for low to moderate-income families.

Popular rental assistance programs include:

- Section 8 Housing: Program whereby private landlords enter into a contract with the federal government where, in exchange for providing sub-market rent to low to moderate-income families, the landlord receives a government subsidy.
- Public Housing: Program in which the federal government provides resources for the operation of housing units owned and operated by a local, state, or federal entities.
- Subsidized Private Housing: Program in which housing units are owned and operated by a private entity, but are partially funded with public resources to reduce rent. This is similar to the Section 8 Housing program.
- HOME Grant Program: A program created to provide local and state entities with seed money to develop affordable housing projects.

HUD also administers several popular home ownership programs for low to moderate-income families.

US Department of Agriculture – Rural Housing Service (RHS)
Like HUD, the U.S. Department of Agriculture (USDA) also has affordable housing programs for low to moderate-income families located in rural communities. Each year the USDA provides 65,000 low to moderate-income families find decent affordable housing. Popular affordable housing programs that the USDA administers include:

- Home ownership loans which require no down payment and have below market interest rates;
- Self Help Housing Programs where USDA provides materials to families which build their own homes while working with other families;
- Rural Rental Housing Loans which assist developers financing low to moderate-income rental housing;
- Farm Labor Housing Loans for the repair of construction of farm worker housing;
- Housing Preservation Grants
- Housing Subsidies; and,
- Community Facilities Loans, Grants, or Loan Guarantees.

Summary

Evidenced by the Town's Community Survey and Visioning Session feedback, maintaining the rural character of Hopkinton, while providing for a safe and sanitary environment, is paramount to future housing plans. With attention towards providing safe housing through defined building codes and inspections, Hopkinton can better meet its vision of providing housing for all income levels and population strata, while maintaining the character of the community. Continued sensitivity on affordable housing objectives and housing needs for our aging population, coupled with our desire to balance the costs of growth, shall serve as the premise for sound, long-term housing plans. The recommendations on the findings in this Chapter reflect that commitment to a rural Hopkinton.

Chapter VI
Transportation

Introduction

A safe and efficient transportation network is an essential component for the development of a prosperous community. Over the past several years, development trends in Hopkinton have been largely influenced by I-89, US202/NH9, and the growth and development occurring in Concord. It is likely that these will continue to play a major role in the future development of Hopkinton and the central New Hampshire region.

This Transportation Chapter reaffirms a commitment to the preservation of the rural and open space character of Hopkinton and seeks to provide an integrated system of transportation for the 21st Century that will minimize traffic congestion, reduce related vehicle-generated air pollution, and promote an attractive entry corridor and a vibrant, viable downtown business core. This chapter promotes the concept of a safe, pedestrian-friendly Town and considerations for commuters, as well as those with special needs.

Rural character and sense of place are important components to a high quality of life in Hopkinton. Hopkinton's rural atmosphere is defined by its recreational trails, rustic gravel roads, historic stonewalls, and distinct Villages. Hopkinton residents enjoy and treasure the ability to walk throughout the Villages and cross-country ski on the quiet back roads. These features are equally important in the fabric of the identity of the community and need to be protected and preserved. This Chapter hopes to identify these important resources and propose strategies to preserve them.

This chapter favors alternative transportation modes and routes where appropriate, and supports the continued development of an intermodal transportation strategy for the integration of pedestrians, bicycles, buses, car-pools, and park-and-ride facilities. These will help reduce the number of single occupancy vehicles, while remaining sensitive to the needs of vehicular access to the downtown business district.

This Chapter favors adding traffic calming devices on some Town roads, both in the Village areas and outside the Villages, as necessary. Traffic calming devices are techniques in road design that encourage cars to slow down. To retain the residential character of existing neighborhoods, traffic calming measures, plus signage for "residential traffic," may be an appropriate solution to some of the safety concerns of residents.

The purpose of this Chapter is to provide an inventory and assessment of Hopkinton’s transportation network, detail sources of funding for projects, identify new alternative modes of transport for the Town’s population, and provide policy recommendations to improve the existing transportation network and achieve overall community transportation goals.

In this Chapter, the following topics will be explored:

Key Findings

- Utilize traffic count data to identify corridors that may become threatened in the future by development trends. In locations where traffic has increased significantly, land use trends, and access management policies should be closely examined and modified to best maintain and promote an efficient transportation network.
- Identify local residential roads, that are not suited for heavy commuter traffic, and work to minimize “through-traffic” wherever viable alternatives can be provided.
- Review and consider the adoption of access management techniques into the Site Plan and Subdivision regulations
- Identify and prioritize areas with existing pedestrian facilities for regular maintenance. Propose new areas for facilities that will extend and connect the existing infrastructure. Use innovative methods to increase pedestrian safety, which could include such things as raised cross-walks, stripped or colored cross-walks, increased signage, or walking paths separated from the road by landscaping. Education of drivers to alert them to the location of sidewalks and cross-walks would also be beneficial.
- Investigate the use of traffic calming measures to discourage high speeds and to direct traffic around neighborhoods
- Review and evaluate the Town’s current road standards and develop new road construction standards that allow for and encourage a variety of road types that enhance the uniqueness of Hopkinton’s current and future transportation infrastructure.
- The design and planning of residential streets should follow natural contours and preserve natural features whenever practical; minimize traffic speed, volume, noise, congestion, and hazards to pedestrians; and minimize the amount of paved area to reduce stormwater runoff, and thereby protecting water resources and reducing construction costs.
- Research the possibility of developing flexible length requirements for cul-de-sacs, in consultation with the Fire Chief and Superintendent of Public Works.
- Identify, with the help of the Conservation Commission, Class VI roads, railroad beds, existing paths, and areas along the various water bodies in Town that connect open space, forest, conservation, and/or agricultural land and would help create a greenway trail network.

- Continue to research the available options for increasing transportation access to industrial land while reducing vehicle traffic through Contoocook Village. Environmental impacts, economic benefits, and efficiency should be kept in mind.
- Continue working with NHDOT to improve the control of traffic at the intersection of Routes US202/NH9 and Route NH 103 in Hopkinton Village.
- Work with regional, State, and Federal agencies and programs to prepare a comprehensive transportation plan that includes funding availability for projects and programs.
- Investigate the need for alternatives to single occupancy vehicles, such as Concord Area Transit (CAT) and Park & Ride facilities.
- Class V gravel roads and Scenic Roads are important historic assets, provide excellent recreational opportunities, and foster a sense of community. Changes to these roads should not be made without considering their historic importance, recreational opportunities, and sense of community.
- In coordination with other groups and municipalities, encourage the planning and development of an efficient regional and local bicycle route system and increase public awareness of bicycling as a viable mode of transportation.

Community Survey and Visioning Session Results

At the beginning of the Master Plan process, a survey was sent out to every household and non-resident property owner in the Town of Hopkinton. Of the 2,700 surveys sent out, there were 973 surveys returned, for a 36% response rate. The following four community survey questions directly relate to the topics covered in this Chapter.

According to the survey question "Where do you work?", only 21.2% of respondents work full-time and 39.9% work part-time in Hopkinton or Contoocook. A vast majority of residents commute out of Town every day for work, placing a strain on the transportation infrastructure at peak times during the day. The two most popular employment destinations, other than Hopkinton/Contoocook, are Concord (41.4% full-time and 39.9% pert-time) and Manchester (10.4% full-time and 3.8% part-time).

In your opinion, what is the general condition of the roads in Hopkinton?

Answer	# of Responses	Percentage
Good	410	42.1
Fair	419	43.1
Poor	48	4.9
No Opinion	6	.6
No Answer	90	10.2

85.2% of respondents feel that the road conditions are "fair" or "good" in Town.

Please indicate which community services and facilities you would like the Town to develop and/or improve in the future

Answer	# of Responses
Extension of Concord Area Transit (CAT)	211

Currently, CAT services only the City of Concord and the Town of Penacook on a regular schedule. However, if service were expanded to include Hopkinton, a potential 41.4% of full-time and 39.9% of part-time workers, living in Hopkinton, could take advantage of the transportation to and from Concord.

In order to help Town officials better direct their effort to meet the needs of the community, we need your opinion on the relative importance rating on the following issues and Town services.

Town Services/Issues	Good	Fair	No Opinion	Poor	No Answer
Road Maintenance	482	318	32	58	83
	(49.5%)	(32.7%)	(3.3%)	(6%)	(8.5%)

Almost half of the respondents rated road maintenance services as "good", as can be seen in the results listed above.

In May 2000, a community Visioning Session was held, in which all community members were asked to participate. Several questions were asked and the following list contains individual participant responses from the visioning session that relate to transportation.

"What would you like Hopkinton to look like 75 years from now?"

Focus on developing walking areas
Preservation of currently unpaved roads
Reasonable transportation network
Find a way to decrease the dependency on automobiles
Transit should be available for all people
Furthering transportation networks/options
Better road signage, clearer road signage, and less of it
Roads should be convenient for pedestrians and cars
Develop pedestrian pathways, taking into account the elderly
Work with the New Hampshire Department of Transportation to preserve open space
Roads should connect houses and commercial areas in a coordinated fashion
Develop a system for commercial transportation that does not negatively impact residential areas

What are the Town's strengths and opportunities?

Large number of scenic, unpaved roads
Lack of pedestrian access to the Community Center

What are the Town's weaknesses or areas of concern?

Elimination of Class VI roads
Pedestrian access along the River bank

When looking at the responses gathered from the participants at the Visioning Session, two main themes that are repeated throughout are the desire to retain Hopkinton's rural character and the desire to create a transportation network that does not focus solely on the automobile.

State Aid Highway Classification

Another system used to classify roadways in New Hampshire is the State Aid Highway Classification System. This system was created under the requirement set forth by RSA 229-231, to determine the responsibility for the reconstruction and maintenance of roadways located in the State. This system is also used to determine the eligibility of roads for State funding. This classification system is broken into six categories (Class I through Class VI highways), four of which are in Hopkinton. See the **Highway Classification Map** for more detail.

Class I, Trunk Line Highways
This classification consists of all existing and proposed highways on the primary state system, except all portions of such highways within the compact sections of communities, providing said sections are Class I highways. I-89 is a Class I Highway.

Class II, State Aid Highways
This classification consists of all existing and proposed highways on the secondary state systems, except those in compact sections of cities and towns. All sections of these roadways must be improved to the satisfaction of the NHDOT and are maintained and reconstructed by the State. The Town must maintain all unimproved sections of these roadways, where no state or federal moneys have been expended, until they are improved to NHDOT satisfaction. All bridges maintained with state or federal funds shall be maintained by the State, while all other bridges shall be the responsibility of the municipality. NH 103 and US202/NH9 are Class II Highways.

Class V, Rural Highways
This classification consists of all traveled highways that the town or city has the duty to maintain regularly. Briar Hill Road, South Road, and Gould Hill Road are examples of Class V Highways.

Class VI, Unmaintained Highways
Roads under this category consist of all other public ways, including highways subject to gates and bars, and highways not maintained by the Town for more than 5 years. Buzzwell Corner Road and New Road are examples of Class VI Highways.

The following table shows the breakdown of the six different classes of roads, by mileage, in the Town of Hopkinton.

Roadway Mileage by Classification

Road Classification	Description	Miles 1980	Miles 1986	Miles 1992	Miles 1998	% of Total 1998 Miles
Class I	Trunk Line Highway	26.79	26.79	26.87	27.245	21.76%
Class II	State Aid Highway	8.05	7.91	8.14	8.17	6.52%
Class III	Recreational Roads	0	0	0	0	0%
Class IV	Urban Highways	0	0	0	0	0%
Class V	Rural Highways	75.64	76.76	77.46	78.066	62.35%
Class VI	Unmaintained Highway	8.99	9.09	12.79	11.73	9.37%
Total		**119.47**	**120.55**	**125.26**	**125.211**	**100%**

Source: NHDOT January 1, 1998 Report

Traffic Count Data

Since the 1980s, the New Hampshire Department of Transportation (NHDOT) has conducted annual or semi-annual traffic counts on State roadways in an effort to gauge the use of roadways by hourly, daily, weekly, and monthly increments. Most major roads in the community are monitored on a staggered basis, generally in 3-year increments.

In 2001, NHDOT and the Central New Hampshire Regional Planning Commission (CNHRPC) monitored traffic at 7 locations in Hopkinton. See **Appendix D** traffic count data for 1981-2001. For roads that have had traffic counts done more than once, by either CNHRPC or NHDOT, the percentage change was calculated from the earliest to the most recent traffic count figures. As can be seen below, the locations with the largest percentage increase in traffic are Kearsarge Avenue, Exit 5 on I-89, and Briar Hill Road. The three locations with the largest decrease in traffic include Stumpfield Road, Broad Cove Road, and Hatfield Road.

Street Name	Location	Earliest Yr./Latest Yr.	Percent Change
Briar Hill Road	North of US202/NH9	1993/1997	+ 69.6
Broad Cove Road	East of Briar Hill Road	1991/1993	- 45.9
Clement Hill Road	South of Pine Street	1992/1996	- 16.2
East Penacook Road	Over Blackwater River	1992/1997	0
Hatfield Road	South of US202/NH9	1992/1998	- 29.8
I-89	South of NH 127, exit 5-6	1991/1998	+ 33.7
I-89	South of US202/NH9, exit 4-5	1991/1997	+ 27.3
I-89	Ramp over US202/NH9, exit 5	1994/1998	+ 92.0
Jewett Road	South of US202/NH9 and NH103	1990/1998	+ 24.6
Kearsarge Avenue	North of Spring Street	1995/1997	+ 28.2
Kearsarge Avenue	Browns Brook	1982/1998	+ 98.0
NH 103	North of US202/NH9	1994/1998	- 7.9
NH103	Over Contoocook River	1994/1998	+ 15.9
NH103	West of Putney Hill Road	1982/1997	+ 29.2
NH127	North of Dolly Road	1990/1998	+ 33.4
NH 127	West of I-89	1991/1998	+ 25.8
Pine Street	West of Bound Tree Road	1990/1999	+ 1.7
Stickney Hill Road	Over Boutwell Mill Brook	1992/1997	+ 32.1
Stumpfield Road	Over Hopkinton Lake	1992/1997	- 48.8
Town Road	Over Contoocook River	1992/1996	- 23.3
US202/NH9	East of Hawthorn Hill Road	1994/1998	0
US202/NH9	East of NH103	1982/1998	+ 80.6
US202/NH9	Under I-89 Underpass	1994/1998	+ 8.7
US202/NH9	West of Currier Road	1994/1998	- 15.9
US202/NH9	West of NH103	1993/1997	+ 7.4
US202/NH9	Henniker Town Line	1981/1997	+ 60.0

Source : NHDOT and CNHRPC Traffic Counts 1981-1999

The **Road Count Location Map** gives a better understanding of where these counts were conducted in the community.

Recommendations:

- Traffic count data should be utilized to identify corridors that may become threatened in the future by development trends.
- In locations where traffic has increased significantly, land use trends and access management policies should be closely examined and modified to best maintain and promote an efficient transportation network.
- The Town should work with the NHDOT and CNHRPC to identify and conduct traffic counts on roads of concern in the community.

Commuting Patterns

The 1990 Census is the most current source of information on commuting patterns in the central New Hampshire region. As can be seen below, in 1990, 74.3% of Hopkinton residents were commuting out of the Town to work, while 406 people were commuting into Hopkinton for work (based on 2,397 people reporting).

The 1990 data can be compared to the 1980 commuting patterns, which were reported in the 1990 Census as well. Of those reporting in 1980, 60% commuted out of Hopkinton to work. From 1980 to 1990, there has been an almost 15% increase in residents commuting out of Hopkinton for employment opportunities.

Understanding the commuting patterns of the labor force can assist community leaders in planning roadway improvements that will make important travel routes more efficient, safe, and promote sound economic growth.

Commuting Patterns in Hopkinton and Neighboring Communities 1980-1990

1990 Data	**Hopkinton**	**Concord**	**Bow**	**Henniker**	**Warner**	**Webster**
# Reporting	2,397	17,775	2,948	1,991	1,192	755
# Working in Town of Residence	615	12,159	364	903	309	93
#Commuting Out of Town	1,782	5,616	2,584	1,088	883	662
1980 Data	**Hopkinton**	**Concord**	**Bow**	**Henniker**	**Warner**	**Webster**
# Reporting	1,648	13,490	1,868	1,221	825	486
# Working in Town of Residence	660	11,160	323	636	232	53
#Commuting Out of Town	988	2,330	1,545	585	593	433

Source: 1990 Census

1990 Commuting Patterns
Hopkinton and Neighboring Communities

Commuting To	
	Hopkinton 1990
Hopkinton	615
Bedford	42
Boston	22
Bow	89
Concord	1,033
Hanover	24
Henniker	38
Hillsborough	35
Hooksett	24
Laconia	27
Manchester	201
Nashua	27
Warner	6
Webster	13

Source: 1990 Census

When comparing this 1980 and 1990 Census data to the Master Plan survey data collected in 2000, the percentage has increased to 21.2% of full-time and 39.9% of part-time employees working in Hopkinton and/or Contoocook, while 78.8% of full-time and 60.1% of part-time residents are traveling out of Hopkinton and/or Contoocook for employment. (Compare 2000 Census Data when available)

Recommendations:

- Identify local residential roads, that are not suited for heavy commuter traffic, and work to minimize "through-traffic" wherever viable alternatives can be provided.
- Continue to monitor major commuter roads used to enter and exit the community and work to make them more efficient and safe.
- Encourage alternative modes of transportation, that are not single occupancy vehicles, to move people to and from their place of employment.
- The Town, in conjunction with NHDOT, should investigate the need for a Park and Ride facility to help reduce congestion on Town roads.
- The Town should encourage and promote the local, state and regional bicycle and pedestrian networks.
- The Town, in conjunction with CNHRPC and Concord Area Transit (CAT), should assess the interest in expanding CAT bus service into Hopkinton.
- Encourage communication and cooperation with neighboring Towns to identify regional traffic impacts from proposed development.

Access Management

Access management works to reduce traffic congestion by:

- Limiting the number of places vehicles are turning and entering the roadway
- Reducing deceleration in travel lanes, thus promoting efficiency
- Removing turning vehicles from travel lanes

Areas along Maple Street (near exit 6 off I-89), Burnham Interval Road, and sections of Pine Street are considered to be prime commercial and industrial land. Currently, the land within those important road corridors are zoned for commercial development. As Hopkinton continues to be developed, pressure along these routes will continue to increase. Therefore, a balance needs to be established through access management to help meet both the economic and transportation needs of the community regarding these important transportation corridors.

The Hopkinton Site Plan Regulations contain very few requirements pertaining to access management of commercial sites. Access management techniques could be employed to alleviate traffic congestion and inefficient systems. Amending the Site Plan and Subdivision Regulations will allow a more efficient, safe, and cohesive system to be developed.

Recommendation:

- The Planning Board should review and consider the adoption of access management techniques into their Site Plan and Subdivision regulations.

Pedestrian Infrastructure

Residents of Hopkinton value the rural and country atmosphere of the Town, yet there is a threat to that atmosphere from the increasing numbers of cars on the road and their associated speed, especially in the residential neighborhoods. Pedestrian facilities, such as paved sidewalks and gravel walking paths, are critical features for roadways with high volumes of traffic or high speeds. The primary purpose of sidewalks is to improve safety for pedestrians by separating them from the travel lanes of roadways. Sidewalks can also serve as a source of recreation for residents, a non-motorized mode of travel, serve to beautify an area, or stimulate economic activity in village settings.

Speed limits and cross-walks have been the usual method for improving pedestrian safety and other non-motorized modes of travel. In both rural and urban areas, the minimum speed limit a town can impose is 25 miles per hour. Limits can be made lower at intersections and in school zones. There are currently only 5 cross-walks in Town, located near the schools and in the Village centers. Cross-walks located on State roads must be approved and installed by NHDOT, while the Town is responsible for those located on Town-owned and Town-maintained roads.

Traffic calming suggests road design techniques using active or physical controls (bumps, barriers, curves, rumble strips, etc.) and passive controls, such as signs and traffic regulations, to reduce speeds. Traffic calming measures foster safer and quieter streets that are more hospitable to cyclists, pedestrians, and joggers and enhance neighborhoods and downtown environments. The potential benefits of traffic calming include reduced traffic speeds, reduced traffic volumes (by discouraging "cut-through" traffic on residential streets), and often an improved aesthetic quality of streets.

Hopkinton does have some existing pedestrian infrastructure within Town. **The Pedestrian Infrastructure Map** shows the existing sidewalks and cross-walks, recommended areas for sidewalks and cross-walks, and areas of Town that may benefit from various types of traffic calming measures.

Recommendations:

- Identify and prioritize areas with existing pedestrian facilities for regular maintenance. Propose new areas for facilities that will extend and connect the existing infrastructure. Work with NHDOT regarding the placement and maintenance of cross-walks on State roads within Town.
- Use innovative methods to increase pedestrian safety, which could include such things as raised cross-walks, stripped or colored cross-walks, increased signage, or walking paths separated from the road by landscaping. Education of drivers to alert them to the location of sidewalks and cross-walks would also be beneficial.
- Investigate the use of appropriate traffic calming measures to discourage high speeds and to direct traffic around neighborhoods.
- Before approving upgrades to residential roads, the Town should consider what impact such upgrades will have on traffic, speed, pedestrian safety, and sense of community.
- The Town could consider lowering the speed limit in areas that have seen a large increase in traffic or numerous motor vehicle accidents that may be due to excessive speed.

Accident Data and Analysis

One of the most obvious methods to identify where transportation improvements are needed is to analyze the location, frequency, and type of accidents that occur at various locations in the community. There were 495 reported accidents in Hopkinton in the last 5 years. The list below, as well as the **Accident Location Map**, provides a quick picture of known automobile accident locations, which may be due, in part, to the conditions of the road. The list below contains the names of roads where accidents were reported and the number of accidents reported for the time period of January 1995 to June 2000.

Accident Data for Hopkinton, January, 1995-June, 2000

Name of Road	# Accidents	Name of Road	# Accidents
Beech Hill Road	1	Kast Hill Road	3
Bound Tree Road	5	Kearsarge Avenue	9
Briar Hill Road	18	Kimball Lake	1
Broad Cove Road	6	Little Tooky Road	2
Brockway Road	3	Main Street	51
Carriage Lane	1	Maple Street	46
Cedar Street	1	NH103	15
Clement Road	16	NH127	2
College Hill Road	5	Old Henniker Road	14
Crowell Road	2	Park Avenue	27
Dolly Road	1	Penacook Road	11
Dustin Road	2	Pine Street	12
E. Kast Hill Road	1	Pinewood Drive	2
E. Penacook Road	7	Pleasant Pond Road	3
Elm Brook Park Road	1	Rollins Road	2
Exit 4	3	South Road	7
Exit 6	3	Spring Street	2
Farrington Corner Road	3	Stagecoach Road	1
Georges Park	1	Stumpfield Road	2
Gould Hill Road	5	Sugar Hill Road	11
Hatfield Road	6	Tamarack	2
Hopkinton Road	45	Tyler Road	3
Houston Drive	2	US202/NH9	69
I-89	39	Warner Road	1
Jewett Road	4		

Recommendations:

- Identify and prioritize intersections that need improvement because of safety issues.
- The Police Chief, Fire Chief, and Superintendent of Public Works should annually review accident locations and determine enhancements that could be made to improve safety. This list of enhancements should be submitted to the Town Road Committee, Planning Board, and Board of Selectmen for review and comment.
- The Police Department and Public Works Department should establish a system for the public filing of complaints/comments on the condition of roads, snow removal, icy conditions, intersections, and signage to better prioritize roads within Town that may require safety enhancements.

Town Road Construction Standards

How streets are designed and built is a key part of well-planned, orderly growth. The design and construction of roads affect the visual quality of communities, public safety, and quality of life for years to come.

Different streets have different functions, thus requiring different designs. Road design standards should have built-in flexibility that fits with natural contours, that preserve natural features, and

meets other community objectives. Rigid design standards can lead to over-designed roads, which encourage excessive vehicle speeds and present a less attractive neighborhood streetscape. Sound road design considers topographic features, to assure proper road functions and to minimize impacts to vegetative and other natural features. Flexible street alignment and design standards allow new roads to fit well with the land, and preserve the natural features to the area as much as possible. See **Appendix E** for examples of flexible road design standards.

Residential street standards provide the basis for safe, efficient, and economical access to these areas. Safe residential streets are attained by specifying street geometrics that discourage excessive speeds and emphasize access. Residential houses are efficiently accessed with lower travel speeds on streets that are safer for bicyclists and pedestrians. The purpose of residential streets is to serve the land that abuts them. In doing so, residential streets should promote the safe and efficient movement of vehicular and pedestrian traffic, take into consideration land use, construction, and future maintenance.

Provisions for flexible design requirements for Town roads will allow the Planning Board and developers the necessary flexibility to design, approve, and build roads that are at the appropriate scale. Keeping pavement and travel lanes to a minimum width, relative to a streets function, helps keep speed down, preserves a more appealing streetscape, reduces costs to the developer and Town, allows the Town to retain its rural look and feel while accommodating growth. The current Town Road Construction Standards are a "one-size fits all" approach that does not allow for flexibility in road construction or design.

Recommendations:

- The Superintendent of Public Works and Road Committee should compare the existing Town Road standards to that of other Towns similar to Hopkinton and make recommendations for changes/modifications based on that review to the Planning Board.
- The Planning Board should review and evaluate its current road standards and develop new road construction standards that allow for and encourage a variety of road types that enhance the uniqueness of Hopkinton’s current and future transportation infrastructure.
- When reviewing road plans, the Planning Board should look at how the road design relates to the terrain and topographic features present at the site and require, where feasible, that the road follow these features.
- The design and planning of residential streets should follow natural contours and preserve natural features whenever practical; minimize traffic speed, volume, noise, congestion, and hazards to pedestrians; and minimize the amount of paved area to reduce storm water runoff, and thereby protecting water resources and reducing construction costs.
- Aesthetic and landscaping requirements should be researched by the Planning Board, in conjunction with the Superintendent of Public Works, and incorporated into the Town Road Construction standards.
- New roads in rural areas should be consistent in design with the rural collector roads that they serve.
- Research the creation of pedestrian and wildlife underpasses, where appropriate and feasible, when roads are being built or reconstructed.
- The Town should work with NHDOT and the local utility company to explore the idea of burying utility lines or staggering utility poles, when roads are reconstructed or built.

- Research the possibility of developing flexible length requirements for cul-de-sacs, in consultation with the Fire Chief and Superintendent of Public Works.

Private Roads

Private roads are roads that have been constructed but, for various reasons, are not maintained by the Town or considered Town-owned roads. The Town of Hopkinton does not allow the construction of private roads, unless it is within a manufactured housing subdivision. There is currently no Town-adopted policy regarding private roads, their construction, maintenance, or the Town's acceptance of them. The Town does provide maintenance to private roads at the request of the residents living on those roads. The decision to have the Town do such maintenance must be approved each year at Town Meeting.

The Town of Hopkinton has twenty-nine roads that are currently classified as private roads. Because these roads are private, the Town does not have any authority over their construction, maintenance, or quality. However, these roads are still part of the Town's transportation infrastructure. The following is a list of private roads within the Town of Hopkinton. These can also be seen in the **Private Road, Class V Gravel Road, Designated Scenic Road, and Class VI Road Location Map**.

Bass Lane	Pike Lane
Bluebird Lane	Ridge Road*
Clough Lane	River Grant Drive
Deer Path	Robin Lane
Eagle Lane	Rolf Pond*
Edgewood Drive	Salachar Road*
Evergreen Lane	Salmon Lane
Flintlock Road	Southshore Drive*
Hillcrest Road	Sparrow Lane
Josylvia Way	Sunset Drive
Meadows Drive	Trout Way
North Shore Drive	Tucker Drive
Park Lane	Well House Road
Perch Lane*	Winter Drive

***** Town currently provides winter maintenance

Recommendations:

- The Police and Fire Departments should work with the residents of the private roads and annually review all private roads to make sure that they meet safety standards.
- Create a Private Roads Policy that outlines construction and safety standards for new private roads to be built.

Scenic and Gravel Roads

A major component of Hopkinton's rural character is its scenic and gravel roads. The diversity of roads in Hopkinton contributes to the Town's unique and historic atmosphere. Preserving a significant number of the gravel and Scenic Roads in Town will further enhance the character of the community. Residents have indicated a strong desire to protect these historic and cultural

resources through the various surveys, visioning sessions, and local actions taken by residents to protect them.

The effect that Scenic Road designation has is to legally require a hearing, review and written permission by the Planning Board before the Town, or a public utility, can remove (or agree to the removal of) stone walls, or can cut and remove trees with a circumference of 15 inches (diameter of 4.8 inches), at 4 feet from the ground. However, this planning board requirement is full of exceptions. The planning board can be bypassed - and only selectmen permission is needed - if the Superintendent of Public Works wishes to cut trees that have been declared a "nuisance" under RSA 231:145-146, or which, in the Superintendent of Public Works, opinion, "pose an imminent threat." Moreover, a public utility can cut the trees for the "prompt restoration of service" without anybody's permission (RSA 231:158, II). The Scenic Road law itself does not prohibit landowners from the tree cutting or removal of walls on their own property.

In recognition of the fact that State law itself is not very stringent, the Legislature, in 1991, added RSA 231:158, V, which gives a town broad power to impose Scenic Road regulations that are different from, or in addition to, those contained in the State law. These additional regulations could include giving protection to smaller trees, requiring landowners along scenic roads to adhere to the same requirements as the Town, or by inserting criteria for the planning board to use in deciding whether to grant permission.

Several roads have been designated as Scenic Roads in Hopkinton by the petition process at Town Meeting. The list below shows what roads have been classified as a Scenic Road, the location of the Scenic Road, and the year designated.

- Barton Corner Road (Hatfield Road to the end) - Class V 1974, Class VI 1999
- Beech Hill Road (Gravel Portion of the road) - 2001
- Branch Londonderry Turnpike (Stickney Hill Road to Bow Town Line) - 1975
- Brockway Road (Farrington Corner Road to Jewett Road) - 1975
- Clement Hill Road (Past Hill Road to Pine Street) - 1975
- Clement Hill Road (Pine Street to Warner Town Line) - 1979
- College Hill Road (Hatfield Road to Henniker Town Line) - 1974
- Dunbarton Road (from Farrington's Corner to Bow Town Line)
- Hatfield Road (Tamarack Road to Weare Town Line) - 1974
- Moran Road (Hatfield Road to Thain Road) - 1974
- Old Putney Hill Road (Old Henniker Road to Putney Hill Road) - 1975
- Patch Road (Entire Class V portion) - 2001
- Pet Dow Road (Hatfield Road westerly to the end) - 1974
- Thain Road (Hatfield Road to Stumpfield Road) - 1974

A special attribute that the Town of Hopkinton has is the mix of paved and gravel roads on which to travel. This diversity allows Hopkinton to retain its historic past while, to some extent, acknowledging growth and infrastructure needs. Hopkinton, unlike many communities, has both Class V and Class VI gravel roads. The preservation of numerous gravel roads will help to ensure that the Town honors its history and original design.

The following list is of Class V roads in Hopkinton that are gravel or are a mix of gravel and paved.

- Beech Hill Road (gravel/paved)
- Broad Cove Road (gravel/paved)
- Burrage Road (gravel)
- Crowell Road (gravel)
- Hatfield Road (gravel/paved)
- Little Tooky Road (gravel/paved)
- Mill Road (gravel/paved)
- New Cemetery Road (gravel/paved)
- Old Stage Coach Rd (gravel/paved)
- Old Stumpfield Road (gravel/paved)
- Pet Dow Road (gravel)
- Robert Gould Road (gravel)
- Thain Road (gravel/paved)
- Basset Mill Road (gravel)
- Brockway Road (gravel)
- Camp Merrimack Road (gravel)
- George Road (gravel)
- Irish Hill Road (gravel/paved)
- Lower Straw Road (gravel)
- Moran Road (gravel)
- Old Homes Road (gravel/paved)
- Old Putney Hill Road (gravel/paved)
- Patch Road (gravel)
- Pleasant Pond Road (gravel)
- South Road (gravel/paved)
- Upper Straw Road (gravel/paved)

The **Private Roads, Class V Gravel Roads, Designated Scenic Roads, and Class VI Road Location Map** will show the currently designated Scenic Roads and the Town's Class V gravel roads.

Recommendations:

- The Town can encourage the rural quality of an area serviced by gravel roads by requiring new development to be consistent with the ability of that road to meet the developments needs.
- Class V gravel roads are important historic assets, provide excellent recreational opportunities, and foster a sense of community. Changes to gravel roads should not be made with out considering their historic importance, recreational opportunities, and sense of community taken into consideration.
- Preserve and protect the list of designated Scenic Roads.
- Place an emphasis on educating the public about the existing Scenic Roads in Town and what such designation means.
- The Town should investigate the possibility of strengthening the protections on Scenic Roads, beyond the minimum statutory protections.
- Consider the idea of limiting the number of new roads that can feed into, or be built off of, Scenic Roads, to ensure that the scenic attributes of such roads stay intact.
- The Planning Board should create a set of criteria with which to evaluate proposals for work to be done along the designated Scenic Roads within Town.

Class VI Roads

Class VI roads are roads that are not maintained by the Town, may be subject to gates and bars, and are almost always gravel. A Class V road can become a Class VI road if the Town has not maintained it for five years or more. The Town defers to RSA 674:41 regarding building on a Class VI road. 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" (Town Selectmen) 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 Selectmen does vote to authorize building, the law states that the municipality does not become responsible for road maintenance or for any damages resulting from the road's use.

Class VI roads can be candidates for designation as Class A Trails because they have little or no development associated with them, are scenic, and also serve to connect large areas of open space, conservation, forestry, and/or agricultural lands. Class VI roads are an important component of a Town's transportation infrastructure because they personify the community's rural character and provide vast recreational opportunities. The **Private Road, Class V Gravel Road, Designated Scenic Road, and Class VI Road Location Map** will provide information as to where Class VI Roads are located within the Town Hopkinton.

Recommendations:

- The Town, with the help of the Conservation Commission, should identify Class VI roads, railroad beds, existing paths, and areas along the various water bodies in Town, that connect open space, forest, conservation, and/or agricultural land and would help create a greenway trail network.
- The Town should create a public education campaign that highlights the benefits of a Town greenway system.
- Encourage and support a greenway trail network.
- Create a process to involve the public when a Class VI road is considered for reclassification.
- Discourage scattered and premature development along Class VI roads within Town.
- The Town should adopt building policies for all Class VI roads.
- The Town should maintain their policy prohibiting the subdivision of land whose sole access is a Class VI road, except in the case of conservation uses.

Parking and Public Transportation

Parking and public transportation are two issues that most towns spend the least time planning, studying, or regularly setting aside money for, yet they are the very issues that most residents will identify as areas that need improvement.

In the Master Plan survey, 22% of the respondents said that they would like to see the development of Concord Area Transit (CAT) service in Hopkinton. The support of public transportation expansion into Hopkinton was also discussed at the Master Plan Visioning Session in May 2000. CAT currently services elderly residents of Hopkinton one day a week in requested door-to-door service. There is also a volunteer Dial-A-Ride program in Town. However, these two programs do not meet all of the needs of residents in Town who wish to have public transportation available to them for employment or recreational trips.

Parking in front of the buildings is an issue confronting most of the businesses on Main Street in Contoocook, Hopkinton Village, as well as in other areas of Town. Many of the buildings in Contoocook Village are spaced close together, resulting in little area to build additional parking. Much of the current parking comes at the expense of adequate and safe sidewalks. Cars parked in the downtown have to back out into traffic, causing additional safety issues to those trying to travel through or within the Village. Having adequate and safe parking areas is an element necessary for sound economic development.

The lack of adequate and safe parking facilities, as well as the ability of all residents to get around Town, can inhibit economic growth, reduce the sense of community, and weaken the overall comprehensive transportation infrastructure.

Recommendations:

- Investigate how to address the need and interest in extending regularly scheduled CAT service into Hopkinton.
- Continue to support the limited CAT and Dial-A-Ride public transportation services currently being offered within Town.
- Research the possibility and feasibility of implementing a ride-sharing, carpool, or shuttle program from Hopkinton to Concord. This would be especially beneficial if a Park-and-Ride is built in Hopkinton in the future.
- Consider inventorying all existing parking areas within Town and ranking them as to their safety, adequacy, and usefulness. This inventory could also identify potential new parking spaces that could be created to enhance or replace existing parking areas.
- The Superintendent of Public Works, in conjunction with the Police Department, should create a method for recording resident complaints about unsafe parking areas or those in need of maintenance.
- Make sure that parking facilities throughout Town meet the Americans with Disabilities Act (ADA) requirements.
- Head-in parking in on State Highways should be discouraged to promote public safety.

Local Bicycle Infrastructure

Planning for a bicycle network requires a different approach from that of motorized transportation planning. Bicyclists have different needs from those of motorists, including wider shoulders, better traffic control at intersections, and stricter access management.

Those residents participating in the master plan visioning session expressed a great desire for alternative modes of transportation that could be utilized by all members of the community. Transportation decisions are usually made solely for those who can drive and have access to an automobile. This leaves out transportation options for those can not or choose not to drive, those who choose not to own or can not afford to own reliable automobile transportation, and those who would prefer to combine recreation and exercise with transportation.

By creating a local bicycle infrastructure, members of the community have the ability to travel within Town for employment, shopping, and recreation purposes without driving. As the concern over air quality, traffic congestion, and other environmental issues increases, the need and desire for a well-maintained and safe bicycle route system will continue to grow from a luxury into a necessity. The **Bicycle Infrastructure Map** shows the State and Regional bicycle networks in Hopkinton.

Recommendations:

- A local advisory committee could be developed to see if there is a need and desire for a local bicycle network, as well as where the network could be located.
- The Town should research funding options for creating and maintaining a local bicycle network.
- Encourage the planning and development of a safe, accessible, and efficient regional and local bicycle route system for commuting and recreational purposes.
- Work with other groups and organizations to help promote public awareness, acceptance, and the possibility of bicycling as a viable mode of transportation in Hopkinton.

- Encourage, through Zoning and Subdivision Regulations, the placement of bicycle racks at business and multi-family developments, where appropriate.
- Work with the Police and School Departments to promote and educate on bicycle transportation and safety.

Bridge Network

The NHDOT maintains an inventory of all bridges in New Hampshire using Federal Sufficiency Ratings (FSR), a nationally accepted method for evaluating bridges. A FSR represents the relative overall effectiveness of a bridge as a modern day transportation facility. A FSR greater that 80 means that the bridge is in overall good condition. A bridge having an FSR between 50 and 80 is eligible for federal bridge rehabilitation funding. A bridge with an FSR less than 50 is eligible for either federal bridge replacement or rehabilitation funding.

Functionally Obsolete (FO) refers to a bridge with substandard deck width, under clearance, approach roadway alignment, or inadequate waterway. Structurally Deficient (SD) refers to a bridge with one or more deteriorated components whose condition is critical enough to reduce the safe load carrying capacity of the bridge.

Currently, there are a total of 35 bridges in the Town of Hopkinton. The table below, as well as the **Bridge Network Map**, provides more detailed information on the 35 bridges located in Hopkinton.

Hopkinton Bridge Network

Bridge	Feature Crossed	FSR	Obsolete/ Deficient	Year Built	Owner
US202/NH9	Contoocook River	65.4		1961	State
W.Hopkinton Rd.*	Contoocook River	30.4	SD	1853	Town
US202/NH9	Hatfield Road	83.3	FO	1961	State
Stumpfield Rd.	Hopkinton Lake	97.0		1959	Town
US202/NH9	Elm Brook	85.1		1961	State
NH127	Spillway Channel	69.5	FO	1961	State
I-89 SB	Pine Street	86.0	FO	1959	State
I-89 NB	Pine Street	90.0	FO	1967	State
I-89 SB	Contoocook River	90.3		1959	State
I-89 NB	Contoocook River	94.2		1967	State
NH127	I-89	94.0	FO	1964	State
NH127	I-89	N/A		1964	State
NH103/NH127	Contoocook River	45.7	FO	1935	State
I-89 (EB Ramp)	US202/NH9 EB	96.0		1959	State
I-89 (EB Ramp)	US202/NH9 EB	N/A		1959	State
I-89 EB	US202/NH9	89.9		1959	State
I-89 EB	US202/NH9	N/A		1959	State
I-89 WB	US202/NH9	87.2		1959	State
I-89 WB	US202/NH9	N/A		1959	State
I-89 EB	US202/NH WB	89.8		1959	State
I-89 EB	US202/NH9 WB	N/A		1959	State
South Road	I-89	80.1		1959	State
South Road	I-89	N/A		1959	State
Tyler Road	Contoocook River	83.8		1980	Town
East Penacook Rd.	Blackwater River	81.2		1967	Town
I-89 EB	I-89 Ramp	86.3		1959	State
I-89 EB	I-89 Ramp	N/A		1959	State
I-89 WB	I-89 Ramp	82.1		1959	State
I-89 WB	I-89 Ramp	N/A		1959	State
East Penacook Rd.	Deer Meadow Brook	98.6		1986	Town
Jewett Road	I-89	90.0		1959	State
Jewett Road	I-89	N/A		1959	State
Broad Cove Rd.	Dolf Brook	100.0		1990	Town
I-89	Whittier Brook	81.8		1959	State
Stickney Hill Rd.	Boutwell Mill Brook	100.0		1984	Town

Source: NHDOT Mini Bridge List, 1997

* Rowell's Bridge is on the National Register of Historic Places; it has been refurbished

Recommendations:

- Town should work with NHDOT to repair, replace, and/or upgrade bridges that have a FSR of less than 80.
- The Superintendent of Public Works should annually inspect the Town-owned bridges for safety and work in conjunction with NHDOT for the inspection of the State-owned bridges in Hopkinton.
- The Town should support the continuation of the State Bridge Inspection program by the NHDOT.
- In the future repairing, replacing, upgrading, or creation of bridges in Town, consideration should be given to creating pedestrian and wildlife corridors/connectors under the bridges.

Contoocook Village

In the past three years, the Hopkinton community has engaged in a great deal of planning concerning Contoocook Village. In order to foster a greater sense of community central to the Village, the Town worked to enhance the economic vitality of the Village and to balance the reality of faster and greater volumes of traffic.

The roads and intersections in Contoocook Village seem to be wider than what is consistent with a Village scale. Wide roads encourage high speed traffic, which decreases the visibility for businesses, compromises the safety of pedestrians, and acts as a barrier within the streetscapes. An example of these wide roads can be seen by looking at Fountain Square. It has been reduced to a small island due to large road widths, which in turn have reduced the opportunity for pedestrian space and a visually appealing center.

Narrow building set-backs help define the street edge, provide a sense of enclosure within the Village area, and have the potential to add to the pleasant pedestrian atmosphere. However, parking on sidewalks and designated parking spaces in front of the building detract from the attractive architecture of the various structures, create a hazard for on-coming traffic and reduce the safety for pedestrians. Designated areas for vehicles and pedestrians need to be separated and clearly defined. NH103 and NH127, the main roads in Contoocook Village, are maintained by the State and therefore coordination and cooperation will be required by both the Town and State to try to redesign the Village.

The compilation of these planning efforts are in the Contoocook Charrette, which is set forth in more detail in the Contoocook Village Chapter of the Master Plan. The transportation-related findings of the Contoocook Charrette include the following three phases as ways to redefine the Village to accommodate economic, pedestrian, and vehicle use effectively, efficiently, and safely.

<u>Depot Phase</u>

Add 37 spaces of off-street public parking in the vicinity of the Depot

Install sidewalks with curbing from the Town Clerk's Office to the Depot Area

Fire Station Phase

Simplify traffic flow between Pine Street and Park Avenue; make Kearsarge Avenue and Pine Street a "T" intersection

Redesign the war memorial triangle as an edge of a street instead of a traffic island

Add sidewalks along Park Avenue towards the High School; connect existing sidewalk up Pine Street to improve links with the library; add sidewalks up Kearsarge Avenue

Fountain Square Phase

Change the existing alignment of Maple Street and Main Street to a new "T" intersection

Add in direct crosswalks across the new "T" intersection

Relocate on-street parking to a convenient 40 space off-street parking area and add in a pedestrian walkway near the café that will connect the new fountain plaza with new parking area

Improve sidewalks all along Main Street and up Maple Street

Over the years it has been suggested that there should be a better way to get to the Burnhams Intervale area without going through Contoocook Village. There have been many meetings to discuss this issue and a study was conducted in 1998 and 1999 to look at this very topic. The 1999 study, commissioned by the Hopkinton Economic Development Committee, investigated five possible routes. The alternatives discussed in the study include:

1. Road from intersection of NH127 and Kast Hill to Industrial Park
2. Road from NH127 across a new bridge and connecting to #1 listed above
3. Road from NH127 (3,000 feet east of PaperTech) north to the Industrial Area
4. Road from exit 7 along the west side of I-89 to Bound Tree Road
5. Road from west of the Digital Building off NH127, just west of exit 6, north across the Contoocook River, through a corn field and then into the Industrial Area

Recommendations:

- The Town should continue to research options for increasing transportation access to industrial land, while reducing vehicle traffic through the Village. Environmental impacts, economic benefits, and efficiency should be kept in mind.
- Define and separate areas for pedestrians and automobiles through the use of curbing, landscaping, sidewalks, and off-street parking.
- Support the development of additional off-street parking in downtown Contoocook Village.
- Drivers should be discouraged from parking on sidewalks and obstructing other pedestrian pathways by clearly designating areas where on-street parking is appropriate and permitted.
- To encourage pedestrian safety install raised crosswalks where necessary.
- Consider using granite curbing to define the street edge and clearly distinguish the road from the sidewalk.
- The Town, with the support and help of local businesses, should visually define pedestrian pathways through the use of trees, shrubs and fencing along the edges of the sidewalk.

- The Town should continue to implement the goals outlined in the Contoocook Charrette.
- Improve the appearance of the Main Street bridge through landscaping, decorative lighting, and the use of small wooden signs identifying Contoocook Village.
- As a way to slow-down traffic, as well as enhance the Village gateway, Fountain Square could be redesigned to expand the area of the landscaped island.
- To encourage a pedestrian network, the Colonial Village Shopping Center, Dimitri's restaurant, the Houston Park, and MCT Telecom should be connected into the Village Center through landscaping and pedestrian improvements.

Hopkinton Village

The historic Main Street in Hopkinton Village is benefited by 200-year-old maple trees, and the Village still preserves the feel of a New Hampshire town of the late 18th Century. The traffic on Main Street is quite heavy, and it is used widely as a throughway for trucks. The current configuration of the US202/NH9 and NH103 intersection is dangerous to both automobiles and pedestrian traffic. There are many issues that relate to Hopkinton Village and the transportation infrastructure located there. This historic Village is in need of protection so as not to lose its unique character, forethought and long-term planning are also needed to ensure that the various issues confronting it get solved to the satisfaction of those involved.

Recommendations:

- Control and reconfigure parking in the Village center to help foster public safety and a pedestrian-friendly environment.
- Improve the control of traffic at the intersection of Routes US202/NH9 and Route NH 103 at the Village Square.
- The Town should continue its conversation with NHDOT regarding the condition, configuration of the intersection, and the drainage of stormwater on Main Street.
- The Town should look into various traffic calming methods that could be used in this area of Town that would facilitate a pedestrian core and village community, while at the same time encouraging slower travel speeds by motorists.
- The Town should work with NHDOT to reconfigure the intersection.
- The Town should consider creating bike lanes along Main Street and extending the existing sidewalk network throughout the Village.

Projects in the State Transportation Improvement Program

The Transportation Improvement Program (TIP) functions to link the statewide transportation planning process with that of the Central NH Regional Planning Commission (CNHRPC) region and local municipalities. The program enables the needs and desires of both small and large municipalities to be discussed in an open forum and then be brought, in a refined form, to the appropriate State and Federal agencies for consideration. The TIP process provides a vital link between municipalities, the Region, and the State in the transportation planning process.

In the 1993 NHDOT report on the Status of the 10-Year Transportation Improvement Plan, five projects were listed that impacted the Town of Hopkinton. These five projects were, at the time of the report, considered completed or were soon to be completed in the following year. Two projects are in conjunction with I-89: the rehabilitation of four bridges on I-89 and Pine Street, and

pavement repair and bridge rehabilitation at Exit 5 to the Warner Town and Exit 6. Two other projects deal with US 202, which include the construction of an overhead sign at the I-89 split and the relocation of NH 127 and Old Concord Road. The final project in the 1993 TIP was the construction of a drainage system at NH 103 south of the High School.

The current State TIP has two projects listed in it that are located in the Town. The first project consists of replacing substandard guardrail and guardrail terminal units from I-89 to east of Hillsborough Village along US 202/NH 9. This is being conducted under the Statewide Guardrail Program/Hazard Elimination Program and is scheduled to start in 2001 and is estimated to cost $900,000 to complete. The second project is to restore the covered bridge and railroad depot to create a Transportation Museum in Contoocook Village, at the intersections of NH103 and NH127. This project is schedule to start in 2003 and is estimated to cost $350,000.

There is only one proposed project in the 2001 TIP and that is for a Park-and-Ride facility off I-89, near exit 6. The nearest Park-and-Ride facilities are in Warner and New London to the north and Concord to the south. The project could create a modestly sized facility off I-89 in Hopkinton with room for expansion, if the need arises. The lot could serve commuters in and around Hopkinton, as well as providing an accessible lot to commuters traveling west.

Recommendation:

- To maximize the opportunities afforded by the State Transportation Improvement Program.

Town Road Management Plan

The Town of Hopkinton has a five-year management plan in place for its roads and transportation infrastructure. The Plan outlines the suitability of development on specific roads in Town, the long-term maintenance of Town roads, and the projected costs associated with such road reconstruction and maintenance. This plan was updated in 1994 and again in 2001 by the Superintendent of Public Works and the Road Committee. The Road Improvement Plan for 2001-2006 can be found in **Appendix F**, which outlines the specific road improvement work and its associated costs.

The Road Committee and Superintendent of Public Works compiled a list of Town Roads with their "condition" as it relates to potential development and increases in traffic occurring on or off such roads. The roads in Town are divided into three categories - good, fair, and poor condition - and recommendations are made as to what level of traffic increases each could handle. The Town Hall has a copy of the most recent report with this listing and breakdown of roads.

A Capital Improvement Plan (CIP) created and updated each year, outlines road projects that will be undertaken, the amount of money required for such projects, and the funding source. The projects outlined in the CIP should be based on the Town Road Management Plan, as well as other long-term planning that the Town has undertaken. The two transportation projects that are consistently in the CIP include shim and paving, budgeted at approximately $75,000, and road construction, budgeted at $125,000.

Recommendations:

- Research and implement available funding options for maintenance and improvements to the transportation infrastructure.
- Work with regional, State, and Federal Departments and programs to prepare a comprehensive transportation plan that includes funding availability for the desired projects and programs.
- The Superintendent of Public Works, in conjunction with the Road Committee, should review and amend the 5-year plan on an annual basis.
- The Road Committee should hold a public hearing on the road management plan before it is finalized, as well having the Planning Board and Selectmen review the Plan.

Strategies to Meet Transportation Needs

Transportation Equity Act for the 21st Century (TEA 21)

Enacted in June of 1998, this multi-billion dollar federal legislation authorizes the Federal Surface Transportation Programs for highways, highway safety, and transit for the 6-year period 1998-2003. Essentially, this act served to reauthorize and expand ISTEA, which expired in 1997. TEA-21 is the parent legislation that funds a variety of transportation programs including the Congestion Mitigation and Air Quality (CMAQ) Improvement Program and the Transportation Enhancement (TE) Program.

Transportation Enhancement Funds (TE)

Transportation Enhancements Program (TE) is another viable source for improving roads in communities. Funding for the TE program is slightly more than $3 million dollars annually. Like CMAQ, these funds are provided in an 80/20 match, with the State paying for the majority of the project cost. Typical examples of projects eligible for TE funds include:

Facilities for bicyclists and pedestrians
Control and removal of outdoor advertising
Landscaping and other scenic beautification
Scenic or historic highway programs
Archaeological planning and research
Historic preservation
Rehabilitation and operation of historic transportation buildings, structures, and facilities
Safety and education activities for bicyclists and pedestrians
Acquisition of scenic easements and scenic or historic sites
Some types of environmental mitigation
Establishment of transportation museums
Preservation of abandoned railway corridors

Federal Aid Bridge Replacement Funds

These funds are available for the replacement or rehabilitation of town owned bridges over 20 feet in length. Matching funds are required and applications for funding are processed through the NHDOT municipal highways engineer.

Highway Block Grants

Annually, the State apportions funds to all cities and towns for the construction and maintenance of Class IV and V roadways. Apportionment “A” funds comprise not less than 12% of the State Highway budget and are allocated based upon one-half the total road mileage and one-half the total population as the municipality bears to the state total. Apportionment “B” funds are allocated in the sum of $117 per mile of Class V road in the community. 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. Hopkinton currently receives $125,000 per year of highway block grant money.

State Bridge Aid
This program helps to supplement the cost to communities of bridge construction on Class II and V roads in the State. Funds are allocated by NHDOT 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
Like the State Bridge Aid program, this program also 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 under RSA 85.

Local Option Fee for Transportation Improvements
NH RSA 261:153 VI (a) grants municipalities the ability to institute a surcharge on all motor vehicle registrations for the purpose of a funding the construction or reconstruction of roads, bridges, public parking areas, sidewalks, and bicycle paths. Funds generated under this law may also be used as matching funds for state projects. The maximum amount of the surcharge permitted by law is $5, with $0.50 allowed to pay for administrative costs of the program. Based upon the number of motor vehicles registered in Hopkinton in 2000, this could yield a maximum of $32,275 annually in additional funding without increasing property taxes.

Development Exaction's
Exaction's are contributions of money or construction of infrastructure by a developer to improve roadways and other transportation needs, as directly related to a proposed development. Common exaction's include the widening of roads, installation of drainage structures, paving, gifts of rights-of-ways, and the installation of traffic signals. Often confused with impact fees, exaction's are collected by the Planning Board at the time of site plan or subdivision approval.

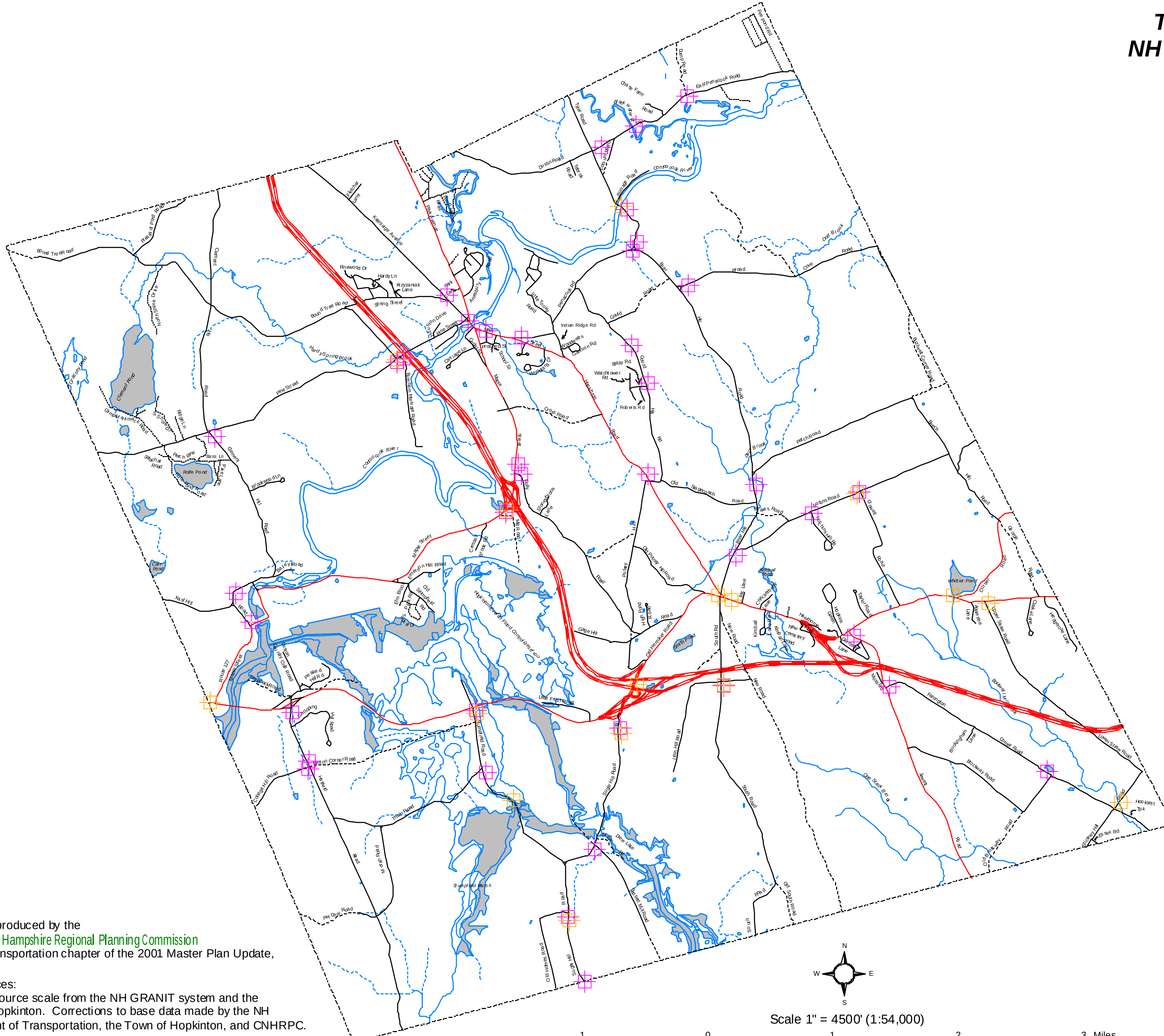
Impact Fees
Authorized by RSA 674:21, communities can adopt impact fee programs to offset the costs of expanding services and facilities communities must absorb when a new home or commercial unit is constructed in town. Unlike exaction's, impact fees are uniform fees administered by the building inspector and are collected for general impacts of the development, as opposed to exaction, which are administered by the planning board and are collected for specific impacts unique to new site plans or subdivisions on Town roads. The amount of an impact fee is developed through a series of calculations. Impact fees are charged to new homes or commercial structures at the time a building permit is issued. When considering implementing an impact fee ordinance, it is important to understand that the impact fee system is adopted by amending the zoning ordinance. The law also requires that communities adopting impact fees must have a Capital Improvements Program (CIP). Lastly, State law also stipulates that all impact fees collected by a community must be used within 6 years from the date they were collected, or else they must be refunded to the current property owners of the structure for which the fee was initially collected.

Capital Reserve Funds
A popular method to set money aside for future road improvements, RSA 35V 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, as well as identify what Town entity will be the agent to expend the funds. Once established, communities typically appropriate more funds annually to replenish the fund or be saved and thus earn interest that will be put towards large projects or expenditures in the future.

Summary

In order to remain a vital community in the future, Hopkinton will require a transportation system that supports the needs of its citizens and its businesses, while at the same time fostering its residential and rural character. The Transportation Chapter is an attempt to articulate this vision and a means by which that vision can be achieved for the Town of Hopkinton. This Chapter includes analysis of available data and conditions and includes recommendations for the future.

TOWN OF HOPKINTON, NEW HAMPSHIRE
NH Department of Transportation and CNHRPC
Traffic Count Locations, 1981 - 2001



This map produced by the

Central New Hampshire Regional Planning Commission

for the Transportation chapter of the 2001 Master Plan Update, May 2001.

Data sources:
1:24,000 source scale from the NH GRANIT system and the Town of Hopkinton. Corrections to base data made by the NH Department of Transportation, the Town of Hopkinton, and CNHRPC.

This map is intended for planning purposes only and may not fully represent geographic conditions. Inaccuracies are known to exist in these data layers. Correctiona, additions, or deletions are welcomed and should be directed to CNHRPC.

Scale 1" = 4500' (1:54,000)

1 0 1 2 3 Miles

5000 0 5000 10000 15000 Feet

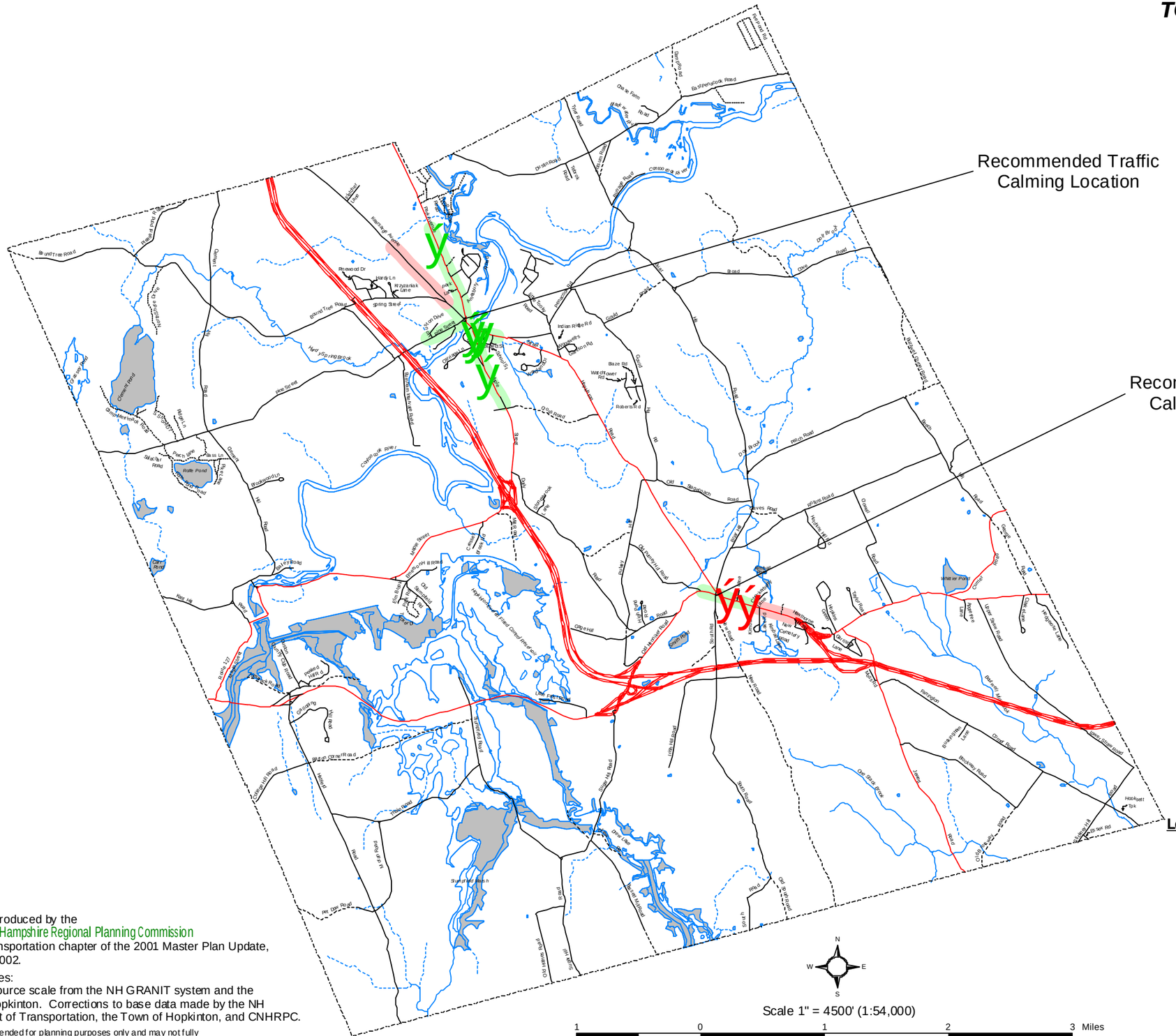
Legend

- Political Boundary
- Interstate Highways
- Class I & II Secondary State Highways
- Class V Town Maintained Roads
- Class VI Town Unmaintained Roads
- Other Roads (Private, Trails, etc)
- Rivers and Streams
- Intermittent Streams
- Water Bodies

Traffic Count Locations

- CNHRPC
- NH DOT

TOWN OF HOPKINTON, NEW HAMPSHIRE
Pedestrian Infrastructure Map



This map produced by the
Central New Hampshire Regional Planning Commission
for the Transportation chapter of the 2001 Master Plan Update, February 2002.

Data sources:
1:24,000 source scale from the NH GRANIT system and the Town of Hopkinton. Corrections to base data made by the NH Department of Transportation, the Town of Hopkinton, and CNHRPC.

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N
W E
S

Scale 1" = 4500' (1:54,000)

1 0 1 2 3 Miles

5000 0 5000 10000 15000 Feet

Legend

- Political Boundary
- Interstate Highways
- Class I & II Secondary State Highways
- Class V Town Maintained Roads
- Class VI Town Unmaintained Roads
- Other Roads (Private, Trails, etc)
- Rivers and Streams
- Intermittent Streams
- Water Bodies

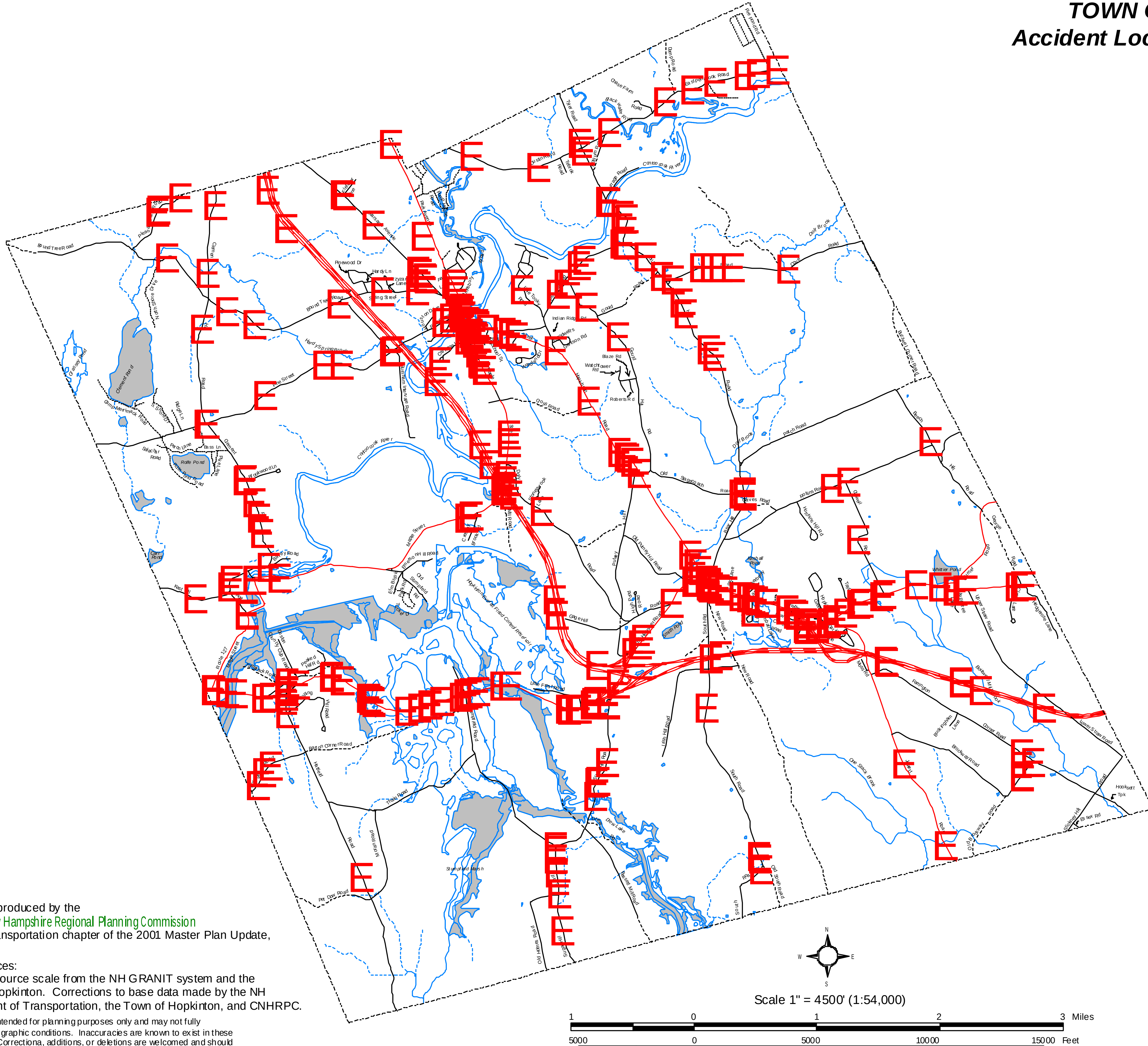
Crosswalks

- Existing
- Recommended

Sidewalks

- Existing
- Recommended

TOWN OF HOPKINTON, NEW HAMPSHIRE
Accident Locations, January 1995 through June 2000



Legend

- Political Boundary
- Interstate Highways
- Class I & II Secondary State Highways
- Class V Town Maintained Roads
- Class VI Town Unmaintained Roads
- Other Roads (Private, Trails, etc)
- Rivers and Streams
- Intermittent Streams
- Water Bodies
- E Accident Locations

This map produced by the
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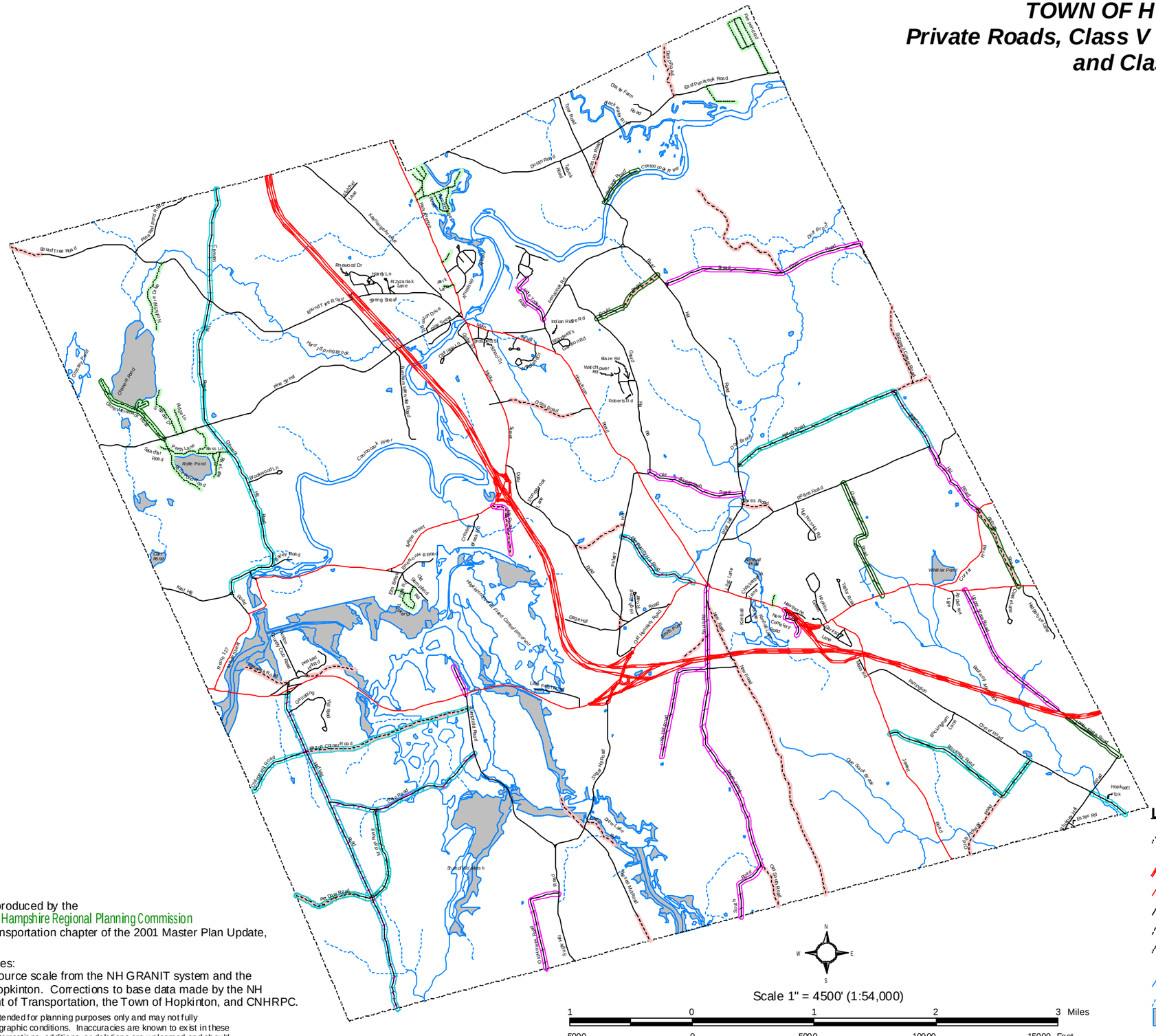
TOWN OF HOPKINTON, NEW HAMPSHIRE
Private Roads, Class V Gravel Roads, Designated Scenic Roads, and Class VI Roads Location Map



Legend

- Political Boundary
- Interstate Highways
- Class I & II Secondary State Highways
- Class V Town Maintained Roads
- Class VI Town Unmaintained Roads
- Other Roads (Private, Trails, etc)
- Rivers and Streams
- Intermittent Streams
- Water Bodies
- Designated Scenic Roads
- Class V Gravel Roads
- Class V Paved and Gravel Roads
- Private Roads
- Class VI Roads

This map produced by the
Central New Hampshire Regional Planning Commission
for the Transportation chapter of the 2001 Master Plan Update,
May 2001.

Data sources:
1:24,000 source scale from the NH GRANIT system and the Town of Hopkinton. Corrections to base data made by the NH Department of Transportation, the Town of Hopkinton, and CNHRPC.

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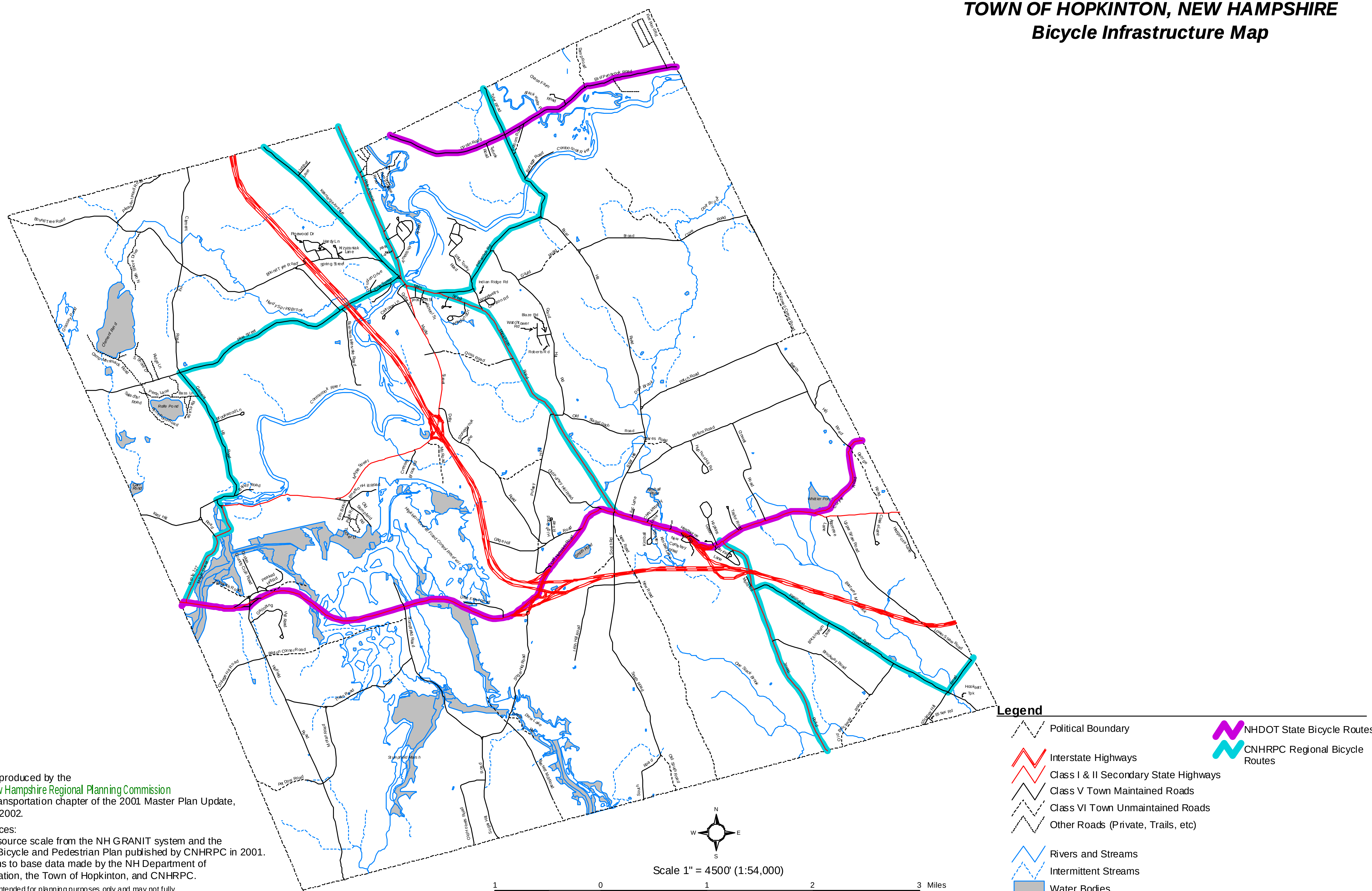
TOWN OF HOPKINTON, NEW HAMPSHIRE
Bicycle Infrastructure Map

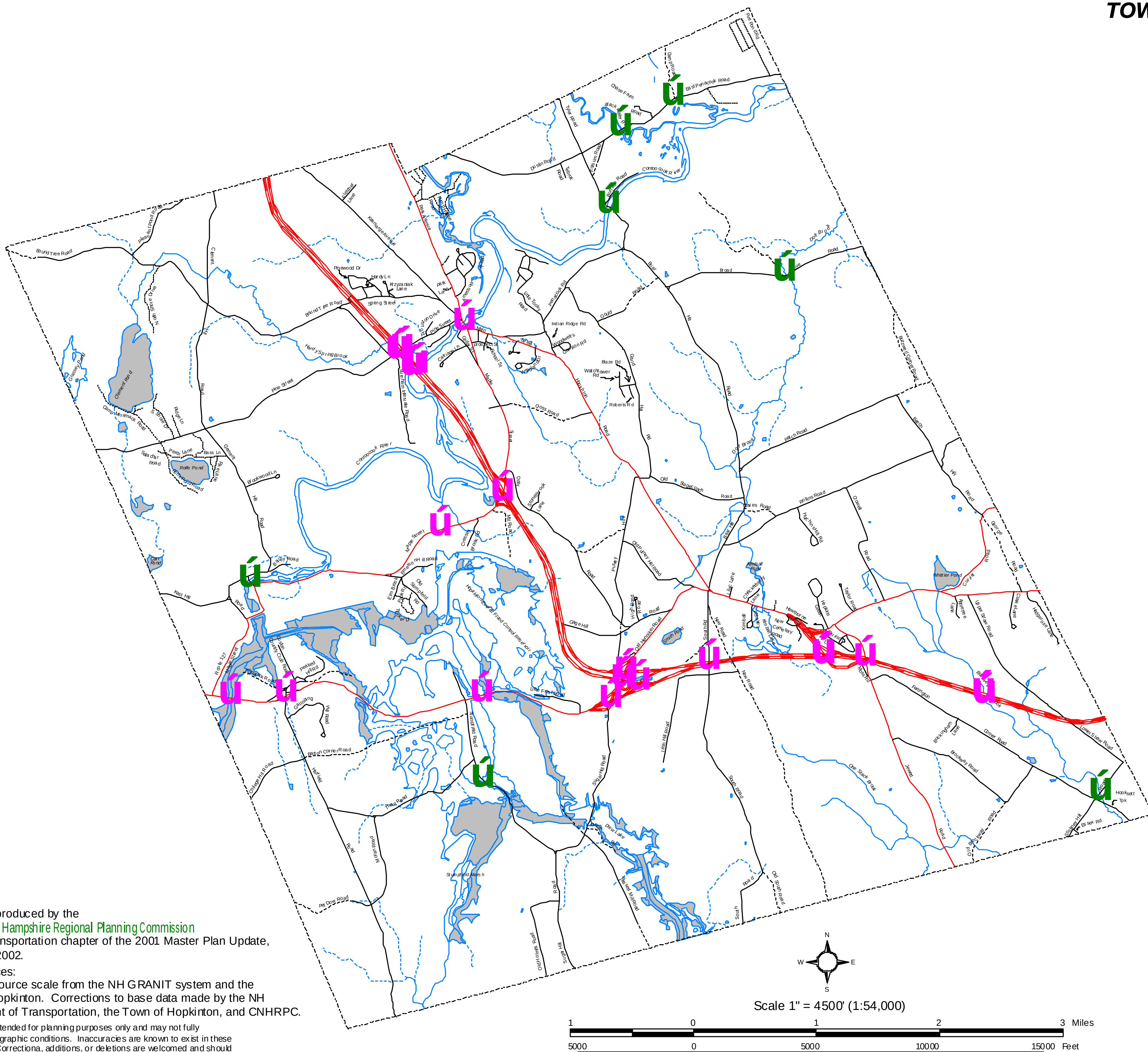


This map produced by the
Central New Hampshire Regional Planning Commission
for the Transportation chapter of the 2001 Master Plan Update, February 2002.

Data sources:
1:24,000 source scale from the NH GRANIT system and the Regional Bicycle and Pedestrian Plan published by CNHRPC in 2001.
Corrections to base data made by the NH Department of Transportation, the Town of Hopkinton, and CNHRPC.

This map is intended for planning purposes only and may not fully represent geographic conditions. Inaccuracies are known to exist in these data layers. Correctiona, additions, or deletions are welcomed and should be directed to CNHRPC.

TOWN OF HOPKINTON, NEW HAMPSHIRE
Bridge Network Map



Legend

- Political Boundary
- Interstate Highways
- Class I & II Secondary State Highways
- Class V Town Maintained Roads
- Class VI Town Unmaintained Roads
- Other Roads (Private, Trails, etc)
- Rivers and Streams
- Intermittent Streams
- Water Bodies
- State-owned Bridges
- Town-owned Bridges

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Chapter VII
Public Utilities and Technology

Introduction

The type and availability of public utilities and technology can have a major effect on the development and economic health of Hopkinton. From the location of electric power necessary to supply industrial users to the use of information technology in local government, the issues discussed in this chapter are important to many of Hopkinton's residents and commercial enterprises.

Items in this Chapter include:

Key Findings

- The Town of Hopkinton is well suited to embrace new technology, due to a variety of factors such as location, demographics, and interest on the part of local residents.
- The Town of Hopkinton should be prepared to adjust its ordinances to encourage the location of small office/home office (SOHO) uses and small information age businesses throughout the community.
- Three-Phase electric service will need to be bolstered in the Burnham-Intervale area if additional industrial users locate there in the future.
- Telephone service is provided by three distinct companies; Verizon, MCT Telecom, and Granite State Telephone.
- Three wireless telecommunications towers are located in Hopkinton. As wireless communications becomes more ubiquitous, it is expected that additional tower locations will be proposed in the future.
- AT&T Broadband currently provides Cable Television service to many Hopkinton residents. The franchise agreement between the Town and AT&T originally signed in 1985 and revised in 1992 should be revisited.
- Hopkinton residents have a wide choice in Internet providers, from dialup to DSL (digital subscriber lines) and cable modem broadband service. When compared with many other New Hampshire municipalities, Hopkinton is currently well connected to the Internet.
- The combination of the town's existing digital parcel mapping with digital mapping prepared for the Master Plan as well as the recent automation of the Town's appraisal system have placed the Town in a good position for the future establishment of a GIS (geographic information systems) program.
- The development of a Community Network could aid in the enhancement of participation in local governmental affairs.

Visioning Session Results

At the May 2000 Community Visioning Session participants were asked questions and the following were some of the individual responses given by participants that relate to public utilities and technology.

What would you like Hopkinton to look like 75 years from now?

Use technology to encourage participation
Need to increase communication
Technology/infrastructure (live with and adapt to)
Promote social interaction

What are the Town's strengths and opportunities?

Communication between town committees and community is sporadic and lacking

What are the Town's weaknesses or areas of concern?

Cell towers

Electric Service

Electric service is provided in Hopkinton by either the Public Service Company of New Hampshire (PSNH) or the Unitil Corporation (formerly the Concord Electric Company). PSNH serves the majority of the community, while Unitil serves a small portion in the southeast corner of town. The franchise areas for each utility are shown on the **Electric Providers and Infrastructure Map**.

Three-Phase Power

As the Unitil service area is residential, only single-phase power is currently available. Three-phase power, which is generally necessary for many commercial uses, is available along the more densely developed areas in Town as depicted in the Electric Providers and Infrastructure map. Although three-phase power is relatively prevalent in Hopkinton, all types of three-phase power are not the same. In Town, three-phase power circuits range from a high of 34.5 kilovolts (the same voltage as the local transmission distribution lines described below) to a low of 4.16 kilovolts. It should be noted that circuits of 34.5 kV and 12.47 kV are suitable for heavier users, while the 4.16 kV circuit is somewhat underpowered. Unfortunately, the Burnham Intervale area is served by a 4.16Kv line, and would thus require additional investment by any end user in need of adequate three-phase power.

Electric Generation in Hopkinton

There are two hydroelectric generating companies and one wood burning facility currently operating in Hopkinton. Consolidated Hydro, in operation since 1982, operates a 250-kilowatt hydroelectric plant in West Hopkinton at Hokes Break on the Contoocook River. HDI, in operation since 1984, runs a hydroelectric plant in Contoocook Village by the H.I. Davis Dam. The largest energy generating facility (12,500 kilowatts or 12.5 megawatts) in Hopkinton is the Bio-Energy Corporation West Hopkinton wood-fired cogeneration plant (producing both steam and electricity), which has been in operation since 1983.

Each of the operators has long-term licenses with the Federal Energy Regulatory Commission (FERC) to operate electric generating facilities, although at this time the future of the Bio-Energy generating capacity is at question. If Bio-Energy ceases to produce electricity in the future, it will affect the balance of the local electrical grid.

Electrical Infrastructure
Two electric transmission line easements traverse Hopkinton. The New England Power Company owns two 230 kilovolts (kV) high voltage transmission lines that cross eastern Hopkinton from the Bow town line to the west of Whittier Pond and over Beech Hill and then cross into Concord just north of Broad Cove Road. These lines were constructed in the early 1930s and tie directly into the Comerford and Moore hydroelectric stations on the Connecticut River. A more recently constructed (early 1990s) 450 kV DC transmission line owned by the NH Hydro-Transmission Corporation lies directly between the two 230 kV lines. This third line brings power generated by Hydro Quebec into the NE Power Pool. Neither of these transmission lines is linked directly into the local power distribution grid.

A smaller line (34.5 kV), owned by PSNH, crosses the northwest corner of Hopkinton from Henniker to the Warner/Webster town line, between Rolf and Clement Ponds. This line provides electricity into Hopkinton from the PSNH Jackman substation in Hillsborough to the Davisville substation adjacent to Park Avenue. This line was recently upgraded and connects to what is still called the Davis Paper Tap, providing direct access into the electric grid from the Bio-Energy generating plant.

A third transmission line easement in the northeast corner of Hopkinton that stretches between the Davisville substation east into Concord has not been in operation since the early 1990s.

Water Precinct/Sewer District

Please see the Community Facilities chapter for a discussion regarding both the Contoocook Water Precinct and Sewer District.

Telephone Service

Three telephone companies (ILECs or Incumbent Local Exchange Carriers) operate within Hopkinton. The majority of the Town is within the franchise area of the MCT Telecom, while Verizon serves the southwest corner of Hopkinton, and a small number of households in southern Hopkinton along Sugar Hill Road are customers of Granite State Telephone. The area served by each of the three companies is outlined on the **Telephone Providers and Cable Availability Map**.

MCT Telecom and Granite State Telephone are currently exempt from the requirements of the Telecommunications Act of 1996 that require local exchange carriers to open up their networks or service areas to other providers of local telephone service. In Hopkinton, this means that presently, only those residents living within the Verizon footprint may subscribe to a competitive local exchange carrier (CLEC) or telephone service offered by AT&T Broadband if they are within AT&T's cable service area in that portion of Town.

Wireless Telecommunications

Three wireless telecommunications towers are located or will soon be constructed in Hopkinton. The locations are noted on the **Telephone Providers and Cable Availability map**. The demand for telecommunications facilities is due to the location of Interstate 89 and NH 9/202 in Hopkinton as well as the Town's rolling topography.

By federal law, a community cannot prohibit the introduction of cell towers. However, as in many communities, the location and ultimate design of wireless telecommunications towers is a problematic issue. The Town must weigh the needs of the public that use wireless communications devices to an ever-increasing degree with those of local residents who do not wish to see the Town's hills and vistas marred by numerous towers. The Town has worked to address these competing desires through the adoption and use of the Personal Wireless Service Facilities Ordinance of 2001.

Personal Wireless Service Facilities Ordinance
The Personal Wireless Service Facilities (PWSF) Ordinance essentially provides guidance relative to the siting of wireless facilities and the process for review by the Planning Board. The ordinance requires co-location of facilities when practical, provides for the future removal of facilities if they are no longer safe or if they become technologically obsolete, and requires appropriate design so as to not impact a particular viewshed.

Under the ordinance, wireless facilities are permitted throughout the Town as long as a conditional use permit is obtained from the Planning Board. To receive a conditional use permit, an applicant must meet numerous performance standards related to height (not to exceed 90 feet), stealth design, and landscaping.

It is important to note that the technology used to provide wireless communications continues to evolve. The Town should continue to stay abreast of changes in the wireless communications industry and make modifications to the PWSF Ordinance as necessary.

Recommendation:
- Revisit the PWSF on a regular basis in order to keep the ordinance up to date with current regulatory practice.

Cable Television

AT&T Broadband provides cable television service to many Hopkinton households. The system operates at 750 MHz, which is adequate for both cable television and Broadband Internet service. The cable network is a combination of fiber and coaxial cable that provides for a great deal of flexibility to meet future demands for bandwidth.

The coverage area as depicted in the original cable franchise agreement (1985) between the Town and Continental Cablevision as well as the 1992 amendment to the agreement is shown on the **Cable Availability and Telephone Providers Map**. Extensions to the coverage area since the 1992 amendment were determined by field review and have also been added to the map.

It is important to note that the 1985 franchise agreement and subsequent 1992 amendment do not include provisions for a Hopkinton-based public-access channel and local facilities for use by local residents. Instead, the agreement does note that "local origination" shall be provided for

programs produced by Hopkinton residents using equipment "located in the … Concord office." In addition, as the agreement was negotiated before the advent of broadband cable availability, the agreement does not address Internet availability for schools and local government. These services are sometimes called "community infrastructure." The agreement does provide for free basic cable drops at each of Hopkinton's public buildings and schools.

The proposed merger between AT&T Broadband and Comcast Cable appears to provide an opportunity to the Town to revisit the franchise agreement last amended in 1992. Issues to be discussed could be the future expansion to areas not currently within the service area, the creation of a local PEG (Public/Education/Government) channel, local government/schools Internet access, and the use of the cable network for local government/schools networking. Funding for some of these services could be provided through the initiation of a local franchise fee of up to 5%.

Recommendation:

- Review the 1985/1992 Cable Television franchise agreements. Pursue opportunities for the development of a local PEG channel, public Internet access, and local government/schools networking.

Internet Access

The availability of fast, inexpensive Internet access is often spotty in smaller New Hampshire communities. Fortunately, the Town of Hopkinton is an exception. Beyond a large number of companies ranging from MCT Telecom to AOL offering 56k dialup connections to customers of each of the three telephone carriers serving Hopkinton, many residents have access to either internet over cable (through AT&T Broadband) or DSL service offered to customers of MCT Telecom.

Cable Internet
AT&T Broadband provides broadband Internet connectivity to all AT&T cable subscribers in Hopkinton. Service over the 750 MHz system is currently offered at a nominal 1.5 Mb (1,500 Kb) download / 384 Kb upload rate. AT&T does not currently offer this service to businesses.

DSL (Digital Subscriber Line)
MCT Telecom provides DSL (Digital Subscriber Line) service to businesses and residential users within the MCT franchise area. It is estimated that better than 85% of all MCT Telecom customers in Hopkinton live within the required 15,000-18,000 linear feet of a MCT switching station that is necessary to obtain DSL. Service is offered at a variety of upload and download speeds, with the typical residential service 384 Kb download / 256 Kb upload and the fastest (business) speed available is 1.5 Mb download / 512 Kb upload.
DSL Service is also available for those within the Granite State Telephone service area. This service ranges from a low of 256-kb download / 156 upload to the high of 1.5-Mb download / 512 KB upload.

DSL service is not available at this time within the Verizon service area in Hopkinton.

The Future
Although Hopkinton is relatively well served regarding access to broadband Internet services, it is interesting to look towards future technologies and their potential impact to the Town. The prevalence of fiber optic cabling throughout Hopkinton means that the Town is well positioned to

embrace future technology services, especially those required by small office/home office (SOHO) users and technology companies. The extent of the fiber optic network is provided on the **Cable Availability and Telephone Providers Map**.

The term "fiber to the desktop" addresses the need for affordable connections from the various fiber termination points to the end user. At this time, the final connection from the cable network or telephone network into a residence is generally provided by coaxial and/or copper cable. This constricts the ultimate bandwidth carrying capacity of the network dramatically. As applications such as point-to-point video become more popular, the demand for bandwidth will continue to increase. At this time, the extension of fiber into or the need to provide electronics at individual residences is somewhat cost prohibitive, but these costs are expected to decrease as the hardware for fiber installations (network cards, etc.) becomes less expensive.

In addition to landline connections, wireless network applications may play a role in bringing more bandwidth to the ultimate Internet user. As seen over the last few years, a constant in technology is that it is ever changing. From its current position, Hopkinton should be well positioned to use new technology, as it becomes available.

Recommendation:

- Charge the Hopkinton Technology Committee with investigating new broadband technologies and making such recommendations as are appropriate to the Board of Selectmen regarding the implementation of those technologies.

Town Mapping/Information Technology Needs

The Hopkinton Technology Committee was formed in 2000 to provide assistance in evaluating proposals to “modernize the Town Hall offices.” The Committee’s first task was to recommend an improved telephone system that links each of the Town’s departments and buildings. The Committee has also assisted the Town in its conversion to DSL Internet access for Town departments. The creation of a Virtual Private Network (VPN) to connect each of the departments is the next goal of the Committee.

Digital Mapping/Information Services

The creation of a town-wide geographic information system (GIS) has also been discussed by the Technology Committee.

A wide variety of digital maps have been created for use in this Master Plan. The maps were created using multiple data sets (or themes) which range from existing land uses to development constraints such as steep slopes and areas protected by conservation easements. One of the more important elements of these maps is the Town’s composite parcel map, made by Cartographic Associates, Inc. of Littleton, NH. This map joins each of the individual tax maps into one single map.

The availability a composite parcel maps is the initial step in the creation of a town-wide geographic information system (GIS) program. A second step is the linkage of the assessor’s database to the map itself. The Town has taken the first step in achieving this connection by automating its appraisal system in 2001.

If it is deemed a priority in the future, the interconnection of the existing mapping and parcel-based data is a relatively easy process. A number of commercially available software packages

support public access to a GIS over the Internet or on a computer located at the Town Hall. A typical scenario would allow someone interested in a parcel to learn more about wetlands and steep slopes on the property as well as the property's assessed valuation. A specific issue to be reviewed when deciding on a policy would be the type of parcel-based data that would be available using this system.

Community Networking
A number of participants in the May 2000 Visioning Session noted a lack of communication and interaction among residents regarding local affairs. An approach used in numerous communities in recent years has been the development of an Internet-based Community Network. Community Networks exist in a variety of formats, but typically include an interactive web-based forum, email mailing lists, a community calendar, and links to local government content such as public notices and local ordinance/regulations. The process to develop a Hopkinton Community Network has been initiated through the creating of the Hopkinton web page at www.hopkintonnh.org. The next step is to add the more interactive elements as described above.

Recommendations:
- Continue to investigate options for the development of a town-wide GIS. Update the composite digital parcel map on an annual basis.
- Continue the development of the Hopkinton web page and move towards the implementation of a Community Network.

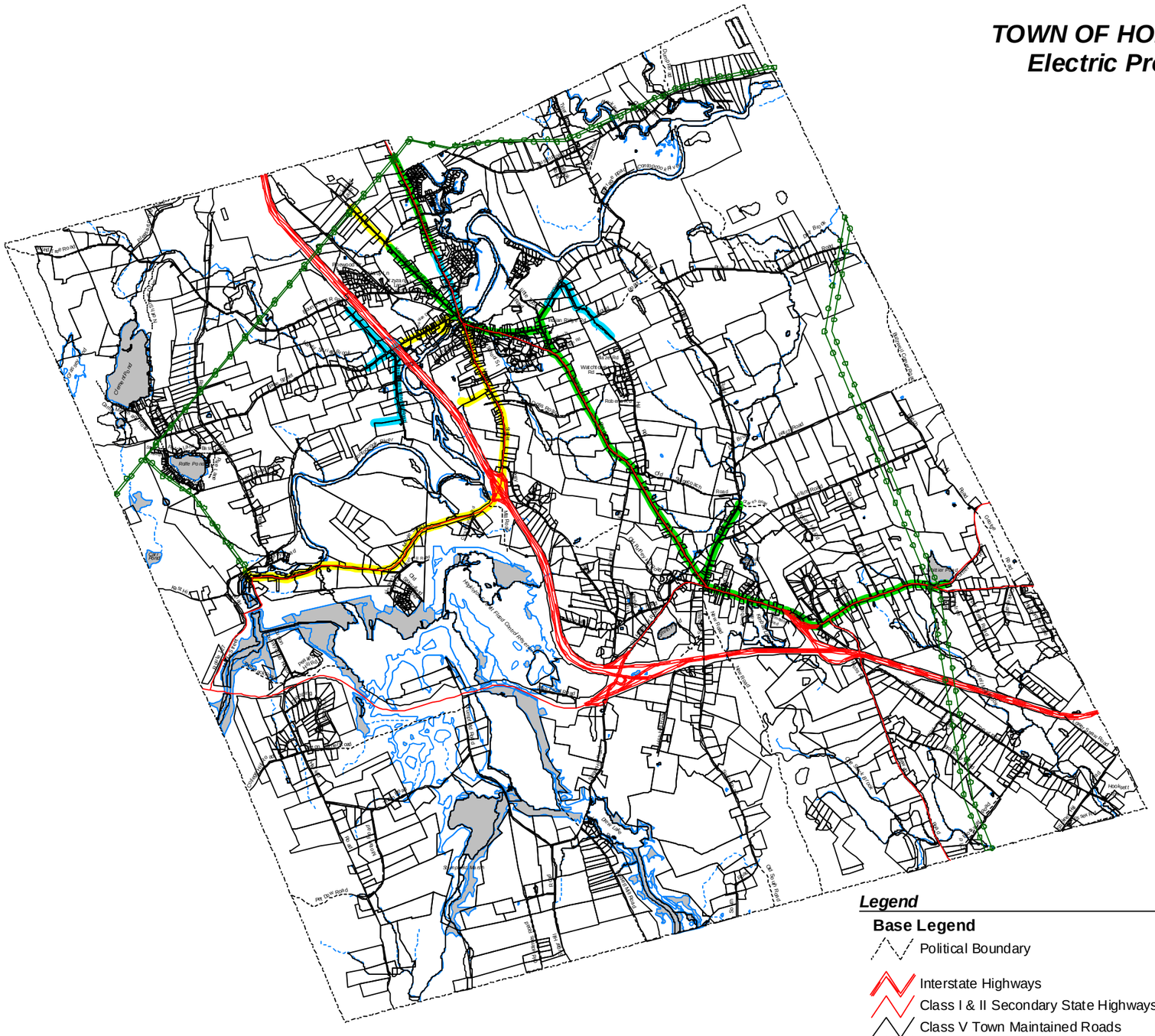
Summary

This chapter provides detail as to how public utilities operate (including the fact that electricity is produced in three locations in Town) and describes the many factors that affect the delivery of local telecommunication services, from traditional landline telephone service to wireless.

Beyond electric and telephone, the next wave of technology began in Hopkinton when the first cable television franchise agreement was signed by the Board of Selectmen in 1985. In the late 1990s, the availability of broadband Internet services became the next major trend.

It is difficult to forecast how technology will affect Hopkinton in the future, but it is clear that the Town is well positioned to embrace new technology, as it becomes available.

TOWN OF HOPKINTON, NEW HAMPSHIRE
Electric Providers and Infrastructure



Legend

Base Legend

- Political Boundary
- Interstate Highways
- Class I & II Secondary State Highways
- Class V Town Maintained Roads
- Class VI Town Unmaintained Roads
- Other Roads (Private, Trails, etc)
- Rivers and Streams
- Intermittent Streams
- Water Bodies
- Parcels

Electric Legend

Electricity Providers

- Public Service of New Hampshire
- UNITIL

Phase Three Power Lines

- 34.5 kilovolts (kV)
- 12.47 kilovolts (kV)
- 4.16 kilovolts (kV)
- Utility Lines

Scale 1" = 5,000' (1:60,000)

1 0 1 2 3 Miles

5000 0 5000 10000 15000 Feet

This map created by the
Central New Hampshire Regional Planning Commission
for the Hopkinton Master Plan Technology chapter,
March 2002.

Data sources:
1:24,000 source scale from the NH GRANIT system, NH Department of Transportation, the Public Utilities Commission, and the Town of Hopkinton. Corrections to base data made by NH Department of Transportation, the Town of Hopkinton, and CNHRPC.

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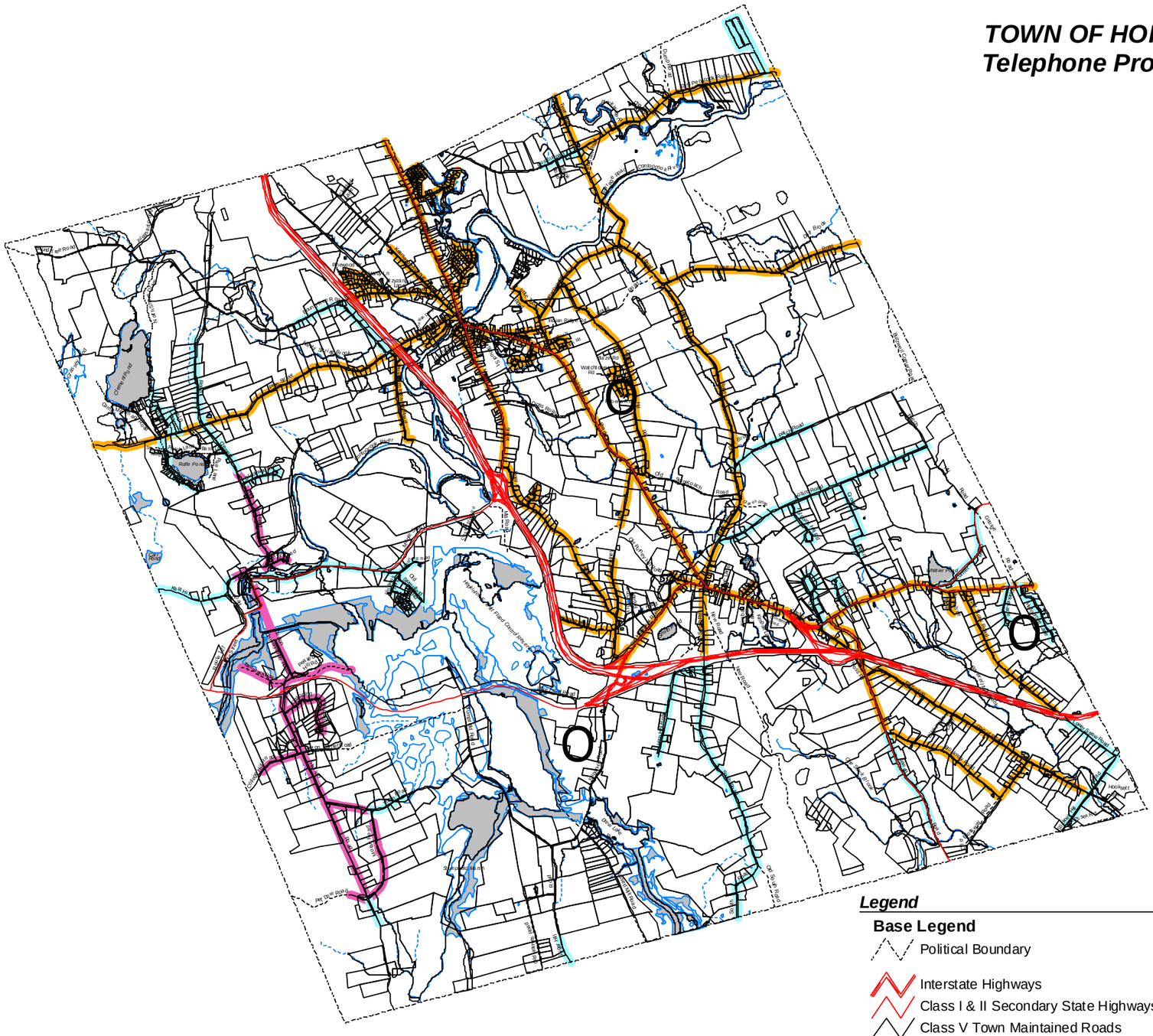
TOWN OF HOPKINTON, NEW HAMPSHIRE
Telephone Providers and Cable Availability



Legend

Base Legend

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- Class V Town Maintained Roads
- Class VI Town Unmaintained Roads
- Other Roads (Private, Trails, etc)
- Rivers and Streams
- Intermittent Streams
- Water Bodies
- Parcels

Telephone & Cable Legend

- O Cell Phone Towers

Cable Availability

- Original Cable Service Area
- 1993 Expansion
- Recent Expansions

Telephone Providers

- Granite State Telephone
- Merrimack County Telephone
- Verizon

Scale 1" = 5,000' (1:60,000)

1 0 1 2 3 Miles

5000 0 5000 10000 15000 Feet

This map created by the
Central New Hampshire Regional Planning Commission
for the Hopkinton Master Plan Technology chapter,
March 2002.

Data sources:
1:24,000 source scale from the NH GRANIT system, NH Department of Transportation, the Public Utilities Commission, and the Town of Hopkinton. Corrections to base data made by NH Department of Transportation, the Town of Hopkinton, and CNHRPC.

This map is intended for planning purposes only and may not fully represent geographic conditions. Inaccuracies are known to exist in these data layers. Corrections, additions, or deletions are welcomed and should be directed to CNHRPC.

Chapter VIII
Community Facilities

Introduction

Provision of community services and facilities is one of the primary functions of government. As the population and demographics of the community grow and change over time, it is important that the community make adjustments in its delivery of services to meet those changes.

Historically, rural communities in New Hampshire have provided very limited community facilities services. In many cases, community facilities were limited to only a Town Hall and, later, a public school. However, as the population of the State increased, more services have been required to meet the needs of the citizenry. Today, modern communities are expected to provide full-time police protection, fire protection, as well as highway crews, recreational facilities, and professional administrators to manage the daily operations of Town government. Trends for the future indicate that certain services will be provided on a regional basis, with multiple towns contributing the costs for equipment and staffing and receiving the designated service in return. Other services may in the near future become Internet-based, such as billing and payment of taxes.

The Contoocook Charrette, held in January 2000, helped to set a vision of what the village of Contoocook could be in the future. Issues such as parking and dangerous intersections were addressed in this two-day gathering of citizens and planners. Both of these issues are important to the delivery of community services since many Town offices are located in the village. Consensus was reached on these beginning steps to improve the economic vitality of Contoocook Village. For more information, see the Contoocook Village chapter of this Master Plan.

Several Hopkinton Town Departments and associated enterprises utilize historic buildings for meetings and functions. The historic buildings currently in use by the Town or other organizations are as follows:

The Town Hall, which is used by the Town Administrator, Planning and Zoning Office, Town Assessor, Board of Selectmen, Financial Benefits Coordinators, and the Hopkinton Recreation Department, and Columbia Hall, which is used by the Hopkinton Community Center Inc..

In addition, the barns at Houston Field are considered to be historic structures but are used for storage at this time. These buildings, in addition to the remaining historic structures in the Town of Hopkinton, should retain to the greatest degree possible their historic characteristics in the event of any renovation or alteration. For more information on the historic buildings located in Hopkinton, see the Historic and Cultural Resources chapter in this Master Plan.

The purpose of this chapter is to inventory and assess current town facilities and assess the adequacy of existing equipment. In addition, it will provide recommendations to meet future growth and demands. The chapter is divided into separate sections, each addressing a specific community facility.

The topics in this chapter include:

Key Findings
Community Survey and Visioning Results
Department of Public Works
Water Precinct
Rescue Squad
Town Hall/Selectman's Office
Solid Waste Disposal
Hopkinton Community Center Inc. (Columbia Hall)
Hopkinton School District
Population Trends
Sewer District
Fire Department
Police Department
Town Library
Town Clerk/Tax Collector
Parks and Recreation Department
Board of Trustees

Key Findings

- The Contoocook Fire Station will need some sort of addition, a second floor or an extension out toward Park Avenue, to accommodate male and female sleeping quarters and extra storage space.
- The number of volunteer firefighters has declined significantly over the past ten years. While not dangerously low, the Fire Department should take measures to recruit and train more volunteers.
- The interior of the Town Hall must be reconstructed to address ADA and Life Safety Code specifications, maximize workable space and safety of the office staff, and improve acoustics for continued use of the Town Hall in its intended capacity.
- Parking around the library must be increased as more sports fields are constructed at Houston Field.
- The Town must provide incentives for recycling.
- Town business in the future may become more internet-based. The Town should make preparations to allow its residents to conduct business via electronic means.
- The Community Center Inc. must address safety issues with respect to Columbia Hall.
- The Town should coordinate communications and the computer network across the Town and the School Department.

Community Survey and Visioning Session Results

One survey went to every household and non-resident landowner. Approximately 2,650 surveys were mailed out in early 2000. 973 were returned for a return rate of approximately 36%. This survey allowed respondents to comment on the quality of services received and what future services might be considered in the future.

Community survey respondents generally rated Town services as fair to good. Services with especially high ratings include the Town Library (83.3%), Rescue and Ambulance Service (79.1%), the Fire Department (78.4%), and the Police Department (75.5%).

Residents' Rating of Town Services

Town Service	Total Responses	Good	Fair	Poor	No Opinion
Animal Control	868	34.1%	17.7%	11.8%	36.4%
Building Code Enforcement	842	25.3%	17.6%	10.8%	46.3%
Cemetery Care	872	52.1%	12.6%	1.5%	33.8%
Fire Protection	884	78.4%	7.2%	0.3%	14.0%
Health Regulations/Enforcement	851	29.3%	14.7%	3.2%	52.9%
Town Library	885	83.3%	6.9%	1.4%	8.5%
Parks and Recreation	862	42.9%	35.5%	5.2%	16.4%
Planning Regulation Administration	842	26.5%	25.5%	6.2%	41.8%
Police Protection/Enforcement	880	75.5%	14.8%	2.0%	7.7%
Rescue/Ambulance Service	887	79.1%	6.1%	0.5%	14.3%
Road Maintenance	890	54.2%	35.7%	6.5%	3.6%
Garbage Disposal/Recycling	881	58.3%	21.3%	7.0%	13.3%
Zoning Administration/Enforcement	825	23.6%	19.0%	8.0%	49.3%

Source: Hopkinton Master Plan Community Survey, 2000

With regard to the community services and facilities the Town should develop in the future, residents generally supported such recreational and social efforts as additional non-motorized recreational paths, a canoe and boat launch, and a teen center.

Future Community Facilities and Services to Consider

Community Service/Facility	Favorable Responses	%
Non-motorized Recreational Paths	426	43.8%
Canoe/Boat Launch	421	43.3%
Teen Center	350	36.0%
Picnic Areas	326	33.5%
Elderly Recreational Facilities	301	30.9%
Community Center Inc. Services	287	29.5%
Senior Citizen Needs (Non-physical)	245	25.2%
Cultural Activities	227	23.3%
Playgrounds	225	23.1%
Tennis Courts	216	22.2%
Basketball Courts	196	20.1%
Public Swimming Pool	172	17.7%
Additional Athletic Fields	133	13.7%
Hockey/Ice Rink	115	11.8%
Golf Course	100	10.3%
Recreational Needs (Non-physical)	91	9.4%
Motorized Trails	62	6.4%

Source: Hopkinton Master Plan Community Survey, 2000

A Visioning Session is a gathering of town residents and the personnel that will be writing the Master Plan. In this instance, the Visioning Session was held in May 2000 and was facilitated by the Hopkinton Planning Board. The purpose of this gathering was to identify the strengths and weaknesses of all aspects of the Town from transportation to community facilities to the best areas to go for a picnic. All these ideas help the Planning Board to identify which issues are most important to the residents of Hopkinton and should therefore be addressed in the Master Plan. The following, which is a summary of the comments made at the visioning session regarding Community Facilities, are the opinions of those who attended the Visioning Session in May 2000.

Town Offices
The Town Hall is among the most revered buildings in Town. The usefulness of the Town Hall is limited in providing office space, but it is suitable for committee and other official Town gatherings.

Town Library
In both its location and facility, the Town Library is viewed as an asset to the Town.

Community Center Inc.
The Community Center Inc.'s location and activities are seen as an asset to the Town and especially to Contoocook Village.

Recreation Department
Both the Houston Fields and George's Park are seen as strengths to the Town of Hopkinton. There is a perception that there are not enough baseball fields. Family-based recreation should be emphasized. Pedestrian access to the riverbank is seen as an opportunity to increase the quality of life in Hopkinton, as is access to Town-owned bodies of water in southwest Hopkinton.

Population Trends

Understanding population trends is crucial for establishing community service standards for municipal departments as well as for predicting future stresses on community infrastructure.

Since 1970, Hopkinton's population has grown from 3,007 (US Census) to 5,399 individuals (2000 Census). This represents an increase of nearly 80%. Based upon permits granted in Hopkinton over the past decade, the town has added approximately 170 new dwellings to the 1990 levels of housing stock, an increase of approximately 8.7%. Using a median of 2.4 persons per dwelling in the Central New Hampshire Region, it is estimated that Hopkinton's population will grow by approximately 41 people per year to a total population of approximately 5,600 by 2010. This represents a 3.7% increase over the current population in the community.

Department of Public Works

The Highway Department is responsible for basic maintenance of Town roads, including plowing, grading, ditching, installation of culverts, and resurfacing. It also performs maintenance activities for the Parks and Recreation Department. Currently, the Department consists of the Superintendent of Public Works, an Assistant Superintendent, and five other full-time laborers. The Department possesses all necessary equipment for road maintenance, resurfacing, and snow removal.
The resurfacing of public highways is based on a five-year resurfacing plan developed by the resident-staffed Roads Committee. This committee surveys public highways and evaluates needs based on a point system. The Roads Committee has prepared a new five-year resurfacing plan in the spring of 2001. Funding for road resurfacing projects comes from the State gasoline tax and contributions from the Town.

Comparison with Abutting Communities and National Standards
Compared to abutting communities, Hopkinton is average in both staffing levels and the amount spent on Highway Department expenditures.

Comparison of Neighboring Highway Department Statistics, 1999

Town	Population, 2000	Miles of Class V and VI Roads, 1998	Total Highway Expenditures, 2000	Highway Department Expenditures per Mile, 2000	Number of Highway Department Employees, 1999	Number of Miles per Highway Department Employee, 2000
Hopkinton	5,399	89.8	$688,055	$7,662	7	12.8
Bow	7,138	85.9	$873,793	$10,172	12	7.2
Concord	40,687	69	N/A	N/A	23	3
Dunbarton	2,226	45.9	$343,417	$7,482	2	23
Henniker	4,433	94.2	$486,468	$5,164	6	15.7
Warner	2,760	81.1	$501,371	$6,182	6	13.5
Weare	7,776	127.7	$888,354	$6,956	12	10.6
Webster	1,579	37.2	$153,207	$4,118	N/A*	N/A*

Sources: US Census 2000, Town Annual Reports, and NH Department of Transportation
* Highway services in Webster are contracted to a private entity.

Facility Needs
Currently, the Highway Department operates out of a 5,300 ft^2 garage on Maple Street in Contoocook. Included on this property are an outbuilding of 1,500 ft^2 and a combined office area/lunch room of 700 ft^2. In addition to the main garage, the Highway Department uses 1000 ft^2 in the Houston Barn and an additional satellite location of 200 ft^2.

The main garage is currently filled to capacity. The Highway Department recommends the construction of a 2000 ft^2 addition for vehicle storage and environmentally compliant vehicle wash bays by 2002. This facility is sited on a large parcel of Town-owned land that is readily available for expansion. The Building Facilities Committee has recommended that this facility be the storage area for all Town-owned vehicles.

Equipment Needs
The Hopkinton Highway Department is well equipped to confront the duties it is expected to perform. In the past decade, the department has been able to appropriate funds from the State gasoline tax and from the Town for the purpose of road improvement. This commitment to improving roads was made possible by the Department's possession of most of the equipment needed to complete the task.

It is anticipated that three new vehicles will be added to the fleet in the next decade, one dump truck and two 1-ton dump trucks. The first to be added, the two 1-ton dump trucks, are scheduled in 2003 at an estimated cost of $70,000 each. The dump truck is scheduled to be added in 2008 at an estimated cost of $90,000. According to the 2002 Hopkinton Capital Improvement Plan, a Capital Project-Capital Reserve Fund has been established for the routine replacement of this type of equipment. The addition of these three vehicles should allow the Highway Department to continue to provide the level of service it has provided throughout the 1990s.

Recommendation:

- The Town should investigate constructing wash bays at the Town garage in the earliest possible timeframe. The wash bays could be used to wash all Town vehicles and could therefore concentrate all oil, grime, and road salt in one area for simple environmental remediation or disposal.

Sewer District

The Sewer District serves 200 units in Contoocook Village with an aerated lagoon system of wastewater treatment with a capacity of 120,000 gallons per day. The system was built in response to Federal mandates regulating pollution of waterways and was funded largely by State and Federal funds. The system went online in 1985 and has been operating in much the same capacity since then. The remainder of units in the village and throughout Hopkinton utilize "on-site" treatment of wastewater via septic systems.

The current number of units on the system uses approximately 50,000 of the available 120,000 gallon per day capacity. During the planning of the facility, a Phase II and Phase III were outlined but never implemented. These possible expansions of the sewer district are currently being discussed by the Operations and Maintenance Committee in a preliminary manner; the Town Selectmen have not been approached with any formal plans nor are there any scheduled upgrades to date. Expansions of the sewer district would service "problem areas" such as Woodland Drive, Amesbury Park, and the Indian Ridge and Penacook Road area. These are defined as "problem areas" because of the density of housing in these areas.
Improvements or upgrades to the sewer system are funded by a sewer fund created by sewer fees. Rather than turning in the overage to the Town for deposit into a general fund, the sewer district keeps the overage for its own repairs and upgrades.

These funds are earmarked for the following uses:

1. Sludge removal;
2. Major breakdowns, i.e.: pump stations; and
3. Major upgrades associated with renewal of discharge permits.

Discharge permits are renewed every five years. The most recent permit was issued in 1995; the sewer district is in the process of applying for a renewal of their discharge permit.

Recommendation:

- The Town should investigate the feasibility of carrying out Phase II and Phase III expansions to the Wastewater Treatment Plant.

Water Precinct

The Contoocook Water Precinct was established in 1898. The gravity-powered system uses Bear Pond in the Town of Warner as its primary water source, a 70-acre Class A water body located 4.5 miles from Contoocook Village. The precinct owns approximately 10% of the land in the watershed around Bear Pond, which lies in both Warner and Henniker, and seeks to purchase more within the next five to ten years. Funding for these purchases or any other capital improvements comes from the Contoocook Village Precinct taxes, not Town of Hopkinton taxes.

Currently, approximately 500 units are serviced by the water precinct. Additions to the water precinct are made on a lot-by-lot basis. The system as it currently operates can accommodate modest residential growth with no decrease in the level of service. A number of new users are expected to result from the current development of portions of Bound Tree Road, Pine Street, and a proposed development off Pinewood Drive. A user requiring significant draws on the water supply would need to be considered on a case-by-case basis.

Recommendation:

- The Town should work with the Towns of Warner and Henniker to coordinate Master Plans for the protection of water resources.

Fire Department

The Fire Department operates out of two stations, the primary station on Pine Street, pictured left, in Contoocook and a satellite station on Main Street, pictured right, at the eastern end of Hopkinton Village. Fire protection is delivered through a combination full-time and volunteer Department. The full-time employees are the Captain, a firefighter/EMT, and three firefighters/paramedics. The Chief of the Fire Department is a volunteer position. Presently, the Chief receives a small stipend. In all, the department presently has five full-time staff, four part-time staff, and approximately thirty volunteer firefighters.

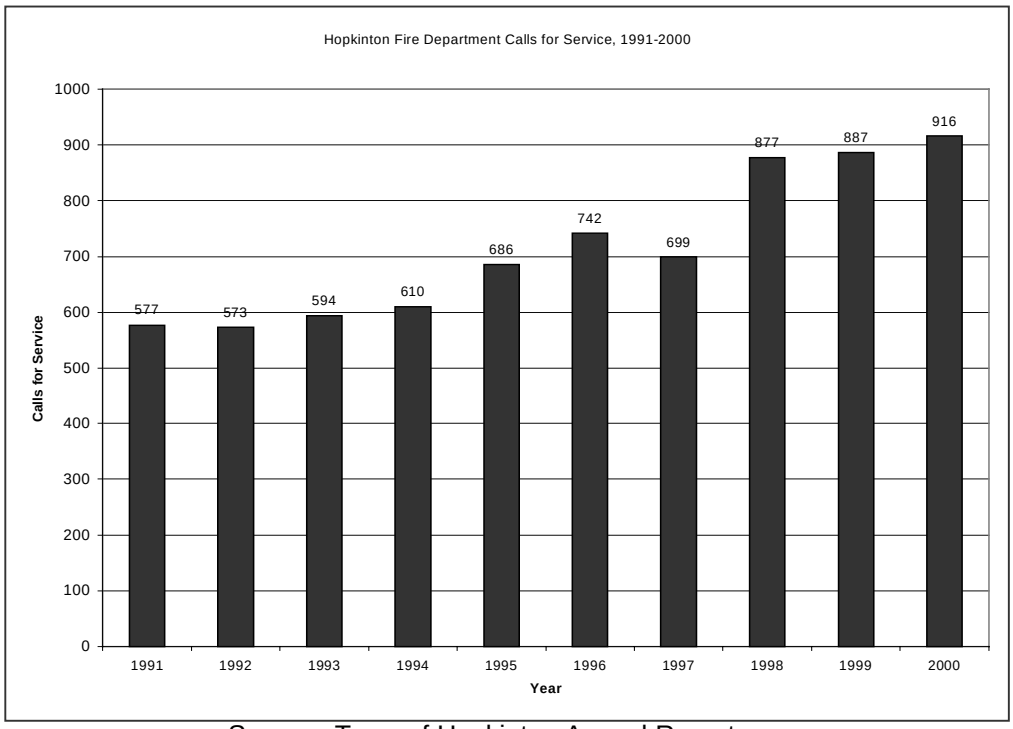
The Hopkinton Fire Department also provides ambulance services to the Towns of Hopkinton, Warner, and Webster. The latter two towns pay an annual fee to the Hopkinton Fire Department and maintain no staff or equipment of their own for this particular service. The fee charged to Warner and Webster are based on the number of calls requesting ambulance service in the prior year; an additional fee is levied on a per run basis. The Town is a member of the Capital Area Mutual Aid Fire Compact providing mutual aid to the following towns:

- Allenstown
- Boscawen
- Bow
- Bradford
- Canterbury
- Chichester
- Concord
- Dunbarton
- Epsom
- Henniker
- Loudon
- Northwood
- Pembroke
- Pittsfield
- Salisbury
- Warner
- Webster

Calls for Service

Since 1991, the total number of calls for service has increased each successive year, with the only appreciable decline occurring in 1997, when the number of calls decreased by approximately forty. The highest number of calls for service occurred in 2000. A complete summary of fire calls for service is contained in graph.

Trends in Fire Department Calls for Service 1991-2000



Source: Town of Hopkinton Annual Reports

Comparison with Other Communities

Compared with neighboring communities, Hopkinton's Fire Department takes a large number of calls and expends fewer resources than other towns in the immediate area. This indicates that the Hopkinton Fire Department operates efficiently to protect the Town.

Cost per Call

Town	Total Calls for Service, 2000	Calls for Medical Aid, 2000	Total Fire Department Net Expenditures, 2000*	Cost per Call
Hopkinton	916	678	$149,104	$162.78
Bow	757	382	$300,241	$396.62
Concord	N/A	N/A	$5,725,530**	N/A
Dunbarton	144	53	$39,029	$271.03
Henniker	N/A	N/A	$95,388	N/A
Warner	274	162	$81,342	$296.87
Weare	478	260	$146,717	$306.93
Webster	115	70	$29,629	$257.64
AVERAGE			**$820,873**	

Source: Town Annual Reports

* Expenditures reflect actual expenditure for ambulance and Fire Department minus ambulance fees.

** Fiscal Year 2000 budget figure

Calls per Capita

Town	Population, 2000	Total Calls for Service, 2000	Calls per Person, 2000
Hopkinton	5,399	916	0.17
Bow	7,138	757	0.11
Concord	40,687	N/A	N/A
Dunbarton	2,226	144	0.06
Henniker	4,433	N/A	N/A
Warner	2,760	274	0.10
Weare	7,776	478	0.06
Webster	1,579	115	0.07

Sources: US Census 2000, Town Annual Reports

Facility Needs

The Fire Department operates out of the Fire Station located at 9 Pine Street in Contoocook. Built in 1973, this facility has a garage area of approximately 6,000 ft^2 and office space of 160 ft^2. Of the Department's thirty volunteer members, most operate out of this station. Long-term needs include additional storage and parking space, a locker room, and sleeping quarters for six male and two female firefighters should 24-hour coverage become necessary. The Building Facilities Committee recommends that, when these needs become critical, the Fire Department consider using storage space in the large barn at Houston Park. Other options include expanding the building's footprint toward Park Avenue and building a second floor.

Another option is to find a different location for the Contoocook Fire Station. The current location of the building is on the bank of the Contoocook River, which places it in the floodway of the river. As a general rule, emergency vehicles should not be housed in an area that is more susceptible to danger than other areas of town.

Another reason to consider finding another location for the Contoocook Fire Station is because the intersection of Park Avenue, Kearsarge Avenue, and Pine Street is among the most dangerous in Hopkinton, especially given the number of freight and logging trucks using this intersection daily. The Contoocook Charrette mentioned eliminating this intersection by extending Pine Street to Park Avenue and eliminating the portion of Kearsarge Avenue in front of the Fire Station; it would then end at a "T" intersection with Pine Street. This would require drivers to use this intersection with more care, thereby increasing pedestrian safety. The area currently occupied by the Fire Station could then be redeveloped into a riverside park.

In the short-term, a Chief's Office and additional office space are desired by the Department staff. In addition, the Building Facilities Committee recommends the Fire Department use funds from its operating budget during fiscal years 2001-2002 to do routine maintenance such as weatherizing windows, replacing lights (estimated cost: $3,400 with some subsidized by Public Service of New Hampshire), and replace the furnace/boiler. An exhaust system for the vehicle bays is needed to remove fumes from the building when the engines are operating.

The Hopkinton Village Fire Station located at 110 Main Street has a garage area of 2,700 ft^2. It serves as storage space for both stations and stores two vehicles. Long-term needs consist primarily of replacing the floor drain to meet future code requirements. In the short-term, the Building Facilities Committee recommends the Fire Department use funds from its 2001-2002

operating budget to replace the furnace/boiler (estimated cost: $7,000) and to repair the roof (estimated cost: $9,200).

Equipment Needs
The equipment roster of the Fire Department includes three engines, one ladder, three tankers (including a forestry unit), and two ambulances. This inventory appears to be sufficient to provide adequate protection for the residents of Hopkinton. The 2001 Hopkinton Capital Improvement Plan calls for the addition of a new four-wheel-drive pickup truck in 2002. According to the 2002 Hopkinton Capital Improvement Plan, a Capital Project-Capital Reserve Fund has been established for the routine replacement of Fire Department equipment.

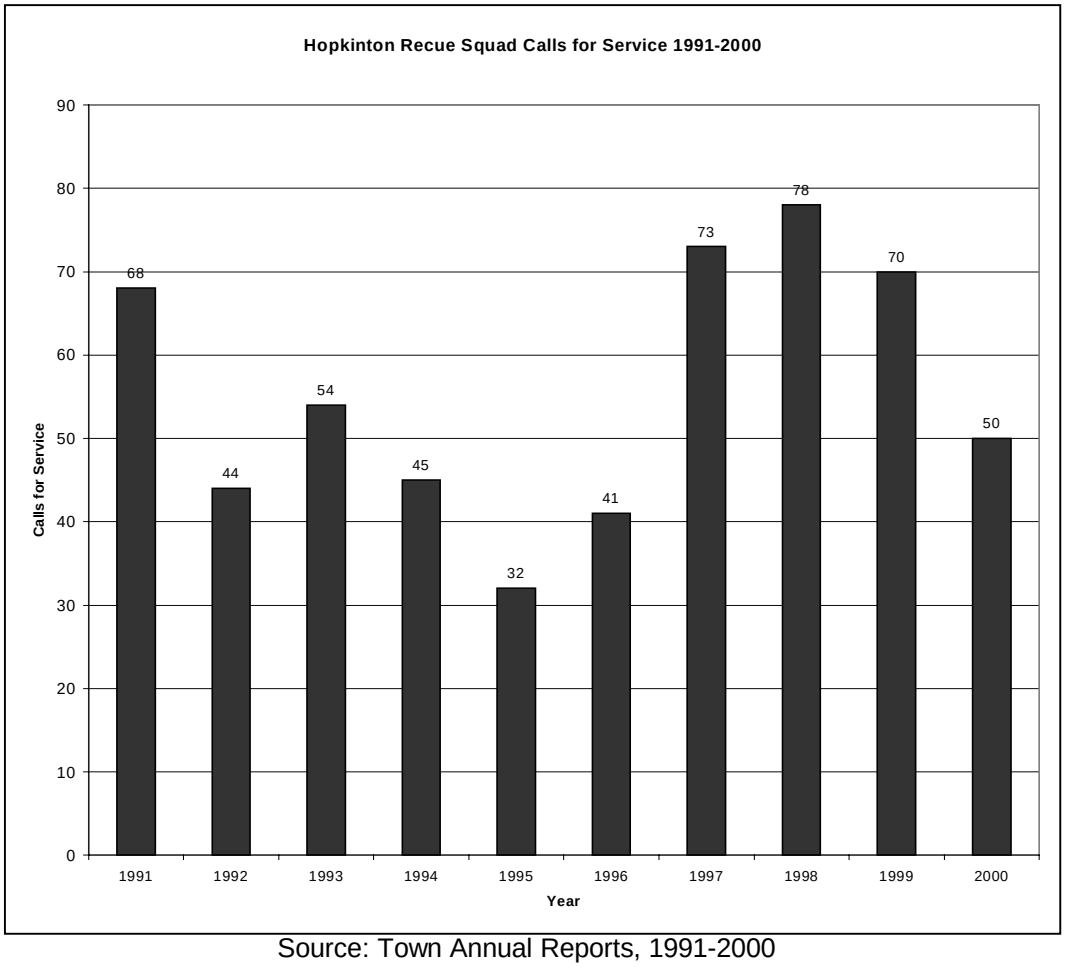
Recommendations:

- The Town should investigate the feasibility of expanding or relocating the Contoocook Fire Station for the purpose of increasing safety, creating storage and locker rooms and sleeping quarters for firefighters and paramedics.
- The Town should make a greater effort to retain experienced volunteer firefighters. Recruitment of new volunteer firefighters should be a regular Town activity.

Rescue Squad

The Hopkinton Rescue Squad is located at 31 Pine Street, adjacent to the Contoocook Fire Station. The Rescue Squad was formed in 1965 as a non-profit organization that is made up of volunteers under the direction of a Captain. Annually, the Town leases the 1,080 ft^2 wood frame building to the Rescue Squad for a nominal fee of $1.00. Through donations, the Hopkinton Rescue Squad has acquired extensive ice and water rescue equipment. Additionally, the Town is fortunate to have four (4) certified divers available for water rescues, an All Terrain Vehicle (ATV) to assist the Fire Department during search and rescues, and other equipment, such as the hurst tool (Jaws of Life), saws, and cutters that are used for motor vehicle extrications. Annually, at Town Meeting, the residents agree to raise and appropriate a sum of $8,775 to support the operations of the Rescue Squad.

Trends in Rescue Squad Calls



Source: Town Annual Reports, 1991-2000

Police Department

Police services are delivered from the new Police Department Headquarters located on Hopkinton Road just north of Hopkinton Village. This new station was completed in December 2000 and represents a great improvement over the former Police Department Headquarters, the Houston farmhouse in Contoocook. Unlike the Houston farmhouse, this new station satisfies all foreseeable facility needs. The Department is manned by six full-time and two part-time personnel.

According to the Police Chief, the Police Department prides itself on providing quality, personal service to the residents of Hopkinton. The officers are expected to be approachable and highly interactive with the community. The Citizens Advisory Committee comprised of fifteen residents of Hopkinton meets quarterly to report to the Chief how the Police Department has been operating. The basic function of this committee is to determine what protection and safety services the community wants but is not currently receiving.

The Police Department is currently undergoing a State of New Hampshire accreditation process, a four-step program that will help to improve professional standards within the department. Very few Police Departments in New Hampshire are accredited. The Hopkinton Police Department is expected to complete the process within the next four years.

As the population in Hopkinton increased from 4,806 in 1990 to 5,399 in 2000, the workload of the Department has remained relatively constant, indicating that the influx of people has not strained the capacity of the Police Department to provide adequate services to the residents of Hopkinton. In some cases, the numbers have declined, as indicated in the Calls for Service section below and the overall activity chart that follows.

Summary of Police Activity, 1991-2000

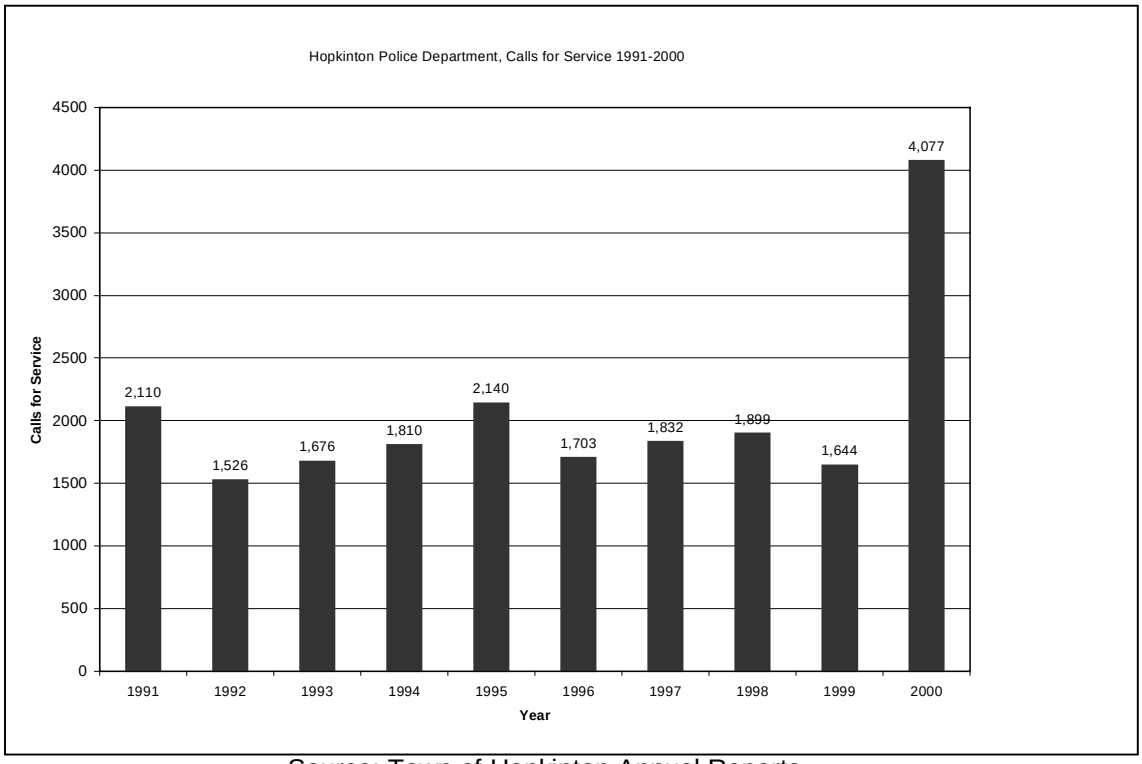
	1991	2000	% Change
Accidents	113	113	0%
Criminal Activity	529	897*	+41%

*Excludes "All Other Offenses"
Source: Hopkinton 1991 and 2000 Annual Reports

Calls for Service

In the 1990s, the total number of calls for service has ranged between slightly over 1,500 (1992) to over 2,100 (1991 and 1995). Since 1995, however, the number of calls for service has remained relatively constant, with a range of approximately 1,650 to 1,900 (1999 and 1998, respectively). A complete summary of total calls for service can be seen in the Figure below.

Trends in Total Calls for Service, 1991-2000



Source: Town of Hopkinton Annual Reports
NOTE: Figures shown above DO NOT include arrests, warrants, or summons.
NOTE: The Police Department is under new standards for reporting calls for service with the change in Police Chiefs in 2000.

Comparison with Other Communities

One common technique used to measure the efficiency of a Police Department is to measure the amount of resources expended per call.

Calls per Capita, Cost per Call, 1999

Town	Population, 2000	Number of Calls for Service, 2000	Total Police Department Budget Expenditure, 2000	Calls per Capita	Cost per Call
Hopkinton	5,399	4,077	$390,431	0.75	$95.76
Bow	7,138	7,702	$779,174	1.07	$101.16
Concord	40,687	34,230	$5,230,700*	0.84	$152.81
Dunbarton	2,226	N/A	$91,187	N/A	N/A
Henniker	4,433	N/A	$581,224	N/A	N/A
Warner	2,760	8,257	$241,100	2.99	$29.19
Weare	7,776	N/A	$464,806	N/A	N/A
Webster	1,579	15,043	$121,955	9.52	$8.10
AVERAGE			**$987,572**	**N/A**	**N/A**

Sources: US Census 2000, Town Annual Reports * Fiscal Year 2000 budget figure

Budget per capita is also a common unit of measure to determine how efficiently a department operates.

Budget per Capita, 1999

Town	Population, 2000	Total Police Department Expenditures, 1999	Budget per Capita
Hopkinton	5,399	$390,431	$72.32
Bow	7,138	$779,174	$109.16
Concord	40,687	$5,230,700	$128.55
Dunbarton	2,226	$91,187	$40.96
Henniker	4,433	$581,224	$131.11
Warner	2,760	$241,100	$87.36
Weare	7,776	$464,806	$59.77
Webster	1,579	$121,955	$77.24
AVERAGE		**$987,572**	**$88.00**

Sources: US Census 2000, Town Annual Reports

Facility Needs

The new Department Headquarters located at 1696 Hopkinton Road (Route 103) is expected to satisfy all foreseeable facility needs. The new facility was completed in January 2001 consists of a 6,000 ft^2 facility with the amenities needed to conduct daily operations.

Equipment Needs
Currently, the Department has five cruisers ranging in age from new in 2000 to four years old. The Department replaces its vehicles on a four-year cycle. These are sufficient to serve the Town's safety needs. According to the 2001 Hopkinton Capital Improvement Plan, a Capital Project-Capital Reserve Fund has been established for the routine replacement of this type of equipment.

Recommendations:

- Complete the accreditation process to improve professional standards within the department.
- Continue to encourage the residents of Hopkinton to give feedback on the Department's performance at the Citizens Advisory Committee meetings and at all other times.

Town Hall/Selectmen's Office

The Town Hall, located at 330 Main Street in the Hopkinton Village, is one of the best examples of early New England architecture and is frequently referred to as the quintessential example of small-town New England. The Town Hall houses the Town Administrator, the Planning and Zoning Office, the Town Assessor, Board of Selectmen, Financial Benefits Coordinators, and the Hopkinton Recreation Department. It is a great asset to the Town, but its usefulness as office space for these Boards, Commissions, and Departments is decreasing as Hopkinton grows in population.

Existing Facility
The current office space is located behind the 2,090 ft^2 meeting room in the Town Hall. The total office space for the above mentioned departments is approximately 950 ft^2. According to the Town Administrator, the current office space is cramped, and maximum utilization of all available square footage has already taken place. There is no room for additional workstations, files, or

seating areas. Furthermore, there are no staff restrooms, closets, or kitchen. Visitors to the Town Hall approach the offices though the meeting hall, which does not allow the staff to see the visitor until he or she is in the office area. Measures must be taken to ensure the safety of the Selectmen Office staff. The building is not compliant with the Americans with Disabilities Act (ADA) and therefore requires a complete ADA review. In addition to the cramped quarters inside the office, little room exists for parking in the lot in front of the Town Hall. Overflow parking must park on Routes 9/202 (Main Street), a major thoroughfare for traffic, especially during rush hour.

The Building Facilities Committee recommends the Town Hall continue to be used as a meeting place and for Town government due to the building's historic significance. A 1995 engineering study found the building well suited for its present use. The second floor of the Town Hall, comprising additional floor space of 2,090 ft^2, is mostly unusable due to floor problems and a lack of heat, according to the Town Administrator. The 1995 engineering study found that this second floor area would be adequate for light office use but would require improvements to meet Life Safety Codes and ADA compliance.

According to the 2001 Hopkinton Capital Improvement Plan, an Architectural/Engineering Evaluation and Plan is scheduled to be completed in 2002. This study should give recommendations on how the building can be used in the future.

Equipment Needs

Overall, it is anticipated that the capital needs of the Town Hall and offices will remain relatively low over the next ten years. Estimated replacement costs of computer and copier equipment total approximately $25,000-30,000 in the next five years. The Building Facilities Committee recommends additional short-term repairs consisting of additional insulation and improved access to the attic area. The estimated cost of these repairs is approximately $1,500.

Recommendation:

- The building's interior must be reconstructed to address ADA and Life Safety Codes specifications, maximize workable space and safety of the office staff, and improve acoustics for continued use of the Town Hall in its intended capacity.

Town Library

The Hopkinton Town Library, located at 161 Houston Drive in Contoocook Village, was constructed in 1998 and is the successor to the Bates Library in the Contoocook Village. The library contains 17,656 children's and adult texts, as well as audio books, periodical subscriptions, videocassettes, and compact discs. Throughout the 1990s, library circulation has routinely been in the mid-30,000s. However, when the new library was built, circulation rose to the mid-40,000s.

Staff for the library consists of the Library Director, a part-time Children's Librarian, two part-time Library Technicians, and three part-time pages.

Programs offered by the library benefit children and adults alike. The summer reading program reaches over 200 children each summer. Weekly story times incorporate stories, songs, finger plays, and crafts. Three different discussion groups are sponsored by the library, two for adults and one for parents and their children. Monthly programs sponsored by the Friends of the Library have included cookbook authors and demonstrations, magicians, musicians, puppeteers, travel slide shows, and so on. At least one program per year is co-sponsored by the Humanities Council and has included programs on spirituality, Celia Thaxter and the Island of Shoals, and a program on shaping public policy for the United States. In addition, the library has hosted talks about bats and owls from the Audubon Society, a dog from the local vet, and a cat from the SPCA. The library visits schools to talk about books, offers workshops for the school district, and does individual Internet training for the public.

Summary of Hopkinton Town Library Collection, 1999

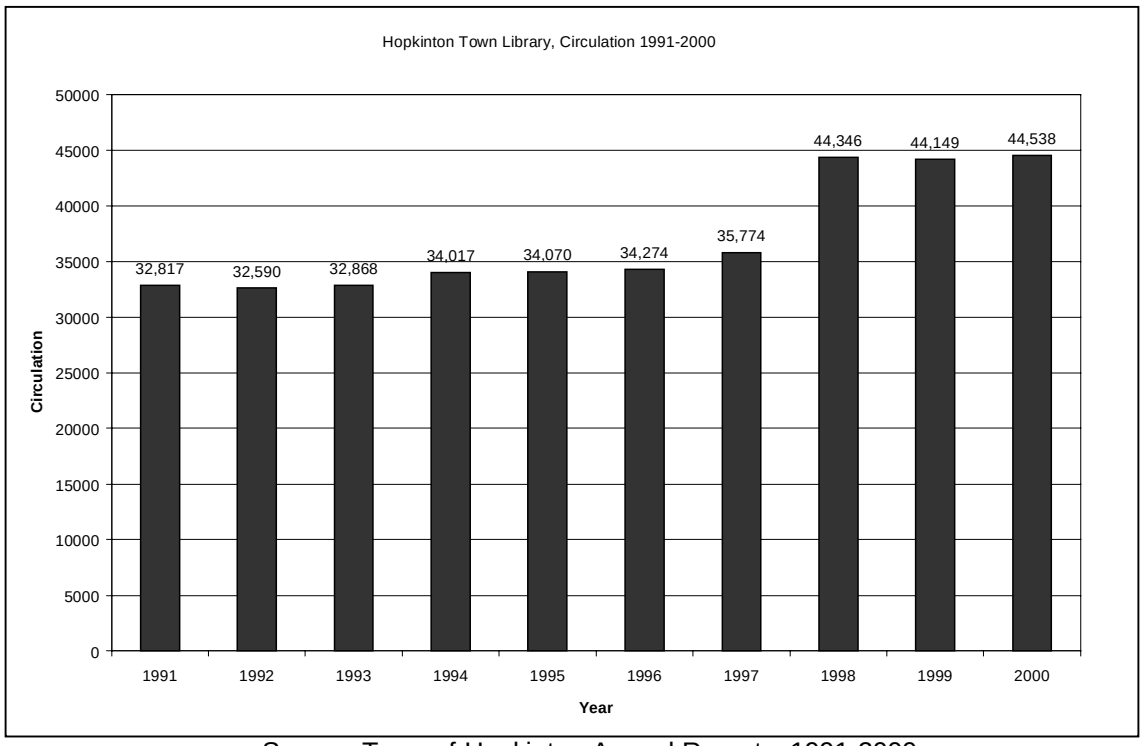
Adult Texts	9,399
Children's Texts	8,257
Total Texts	17,656
Audio/Video Cassettes, CDs	227
Audio Books	658
Periodical Subscriptions	55

Source: Library Director

Library Trends

As mentioned above, the number of library users has increased since the new library opened in June 1998. Circulation is expected to hold at the mid-40,000 level or increase slightly as population increases. The chart below shows circulation trends throughout the past decade.

Hopkinton Town Library, Circulation 1991-2000



Source: Town of Hopkinton Annual Reports, 1991-2000

The American Library Association publishes guidelines for staffing and facility standards; a summary of how the Hopkinton Town Library measures up to these standards is presented in the table below.

Comparison Hopkinton Town Library Staffing and Facility Standards to National Guidelines

	Planning Standard	Existing, 1999 (Population 5,167)	Future Needs, 2010 (Population 5,545)
Book Stock	3.5-5 Volumes per Capita	17,656	19,407 to 27,745
Seats	10 per 1,000 Population	200	50
Book Circulation	10 per Capita	44,149	55,450
Shelving Space	7.5 Volumes per Linear Foot	2,864	2,587 to 3,699
Staff Members	1 per 2,000 population	1	3

Source: Adapted from American Library Association

Facility Needs
As the library is a new structure, it is anticipated by the Building Facilities Committee and the Library Director that this building is adequate for the foreseeable future. There is ample space for additional stacks should the need arise.

One need to be addressed is parking around the library. At times, the library's two meeting rooms are being used for various functions and soccer games are in progress at Houston Field. The limited number of parking spaces is quickly filled and patrons must use the driveway leading out to Pine Street for overflow parking. However, this is a violation of fire codes, since an emergency vehicle is restricted from accessing Houston Drive when such a parking arrangement occurs. The library trustees would rather not see the building surrounded by asphalt, but agree that additional parking must be addressed, especially in light of planned Phase II and Phase III expansions at Houston Field. One possible solution is signage to instruct patrons to park on the grass and not on the asphalt on Houston Drive. The library trustees have approached the highway department for the appropriate signs. Another possible solution will be realized now that the temporary Police Department is razed. A number of parking spaces could be created in the footprint of the old building.

Equipment Needs
As with the Town Hall, the capital expenditures in the Town Library are expected to be minimal over the next ten years. Expected short-term expenditures include upgrading user computer terminals, a new Internet server, and purchasing a new copier. Total expenditures in this time period are anticipated to be approximately $30,000-50,000.

Recommendation:

- Parking around the library must be increased as more sports fields are constructed at Houston Field.

Solid Waste Disposal

Solid waste disposal is provided through a transfer station opened in 1990 and run by the Town of Hopkinton. The Town of Webster contributes 20% of the cost and is allowed full use of the facility in return. Located on East Penacook Road in northeast Hopkinton, the facility collected over 4,100 tons of waste and over 460 tons of recyclable materials in 1999. Operations are conducted in one main building and several unattached storage sheds and collection bins. Daily operations are overseen by a full-time facility operator. Currently, the facility has two full-time employees and two part-time employees. Their activities are overseen by the Assistant Superintendent of Public Works.

Hopkinton and Webster belong to the Concord Regional Solid Waste Resource Recovery Cooperative, which sends its waste to the Wheelabrator Incinerator in Penacook. Until 2001, the compact stated how much waste was guaranteed from each town in the compact on an annual basis and was billed according to this Guaranteed Annual Tonnage, or GAT. In 2001, the Cooperative instituted a Fee-For-Ton (FFT) program that allows Hopkinton and other towns to dispose of solid waste at the incinerator to a predetermined amount. Solid waste tonnage over that predetermined amount is charged at an increased rate. For Hopkinton, the rate increases from $37/ton to $67/ton for overage.

The solid waste facility's recycling program, which commenced in 1990, collects recyclable materials including textiles, compost, cardboard, newspapers, glass, aluminum and tin cans, clear Polyethylene Teraphthalate (PETE or "#1") and colored High Density Polyethylene (HDPE or "#2") plastics, magazines, office paper, all metals, computers and other electronics, and Christmas trees. The Town approved an addition to be built onto the recycling bay to facilitate the recycling of mixed paper at the 2001 Town Meeting. According to the Assistant Public Works Superintendent, every ton of material recycled saves Hopkinton $45 in hauling and disposal tipping fees. In addition to these savings, the market for recycled materials is continually expanding, offering the Town a source of income for many years into the future. A 12-14%

participation rate has been achieved since the inception of this voluntary program. If the Compact's FFT program results in the Town spending significant amounts of money on waste disposal, the Town may want to institute programs to increase the incentive to recycle. Such a program would have to first be approved at Town Meeting.

According to the Building Facilities Committee and the Assistant Public Works Superintendent, no capital improvements are anticipated at the facility and no staff additions are expected in the foreseeable future.

Equipment Needs
It is anticipated that the existing equipment at the transfer station will be adequate to serve the Town's needs for the foreseeable future.

Recommendation:

- The Town should implement educational and incentive programs to increase recycling and decrease consumption among its residents in order to save public resources on tipping fees.

Town Clerk/Tax Collector

Located in the former Bates Library at 846 Main Street in Contoocook, the Town Clerk's office collects taxes associated with property, vehicles, and pets owned by Hopkinton residents. It also collects user fees for the use of such facilities as the transfer station. This office is staffed by three full-time and one part-time personnel.

Facility Needs
Parking issues were discussed in the Contoocook Charrette held in January 2000. Parking in the front of the building is an issue confronting many of the businesses on Main Street in Contoocook. The buildings are spaced close together, meaning that there is little area to build additional

parking. Much of the parking comes at the expense of adequate sidewalks. Parked cars back out into traffic. Possible solutions include consolidating parking in two specific areas in the village: near the train depot, behind the Bank of New Hampshire building, and in the town parking lot on Cedar Street.

Equipment Needs
It is anticipated that the current equipment roster will be adequate to serve the Town Clerk/Tax Collector in the coming decade.

Recommendations
Town business in the future may become more internet-based. The Town should make preparations to allow its residents to conduct business via electronic means.
Storage of important Town documents, especially those that exist in only written records, should be moved from the basement of the Tax Collector's office, which is below flood level, to a secure area above flood level.

Hopkinton Community Center Inc. (Columbia Hall)

The Hopkinton Community Center Inc., a private, non-profit organization, is located in the town-owned turn-of-the-century Columbia Hall at 14 Maple Street in Contoocook, which it rents from the Town for a sum of $1.00 annually. According to the Director, the location is "visible, yet anonymous" and is ideal for the primary consumers of the center's programs; namely, children, the elderly, those without automobiles, etc. A number of new residents stop in for information about Hopkinton services and programs, assistance, or general information about what goes on in Town and what to see in the area.

As a privately operated, non-profit organization, the Community Center Inc. provides a number of services to the residents of Hopkinton from preschool activities to senior citizen programs. Six full-time employees staff the Community Center Inc. on a year-round basis with about five temporary employees serving as program instructors throughout the year.

Some programs located in Columbia Hall, such as the preschool, are able to run without outside fundraising. However, donations, fundraising, and funds provided by the Town help to maintain many of the service programs that benefit Hopkinton citizens, such as Dial-A-Ride, the Food Pantry, the Senior luncheon program, and the weekly blood pressure screening.

The Community Center Inc. preschool program, similar to the national Head Start program, is in high demand in Hopkinton and the surrounding towns. The Community Center Inc. is able to provide a number of scholarships. The preschool can accommodate 18 children per session and has a two day per week morning session and three full-day sessions, morning and afternoon.

A final program the Community Center Inc. provides is to work with the Hopkinton School District to reach special needs children.

Facility Needs
Columbia Hall, located in Fountain Square in Contoocook, is centrally located for its patrons. The people taking advantage of the Community Center Inc.'s services, primarily the elderly and the teen and preteen after-school populations, are able to walk to Columbia Hall from their houses and from the Maple Street and Hopkinton High Schools.

The Town Buildings Facilities Committee believes Columbia Hall is both unsafe and inadequate for the Community Center Inc. to deliver its services. Parking is insufficient, and vehicular traffic makes backing out of the limited parking spaces somewhat hazardous. However, ample parking is available within walking distance to the Community Center Inc.. For example, parking is available at the commercial area immediately across the bridge on Route 103. Additional parking areas are outlined in the Contoocook Charrette of January 2000. The building's interior falls short of Life Safety Code regulations since Columbia Hall was built before such codes were conceptualized.

Recommendations:

- It is recognized that the services provided within Columbia Hall are a valuable asset to the Town of Hopkinton. The Town should continue to support the Community Center Inc.'s activities.
- Life Safety Codes and ADA requirements must be addressed in order for Columbia Hall to be suitable for occupancy.
- In the event that safety concerns cannot be adequately addressed, the Town should consider the disposition of Columbia Hall.

Parks and Recreation Department

The Parks and Recreation Department in Hopkinton is staffed by one full-time director and various part-time employees as the seasons require. The maintenance of Town-owned parks and recreational areas is overseen by this Department.

Located in Contoocook Village, George's Park and Houston Field are the largest recreational areas in Hopkinton. A number of facilities at George's Park allow residents to participate in tennis, baseball, soccer, and softball, as well as field hockey, track, and basketball. Houston field is a newer facility that features soccer and baseball fields. Plans to develop additional fields within this complex are in various stages of completion.

Other recreation areas in Hopkinton include Kimball Lake, Kimball Pond, and playgrounds associated with the Harold Martin and Maple Street Schools. Kimball Lake, near Hopkinton Village, is a 51-acre parcel containing a number of cabins, a boat ramp, and a nature trail. Kimball Pond, a man-made water body, features a dock and picnic tables and benches on its 11 acres. A summer swimming program with lifeguards and instruction is sponsored by the Town at this location.

The Recreation Department in Hopkinton has of late had to create a niche for itself since many other established organizations, such as the Teen Center, the Community Center Inc., various sports leagues, and others, offer programs and services usually provided by a Town Recreation Department. The Hopkinton Parks and Recreation Department therefore focuses on scheduling trips to sporting events, organizing holiday activities and programs, and the expansion of Houston Field.

Facility Needs
The Parks and Recreation Department office is located in the Town Hall adjacent the Selectmen's office. The Town should consider relocating the office to a space that affords greater public contact and accessibility.

In terms of recreational facilities, a skate park located at George's Park would help to increase safety by removing skateboarders and in-line skaters from the street. A new ¼-mile track is desired in the future, which could be a new construction at Houston field or an upgrade of the track at George's Park. Expanding the basketball courts at George's Park is also desired. According to the 2001 Hopkinton Capital Improvement Plan, the Phase II construction of Houston Fields is to occur in 2001. In addition, the construction of a dock at Kimball Pond was completed in 2001. The Town owns a large barn at Houston Park that is currently used for dry storage.

Equipment Needs
The Recreation Director feels that the Department is in need of a passenger van to move small groups of people around Town. His estimated State bid price is $25,000.

Recommendations:
- All recreation organizations in Hopkinton should make better use of the Town's web site. This would serve to increase communication among the organizations and to inform the public of the opportunities afforded them by the various recreation-based organizations in Hopkinton.
- The Town should investigate the need for a passenger van for transporting groups throughout Town.
- The Recreation Department should work in conjunction with the Hopkinton Fair Association to further develop the Town's recreational facilities.

Hopkinton School District



The Hopkinton School District's mission, in cooperation with family and community, is to ensure each student gains a love of learning – with the knowledge, skills, sensitivity, self-reliance, and character to be a contributing member of our global society – by educating all students in a joyful, supportive, and challenging environment.

The Hopkinton School District, located west of Concord in the Contoocook River Valley, encompasses the communities of Hopkinton and Contoocook. The student population of approximately 1,000 students is divided among three buildings – Harold Martin School (Kindergarten to third grade), Maple Street School (fourth to sixth grades), and Hopkinton Middle/High School (seventh to twelfth grades). In each of our schools we are fortunate to have highly dedicated, motivated, and student-centered faculty and staff.

Hopkinton School District has benefited from the extensive involvement of parents and communities within our schools and a tradition of support for school programs, personnel, and activities. More recently, the school district, in conjunction with the Hopkinton Police Department, Community Center Inc., and Hopkinton Recreation Department, has promoted a number of programs designed to meet the needs of youth both in our schools and after school hours. These programs have taken the form of a Youth Diversion Program, Project Second Step at the elementary level, support for a Community Teen Center, Hopkinton Community Center Inc. youth activities, parenting network, and summer programs for youth.

The Hopkinton School Board, composed of five community members, has consistently engaged staff and community in discussions related to student learning and development. Although the Board acknowledges the achievements of the district in statewide assessments of student learning, they continue to endorse the school's focus for intellectual and character development of the community's youth. The Board also has made a commitment insuring that our learning environments are well kept, safe, and available to the community.

Facility Needs

Students in the Hopkinton School District attend one of the three facilities: the Harold Martin School for Kindergarten to third grade, the Maple Street School for fourth to sixth grade, and Hopkinton Middle/High School for seventh to twelfth grade. The Superintendent's Office is located in a separate facility at 204 Maple Street. The facilities are in excellent condition due in part to the recent completion of the $7 million additions and renovations to Maple Street School and Hopkinton Middle/High School. The following table depicts each facility's characteristics. The district continues to give thoughtful consideration to the maintenance and upkeep of the facilities as well as to the future expansion of facilities through the Town Capital Improvement Program.

Hopkinton School Facilities Data

	Harold Martin School	Maple Street School	Hopkinton Middle/High School
Site Acreage	8	5.8	9.63
Square Footage	36,400	32,400	150,000 (approx.)
Date of Construction	1958	1960	1952-53
Date(s) of Additions	1988	1998	1963, 1969, 1998
Grades Housed	K-3	4-6	7-12
Student Capacity	311	352	778
Students Enrolled (10/1/00)	273	251	464
Student Population 2005 (projected)	275	191	502
Number of Teaching Stations	18	16	37
Number of Floors	3	1	6

Recommendations:

- To maintain an appropriate staff, maintenance, and capacity for learning programs in our current facilities.
- To adhere to improvement planning as outlined in our Capital Improvement Plan.
- Closely monitor student enrollment as related to current capacity in each of the district buildings.
- Continue to work with the Town of Hopkinton in planning facility use that is consistent with the community and school strategic plans.

Board of Cemetery Trustees

The Board of Cemetery Trustees oversees eleven cemeteries in Hopkinton, five of which are still active for burials. The Board administers maintenance to cemetery features, such as headstones, fences, and trees, and works to procure new lands to expand existing cemeteries. Many projects are ongoing.

According to the Board, projects to complete in the future include the following:

1. Purchase of land for the expansion of the Blackwater Cemetery on Duston Road,
2. Install water at the Blackwater Cemetery after purchase of land,
3. Take photographs of all headstones in all Town cemeteries,
4. Clean all headstones in all Town cemeteries and repair broken stones,
5. Revise maps of all Town cemeteries,
6. Survey and excavate the land at Old Hopkinton Cemetery for the sale of lots,
7. Update the computer system,
8. Install additional roads in the Contoocook Village Cemetery, and
9. Upgrade the roads in the Blackwater Cemetery.

According to the 2001 Hopkinton Capital Improvement Plan, the Town has budgeted $5,000 in 2002-2004 for the purchase of land and $3,000 in 2003 and 2004 for the Blackwater Cemetery artesian well.

Chapter IX
Conservation, Preservation, and Open Space

Introduction

The Conservation, Preservation, and Open Space chapter is a study of Hopkinton's environment that includes our open space systems, watersheds, soils, bedrock, topography, brooks, rivers, streams, wetlands, forests, drinking water resources, and our built environment, as it relates to these natural resources.

Hopkinton residents have traditionally supported strong conservation and preservation measures to protect the rich array of natural and cultural resources found in the community. This attitude continues to prevail, as shown by the results of the Master Plan Survey, where 60% of Hopkinton residents responding supported the idea that the Town should appropriate money to be used for the protection and preservation of natural, cultural, and historic resources. In addition, the visioning sessions conducted at the beginning of the Master Plan process indicated a strong desire for the protection of our natural resources.

In periods of development, such as the one we are currently experiencing, towns tend to be reactive toward development proposals. They tend to allow development without sending a clear message to developers about what the Town really wants. Because of serious growth pressures, it is imperative that a coordinated effort to protect valuable locally and regionally significant environmental areas occurs in the near future. This effort would be best utilized if municipalities worked across political boundaries to coordinate and plan for natural resource preservation, conservation, and protection.

The vision established by this chapter is to continue to concentrate the growth and development of Hopkinton within the traditional core areas of Town. Within the more rural areas, the goal is to protect and interconnect, through a greenway and open space network, tracts of land with important ecological, visual, aesthetic, and community value.

To achieve the goals and recommendations of this chapter, the Town should not view this plan as a static document that lays out precisely what needs to be done for the next ten years, although in some cases we are able to do just that. But in general, this chapter is more like a lens focusing our attention on certain critical environmental and resource issues that need to be monitored and that, in some cases, we need to learn more about at a fundamental level. The idea is to steadily increase our information base regarding issues that we know to be important, make that information available to the public and decision makers in an accessible, clear, and consistent manner, and to use that information not only to refine management plans, but also to target and prioritize the need for additional information. It is useful to think of this chapter as adaptive in the sense it can be adjusted as we learn more about the dynamic environmental systems in which we live.

In this Chapter, the following topics will be explored:

Key Findings
Community Survey and Visioning Session Results
Soils
Surface Water Resources
Drinking Water and Aquifer Protection
Farmland
Species of Special Concern
Scenic Views
Lands Identified for Conservation
Strategies to Meet Conservation Goals
Slope Analysis
Wetlands
Sand and Gravel Deposits
Wildlife Habitat Management
Greenways and Trails
Forests
Summary

Key Findings

- All land use activities that have a direct impact on the soil should be performed in such a way as to minimize any negative impacts and be located on sites suitable for such activity.
- The Town should provide for comprehensive protection of the wetlands and shoreland through regulatory, educational, and voluntary efforts.
- The Town should identify critical habitats and lands, including large blocks of undeveloped land, travel corridors, agricultural lands, scenic views, and other areas of conservation, recreational, and ecological value and initiate efforts to protect those areas.
- Research the possibility of creating an Aquifer Protection District that would provide comprehensive protection for the aquifer resource based on scientific findings, while at the same time ensuring the provisions are reasonable and enforceable.
- Develop a conservation development approach for the design of subdivisions and developments, particularly within those areas identified as unfragmented in town. A conservation development approach will recognize the right and ability of a landowner to use his/her land, but minimize the fragmentation of the habitat.
- Expand and strengthen the Hopkinton greenway system through the acquisition of land or conservation easements that would link conservation parcels that the Town currently owns or has easements on. This acquisition should be through donations, purchase, or partnerships with public or private conservation groups. A conservation fund should be maintained to allow the Town to qualify for matching funds, as opportunities arise.

Community Survey and Visioning Session Results

At the beginning of the Master Plan process, a survey was sent out to every household and non-resident property owner in the Town of Hopkinton. Of the 2,700 surveys sent out, there were 973 surveys returned, for a 36% response rate. The following three questions, which were included in the survey, directly relate to the topics covered in this Chapter.

What are the desirable features of the Town of Hopkinton? (Check all that apply)

Feature	Total Responses
Small Town / Rural Atmosphere	852
Scenic Areas	431
Natural Resources	293

Should the Town appropriate money to be used for the protection and preservation of natural, cultural and historic resources?

Answer	Total	Percentage
Yes	589	60.5%
No	117	12.0%
No Opinion	168	17.3%
No Answer	99	10.2%
Total	**973**	**100.0%**

In order to help Town Officials better direct their efforts to meet the needs of the community, we need your opinion on the relative importance/rating on the following issues. Check all that apply.

Issues	More	Same	Less	No Opinion	No Answer
Protection of ground and surface water	508	301	11	52	101
Protection of woodlands and wildlife habitat	430	373	25	55	90
Preservation of farmland and pastures	430	351	31	68	93
Expansion of Town forests/conservation lands	381	354	55	80	103
Designation and protection of wetlands	353	386	64	72	98

In May 2000, a community Visioning Session was held, in which community participants were asked several questions. The following were some of the individual, participant responses that relate to conservation, preservation, and open space.

What would you like Hopkinton to look like 75 years from now?

All commercial developments have green space
Large blocks of habitat with healthy eco-systems
Maintain rural character
Large blocks of wooded land
Open land
Open space subdivisions
Expand recycling, reduce consumption
Continue to have operating farms
Functional farms
River access
Unpaved roads
Encourage tree farms
Preserving water resources
Wetlands protection
Recreation and habitat connection to conservation lands
Include trees and open areas for wildlife habitat, visual, and aesthetics

What are the Town's strengths and opportunities?

Rural Atmosphere
George's Park
Gould Hill Orchards
Pedestrian access along riverbank
Quiet access to Town-owned bodies of water
Cluster development with conservation/open space land
Conservation Land
Unpaved Class VI Roads
Active Farms
Encourage farming

What are the Town's weaknesses or areas of concern?

Community knowledge of Town-owned land
Access to open space and conservation lands
Inappropriate and incompatible development
Loss of land (Kimball Lake)
Maintenance of Town land
Elimination of Class VI Roads
Land fragmentation

When looking at the responses gathered from the participants at the Visioning Session, two main themes that are repeated throughout are the desire to retain and improve Hopkintons' rural, agricultural character and the desire to increase access and availability of conservation lands and open space.

Soils

One of the most important natural resources and determinants of land use is soils. This is particularly important in Hopkinton, which has a limited public sewer district and two limited public water districts. Information about soil characteristics, with other support data, allows a community to make sound land planning decisions.
The upper layers of geological materials (rocks and soils) on the bedrock (the crustal rock under the soil) were deposited by the last glaciation (Pleistocene), particularly the Wisconsin stage. As the ice melted, the glacial debris formed two types of deposits:

A. Direct deposits falling or dumped by the ice as unsorted glacial till (hardpan); or
B. Outwash deposits of sand, gravel, silt, and clay sorted out by the meltwater running off the ice (Glacio-Fluvial). These latter deposits were carried farther by streams and rivers into the valleys. The Contoocook River Valley, being a

temporary lake (Glacial Lake Contoocook) as the ice was melting, has lake floor deposits of sandy silt and clay.

The following describes the various resulting glacial landscape features:

A. Direct Deposits (Till)
   1. Ground Moraine -- Mostly till overlying bedrock but includes outcrops of uncovered bedrock. It is the unsorted, glacially ground-up debris of clay, silt, sand, gravel, and boulders dumped under the glacial ice and now covering bedrock. It was not distributed by meltwater. Morphologically, it is a zone of small hills and basins.
   2. Drumlins -- Low, humpbacked elliptical hills or mounds of till deposited and shaped by the moving glacier; the long axis is parallel to the ice motion.

B. Outwash Deposits (sand, gravel, silt and clay)
   1. Outwash Plains -- A broad almost flat topped deposit of sorted sand and gravel layers, built up by the streams of glacial meltwater flowing off from the stagnant glacier.
   2. Kame and Kame Terraces -- A hill, hummock, or short irregular ridge of stratified sand and gravel deposited in contact with the glacial ice; when the ice melted, the deposit settled to its present form. They range from 5 to 100 feet high. A kame terrace is a body of crudely sorted sand and gravel deposited between the glacier and an adjacent valley wall, thus forming the rather flat-topped terraces.
   3. Eskers -- Narrow, sinuous ridges of crudely stratified gravel and sandy gravel 10 to 100 feet high, deposited by meltwater streams flowing beneath the glacier in stream tunnels.
   4. Varved Clays -- Glacial clays of alternating sandy silt and silty layers, deposited in glacial lakes.

Since the last glacial ice melted away 14,500 years ago, three other major soil deposits have developed:

1. Organic Deposits -- Peat and muck soils found in marshes, swamps, bogs, and other wetlands; they represent formerly or presently ponded depressions where plant remains have accumulated and decayed over time.

2. Flood Plains -- Large areas of sandy or silty alluvium (stream deposits) left by previously muddy flood water; usually broad and flat due to the slow accumulation of this alluvium during the waning stages of each flood.
3. Topsoil -- Generally less than one foot thick composed of weathered glacial deposits and organic matter (humus).

In Hopkinton, the majority of the surfical geology is ground moraine. The other large categories are Kames, Kame Terraces, glacial lake floor deposits (Lacustrine), and flood plains. Much of this appears to follow the water corridors. There are also some drumlins, outwash plains, and small organic deposits.

There are two major types of bedrock that underlie the Town of Hopkinton: a hard igneous rock commonly referred to as granite and a metamorphisized form of sedimentary rock which is much softer. The granite bedrock is suitable for aggregate mining, while the meta-sedimentary rocks are porous and more easily contaminated. Both types are currently being used as a drinking

water source by many homeowners and the Town, via drilled wells. Bedrock is a nonrenewable resource. It is difficult to remediate most forms of contamination in it and it may contain natural hazards, such as radon and arsenic.

The metamorphic rocks are quite fractured, and even though some of them have a high iron and sulfur content, wells drilled into these rocks generally yield adequate supplies of household water. Some of the igneous rocks are not as fractured and generally yield smaller quantities of less mineral rich water.

In general, soils can be grouped into seven main categories: wetland, seasonal wet, sandy and gravely, shallow to bedrock, hardpan, deep and stony, and clayey. The other category includes gravel pits and "made" land fill.

The data below indicates that sixteen percent of the land should not be developed due to water and wetlands and another eight percent is subject to being wet seasonally. Over half of the soils are either deep and stony or sandy and gravely. It is important for the Town to be aware of the soil conditions, classifications, and limitations in order to have appropriate and suitable land use plans and zoning requirements.

Type	Number of Acres	Percent
Wetland	4,390	16%
Seasonal Wet	2,275	8%
Sandy and Gravely	7,255	26%
Shallow to Bedrock	1,950	7%
Hardpan	2,900	10%
Deep and Stony	7,705	28%
Clayey	690	2%
Other	800	3%

Source: Hopkinton Master Plan Update, 1987

Soils are a renewable resource, but because of the long time period required to be replenished, they can easily be classified as non-renewable. In addition to offering many environmental and agricultural benefits, soils are subject to contamination, erosion, and depletion at an alarming rate. Productive soils for farming and forestry are often prime development sites, and once built on, they then become unavailable for those essential uses.

Recommendations:

- Inform and educate land owners, who perform land use activities that may impact the soil, of existing State regulations, as well as the recommended best management practices, regarding such land use activities.
- In the zoning ordinance, implement soil based lot sizing requirements, as outlined in the 1997 Rockingham County Conservation District "Ad-Hoc Soil Based Lot Sizing Study," as amended.
- Soils should be respected and protected as a valuable resource. All land use activities that have a direct impact on the soil should be performed in such a way as to minimize any negative impacts and be located on sites suitable for such activity.
- Through the Subdivision and Site Plan Review Regulations, require new developments to submit site specific soil data to ensure that new developments have adequate carrying capacity for such proposed uses. Site specific data submittals should be

consistent with "Requirements for Soils and Wetlands Data in Subdivision and Site Plan Review Regulations" prepared by NH OSP in 1999. Site specific data, in addition to wetlands data, should be required under the following situations: (1) average lot size is less than 2 acres without public water and sewer, (2) average lot size less than 1 acre with municipal water but without municipal sewer, (3) non-limiting non-wetland contiguous area greater than 20,000 square feet and without municipal water and sewer, or (4) areas without municipal water and sewer and with multiple soil complexes with dramatically different characteristics on the same lot.

- Ensure that any activities involving bedrock, or those that have the potential to involve bedrock, be analyzed to ensure that the water resources within the bedrock will not be affected, or at least not have a negative impact on abutting users.
- Require a complete analysis of the impact on the bedrock resources when a large scale development proposes to use or alter the natural bedrock structure.

Slope Analysis

Slope is a very critical consideration in land use planning because it affects the capability and suitability of land to support development, as it relates to the site and the building, septic system and building design costs, and environmental impacts, such as runoff, erosion, sedimentation, and pollution. Slope is the ratio of change in vertical elevation in relation to the change in horizontal distance, multiplied by 100 percent. The percent of slope may indicate the potential for environmental problems. Land with no slope, such as wetlands, and land with steep slopes may not be suitable for any development. There are five slope classifications, which are described below.

0-3% Flat
Land in this category can be regarded as essentially level. The slope would indicate easy accommodation of almost all types of land use. Much of the land in this category lies within the flood plains of the major rivers. Other flat lands in this category may have drainage problems if the soil proves to be relatively impermeable. Land in this category is generally best restricted to pasture and grazing, public open space, recreational use, farming, or appropriately planned development that takes into consideration the necessary environmental factors and conditions.

3-8% Gently Sloping
Land in this category is suitable for many uses. The slopes are not prohibitive for development and make for excellent natural drainage conditions. Most of the land in this category may be found within the valley floors and river terraces.

8-15% Moderately Sloping
Slopes of this range begin to be restrictive for certain land uses. The slopes may also prove too steep for most farming purposes. Low density residential development may be feasible if carefully planned.

15-25% Steep Slopes
Excavation and grading are almost always required, yet development not intensive in its coverage may be accommodated with limited environmental impact, if carefully planned.

Over 25% Very Steep Slopes
These lands are most subject to adverse environmental impacts and heavy construction costs. Intensive use of land should be done cautiously with the recognition that the interest and amenity provided by such lands makes them a valuable recreational resource and an area of the increasing demand for residential housing "with a view."

In Hopkinton, the majority of land has a slope of less than eight percent. Much of this area is in the Hopkinton-Everett Reservoir and the related river corridors. There are, however, a few areas with steep slopes, as can be seen on the **Steep Slope and Scenic Vista Map**, and by the list below:

Name	Height
Shaker Hill	923'
Gould Hill	840'
Irish Hill	780'
Putney Hill	780'
Beech Hill	780'
Clement Hill	740'
Mt. Hope	740'
Dimond Hill	660'
Rattlesnake Hill	640'

Moderately to severely sloped land is subject to erosion during almost any type of land use activity. Whereas much of the easily developable land within the Town has been built upon, developers and home builders are focusing on the more sloped terrain. Potential views from such slopes have increased both the demand and value of those sites. This increase has created problems for utility placement, as well as for service road and driveway location and construction. Building on ridgelines may have the potential to diminish the scenic quality of the ridgeline.

Recommendations:

- Interruptions in ridge-lines should be avoided and structures should be designed to blend in with the background, if such structures are visible from the Town's population center and highways.
- Ensure that required siltation and sedimentation controls are in place prior to the start of construction activity and that they remain functional during the entire construction process. Erosion and sedimentation control measures shall be in accordance with "Stormwater Management and Erosion and Sediment Control Handbook for Urban and Developing Areas in New Hampshire," as prepared by the NH DES, Rockingham County Conservation District, and USDA Soil Conservation Service, August 1992.
- All roads and driveways should be designed in a manner to allow the safe passage and access of emergency vehicles during inclement weather. For new development, the Planning Board should require the design and location of roads and driveways to be as minimal impact as possible in areas of steep slopes.
- In the Town Health Regulations, septic system maintenance schedules and inspections should be encouraged to reduce the chance of on-site system failure, which may impact ecological systems beyond the property line.
- Encourage steep slopes to be used for recreation purposes, such as hiking, cross country skiing, and others that do not alter the natural surface configuration or vegetative cover of the land.
- In the site and subdivision review regulations, the Planning Board should adopt a clear standard for measuring slope for proposed developments.

- The Planning Board should encourage developers to protect steep slopes with slope easements.
- Create slope development standards that protect the environment and safety in both the short and long term, as well as the aesthetics from both near and far observation points within the Town.

Surface Water Resources

Floodplains were created as the Contoocook River naturally flooded, before the Hopkinton-Everett Dam was constructed, and are continually being modified by the river. Flooding is a natural process of the river system that serves to slow floodwaters, thus reducing damage further downstream. Flooding also deposits minerals for the soil and recharges groundwater resources, as well as provide habitat to a wide variety of plants and animals.

Hopkinton lies within the Contoocook Sub-basin of the larger Merrimack Drainage Basin. The Contoocook River drainage area covers about 766 square miles. River systems link communities. The effect of community actions regarding rivers can affect the downstream water quality and quantity for other communities. The Blackwater, Contoocook and Warner Rivers flow through Hopkinton. The primary brooks in Hopkinton which all flow into the Contoocook River are Dolf Brook, Deer Meadow Brook, and Hardy Spring Brook. The following chart gives data on the number of miles of river/stream/ponds through Hopkinton.

Name	Source	Length/Size in NH	Length/Size in Hopkinton
Blackwater River	Andover	41 miles	1 mile
Contoocook River	Rindge	71 miles	10.5 miles
Warner River	Bradford	22 miles	1 mile
Dolf Brook	Hopkinton	4.5 miles	4.25miles
Deer Meadow Brook	Salisbury	12.5 miles	1 mile
Smith Pond Bog	Hopkinton	15 acres	15 acres
Carr Pond	Hopkinton/Henniker	11 acres	N/A
Grassey Pond	Hopkinton/Henniker	20 acres	N/A
Kimball Pond	Hopkinton	75 acres	75 acres
Rolf Pond	Hopkinton	30 acres	30 acres
Browns Brook	Hopkinton	1.7 miles	1.7 miles
Drew Lake	Hopkinton	38 acres	38 acres
Clement Pond/Josilvia Lake	Hopkinton	100 acres	100 acres
Hopkinton-Everett Lakes Reservoir	Rindge	8,000 acres	2,820 acres
Whittier Pond	Hopkinton	14 acres	14 acres
One Stack Brook	Hopkinton	3.1 miles	2.1 miles
Boutwell Mill Brook	Hopkinton	3.7 miles	2.9 miles
Hardy Spring Brook	Henniker/Warner	5 miles	4 miles

Source: Hopkinton Master Plan Update, 1987;
1998 Natural, Cultural, and Historical Resources Inventory, CNHRPC

Ponds

The Hopkinton-Everett Lakes Reservoir protects Contoocook and other towns and cities along the River from flooding. It provides Hopkinton with a variety of recreational opportunities including Elm Brook Park, and is formed by a dam on the Contoocook River in West Hopkinton, and the Everett Flood Control Dam on the Piscataquog River in Weare. Two dikes and a spillway controlling a 426 square mile drainage area are also located in Hopkinton. According to the 1979 Master Plan, "650 acres of permanent water are available to the general public in the towns of Henniker, Weare, Hopkinton and Dunbarton." The major bodies of water involved in the reservoir that are located in Hopkinton are : Contoocook River, Pool Canal No. 1, Elm Brook Pool and Marsh, Stumpfield Pond and Marsh, Drew Lake, and Canal No. 2.

Drew Lake lies southeast of the Hopkinton-Everett Reservoir. It has an area of approximately 38 acres in size and is a popular fishing site.

Whittier Pond, also called Fry Pond, lies north of Hopkinton Road, in the eastern part of Hopkinton. It is a natural pond that has been raised by damming and is 14 acres in size with an average depth of four feet.

Kimball Lake is approximately 75 acres in size. This man-made pond and the log cabins on it are used by the Town as a recreation area. It serves as a tributary to Dolf Brook.

Clement Pond, also called Lake Josilvia, is 100 acres in size and has a maximum depth of 50 feet. It serves as a tributary to Hardy Spring Brook.

Carr Pond is shared between Hopkinton and the Town of Henniker. This 11 acre pond has an average depth of five feet.

Grassey Pond is also shared between the Towns of Hopkinton and Henniker; although it is owned by the New Hampshire Department of Fish and Game. It is a marshy pond 20 acres in size that is located to the west of Clement Pond.

Rolf Pond is 30 acres in size and lies southeast of Clement Pond and northwest of Carr Pond.

Rivers

The Contoocook River has been cited as Hopkinton's prime natural resource. The river originates in southwest New Hampshire and flows northeast to the Merrimack River in Concord. It enters Hopkinton from the Town of Henniker and generally flows northeast into Concord, where it joins the Merrimack in the village of Penacook. The Contoocook River is dammed in many places from its source in Rindge to Concord; one of the most notable dams is the Hopkinton-Everett Dam. Some of the larger conservation areas on the banks of the Contoocook River include the Mast Yard State Forest in Concord and Hopkinton, the Hopkinton-Everett Flood Control Reservoir in Hopkinton, the Concord City Forest and the Hopkinton Town Forest.

The Blackwater River starts in the Blackwater Pond in Andover, flows through Blackwater Bay in Salisbury and continues southward, forming part of the Blackwater Dam and Reservoir System, a Federally-owned area of approximately 3,500 acres in Salisbury and Webster established for flood control. The river flows through Webster past the Mock Memorial Forest, Pearson Park, and the Riverdale Sanctuary. In addition, a number of conservation easements front the river. It then flows to Hopkinton, where it empties into the Contoocook River.

The Warner River originates from Lake Massasecum in Bradford and Lake Todd in Newbury. It flows east out of Bradford and into Warner, where most of its watershed lies. It flows southeast through Warner, into Webster for a short distance, before flowing into Hopkinton, where it drains into the Contoocook River. There are no major conservation areas along the Warner River besides a few small conservation easements in Warner and small portions of the watershed that are protected in the Mink Hills and on Mt. Kearsarge.

A headwater area of the Turkey River Basin lies in the southeast corner of Hopkinton and is fed by several small brooks located within the Town.

Brooks

Dolf Brook flows from Kimball Lake, Kimball Pond, and Smith Pond to the Contoocook River. This Brook serves as a Town swimming beach.

Hardy Spring Brook flows from Clement Pond to the Contoocook River.

One Stack Brook starts at the Chase Sanctuary, west of Jewett Road, and flows into Bela Brook in the Town of Bow.

Boutwell Mill Brook starts at Whittier Pond and flows into Bela Brook in the Town of Bow.

Browns Brook starts near the Warner Town line, west of I-89, and flows into the Warner River.

Deer Meadow Brook flows out of Pillsbury Lake in Webster and joins the Contoocook River in the northeast part of Hopkinton.

Smith Pond Bog is a glacial pothole pond and is a stream tributary of Dolf Brook. It is part of the New Hampshire Audubon Society's 59 acre Smith Pond Bog Preserve. True bogs have no stream inlet or outlet, yet this bog has a small outlet stream under NH 202/9, west of Hopkinton Village.

Other than those bodies of water in the Hopkinton-Everett Reservoir area (8,000 acres of Federally owned land), most of the other lakes and ponds are under private ownership. Many of the public ponds and lakes are limited to various forms of recreation due to the type of substrate, excess of vegetation, excess pollution, lack of public access, and size. See the **Surface Water, Aquifers, Wetlands, and Drinking Water Map** for more information.

Buffers adjacent to shoreland and wetlands reduce the adverse effects of human activities on these resources by protecting water quality, protecting and providing wildlife habitat, reducing direct human disturbance, and maintaining aesthetic qualities and potential recreational value. The loss of buffers through variances/waivers and through illegal activities should be minimized.

The transport of sediments, pollutants, and nutrients associated with stormwater runoff is the largest contributor to non-point source pollution in New Hampshire. The Center for Watershed Protection, in Maryland, indicates that watersheds with less than 10%-15% impervious coverage do not experience adverse water quality and biological impacts, while watersheds with greater than 15% impervious coverage tend to show higher degrees of impairment and degradation, due to runoff.

Although Hopkinton residents are very conservation minded, as revealed in repeated surveys, it is evident that more public education is needed to raise awareness of the sensitivity of our waters and importance of careful land management. This is especially critical because landowner

education, understanding, support, and cooperation will be much more effective than the enforcement of misunderstood or unsupported regulations. In addition, a well-educated constituency advocating the appropriate development of shorelands will more likely support and adhere to the regulations made by Town decision makers.

The Town has an obligation to protect water quality, including freshwater resources used for public drinking water and as habitat for various forms of wildlife. Conservation efforts in the past have helped to protect all these resource values through the Town's Ordinances and through the acquisition of conservation land or easements. Because of these factors, it is important for the Town to take proactive steps to ensure that the quality and aesthetic value of our surface water resources are protected, enhanced, and valued.

Recommendations:

- Work with landowners to find solutions for the areas along waterbodies that are experiencing problems with septic system discharge into those bodies of water.
- Initiate a public education campaign regarding the proper maintenance of septic systems.
- Investigate the possibility of creating or expanding the public sewer system into existing areas with marginal leachfield capacity.
- Ensure that septic systems and the Hopkinton wastewater treatment plant are efficiently operated and properly managed to minimize any and all adverse effects on the water quality.
- The Town should provide for comprehensive protection of the wetlands and shoreland through regulatory, educational, and voluntary efforts.
- Facilitate the distribution of information for waterfront and wetland property owners to encourage voluntary protection and also conduct a workshop for local realtors so that they may help educate and set appropriate expectations for new property owners. Such information should contain all applicable local, State, and Federal laws and regulations and should be given to all waterfront and wetland property owners requiring a building permit.
- Realtors and Town staff should encourage new landowners to understand the importance of protecting their shoreland, setting houses back from water bodies, retaining vegetative screening, and preserving natural buffers along the water for wildlife.
- The Wetlands Conservation Overlay Ordinance should be revised to incorporate, as a minimum, protections afforded at the State level in NH RSA 483:B. The Wetlands Ordinance should be revised to require the use of the new site specific standards from the Society of Soil Scientists of Northern New England (SSSNNE). Based on scientific justification, additional levels of protection through the Wetland Ordinance should be considered to address the specific resources found in Hopkinton. The careful and strict enforcement of the Wetlands Ordinance should be a high priority for the Town.
- The Town of Hopkinton should update its ordinances and regulations to adequately address the issues of stormwater management, erosion, and sediment control to improve the quality of the Town's waterbodies.
- When updating the Town's current ordinances with respect to wetland buffers, the criteria established in the NHDES publication *Buffers for Wetlands and Surface Waters: A Guidebook for New Hampshire Municipalities*, as well as the publication by the New Hampshire Department of Resource and Economic Development (NHDRED) *Best Management Practices for Erosion Control on Timber Harvesting Operations in New Hampshire* should be used as a primary reference.

- Requirements for erosion and sediment control plans and stormwater management plans for projects that involve the disturbance of more than 1 acre of land and that will create more than 15% of impervious surface cover should be incorporated into the Site Plan and Subdivision Regulations. These plans should be put in place for those areas that drain directly into a primary waterbody for the Town. The Best Management Practices handbooks and model ordinances prepared by the New Hampshire Association of Conservation Districts and NH DES can be used as a guide.
- Targeted improvements to the Town's stormwater discharge and retention ponds should be made to ensure that stormwater is being efficiently and properly handled. Discharges change the ecology of the wetland/watershed/receiving stream and should be taken into account during any development proposal reviews that would increase the amount of stormwater created.
- Public awareness should be raised regarding the importance of water bodies in the Town and ways to protect them. Volunteer watershed/waterbody advocacy groups should be encouraged to work with landowners and monitor water quality.
- Track both the positive and negative impacts that the flood control structures in Town have on the natural environment, with particular emphasis placed on an ecosystem/watershed-wide approach.
- Educate the Zoning Board of Adjustment, Conservation Commission, Planning Board, and developers about the negative local impacts caused by continual incremental variances, special exceptions, and waivers to wetland and water protection ordinances/regulations. This education program should also include information about how the laws and ordinances are constructed and enforced, as well as information about the reasons and justification for the water protection measures that are in place.

Wetlands

Wetlands are natural resources which provide considerable development constraints. Wetlands pose development restrictions due to poor drainage, high water tables, slow percolation rates for septic systems, unstable conditions for foundations, and susceptibility to flooding. Wetlands are typically defined by three parameters: drainage, soil type, and vegetation. The National Wetlands inventory defines wetlands by hydrology, hydric soils, and vegetation, including trees and plants that dominate wetland areas and require wet conditions to grow.

The definition in the New Hampshire Code of Administrative Rules for the State of New Hampshire Wetlands Board for Wt 101.01 Freshwater Wetlands is: "Freshwater wetlands means those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal conditions do support, a prevalence of vegetation typically adapted for life in saturated soil conditions."

Wetlands are also defined as poorly or very poorly drained soils by the Natural Resources Conservation Service. Very poorly drained soils have a layer of muck or peat overlaying mineral material such as sand, silt, and clay. The thickness of the muck or peat may vary depending on the soil forming process. The soil series and land types commonly associated with very poorly drained soils include marshy (Mh), Mixed Alluvial (Mn), Muck and Peat (MU), Saco (Sa) and Scarboro (Sc). Poorly drained soils are slightly better drained due to a thinner layer of muck or peat and include the following soils - Augres (AgA, AgB, AuB), Rumney (Ru), Limerick Variant (Lm), Ridgebury (RdA, RdB, RbA, RdB).

Out of the total land acreage in Hopkinton (28,416 acres), 16.5% is comprised of hydric soils, as can be seen in the chart below.

Hydric Soils	Acreage	Total % of Town
Poorly Drained	2,506	8.8
Very Poorly Drained-organic base	1,383	4.8
Very Poorly Drained-mineral base	650	2.2
Marsh	200	.7
Totals	**4,739**	**16.5**

Source: 1998 Natural, Cultural, and Historic Resources Inventory of the CNHRPC Region

Wetlands have been viewed in the past as areas with little economic value and have been subjected to filling, draining, and dumping with little regard for the consequences. In recent times, however, science has shown that wetlands provide a number of benefits to the community. Wetlands serve seven purposes: flood control, water storage and ground water recharge, erosion and sedimentation control, pollution filtration, wildlife habitat, education and recreation, and environmental health and diversity.

Flood Control

Because of wetland soils and vegetation, wetlands act as a giant sponge during periods of high run-off or flooding and then release this stored water slowly during drier periods. Therefore, flood levels are lowered during heavy rains and levels are maintained during drier months. Wetlands often absorb water that would otherwise run directly downstream and cause increased flooding and property damage. However, wetlands may vary in their flood control and water storage.

Water Storage and Groundwater Recharge

The water absorbed in the wetlands can move up by means of evaporation, laterally by flowing in streams, and downwards, thus recharging groundwater. All three movements may occur simultaneously, but one movement may dominate over the others depending generally on the season and such factors as rate of evaporation and plant uptake. Wetlands underlain by stratified sand and gravel will have the highest yielding wells. Water will percolate down through the sand and gravel more than glacial till and will recharge ground water supplies.

Erosion and Sediment Control

Because wetlands absorb and slow down the rate of runoff, the water's erosive powers are lowered. Dense vegetation also acts as natural catches for any eroded materials. However, the general cause of erosion control is the reduced rate of runoff.

Pollution Filtration

Wetland vegetation absorbs pollutants such as organic material, bacteria, nitrates, and phosphates found in water. Nitrates are converted to atmospheric nitrogen or into plant nutrients. Phosphates are used in plant tissue. However, not all pollutants are absorbed by vegetation. In addition, wetland vegetation has a limited absorption ability and should not be overloaded with pollutants, as high levels of pollutants present numerous severe health hazards and can render such areas useless.

Habitat
Wetlands offer a wide variety of vegetation. The diversification of vegetation, therefore, consists of many producers in natural food chains and provide food for numerous animal species. The wetlands vegetation and water provides food, habitats, and breeding grounds for a wide variety of wildlife and fish.

Education and Recreation
Wetlands provide natural areas of study for all ages as they offer innumerable flora, fauna, and wildlife habitat. Also, wetlands provide excellent opportunities to study successional patterns and the effect of pollution or land use. Wetlands often represent the only remaining natural lands left in a town and serve as excellent sites for photography, canoeing, snow-shoeing, hiking, fishing, and hunting.

Environmental Health and Diversity
Generally, only wetland plants can tolerate the high levels of water and only certain types of animals and wildlife can tolerate such an environment. Because the wetlands offer a diversity of vegetation and animal life, they create a more stable environment in the surrounding area.

Hopkinton has a significant number of wetlands. Large wetland systems that provide significant water quality and wildlife benefits can be found throughout the Town. See the **Surface Water, Aquifers, Wetlands, and Drinking Water Map** for more information. Wetlands have a multitude of values that include flood control, wildlife habitat, fish habitat, pollutant removal, recreation, groundwater protection, and stabilization and erosion control. The primary impacts facing wetlands in Hopkinton today are the effects of development within their buffers or within the wetlands themselves.

Recommendations:

- The Town should identify wetlands for protection and/or acquisition because of their ecological importance, unique nature, and/or because of their location in the Town.
- Maintain the variety and large quantity of wetlands in Hopkinton and ensure that wetlands retain their functional values. The Town should provide for comprehensive protection of the wetlands through regulatory, educational, and voluntary efforts.
- During any construction or reconstruction of roadways within Town, the Town should encourage the inclusion of detention/retention ponds and/or berms to gather runoff from the road surface. This would allow easier clean-up of hazardous spills and reduce salt and other sediments from entering the neighboring wetlands.
- When evaluating development proposals that affect wetlands, the entire wetland ecosystem should be considered instead of the particular acres of wetland being impacted. This includes determining the extent of habitat fragmentation and isolation, the impacts on adjacent upland habitats, the effects of stormwater runoff, and the availability of buffer zones.
- Identify critical habitats, including large blocks of undeveloped land, travel corridors, or other areas of value as determined by the wetland ecosystem and initiate efforts to protect those areas.

Drinking Water and Aquifer Protection

Groundwater is an important, limited resource commonly used for domestic and municipal water supplies. It is defined as the subsurface water, which saturates sand, gravel and other soil deposits, and fills the cracks within the underlying bedrock. The top surface of this saturated zone is called the water table, which may be just below the surface or at some depth. In some locations, such as kettle hole ponds, the visible surface of the water may reflect the level of the groundwater surrounding the pond.

The groundwater is replenished largely by rainwater and snow melt, which percolate downward through the unsaturated soil. Some replenishment, or recharge, may occur from streams, lakes and ponds. In Hopkinton, groundwater flows to streams, ponds, and lakes and then becomes part of the surface water runoff.

Although rainfall will percolate into all soil and weathered rock surfaces to some extent, areas of more porous sand and gravel will allow much greater amount of infiltration, and are specifically noted as "recharge zones" to signify their greater importance in recharging groundwater reservoirs. It is, therefore, important to identify and protect these areas from certain land uses that may pose a significant threat of subsurface contamination.

Aquifers serve three essential functions: filters, transmitting devices, and reservoirs. Impurities are filtered out of the water as it passes throughout the soil and rock. Suspended material is filtered out by surface soil and as groundwater moves through the aquifer, other impurities are removed by numerous processes. Aquifers transmit water to and from surface lakes, streams, and wetlands through subsurface locations. This is important because aquifers may supply a base flow to water bodies during dry periods, in addition to acting as natural storage reservoirs for domestic, agricultural, and industrial water usage.

The most productive aquifers in New Hampshire are in the deeper deposits of sand and gravel that were deposited by glacial streams or subsequent water flow, and are located near streams or lakes, which can augment the surface recharge of rainfall and snow melt. Also important is the area, extent, and thickness of the aquifer. Most of the highly productive aquifers in New Hampshire consist of unconsolidated deposits of gravel and sand, flood plains, abandoned river beds and alluvial valleys.

Because aquifers are such a valuable natural resource, they should be protected. Extensive filling or emplacement of abutments, retaining walls, etc. may obstruct groundwater flow, raise the water table and affect recharge characteristics. Extensive highway cuts, and the increase in impervious surface, may divide aquifers, destroying shallow water supplies, or allow groundwater to flow out along the excavation thus creating even lower water tables, reduced volumes of stored water, and a decline in well yield.

Many aquifers are recharged from streams and other surface water bodies. If these areas are covered by development and impervious material, then recharge of the underlying aquifers would be prevented. The surface of the soil would be physically sealed by various materials such as asphalt or cement, which would not allow any water to permeate the substance. Not only would the aquifer's ability to yield stored water be impaired; there would most likely be increased surface runoff and, therefore, an increased possibility of flooding.

Those areas with the highest water quality and quantity should have the least development, whether they are residential or industrial. Therefore, where the best groundwater recharge areas

and aquifer areas exist, the least development is desired, and correspondingly, where the least potential for aquifer recharge exists, the more desirable and suitable the area for development, if there are no other development concerns.

There are two public water districts that serve the Town of Hopkinton: the Hopkinton Precinct, which is supplied by a gravel-packed well off of Briar Hill Road, and the Contoocook Precinct, which relies on the 70-acre Bear Pond located in Warner. The Hopkinton Precinct services approximately 215 people with 86 hook-ups, while the Contoocook Precinct serves approximately 1,600 people with 480 hook-ups. There are a few other public water supplies within the Town that serve schools, camps and campgrounds, and other small business interests. These systems serve approximately 2,640 people with 350 hook-ups.

The remainder of the Town relies on private wells for their water supply. Between 1983 and 1997, the New Hampshire Department of Environmental Services issued 159 well permits to residents of Hopkinton, bringing the total number of private wells in the Town to 450 (NHDES Water Resources Division, 1998). As development continues to occur in areas that were once "rural" in nature, these numbers will continue to grow.

At some point, the rate of water removal from the aquifer may be equivalent to the rate of water entering the aquifer (safe yield). If greater amounts of water are withdrawn than the amounts of water flowing into the aquifer, there will be an overall lowering of the water table, which may lead to a number of undesirable consequences, such as subsidence of the ground's surface and/or entering inferior quality water. Therefore, it is important to protect and to know the safe yield and the location of large quantities of groundwater to provide alternative community water supplies, so that excessive damage to the quality and quantity of the groundwater supply or damage to the earth's surface surrounding the wells will not occur.

Because of the high necessity of clean, safe, and available drinking water for the residents of the Town, there needs to be an awareness and emphasis placed on protecting this important resource. See the **Surface Water, Aquifers, Wetlands, and Drinking Water Map** for more information.

Recommendations:

- Establish a water management system for Hopkinton.
- Carefully monitor and analyze our hydrologic balance sheet (supply and demand) in order to provide an early warning system should the Town approach the carrying capacity limit.
- Create a regional drinking water resource protection program that is adopted by all communities that share the resource. Research the possibility of creating an aquifer protection district that would provide comprehensive protection for the aquifer resource based on scientific findings, while at the same time ensuring the provisions are reasonable and enforceable.
- A regional initiative for source-water protection (aquifer and surface watersheds) should be pursued that includes partnerships with towns adjacent to Hopkinton, the Department of Environmental Services, and non-profit conservation organizations like the Society for the Protection of New Hampshire Forests and The Nature Conservancy. Measures should also be created to ensure development within the source-water protection areas is conducted in such a way that it protects the water resource.

Sand and Gravel Deposits

Large deposits of sand and gravel can be valuable sources of construction materials. Because of their permeability (the ability to allow water to flow through), sand and gravel deposits also tend to be good sites for water supply wells. Permeability also makes sand and gravel deposits very vulnerable to contamination; once contaminants are spilled or dumped, they can quickly spread. Therefore, special attention should be given to regulating land uses over sand and gravel deposits.

The Town of Hopkinton issues permits for commercial sand and gravel excavation under RSA 155E. The Planning Board also has the authority to adopt regulations that apply to gravel excavation. These regulations, along with the process of reviewing permit applications for gravel removal areas, should be designed to ensure that fuels and lubricants used by earth moving equipment are handled properly and the areas are secured against illegal dumping. The current ordinance is not based on scientific findings, nor does it require, in all cases, scientific site-specific data.

To date, little or no mining, quarrying, or crushing operations have been using the local bedrock. As society's demand for natural resources continues to increase, pressure to process the bedrock for minerals, dimension stone, aggregates, etc., could materialize. A well-planned approach to this potential needs to exist before mining, quarrying, and/or crushing operations are carried out.

There are currently two privately-owned and two publicly owned sand and gravel pits that will need to be reclaimed once all of the financially viable deposits have been removed. Reclamation means the restoring of an excavation site to a standard at least equal to those outlined in Town regulations. See the **Water Resources and Sand and Gravel Excavation Sites Map** for the locations of existing gravel pits within the Town.

Recommendations:

- Update the Excavation Ordinance to be a comprehensive, science-based set of regulations that will work to protect the water quality and environmental resources located in the Town. This ordinance not only should be imposed on the private sector, but the Town also should voluntarily comply with such an ordinance, with respect to its existing and future sand and gravel removal operations.
- As part of reclamation of the sand and gravel pits located within the Town, develop reuse plans for the sites. The spent gravel pits should be managed to their fullest and best potential, while considering environmental quality and protection.
- Any reuse of the sand and gravel pits located within the Town should be evaluated as to the appropriateness for the proposed activity, and best management practices should be used to prevent contamination of subsurface water bodies, as well as adjacent streams, ponds, rivers, or wetlands.
- An evaluation process should be undertaken by the Town, which will include an evaluation of needs, costs, and benefits of the gravel pits once they are reclaimed and prepared for reuse.
- Research the best and most appropriate approaches to bedrock mining.

Farmland

Over the years there has been a substantial change in agricultural land use. In Merrimack County in 1953, 86,900 acres were classified as agricultural, while in 1974, 63,345 acres were still agricultural, plus an addition of 102 acres of idle land went to agricultural use and 190 acres of forest land transferred to agricultural use. Thus, the net change from 1953-1974 was a loss of 23,263 acres of agricultural land use in the County. Almost seventy percent of the agricultural land change went to the idle category and thirty percent went to developed land. In 1953, Merrimack County had only 9,145 acres of developed land out of a total of 605,137 acres. In 1974, it had 25,649 acres, 7,041 of which were formerly in agricultural use.

There are 28,416 acres in the Town of Hopkinton. Like the County, there also was a decline of agricultural use with 1,213 fewer acres in 1974 than in 1953. In 1953, agriculture was represented by about 5,378 acres or 19 percent of the land use (27,965 acres), while in 1974 it was 4,165 acres or 15 percent (compared to 11 percent for Merrimack County). In general, Hopkinton had more agricultural use and less forest use than the County.

Between 1974 and 1981, there was a further loss of 1,393 acres of agricultural land, 831 acres of which became idle, 431 acres of which became developed and 131 acres of which converted to "other." Also, 19 acres of land were added to agricultural use, nine of which were forested and the balance were idle. This balance of 2,791 acres, in 1981, was identified as agricultural. As can be seen on the **Farmland, Forestland, Open Space, and Trails Map** there are approximately 2,640 acres of farmland in Hopkinton, at this time.

There are three levels of important agricultural soils: local, statewide, and prime. Soils of local importance are determined by the local National Resource Conservation Service (NRCS) district. Soils of statewide importance are lands determined by the State to be nearly prime and that economically can produce high yields of crops. Prime soils are defined at a national level as land that has the best combination of physical and chemical characteristics for sustained high yields. Unfortunately, soils that are prime for agriculture are also, for the most part, prime for septic systems and development. Thus, these soils are some of the most threatened in Hopkinton. Once the soil is developed into housing lots, driveways, parking lots, etc. it is essentially lost for agricultural purposes.

In 1981, an agricultural inventory of Hopkinton was undertaken with the Merrimack County Soil Conservation Service, the findings for three farmland categories as listed below:

Prime Farmland - 1,292 acres
Prime farmland is best suited for producing food, feed, fiber, and forage crops, and also available for several other uses. The land could be crop land, pasture land, range land, forest land or other land, but not urban built-up land or water. It has the soil quality, growing seasons, and moisture supply needed to produce sustained high yields of crops economically when treated and managed according to modern farming methods.

Unique Farmland - 152 acres
Unique farmland is land other than prime farmland that is used for the production of specific high-value food and fiber crops. It has the special combination of soil quality, location, growing season and moisture needed to produce sustained high quality and/or high yields of a specific crop when treated and managed according to modern farming methods.

Additional Farmland of Statewide Importance - 723 acres
Soils in this category have properties that exclude them from the prime list; however, they are important to agriculture in the State. They produce fair to good crop yields when properly treated and managed. As a general rule, erosion control and irrigation practices are necessary to produce high crop yields.

Productive farmlands include active and inactive farms located on prime agricultural soils. These lands often contain the best soils in the community and have been in agricultural use for a number of years. Hopkinton's agricultural heritage is no longer as prominent a symbol of the community as it once was; although a number of farms still remain in operation in Hopkinton. The following table lists farms in current operation.

Farms Located in the Town of Hopkinton

Name of Farm	Location	Type of Farm**	Easements
Owen Farm	Brockway Road	Livestock, agriculture	
Kimball Farm	Beech Hill Road	Hay, horticulture	Yes
Bohannan Farm	Penacook Road	Dairy	
Gould Hill Farm	Gould, Putney, and Beech Hills	Apple Orchard	
Pine Lane Farm	Contoocook Village	Dairy	
Kerins Farm	Penacook Road	Hay/corn	
Herrick Land	Burnham Intervale	Hay	
Stonynook Farm	Emerson Hill	Dairy	
M. Grady III Farm	Maple St. (W. Hopkinton)	Hay, livestock, horse	
Patenaude	Kast Hill (W. Hopkinton)	Hay	
H. Albin	Kast Hill (W. Hopkinton)	Hay	
F. Hart	Kast Hill (W. Hopkinton)	Hay	
Paul Woetzel	Sugar Hill Road	Livestock, bees	
Boulder Farm	Jewett Road	Strawberry	
Peter Holmes	Hatfield Road	Livestock, horse, hay	
Robert Wells	Hatfield Road	Livestock, pasture, hay	Yes
Robert French	Sugar Hill Road	Livestock, pasture, hay	Yes
K. Hayden	Jewett Road	Horse	
M. Shaw/R. Tomasko	Stumpfield Road	Horse	
George Evans	Stumpfield Road	Horse	
G. Brown	Upper Straw Road	Livestock	
P. Russell	Maple Street (Contoocook)	Blueberries	
M. Payson	Beech Hill Road	Hay	
A. Hogbloom	Patch Road	Horse, pasture	
W. Kimball	Hopkinton Rd (Contoocook)	Horse, pasture	
W. Chapin	Maple Street (Contoocook)	Hay/agriculture/horticulture	
C. Wetterer	Dolly Road	Horse, pasture	
C. Gentilehomme	George Road	Livestock, pasture	
L. Dursin	Hopkinton Rd., Diamond Rd.	Horticulture	
A. Pitman	Hopkinton Road	Blueberries	
Avonlea Farm	Hopkinton Road	Horticulture	
L. Ogden	Broad Cove Road	Horse	
Chip/Deede Gilroy	Hatfield Road	Horse, sheep	
Saloman Property (former)	Moran Road	Horse	
Dotty Brown	Clement Hill	Horses, Livestock	
Wee Little Farm	Kearsarge Avenue	Horses	
Sankey	Clement Hill	Goats	
Moran Heirs	Moran Road	Vegetable, truck farm	

Note: List is a partial list of farms and agricultural operations located in the Town of Hopkinton.
** This list does not include any Christmas Tree Farms located in the Town of Hopkinton.

These farms still contribute significantly to the character of the community and provide an economically beneficial use of the land, for both the Town and the landowner, and should be encouraged and supported. There have been many points of conflict regarding farming over the years that can and do occur in Hopkinton and across the State. The state has taken steps to promote farming through RSA 672:1, III-b and RSA 432:33, both of which are listed below.

RSA 672:1, III-b
Provides right-to-farm protection by stating that farming "..shall not be unreasonably limited by use of municipal planning and zoning power." Best Management Practices (BMPs) developed by agricultural and natural resource professionals address public health and safety concerns. By referring to standards of performance embodies in BMPs, Hopkinton can identify when a nuisance is occurring on a farm.

RSA 432:33
Provides that "No agricultural operation shall be found a public nuisance as a result of changed conditions in or around the locality of the agricultural operation, if such agricultural operation has been in operation for one year or more and if it was not a nuisance at the time it began operation."

The Town needs to ensure that these conflicts are minimized and that farms and farming are seen and treated as a welcome and integral part of the community.

Recommendations:

- Active farmland should be targeted for conservation and farmland easements. The NRCS Farmland Protection Program and other programs through the USDA and the State should be promoted in the farming community as a means to continue farming operations.
- New residential developments abutting existing farms may be required to meet certain criteria, such as additional buffers, setback requirements from pasture land, and other requirements that will serve to minimize impacts on both the farm and residential development.
- The Town should try to retain as much of the current farmland and prime agricultural soils in productive use as possible.
- New agricultural and livestock uses should be a permitted use in all residential zones, with clear restrictions on the agricultural/livestock uses to ensure that nuisances to the residential areas are avoided. Restrictions should include, but not be limited to, a minimum lot size established for each of the various types of agricultural and livestock uses, restrictions on the types of agricultural operations, additional setback requirements, a requirement for waste management plans, animal density restrictions, and other requirements that will serve to minimize impacts on residential neighborhoods, and yet ensure that the agricultural operations are viable.
- Hopkinton should continue to support the Current Use tax program.
- Support, through zoning and possibly annual recognition programs, the farmers in the community. The Town should also encourage agricultural operations and local farm stands, in order to promote the preservation of farms and farmland in the community.
- Work with the area farms/farmers in creating a public education campaign for local community residents focused on the environmental, societal, historical, and cultural benefits of retaining and preserving farmland in the community.
- The Planning Board should research the possibility in providing flexibility in zoning, subdivision, and site plan review regulations for agricultural uses and/or related activities.

Wildlife Habitat Management

The challenge of conserving enough habitat to support healthy native wildlife populations is complicated by the varying habitat requirements of our diverse species. Some species require less than an acre of undisturbed forest, while others need territories covering more than a thousand acres. In addition, many species require several different habitat types through the course of the year. The more habitat diversity within the Town, the more likely it will support a diverse and abundant wildlife population.

A major concern for wildlife diversity is that sprawling development patterns that cover the rural landscape cause habitat fragmentation. Wildlife that are sensitive to human encroachment are restricted to these islands of undisturbed land and they may die out if an area becomes too small. The fragmentation of wildlife habitat also causes damage and loss of native plants from overgrazing, a reduced breeding gene pool, loss of natural predators, and increased susceptibility to disease.

For optimum wildlife habitat, blocks of unfragmented land should be void of significant human activity or development. Wildlife biologists consider 250 acres as a minimum for unfragmented habitat. Hopkinton has many areas of unfragmented land greater than 250 acres in size, as can be seen on the various maps included in this Master Plan.

The size of a species' population is usually dependent on the amount of suitable habitat. Animal populations can often be manipulated by varying the amount of available habitat. However, unless a species is rare and endangered, one species should not be favored over another. Providing a variety of habitats and protecting them from development and negative environmental impacts will increase the diversity of wildlife in Hopkinton. The Town should work to prevent the loss of wildlife habitat and manage properties for wildlife conservation.

Recommendations:

- Identify and catalogue parcels of unfragmented land in the Town of Hopkinton, with a special emphasis on lands that abut other parcels of conservation land, water bodies, or established recreation areas.
- Develop a conservation development approach for the design of subdivisions and developments, particularly within those areas identified as unfragmented in Hopkinton. A conservation development approach will recognize the right and ability of a landowner to use his/her land, but minimize the fragmentation of the habitat.
- Decrease the loss of large parcels of unfragmented land in Hopkinton and encourage more property owners, including the Town, to manage their properties for wildlife habitat.
- Develop and implement a Hopkinton Wildlife Habitat Protection Program using the document published by the Non-game and Endangered Wildlife Program of the NH Fish and Game Department.
- Publicize through Town sources (e.g., Web site, newsletter, direct mailing) information to landowners about voluntary wildlife habitat conservation programs, such as the NH Coverts Project and the Wildlife Habitat Incentives Program (WHIP). Encourage the Conservation Commission to participate in these programs.
- A hands-on public education campaign to educate and promote wildlife conservation in Hopkinton should be developed.
- Map the existing wildlife corridors that are being utilized in the Town by the various forms of wildlife.

- Educate landowners as to where wildlife corridors exist and conservation and land maintenance that they can employ to help preserve and protect these areas.
- The Town should, where possible, acquire conservation easements or purchase the land where wildlife corridors exist. Special priority should be given to those corridors that connect already acquired or protected parcels of land in the Town or abutting Towns.

Species of Special Concern

The Natural Heritage Inventory (NHI) is a State program in the Division of Forest and Lands. The NHI finds, tracks, and facilitates the protection of New Hampshire's plant and animal species of concern, and exemplary natural communities. Exemplary communities are distinctive communities of forests, wetlands, grasslands, etc., that are found in few other places in New Hampshire, or are communities that are very old and in good condition. Species of concern are those species listed as threatened or endangered under the New Hampshire Endangered Species Conservation Act of 1979 or under the New Hampshire Native Plant Protection Act of 1987.

The NHI data represents the best available information for locations and status of species of concern and natural communities in New Hampshire, but there are certainly occurrences that have not yet been found since a comprehensive inventory of the State and Town has not been done.

Flag	Species or Community Name	Listed		# Locations Reported in the Last 20 Years.	
		Federal	Sate	Town	State
	Natural Communities - Terrestrial				
	CNE Mesic Transitional Forest on Acidic Bedrock or Till	-	-	Historical Only	22
**	Hemlock Forest	-	-	1	2
**	SNE Stream Bottom Forest	-	-	1	8
	Natural Communities - Palustrine				
*	Blackgum/Red Maple Basin Swamp	-	-	1	17
	SNE Level Bog	-	-	Historical Only	19
	Plants				
	Giant Rhododendron (Rhododendron maximum)	-	-	Historical Only	15
	Gypsywort (Lycopus rubellus)	-	-	Historical Only	1
	Wild Lupine (Lupinus perennis)	-	Threatened	Historical Only	37
	Veterbrates - Birds				
**	Great Blue Heron (rookery) (Ardea herodias)	-	-	3	37
	Purple Martin (Progne subis)	-	-	Historical Only	11
	Invertebrates - Mollusks				
**	Brook Floater (Alasmidonta varicosa)	-	Endangered	1	30

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.

** Very High Importance
* High Importance

Source: Natural Heritage Inventory, July 5, 2000

Hopkinton does not have any known occurrences of Federally listed endangered or threatened species. However, there is one known State-listed endangered species found in Hopkinton and one known State-listed threatened species. In order to protect the species of concern and the rights of property owners, the NHI places an un-centered 0.75 mile buffer around known occurrences of a species, to make it more difficult to detect the exact location of the species of concern. Thus, due to the map-reporting requirements of the NHI and the number of species of concern listed for Hopkinton, a map of the known occurrence locations is not useful since the entire map essentially turns into one large “buffer circle.”

As much as it makes sense to protect open space for the benefit of the species of concern living in Hopkinton, it makes just as much sense to protect open space for the great deal of other species. Such common animals as deer and beavers are important for maintaining the natural health of the community. Other carnivores and raptors help to keep the herbivores in a stable population.

Preserving open space for these "common" animals helps to maintain the habitat, and in turn, ensures the stability of the endangered and threatened species populations.

Recommendations:

- As part of the Site Plan and Subdivision Regulations submission requirements, require applicants proposing construction on undeveloped properties to contact the Natural Heritage Inventory Program to find out if species of special concern are known to be located on their property. If such species are located on the site, encourage the property owner to voluntarily work with the Natural Heritage Program to help protect them.
- A public education campaign should be carried out and/or combined with other efforts as to the presence of endangered, threatened, and/or species of special concern located within the Town of Hopkinton, and the environmental and societal benefits of such species.
- Make landowners in Hopkinton more aware of possible occurrences of sensitive species on their property to ensure that development projects are designed in such a way to protect the sensitive species.

Greenways and Trails

Greenways are corridors of protected open space managed for conservation and recreational purposes. Greenways often follow natural land or water features, and link nature reserves, open space, farms and forest land, parks, cultural features, and historic sites with each other as well as with populated areas. Some greenways are publicly owned, some are privately owned, and some are the result of public/private partnerships. Some are open to visitors, others are not. Some appeal to people, while others attract wildlife. In more developed areas, greenways can encompass natural or built features and can be managed primarily for resource conservation or recreation.

In more rural areas, greenways are natural corridors linking large unfragmented natural areas, preserving wildlife habitats and migration routes. Greenways serving as wildlife corridors can be virtually any type of traversable land, preferably of at least 200 feet in width. Common tracts of land that can be used as greenways include Class VI roads, railroad right-of-ways, and buffer areas along agricultural/forestry lands. Creating and maintaining a greenway system will help to ensure that those parcels of open space, which include forest, wetland, and agricultural lands, do not become isolated islands, detached from one another and surrounded by development.

Trails that make up the greenway system, as well as those that are located within Town forests and conservation lands, need to be maintained and expanded. Whether these trail are used for walking, bicycling, horseback riding, cross-country skiing, snow shoeing, or some other form of recreation, they help to form an important link between the natural environment and the built one by allowing people to access and enjoy nature in a low-impact manner. There are probably many "unofficial" greenway trails throughout the Town that are used by the public.

Hopkinton has six established trail systems in Town, all of them located within Town-owned forests and conservation land. These include trails in the Brockway Nature Preserve, Hawthorne Town Forest, Mast Yard State Forest and the adjoining Town Forest, around Smith Pond Bog, in the Hopkinton-Everett Flood Control area near Elm Brook Park, and the Steven's Rail Trail. These trails can be seen on the **Farmland, Forestland, Open Space, and Trails Map**. The Town

needs to take a proactive approach to officially creating this greenway system that links the Town's conservation and open space lands.

Recommendations:

- Identify existing and potential greenways that are in the Town, as well as those that are in abutting Towns that run along the Hopkinton border.
- Expand and strengthen the Hopkinton greenway system through acquisition of conservation easements on important lands through donation, purchase, or partnership with public and private conservation groups. A conservation fund should be maintained to allow the Town to qualify for matching funds, as opportunities arise.
- Investigate the use of Class VI roads and discontinued rail beds as greenway/trail/wildlife corridors that could be used to link existing open space and recreational lands.
- A priority should be given to protecting land that would link key conservation parcels that the Town already owns or has easements on for greenway creation.
- Under the authority NH RSA 236, the Town should investigate reclassifying those Class VI roads which link parcels of open space, recreation lands, agricultural lands, and forest lands to Class A trails. By reclassifying those roads, landowners with existing structures may still use the reclassified roadway to access their structures, however future development is prohibited. The Town is allowed, by law, to maintain the trail, unlike Class VI roads. Landowners can use the trail to access lands for forestry and agricultural purposes.
- Identify and map all of the "unofficial" trails that currently exist on Town-owned conservation, open space, and forest land.
- Outreach should be done to encourage private land-owners to allow Town-sponsored trails to cross their land if it would help link important pieces of the trail network.

Scenic Views

The landscape of a community defines its cultural, natural, and historical heritage and thus provides the residents of a community with a sense of identity. Hopkinton's identity is marked by the views of and from roadways and the major rivers. In addition, the areas of historical and existing agricultural operations create a pastoral landscape that helps to define the community. Hopkinton, with its hilly topography, offers numerous scenic views of rolling hills, ponds, and streams.

A scenic resource evaluation, from Vermont's "Mad River Resource Protection Plan," provides a list of key scenic attributes that transfer well to Hopkinton. These key scenic attributes include:

Physical Features

- Rivers, ponds, streams, and wetlands
- Vegetation, greenery, foliage, and wildflowers
- Elements of a working landscape, such as animals, farm buildings, crops, etc.
- Agricultural Lands
- Wildlife

Important Aspects of Views

- Diversity and contrast within a view, such as a patchwork of open and wooded land
- Location of open space adjacent to historic New England housing, hedgerows, and stonewalls, etc.
- Continuous views that "follow" you as you travel along the road or are deep views
- Lack of scattered development or other disturbances in views
- Vantage points – the point or area that provides access to the view

Hopkinton has a rich diversity of scenic views and vistas, most of which are protected only by the willingness and desires of the landowners. No comprehensive inventory or analysis exists of Hopkinton's scenic views and vistas. As more development occurs within the Town, the scenic views, and locations to observe such views, become more endangered. See the **Steep Slopes and Scenic Vistas Map** for more information.

Recommendation:

- Critical scenic views should be identified and protected. The protection of these viewsheds through the development review process and/or cooperatively working with the landowner is recommended. In some instances, scenic easements may be warranted.

Forests

In the Town of Hopkinton, there are both publicly and privately managed forests. The publicly managed forests include the three State forests, the Hopkinton-Everett flood control area, and the thirteen Town forests. The privately owned wood lots are managed by the landowners, often with the aid of professional foresters. Many of the private wood lots are enrolled in the National Tree Farm program. Forests serve a number of functions in both the community and the region, including protecting public water supplies and watersheds, serving as a source of renewable energy, providing lumber and other forest products, enhancing wildlife habitat, providing outdoor recreational opportunities, and contributing to the rural character of the community.

There are two major forest types found within the Town of Hopkinton. The large dry, sandy outwash plains found along the Contoocook River and its tributaries tend to be dominated by white pine. The hillsides found in the remaining portions of the Town contain a mixed forest dominated by red oak, red maple, and white pine.

The Hopkinton Town Forest system contains 13 lots that total 582 acres and are found scattered throughout the Town. They range in size from 9 to 110 acres and are managed by the Hopkinton Conservation Commission. Of the 582 acres, 466 acres would be considered upland forest, with the remaining acreage consisting primarily of wetlands. Several of the forests are protected by Conservation Easements. All of the Town Forests are managed as a multiple-use resource where consideration is given to timber harvesting, recreational opportunities, wildlife habitat, watershed protection, education, and preservation.

Harvesting timber is also an important source of income to the landowner. All timber harvests, whether on public or private lands, are required to pay a timber tax to the Town's general fund. Yearly timber tax totals have fluctuated over time but there is a general trend of increased payments as the timber becomes more valuable, along with increased enforcement regarding the Timber Tax laws. For example, a total of $5,108 of timber tax was collected in 1976 and by 1999, the yearly total had reached $22,576.

The Current Use Tax program is a good indication of the amount of land within the Town dedicated to conservation. In 1999, there were 12,311 acres of forest land enrolled in the Current Use Program. In 1999, there were 16 certified Tree Farms, representing 2,351 acres of privately-owned, intensively managed forest, most of which is also included in the Current Use Program. The total number of acres of dedicated conservation lands in the Town are listed in the table below and can be seen on the **Farmland, Forestland, Open Space, and Trails Map**.

Conservation and Town Forest Lands

Conservation Land	Held By	Acres
Brown/Robinson Lot	Town	14
Carriage Lane Lot	Town	1
Chase Wildlife Sanctuary	ASNH	660
Contoocook State Forest	NH DRED	28
Galloping Hills Open Space	Town	25
George's Park	Town	16
Goodwill-Chandler State Forest	NH DRED	26
Grassey Pond Marsh Dam and Row	NH F&G	1
Hopkins Green Open Space & Flowage Area	Town	16
Hopkinton-Everett Reservoir (incl. Elm Brook Park)	US Army Corps	2,820
Houston Farm	Town	68
Frank & Dorothy Kimball Easement	NH DA	178
Robert Kimball Easement	NH DA	62
Kimball Lake	Town	20
Kimball Pond Recreation Area	Town	3
Janeway Easement	Town	6
Mast Yard State Forest (Hopkinton Portion)	NH DRED	461
Meadowsend Timberlands/Robert French Easement	SPNHF	1,153
Murphy Easement	Town	13
Smith Pond Bog Wildlife Sanctuary	ASNH	61
Town of Hopkinton Land	Town	43
Town of Hopkinton Land	Town	4
Town of Hopkinton Land (Gould Forest Lot)	Town	45
Town of Hopkinton Land (French Lot)	Town	10
Town of Hopkinton Land (Aqueduct Lot)	Town	33
Town of Hopkinton Land (Contoocook River Lot)	Town	97
Town of Hopkinton Lot (Hawthorne Lot)	Town	11
Town of Hopkinton Lot (Brockway Lot)	Town	98
Town of Hopkinton Land (Burnham Intervale Lot)	Town	12
Town of Hopkinton Land (Stevens Rail Trail)	Town	27
Town of Hopkinton Land (Hardy Springs Meadow)	Town	33
Town of Hopkinton Land (I-89)	Town	6
Town of Hopkinton Land (Barton Corner Lot)	Town	28
Town of Hopkinton Land (Foote Lot)	Town	31
Town of Hopkinton Land (Townes Lot)	Town	42
Town of Hopkinton Land (Allen Lewis Lot)	Town	16
Wells Easement	Town	115
Total Acreage		**6,262**

Source: 1998 Natural, Cultural, and Historic Resources Inventory
of the Central NH Region, CNHRPC 2000 Hopkinton Town Forest Report

Recommendations:

- When the Town Forest Management Plan is updated, the public should be involved in the process to ensure that all concerns regarding the management of the Town Forests are addressed.
- Abutters should be notified prior to the start of major forest management activities in Town Forests. The Selectmen's office should also be kept abreast of all planned activities to provide information to the public in a timely manner.
- Forest management information should be made available by the Town to private woodland owners to encourage long-term planning and consideration of all aspects of the forest ecosystem, including wildlife and watershed concerns. UNH Cooperative Extension for Merrimack County is an ideal source for forest management information.
- The Town Forest Management Plan should be updated at least every ten years in order to assess the Plan's effectiveness and adjust the management to the changing demands on the forest resource.
- The Town should strive to develop high quality, healthy forest types, whose harvest will produce sufficient incomes to cover management expenses and allow the purchase of additional conservation lands.
- Forests should provide a variety of productive habitats to maintain a diverse and healthy wildlife population and to protect critical habitat types.
- The Town should use its forests to provide residents with public land for outdoor recreational activities.

Lands Identified for Conservation

Hopkinton has a significant amount of conservation and public lands that afford various levels of conservation, preservation, and open space of the resources. In the Master Plan Survey, when asked if tax dollars should be spent on the protection and preservation of natural, cultural, and historic resources, 60% of the respondents supported that statement. Hopkinton residents value and protect the Town's natural resources, as can be seen by the figures below:

Current use acreage for the Town of Hopkinton for 1999 and 2000:

Type of Acreage	1999	2000
Farmland (acres)	1,991.78	1,976.56
Forest land (acres)	12,311.03	12,246.50
Unproductive Land/Wetlands (acres)	1,549.94	780.97
Total (acres)	15,852.75	15,004.03
Total Town Acreage	28,416	28,416
Acreage in Current Use	55.80%	52.80%

In its simplest definition, open space is land that has not been developed or converted to other uses. These are natural features that make Hopkinton a special place to live. They include forests, fields, river corridors, wetlands, wildlife habitat, and greenway corridors, as well as agricultural lands and town parks. These areas can be used for commercial, recreational, and relaxation activities. Analyses done for communities throughout New Hampshire consistently show that open space is a net positive tax revenue generator, versus the alternative typical housing development, which creates a net cost to the community.

One of the most important reasons to plan for open space is to set a course for the Town of coordinated development that maintains the Town's high quality of life. Many times decisions are made on land use without the benefit of a unifying plan to coordinate the actions. The result is haphazard development that disregards the Town's and/or Region's unique characteristics and sense of place.

Recommendations:

- The Town should encourage other agencies and non-profit organizations to pursue the acquisition of conservation easements or fee title to the properties.
- The Town should investigate partnering with conservation organizations, such as The Nature Conservancy and the Society for the Protection of New Hampshire's Forests, as well as others, in an effort to develop a scientific basis for specific recommendations for land acquisitions, with an emphasis directed toward greenway enhancement or water resource protection.
- Identify and prioritize potential parcels of land that the Town feels should be protected because of important cultural, ecological, historical, or recreational value.
- The Conservation Commission should establish a stewardship program to monitor all of the existing and future conservation and scenic easements held by the Town. The stewardship program should be a part of the Conservation Commission's budget and the funding required for stewardship should be evaluated for each easement under consideration by the Commission.

Strategies to Meet Conservation Goals

Current Use Tax Program

Current use is a property tax approach to encourage land owners to keep open space undeveloped. Land that is participating in the current use program is taxed on its potential to generate income in its existing, or current, use - frequently as a farm or woodlot. This is a type of preferential tax program. The alternative taxing strategy is taxing the land on its income producing potential at the most highly developed use that could take place on it, such as a housing development or commercial business venture. Land owners who have qualifying land must apply to the Town to participate in the program. Lands that typically qualify for the current use program include farm land, forest land, tree farms, certain wetlands, and other undeveloped areas.

When land that has been participating in this program is removed and is changed to a more developed use, a land use change tax is charged. The land use change tax is set at 10% of the assessed market value of the land after development.

Conservation Easement

A conservation easement is a permanent, legally binding agreement that ensures that certain uses will never be allowed on that property. Typically conservation easements prevent development of land uses such as construction, subdivision and mining, but allow uses such as agriculture, forestry, wildlife habitat, scenic views, watershed protection and education. The agreement exists between a willing land owner and a qualified recipient, which can be the Town or State governments or various conservation organizations. Each conservation easement is custom tailored to the interests of the land owner, the receiving entity and the unique

characteristics of the property. The land can be sold or deeded by the original owner and subsequent owners, but the restrictions of the easement are binding on all future owners.

Management Agreement
These management agreements are conservation easements applied to particular land uses. Each focuses on a particular open space value and a management agreement can be custom tailored to any specific situation.

Right of Way for Trails - The Town may protect open space along a recreational trail corridor area. The right of way could be arranged and exist as a legal agreement between the Town/nonprofit organization and the owner of the land where the trail is located.

Wildlife Corridors - Open space can be protected for its value in allowing wildlife to travel from one place to another safely. Working with maps indicating where certain species can be found, probable travel corridors could be recognized. Once areas are recognized, the Town could then create plans to acquire, protect, and/or manage these important corridors.

Buffers Between Uses - Buffers between incompatible land uses can ensure that development and growth within the Town does not have a negative impact on the rural and scenic qualities that the Town values.

Landowner Education
A brochure should be developed focusing on landowners with large acreage or land containing critical resources. The brochure will provide information on the advantages for the landowner and community of conserving the property and the opportunities available to conserve the land via conservation easements or sale. This brochure could be developed by the Conservation Commission.

Acquisition
Sometimes the best and simplest way to protect a key parcel of land is through outright acquisition and management. Acquisition may be through gift or purchase and ensures that the property stay in the use that the purchaser prefers.

Conservation Funds
Many towns have created separate conservation funds or open space acquisition funds specifically for the purpose of paying for land acquisition. Money for these funds may come from Town budget appropriations, land use change taxes, or proceeds from managing or selling Town property, just to name a few.

> Appropriation from Town Budget - The Town can regularly set aside money for a conservation fund in their annual Town budgeting process. The Town should consider funding a capital reserve account, through the Capital Improvements Plan (CIP), to fund the acquisition of easements and conservation lands. These funds could also be used for match requirements when opportunities arise in which other agencies are funding most of the cost.

Land Use Change Tax - When a property that has been paying the lower Current Use Tax rate is removed from that program, the land use change tax penalty is paid to the Town that the property is located in. The penalty is 10% of the full market value of the land when it leaves the current use program. Many Towns put all of this money directly into the conservation fund. The town should increase the funding of the conservation account from the current level of 35% to 100% of the land-use change tax.

Proceeds from Managing or Selling Surplus Town Property - Towns that have property or resources that they manage, often can provide income to the Town, as well as the Conservation Fund. This is frequently through timber harvest operations on mature forest land owned by the Town. The proceeds from the sale of surplus Town property can also be dedicated to the Conservation Fund

"Municipal Bill Round-Up" - An additional funding source for a variety of activities, such as greenway acquisition, easement acquisition, and creating bike trails and sidewalks, is the use of a “round up” program for tax bills, utility bills, and registration fees. Under such a program, the taxpayer could voluntarily round his/her bill payment up to a designated amount above the actual bill and designate it to any of the desired programs listed.

Bond Issue
The Town may agree to borrow money for a conservation project through a municipal bond issue.

Town Surplus Funds
The Town can apply leftover funds, if they are available, from prior years' budgets to fund conservation projects.

Tax Deeds
When the Town acquires property because the owner has not paid all of the taxes on the property, the Town can keep and manage the land and include it in as part of the Towns conservation plan.

Land and Water Conservation Fund
The Land and Water Conservation Fund is a federally funded program administered through the Department of Resources and Economic Department. Eligible projects must be outdoors and can include land acquisition for conservation, open space, or the development of an active recreation area, and the expansion or rehabilitation of existing areas. Approximately $600,000 is available each year with a cap of $100,000 per project.

Land and Community Heritage Investment Program (LCHIP)
This State fund is designed to assist communities that want to conserve outstanding natural, historic, and cultural resources. There will be the requirement that the Towns match the State money from this fund with a 50% match from other sources, some of which can be an "in kind" match, as well as funds from other sources.

Land Trust
The Town should support non-profit land trusts that accept and pursue property and easements for land of local concern.

Grants from Foundations
The Town would need to research available grants and develop proposals to seek funding to conserve a particular piece of property or type of resource within the Town. Funding could be sought from foundations at the Local, State, Regional, and National level.

Cooperative Ventures with Private Organizations
When the interests of the Town to conserve open space match with the interests of a private organization, the potential for a cooperative partnership to protect land exists. This tactic will require some creative thinking and introductory discussions by Town officials with area organizations who have, or could develop, an interest in conserving open space.

Mitigation
For the purposes of administering sensitive areas, mitigation includes rectifying the impact by repairing, rehabilitating, or restoring the affected environment; reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action; and compensating for the impact by replacing or providing substitute resources or environments.

Large Lot Forestry and Agricultural Zoning

Planning theory states that dividing developable land, or potentially developable land, into larger lots will slow development and preserve open space and rural character. The goal of these two types of zoning is to provide large enough blocks of land that they can be managed for a specific resource value. Lot sizes must be established that truly reflect the amount of land needed to allow for commercially viable use of the land and are related to the reality of the use of the land in the area.

Overlay Districts
Overlay districts can be used by communities to define and apply special regulations to a particular resource. Once resource areas of concern are identified, the planning board must establish what kind of special regulations apply to that particular resource. Some examples of overlay districts include:

Ground Water Protection Districts	Historic Districts
Forestry Districts	Agricultural Districts
Steep Slope Districts	Wetland Districts

Aesthetics Based Land Use Regulations
Because the appearance of the community, including views of simple things like tree lined streets, as well as scenic views of the mixed farm land, forests, historic buildings and water resources that largely define Hopkinton's traditional landscape, are so important to the fabric of the community, there must be a priority placed on preserving them. Planning regulations addressing lot size, placement of buildings, signage and landscaping are typically used to address aesthetic elements of the community.

Environmental Science-Based Regulations
Environmental science-based land use regulations are based directly upon measurable characteristics of the land-base of the community, rather than on possibly arbitrary standards established. Regulations based on the characteristics of the land may reflect the actual ability of the land base to handle development and are often easier to defend against legal challenges than those arbitrarily created. An example of this technique includes soil-based lot zoning.

Performance Zoning
Performance zoning is an alternative to traditional fixed zoning regulations. It allows for more latitude in adapting proposed land use changes to the desires of the community, the wishes of the developer and the characteristic of the resource base. Extra care must be taken in designing these regulations, to be sure that both the intent of the zoning and the conditions qualifications are clear to the Planning Board, developer, and residents.

Phased Growth Plan
Towns may adopt regulations to control the rate of development. In certain rapid growth situations, slowing the rate of development can be a way to retain some open space from development for a short period of time, during which it may be possible to determine if there is a need or mechanism to preserve it permanently.

Limitations on the Number of Building Permits
One way to help conserve open space, in the short-term, in a community is to establish a maximum number of new building permits that will be allowed in any given year. The number of permits allowed annually needs to be correlated in some meaningful way with the growth pressure on the community. This type of growth control strategy needs to be carefully crafted to accurately reflect the goals of the community and to avoid the perception of creating "snob zoning".

Conservation Subdivision Design
Rather than filling all available space with similar sized houses centered on uniformly sized lots, this development strategy focuses the construction in a smaller portion of the total land being developed, and provides for permanent protection of the open space not used for construction. The land selected for permanent open space protection should be designed to fulfill the open space interests of the entire community.

Summary

The primary focus of this Chapter was to identify the natural and man-made resources in Town, recognize the role they play in giving the Town of Hopkinton its character, and decide what strategies would best maintain that character. Our natural resources include soil, geologic formations, water, forests, open space, and wildlife. Our man-made resources include agricultural lands and recreational facilities, such as trails and swimming areas. Most of the Town's resources are interconnected and any change to one can and will have a significant impact on the others. As the population increases, demands on many of these resources will increase, some to the point of threatening the quality and quantity of the resource. It is the goal of this chapter to help develop a balance between development and resource protection within the Town.

Part of this balance can be accomplished through changes to the subdivision regulations. The Planning Board should request environmental impact assessments of all proposed developments to minimize the effects of development on the Town's resources. The requirement of open space dedication, as part of a subdivision proposal, should be researched by the Town as a way to help preserve and protect the natural environment. There also needs to be the recognition that many natural resources do not stop at the Town's boundaries and that a regional approach in dealing with their protection may be the preferable alternative.

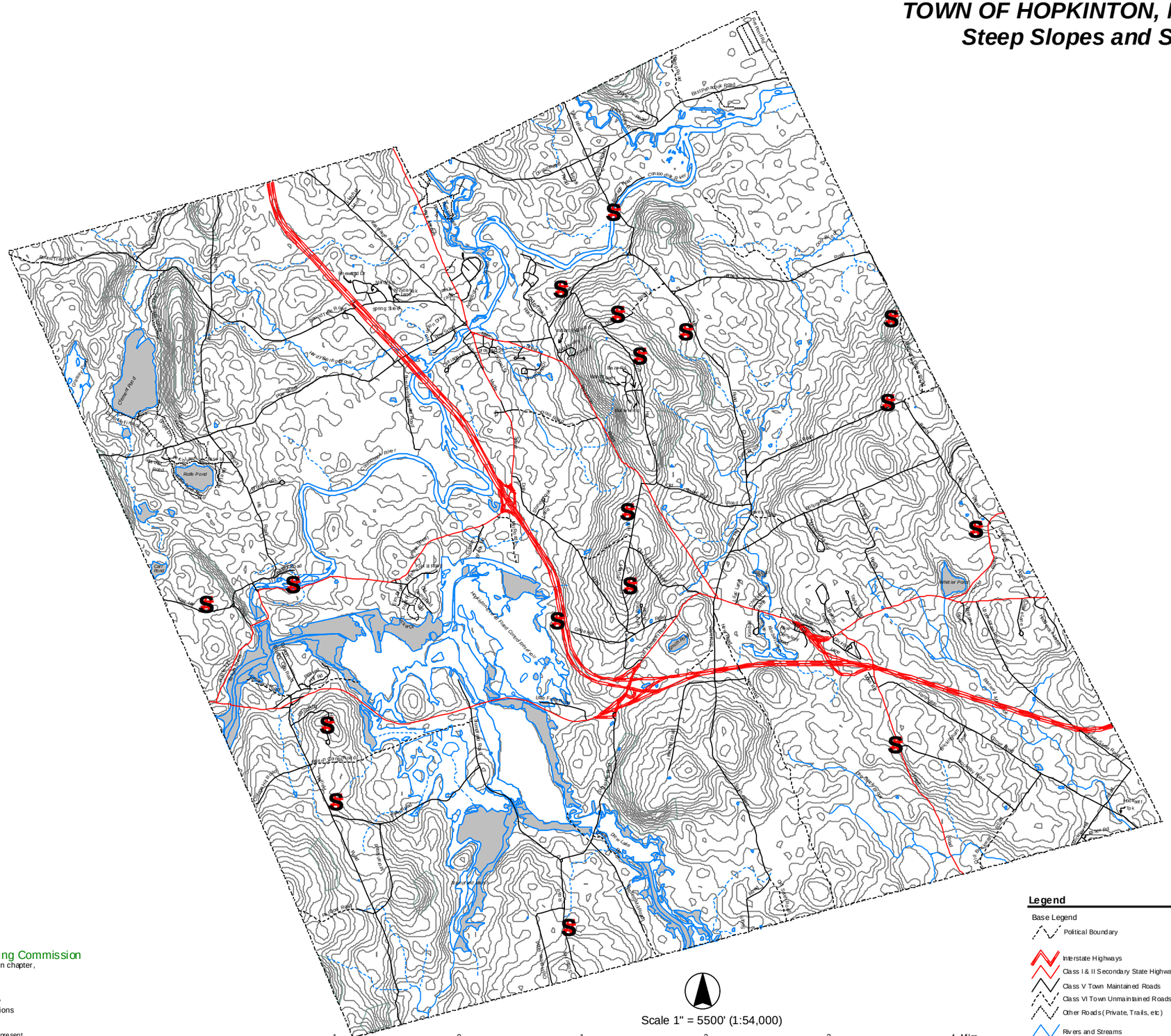
Some of our natural resources are considered renewable, such as forest land, while others, like soil, are not. Appropriate measures need to be taken to prevent contamination, erosion,

depletion, and large scale overuse and misuse of those resources that are non-renewable, and even those that are considered renewable. The Town contains several bodies of water within its borders, some that start and end in Hopkinton, while others are merely passing through. Since all living things, big or small, depend on water, it is probably the most critical and vulnerable resource. Water is not only necessary in an ecological context; it is also needed for industrial, commercial, agricultural, and residential purposes. Such dependent and varying uses bring with it a chance of contaminating the very resource that we, as well as all natural systems, are so dependent on. The Town should insure, through both enforcement and public education, that proper wastewater treatment, on-site septic systems, and erosion control practices are maintained throughout the Town.

Agriculture has long played an important role in both the Town and the State of New Hampshire, as a whole. Unfortunately, traditional farming practices have been in decline for many years. This decline can be related to poor site conditions, poor market situations, development pressures, increased local controls placed on farmers, and the loss of interest among younger generations. This decline has been somewhat offset in Town with a rise in the number of small agricultural operations. It is important that the Town continues to encourage such endeavors, especially with appropriate zoning, incentives, education, and other land use ordinances.

The Town's existing open space, other than farmland, consists mainly of forests and wetlands. Hopkinton contains approximately 6,300 acres of publicly or privately owned dedicated conservation land. The majority of the remaining open space is privately owned. Most of the dedicated conservation lands are carefully managed, though there are no management requirements for privately owned land other than what are found in the Current Use regulations. Forests are one of the few renewable resources, that if managed properly, can provide forest products, wildlife habitat, watershed protection and offer tremendous aesthetic, educational, and recreational appeal. Most of the development pressure that is currently being felt by the Town is focused on privately owned open space. Because such lands are being targeted for development, it is important that the Town identify critical habitats, greenways, and corridors that should be protected through purchase, easements, or other means. These actions will help to reduce land fragmentation and help maintain the rural, cultural, and historic character that make Hopkinton the place it is today and the vision of what is wants to be tomorrow.

TOWN OF HOPKINTON, NEW HAMPSHIRE
Steep Slopes and Scenic Vistas



Scale 1" = 5500' (1:54,000)

1 0 1 2 3 4 Miles

5000 0 5000 10000 15000 20000 Feet

Legend

Base Legend
- Political Boundary
- Interstate Highways
- Class I & II Secondary State Highways
- Class V Town Maintained Roads
- Class VI Town Unmaintained Roads
- Other Roads (Private, Trails, etc)
- Rivers and Streams
- Intermittent Streams
- Water Bodies

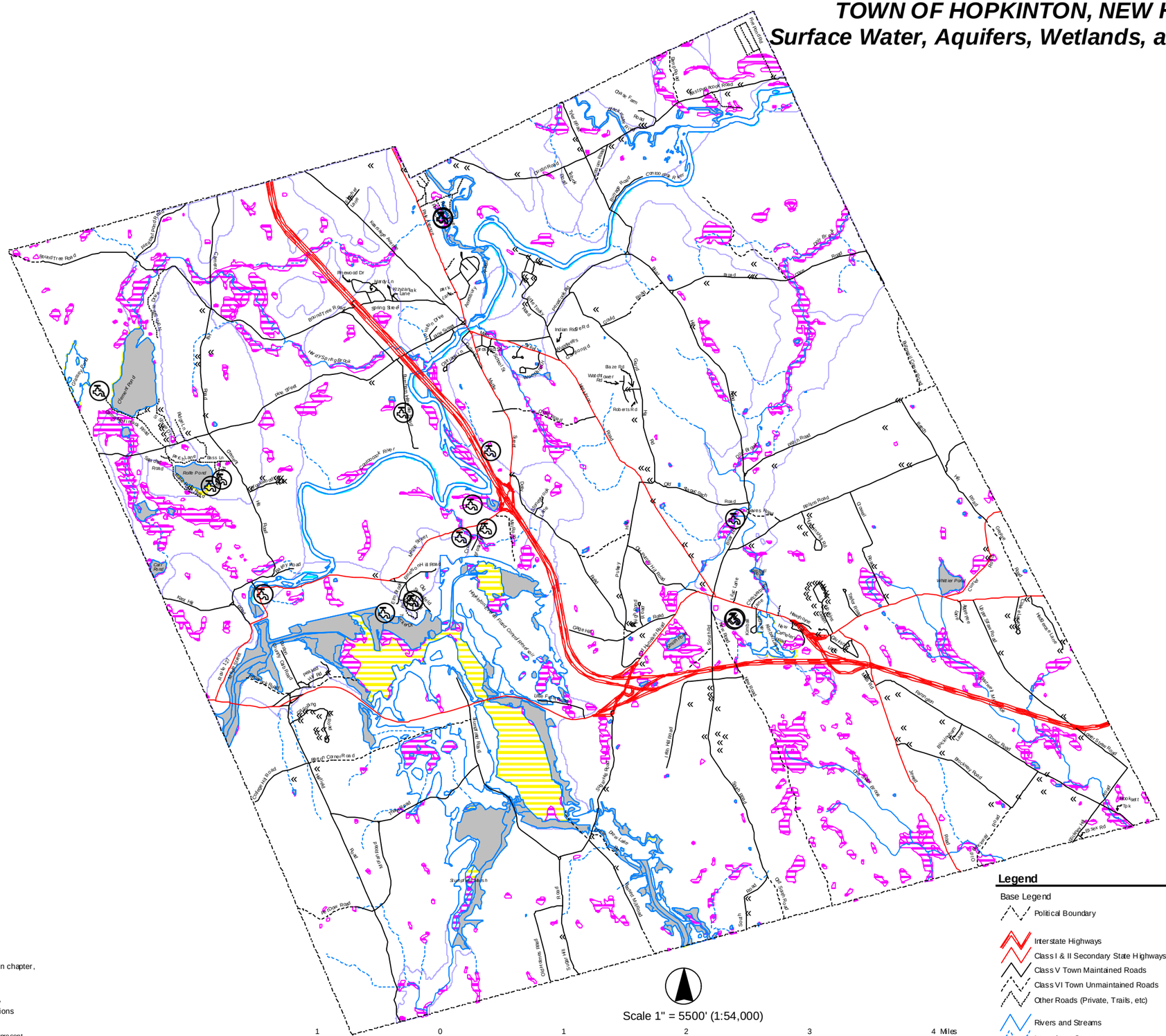
Geologic Features and Vistas
- Topographic Contour, 20'
- Slopes >15%
- S Scenic Vistas

This map created by the
Central New Hampshire Regional Planning Commission
for the Hopkinton Master Plan Conservation and Preservation chapter,
July 2001.

Data sources:
1:24,000 source scale from the NH GRANIT system, Society for the Protection of New Hampshire Forests (1998), corrections to base data made by the Town of Hopkinton and CNHRPC.

This map is intended for planning purposes only and may not fully represent geographic conditions. Inaccuracies are known to exist in these data layers. Corrections, additions, or deletions are welcomed and should be directed to CNHRPC.

TOWN OF HOPKINTON, NEW HAMPSHIRE
Surface Water, Aquifers, Wetlands, and Drinking Water



This map created by the
Central New Hampshire Regional Planning Commission
for the Hopkinton Master Plan Conservation and Preservation chapter, February 2002.

Data sources:
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1 0 1 2 3 4 Miles

5000 0 5000 10000 15000 20000 Feet

Legend

Base Legend
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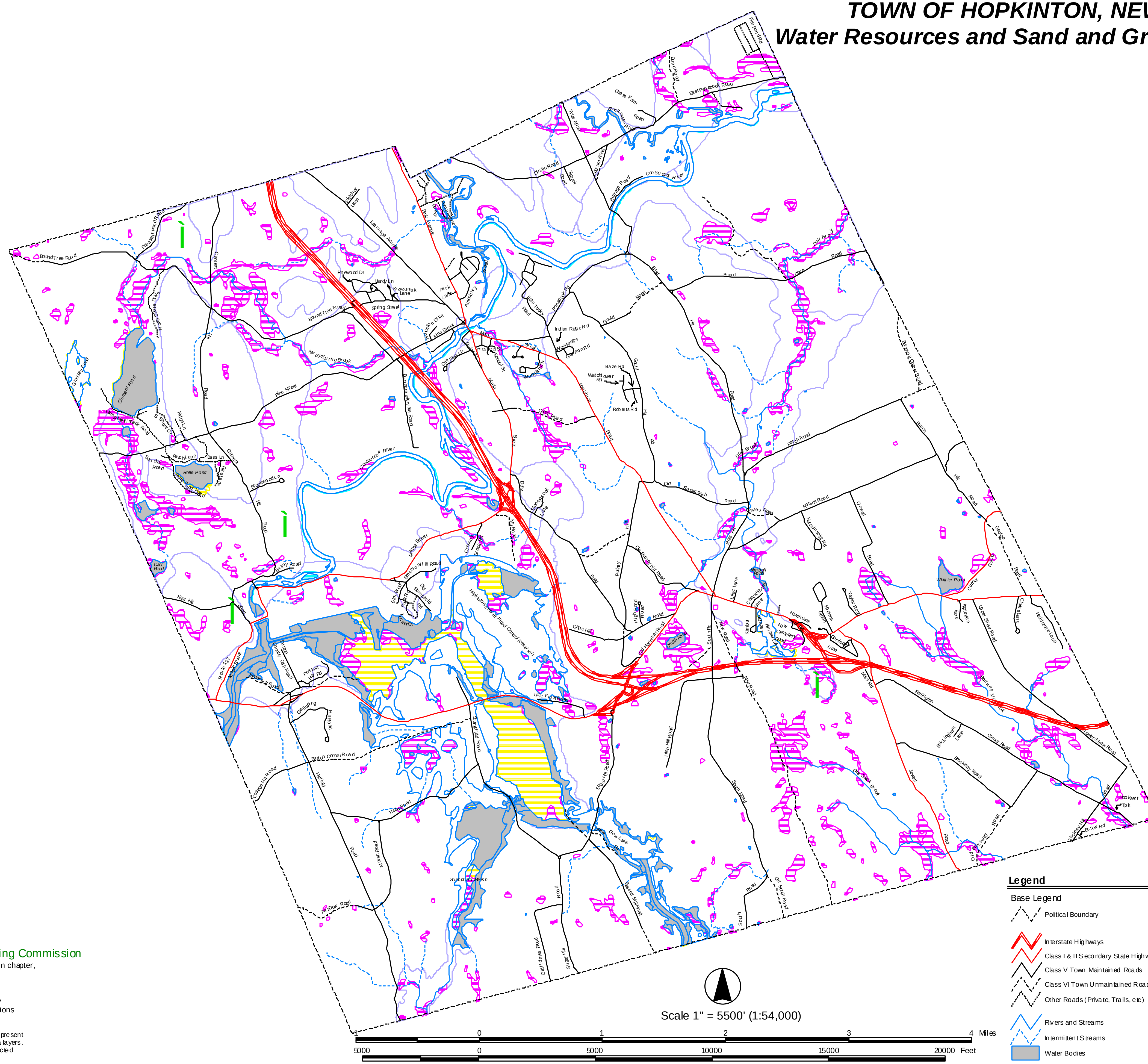
- Class I & II Secondary State Highways
- Class V Town Maintained Roads
- Class VI Town Unmaintained Roads
- Other Roads (Private, Trails, etc)
- Rivers and Streams
- Intermittent Streams
- Water Bodies

Water Resources
- Private Well Installed, 1983-1998
- Public Water Supply
- Palustrine Wetlands
- Lacustrine Wetlands
- Riverine Wetlands
- Stratified Drift Aquifer

TOWN OF HOPKINTON, NEW HAMPSHIRE
Water Resources and Sand and Gravel Excavation Sites



Legend

Base Legend
- Political Boundary
- Interstate Highways
- Class I & II Secondary State Highways
- Class V Town Maintained Roads
- Class VI Town Unmaintained Roads
- Other Roads (Private, Trails, etc)
- Rivers and Streams
- Intermittent Streams
- Water Bodies

Water Resources
- Sand and Gravel Excavation Sites
- Palustrine Wetlands
- Lacustrine Wetlands
- Riverine Wetlands
- Stratified Drift Aquifer

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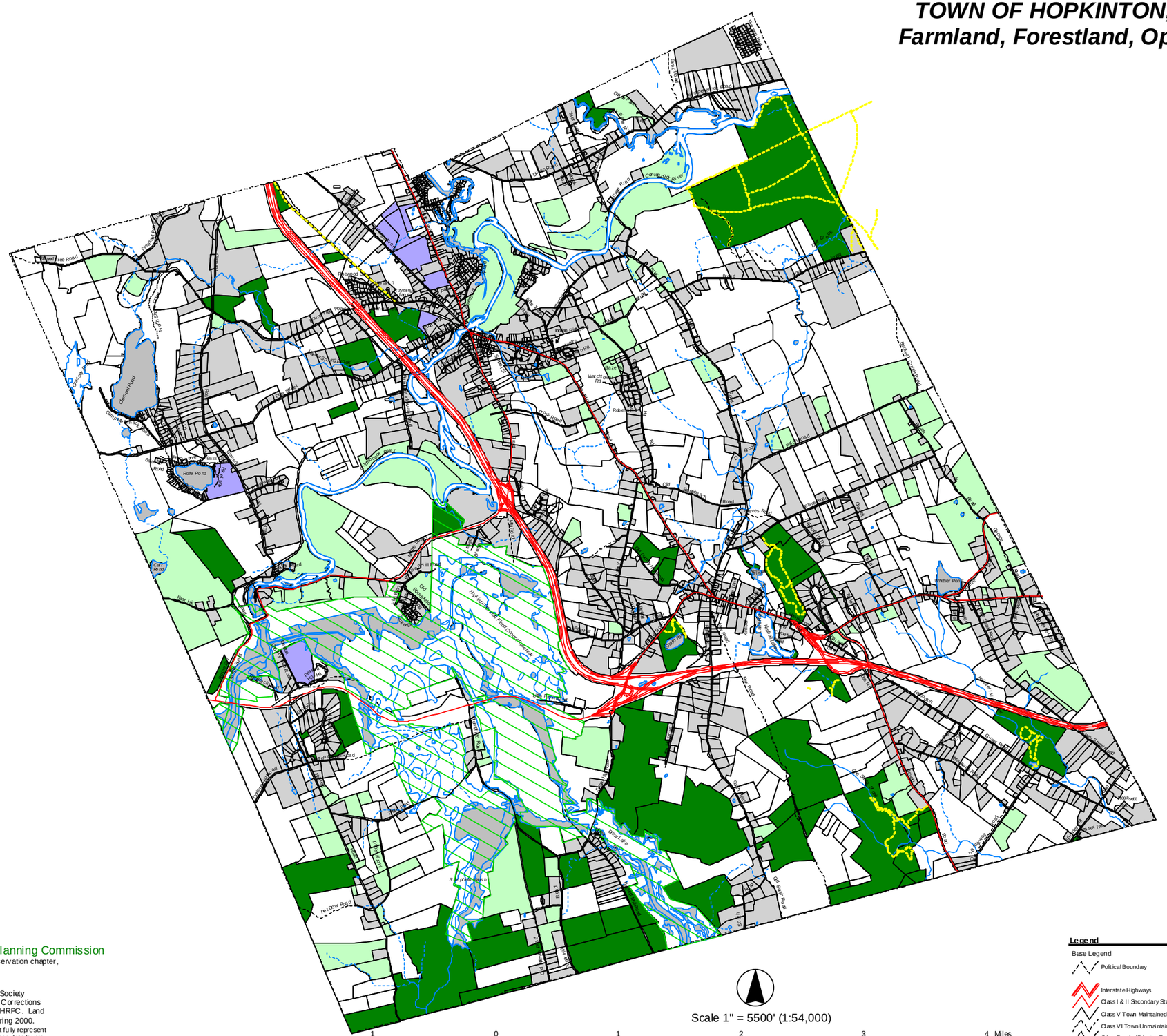
Corrections, additions, or deletions are welcomed and should be directed
to CNHRPC.

TOWN OF HOPKINTON, NEW HAMPSHIRE
Farmland, Forestland, Open Space, and Trails



This map created by the
Central New Hampshire Regional Planning Commission
for the Hopkinton Master Plan Conservation and Preservation chapter,
September 2001.

Data sources:
1:24,000 source scale from the NH GRANIT system, Society for the Protection of New Hampshire Forests (1998). Corrections to base data made by the Town of Hopkinton and CNHRPC. Land Use determined by a windshield survey conducted spring 2000.
This map is intended for planning purposes only and may not fully represent geographic conditions. Inaccuracies are known to exist in these data layers. Corrections, additions, or deletions are welcomed and should be directed to CNHRPC.

Legend

Base Legend
- Political Boundary
- Interstate Highways
- Class I & II Secondary State Highways
- Class V Town Maintained Roads
- Class VI Town Unmaintained Roads
- Other Roads (Private, Trails, etc)

Land Use and Trails
- Town Trails
- Hopkinton-Everett Floodplain Reservoir
- Undeveloped/Wooded
- Agricultural/Open Space/Fields
- Conservation
- Recreational
- Residential, Commercial, Industrial, and Public Land Uses

Chapter X
Contoocook Village

Introduction

Villages are walking places. You drive to them and then should be able to walk to a variety of locations within them. A well-designed streetscape should have strong pedestrian links between parking areas and retail areas. Safely linking the downtown area with public areas would encourage people to take walks, which could then redefine downtown as a central gathering place for the community. Maintaining a constant rhythm and scale to buildings is also an important goal to presenting an attractive and welcoming streetscape.

Over the past few years, there has been a great emphasis on the revitalization and redevelopment of Contoocook Village. The goal of this effort is to encourage infill development, reduce sprawl, energize the economic base, and foster a pedestrian-friendly, community Village. The Town of Hopkinton and the Hopkinton Economic Development Committee recognized the value in gathering together design experts and town members to explore the future of downtown Contoocook. In January 2000, the Economic Development Committee, with the assistance of PlanNH, organized a two-day charrette, which was attended by a range of local officials, design team members (most of whom had strong ties to the town), and dozens of town residents to answer questions about what is important in Contoocook, what are the current conditions of the downtown area, and what does the Town want to see in the future.

A design charrette is a brainstorming session where lots of ideas are brought forth by both professional designers and local citizens, in an attempt to resolve a problem of local interest. Because of the compressed time frame, the conclusions reached are usually conceptual and present the relationship of different plan elements. At their best, charrettes blend the broad experience of design professionals with local citizens' detailed knowledge of their community, to produce a plan of action to deal with particular issues of concern in the community. The charrette provides an overall framework within which, final solutions can be developed. It sets a tone and gives a direction against which future decisions can be measured.

This Chapter is derived from the results of the Contoocook charrette, as well as elements of the 1998 Hopkinton Tax Base Diversification study. Additionally, issues raised during the compilation of the Master Plan and results of the community survey are addressed here as well.

Items to be discussed in this Chapter include:

Key Findings
Community Survey and Visioning Session Results
History of Contookcook
Contoocook Today
Contoocook in the Future
Phases of Development
Land Use
Summary

Key Findings

- The Contoocook River, covered bridge, and depot area are great assets, and the Village should make better use of these resources.
- Truck traffic is a problem downtown and is an important issue that should be addressed, especially in relation to pedestrian safety.
- Maintain parking, while promoting pedestrian access and design at the same time.
- Improve the aesthetics of downtown and attract visitors into downtown.
- Respect the existing structures and integrity of the downtown.
- Connect Contoocook's multiple activity centers.
- Establish a Historic District to ensure the historic nature and integrity of the Village remains intact and is encouraged to flourish.

Community Survey and Visioning Session Results

In March 2000, a Master Plan community survey was sent out to all households and non-resident land-owners of the Town. A total of 2,700 surveys were distributed with 973 returned, for a 36% response rate. The following questions and responses were those on the survey that related to Contoocook Village.

What are the desirable qualities of Hopkinton? Check all that apply.

Feature	**Total**
Small Town / Rural Atmosphere	852
Location	665
Historical Character	487
Scenic Areas	431
Villages	370
Community / Recreational Facilities	264

Does Hopkinton need to establish specific design or architectural requirements to regulate how buildings should look? Check all that apply.

	Total-Yes
Residential	62
Non-Residential	239
Both	219
None	386
No Opinion	84

If specific design or architectural requirements are desirable, what areas of Town would be most appropriate for such standards? Check all that apply.

Area	Total
In Hopkinton Village	425
In Contoocook Village	342
Along Routes 9 and 202	99
Along Route 103	124
Along Route 127 (Maple St.)	126
In Rural Areas	35
Throughout Town	183
None	222

Which of the following commercial enterprises would you like to see in Town? If you would like a particular type of development, please note where such development should be located.

	Location								
	Want in Town	Don't Want in Town	In Hopkinton Village	In Contoocook Village	With Access to Routes 9 and 202	With Access to Route 103	With Access to Route 127 (Maple t.)	Burnham Intervale	In Rural Areas
Professional Offices	550	86	198	325	222	193	188	91	35
Light Industrial Parks	406	209	24	37	197	142	166	219	65
Heavy Industrial Parks	79	500	12	15	57	34	35	65	17
Retail	417	178	187	322	108	96	87	36	13
Restaurants	543	83	337	395	133	115	107	28	26
Services	351	107	165	241	104	100	102	43	22
Home Businesses / Occupation	465	87	209	229	149	145	143	113	152
Recreational Businesses	349	174	81	140	112	109	98	53	78
Hotels / Motels / Inns	210	366	78	87	125	95	81	22	36
Major Shopping Malls	36	592	11	17	25	19	22	4	6
Major Grocery Store	118	508	30	60	48	34	31	8	5

In May 2000, a visioning session was held, in which all members of the public were invited to attend and voice their opinion and vision for the future of Hopkinton. The participants were asked to recognize the Town's strengths and opportunities, as well as its weaknesses and areas of concern. The following list contains individual participant responses from the visioning session that relate to Contoocook Village.

What are the Town's strengths and opportunities?

Library
Houston Fields
Contoocook improvements
Community Center in Contoocook Village
Covered Bridge
Villages
Small rural town

What are the Town's weaknesses or areas of concern?

Pedestrian access to the Community Center
Architectural integrity and compatibility

History of Contoocook

From 1850 to the early 1900's, the B&M Railroad was the heart of Contoocook. The many daily trains, the freight business, and the mail deliveries were the stimulus, not only for the industries in the Village, but also for the farmers and owners of the tourist homes, hotels, and mills. The first train left Concord for Contoocookville (now Contoocook) on August 25, 1849. However, as was the case in most towns, when the railroad stopped running through Contoocook, many of the businesses that were dependent on the railroad failed and some residents moved away to find more prosperous areas in which to work and live.

Contoocook was a historically important employment and cultural center in the region, many remnants of which can still be seen today. Through local redevelopment efforts, the Village can continue this historic tradition while honoring its past.

Contoocook Today

Contoocook is a village within the Town of Hopkinton. As the business center of Town, Contoocook contains much of the Town's activity. The schools are here, as are many businesses and municipal services. Most of the downtown village area is residential, mixed use, and commercial development. The northern part of the Village is surrounded by agriculture lands and much of the commercial development is concentrated near Fountain Square and along Park Avenue across the river.

In Contoocook, the village's activity centers can be defined in terms of an inner ring and an outer ring. The inner core is the heart of the community, easily walkable within 10 minutes, with much of its economic and social energy contained within its limits. In Contoocook, this is an area encompassed by the Library on Pine Street to the Colonial Plaza on Park Avenue, across the river to the Town Clerk's office on Main Street, down to the Columbia Hall on Maple Street. The outer core, or outer limits, of the Contoocook downtown area expands out a bit farther. This ring circles from the High School, to the Maple Street School, to the cemetery and around to I-89. These inner and outer cores represent the heart of the community and are great places to focus attention on redevelopment and enhancements.

Contoocook in the Future

Design Principles

The downtown area is the heart of Contoocook. This area speaks to the history of the village and represents its future. Design work and downtown enhancement efforts should be completed with the following principles in mind.

Counteract forces that are drawing activity out of downtown

Remember that every business that moves out of downtown will diminish the likelihood of economic rejuvenation in this area. Maintaining the businesses that are there must be a priority. Downtown Contoocook has a lot of basic qualities that make up a solid community center, including the river, plans for a public park, public buildings, and retail shopping. Build upon this foundation and improve the connections that draw these resources together.

Draw activities into the downtown that make economic sense

Downtown Contoocook will never look exactly as it did in generations past, but looking at historic photographs provides a good example of many of the same characteristics envied today. Downtown used to be lined with tall shade trees, sidewalks, and seemed to enjoy a slower pace. Today, trucking, increased reliance on vehicles, and convenience stores are part of Contoocook's reality.

Vehicles and pedestrians need to co-exist downtown

There are currently some areas of downtown that provide access for pedestrians; however, they lack cohesiveness. The intersection of Main Street and Maple Street is exceptionally unfriendly to pedestrians. Efforts here need to focus on connecting downtown assets, adding sidewalks, and making the area easy to use. For a downtown to be sustainable and viable, people need to be able to move freely and safely. Also considering that the more aesthetically appealing the improvements (adding in trees and greenery), the more people will want to spend time downtown. Traffic downtown is not a bad thing, it is needed to support economic activity downtown, and without car traffic businesses would be hard pressed to survive. The key is to give residents more reason to stop downtown to do their shopping by making it an attractive and safe destination.

Vacant and underutilized space, both land and buildings, work against the downtown's role as a core

A downtown is defined as the business center or commercial center of town. Any vacant buildings or land, not including open space or recreation land, in this central core, detract from its ability to serve as a hub.

Near-Term Vision for Contoocook

One of the central issues discussed at the charrette was the need to improve the look of downtown. Attractive and inviting gateways are extremely important. If the Town wants to encourage local residents to spend more time downtown, it must make sure people are naturally drawn to the area. All of the plans detailed here reflect similar goals:

- Welcome people to Town and provide them with easy access to parks, green space, and local businesses.

- Improve upon pedestrian safety in the inner core, both by adding sidewalks and by slowing down existing traffic and trucking.
- Capture much more of the local buying power. Even though many residents commute to Concord, it does not mean that these commuters need to do all of their shopping in Concord. Contoocook can do a better job of tapping the local market

The five year plan described here focuses on the inner ring of Contoocook. This general area stretches from the Colonial Plaza on Park Avenue to the Library on Pine Street, across the river to the Town Clerk's office on Main Street, and down to the Columbia Hall on Maple Street.

This short-term plan describes conceptual plans for four types of improvements, which can be seen on the **Conceptual Site Plan of Contoocook Village: the Next Five Years Map** and includes:

- Sidewalk improvements
- Traffic changes
- Green space development and enhancement
- Parking improvements

Plans for sidewalk improvements go closely in hand with changes in traffic circulation. The goal is to invite more pedestrian traffic into the downtown area, calm the vehicular and truck traffic and in general make the area easier for pedestrians and vehicles to coexist. General suggestions include adding or enhancing pedestrian access to the high school, the library, and to the downtown area. Sidewalks and crosswalks do exist in some areas but the overall connections between areas is somewhat spotty. State law requires vehicles to yield to pedestrians in crosswalks. Sidewalks need to be connected and there needs to be some type of pedestrian access developed along the waterfront to make it easier for people to walk between Fountain Square and the Library. Everything within the inner circle is a 5 or 10 minute walk, making this a very feasible area to walk. The High School also needs to be tied in by building a sidewalk from the Pine Street area up to the school on Park Avenue.

Traffic changes should also be considered at Fountain Square and the intersection of Kearsarge Street and Pine Street. Fountain Square currently is an island in a mass of pavement. Looking back at historic photographs and post cards, Fountain Square was a central feature of Main Street and downtown. The square had a stone barrier, the fountain, and a large shade tree in the middle of it. Today, Fountain Square has lost much of its visual appeal and does little to slow down traffic, which of course, is much heavier and much faster than before. A change is needed to revitalize Fountain Square and to calm the traffic passing through it.

A second area in need of change is the Pine Street and Kearsarge Avenue intersection. The war memorial sits in an island and traffic moves around it from all directions. This current design is not particularly efficient or safe. Redesign efforts would help make this area more usable for both pedestrians and vehicles and would allow pedestrians to visit the war memorial without having to

cut through passing traffic.
A third area of improvement suggested falls under the general concept of adding green space. This includes both public park areas and adding greenery to street edges and corners. Public parks and open space near the river is an excellent way to get people back into downtown. Public parks and open space are lacking in downtown and should be a priority for the Town. Another low cost and highly desirable addition would be to reline the streets with trees and add greenery to the sidewalk corners.

A fourth area of improvement deals with parking. There is some on-street parking along Main Street and Maple Street and some parking in front of businesses within the main area of Fountain Square. However, much of this parking comes at the expense of adequate sidewalks and parking often backs out into traffic. One solution is to consolidate parking into one or two areas within the Fountain Square area. One area could be near the depot and the other could be located behind the Columbia Hall. These parking areas should be developed before any on-street parking is removed.

The Long View - Contoocook in 2075
Will current national trends of increasing traffic, chain stores, and easy vehicular access continue in Contoocook, or will the Village take a look back, possibly incorporating some of the qualities that were found in Town a generation or two ago? Looking at historic pictures of the downtown area clearly show tree-lined streets, sidewalks, and green space. These qualities are certainly attainable and fit with the vision of how residents want Contoocook to look and feel. The long term vision includes the following basic goals:

- Vibrant village core surrounded by greenspace
- Interconnected activity centers
- Strong focus on the river
- Strong pedestrian links with tree-lined streets
- Designated green spaces along the river with the agricultural lands remaining intact

The 75 year vision of Contoocook shows a village that is full of activity, is surrounded by green space and working agricultural fields, has interconnected activity centers, and makes better use of the river. This vision ties together the library on Pine Street with Fountain Square, through a pedestrian bridge across the river. This plan maintains the rural qualities of the surrounding area and directs growth to the downtown. Residential homes still line the side streets, and these streets are full of shade trees. Commercial/light manufacturing remains in existing areas, but the space between the river and the manufacturing site has green space available for a river walk. Parking is moved from on-street parking to lot parking and has spaces added by the Depot and behind the Columbia Hall.

Phases of Development

A theme that should be sustained throughout all redevelopment discussions is the importance of building upon the qualities and resources already found within Contoocook. A key to enhancing downtown Contoocook is to maintain the activity zones already there, and find ways of connecting and expanding upon these locations. With the overall picture of short-term improvements in mind, the next task is to take a closer look at the three areas of downtown identified earlier, which are:

1) Depot and Riverway Park
2) Fountain Square
3) Fire Station

Depot and Riverway Park Phase
The Depot area is located adjacent to Fountain Square. This area has been the subject of a great deal of local interest and efforts are underway to promote and develop a private partnership with abutting land-owners to re-develop the area behind the depot as a "Riverway Park." The Contoocook Riverway Association has been spearheading efforts to develop this plan and gather support. This type of redevelopment fits very well with proposals to enhance Fountain Square. The two projects together would greatly enhance the entire downtown area. The downtown would be a place for afternoon walks, chance encounters with neighbors, and would be a source of public pride.

The Town should remember that the Contoocook River is an important resource for downtown. The proposed Riverway Park would provide walking trails, a canoe launch, a public bandstand, and access to the railroad bridge. As it exists today, the railroad bridge is easy to drive by in a vehicle, but is not presented to pedestrians in an attractive or inviting way. Establishing a park on one side of the bridge will encourage people to explore the area and will highlight the bridge to the public.

A small parking lot could be developed behind the Depot, Fleet Bank, and the apartment building to serve the needs of the park and to provide additional parking for downtown businesses. This parking lot would also provide easy access to the railroad bridge. Currently, part of this back lot is used for apartment parking and to house a dumpster. The area could be greatly enhanced so that the new space would invite people into the park area, while still providing the necessary parking for tenants. This new public lot would provide easy access to the walking trails, canoe launch, and the Depot.

The current paved area in front of the Depot, and between the Depot and the Bank of New Hampshire, could be landscaped to beautify the area and to provide for handicapped parking. Parking adjacent to the Bank of New Hampshire should be redeveloped as an entry and exit point for another public parking area behind the bank. This way, the bank would retain its needed parking and there would be additional space available to access the band stand area and the walking trails. The Town Clerk's office should also be incorporated into the plan by developing a pedestrian bridge over the existing gully to connect with the walking trails to the park. This would provide additional parking opportunities and linkages between a public building and public green space.

This section of Main Street itself would also be slated for improvements. As it exists now, the streetscape is dominated by either moving or parked vehicles. The space intended as a sidewalk is, for all practical purposes, taken away if vehicles are parked along Main Street. The current pavement width along Main Street does not allow for a separate sidewalk, parallel parking, and

travel lanes to all coexist. In an effort to improve this situation, it is suggested that a better defined sidewalk be constructed with curbing and green space to distinguish the sidewalk from the roadway. There is only room for a sidewalk on one side of the street, parking on one side of the street, and two 12 foot travel lanes. If possible, a thin strip of green between the sidewalk and road should be left to plant trees. Having this physical separation from the roadway will enhance the street for pedestrians and make the entrance into downtown, from a vehicle, more attractive. It will also make the roadway appear narrower, which in turn, will encourage traffic to move slower as it enters the downtown area.

The **Depot and Riverway Park Map** depicts how the implementation of these recommendations and ideas would change the look of the area.

Recommendations:

- Support the Riverway Association in developing Contoocook's Riverway Park, which could include a new canoe launch, network of walking trails, and a new gazebo.
- Add public parking behind the Fleet Bank, directly behind the Bank on New Hampshire, and near the covered bridge.
- Complete landscaping and a new plaza area in the space in front of the Depot.
- Install sidewalks with curbing along Main Street. Sidewalks should be separate from the travel lanes and should continue from the Depot area up Main Street towards the Town Clerk's office.

Fountain Square

As the heart of the downtown, Fountain Square needs to be recaptured and enhanced. The current road alignment allows vehicles to travel along Main Street and turn from and onto Maple Street without stopping. Travel speeds are too high for this intersection and safety is an issue. To change this, the configuration of the intersection should be narrowed and made into a "T" or a more standard intersection.

One suggestion is to take out the area of pavement between the fountain and the café. This pavement would be replaced with green space, trees, and benches. In this scenario, Fountain Square would become part of this new public green space, instead of a traffic island. This change could bring about a number of different improvements.

First of all, with a new "T" alignment to the intersection, traffic from Maple Street would have to stop before entering Main Street. Since a fair amount of traffic from Maple Street consists of thru-trucking, this would improve the current safety hazard now present for pedestrians. The new alignment would still provide adequate turning space for large trucks. In addition, changing the look of the intersection would allow for a direct pedestrian crosswalks across both sides of Main Street and across Maple Street. This would be a great improvement over the existing crosswalks and would allow people to safely walk through this area.

In order to incorporate the fountain into new green space, some on-street parking would need to be removed. This could, in many ways, improve upon the current parking situation. The current parking configuration in this area forces cars to back out into traffic along Main Street. Relocating some downtown parking to central lots, which are easily accessible from both Main Street and Maple Street, would provide convenience and would be much more aesthetically pleasing. The only parking that would remain within the intersection of Main Street and Maple Street would be in front of Fleet Bank, along Main Street heading north. However, the current diagonal parking

would be replaced with parallel parking to improve the safety of vehicles entering and exiting the spots.

Another area that lends itself quite well for parking is the lot behind the Columbia Hall. Currently this lot is residential and the expense of purchasing the lot would need to be researched. This site is appealing because it would provide easy access from Maple Street, with an access point by the Columbia Hall, as well as from Main Street along Cedar Street. A pedestrian way could be easily placed between Rusty's and the café to link public parking with downtown shops and the green space around the fountain. This site has room for approximately 40 spaces, which more than makes up for any parking taken for the public green space and new intersection.

Additional greenery should be added in many areas. First of all, trees should be planted along Maple Street and Main Street. The Mr. Mikes corner of the Maple Street and Main Street intersection has too much pavement on this corner, too many opportunities for entry and exit, and it is not in keeping with an attractive downtown streetscape. In the short term, plantings should be added and the possibility of setting the existing sign farther back on the lot should be researched. More curbing should be added to clarify the end of the roadway, the sidewalks, and the entry/exit points to Mr. Mikes.

The **Fountain Square Map** depicts a rendering of what this intersection could look like in the future. This picture shows a downtown area that is attractive, still adequately serves vehicles, provides clear pedestrian walkways, and has the look of a small New England town.

Recommendations:

- Change the existing alignment of Maple Street and Main Street to a new "T" intersection.
- Add direct crosswalks across the new "T" intersection.
- Make the fountain a part of the new public greenspace and plaza near the café.
- Relocate on-street parking to convenient off-street parking and add a pedestrian walkway near the café that will connect the new fountain plaza with the new parking area.
- Improve the sidewalks along Main Street and Maple Street.
- Add landscaping and greenery along streets making the downtown look more inviting.

Fire Station Area

The Fire Station area, across the bridge from Fountain Square, is the third general area for proposed improvements. A major piece to enhancing this site is to realign the current intersection of Kearsarge Avenue, Pine Street, and Park Avenue. The goal is to simplify the traffic flow and make the intersection more usable and safe for pedestrians.

Kearsarge Avenue should be taken out of the direct intersection with Pine Street and Park Avenue and become a "T" intersection with Pine Street. Pine Street would then intersect with Park Avenue at a "T" intersection. In this way, the war memorial would no longer be an island in the middle of a complicated intersection. Instead, this area would be incorporated into the adjacent property and would be linked to the shopping center across Park Avenue with a crosswalk. This new alignment will continue to allow enough room for larger vehicles and truck traffic to maneuver safely.

Simplifying this intersection is important because of its awkward design for motorized traffic and because it would make the area between the high school and the library much easier for pedestrians. One of the major goals of this downtown enhancement is to improve the overall pedestrians linkages. The link between the school and the library is an important one and this intersection is a hurdle that needs to be addressed before the entire stretch can be considered safe for pedestrians. Furthermore, the War Memorial is a community resource that realistically can not be appreciated because of its difficult location. Given that this site is in the middle of a traffic island, very few people in Town take the time or effort required to walk by and appreciate the memorial.

This side of the river could also benefit from added green space, trees, landscaping, and sidewalks. The vacant land adjacent to the Fire Station would make an excellent location for a waterfront park. This public space would help bring the river into focus as a major Town asset. A river walk would also highlight the river and would encourage people to walk, instead of drive, to downtown. Ideally the riverwalk, along with Pine Street sidewalks, would connect the library and Houston Farm area with the entire downtown area.

The future of the buildings on Houston Farm is the subject of discussion in Town. The final use remains undetermined, and while the charrette did not develop one specific set of directives for this site, it did provide context that decision-makers in Town can use in determining its future. The current playing fields and library all hold extremely important roles in Town and are an easy walk from most other locations across the river. As the downtown area becomes more pedestrian friendly, this will only strengthen the link between the Houston Farm area and the business center.

The **Fire Station Map** depicts how the implementation of these recommendations and ideas would change the look of this area.

Recommendations:

- Simplify traffic flow between Pine Street and Park Avenue by making Kearsarge Avenue and Pine Street a “T” intersection.
- Redesign the war memorial triangle as an edge of a street instead of a traffic island.

- Add sidewalks along Park Avenue towards the High School. Connect to the existing sidewalk on Pine Street to improve links with the Library; add sidewalks on Kearsarge Avenue.
- Add crosswalks across Park Avenue and Kearsarge Avenue to improve pedestrian links between the high school and library.
- Make the area between the fire station and the river a public park.
- Add plantings, greenery, and landscaping throughout the area to make it more inviting.
- Incorporate the Houston Farm into the Village’s inner core.

Land Use

The purpose of this Chapter is to tie the individual phases of revitalization in Contoocook together to show what the Town could look like with planning, local time and talent, and long term follow-through. It is especially important to realize that not all of these visions will happen unless the Town reviews its current zoning and land use regulations and identifies strategies to preserve its existing open space. As mentioned at the charrette, if a fire swept through downtown, destroyed

buildings could not be built back to the same specifications. Town zoning regulations, including setbacks, parking requirements, and the like, would hinder efforts and would, in essence, change the character of the downtown for ever.

The Town has prime agricultural land in close proximity to its downtown. This land is important and is valued as open space and efforts need to be made to preserve it into the future. These lands will probably be ripe for development as the Town continues to grow. Often, agricultural lands are ideal locations for development because the land is relatively flat and has already been cleared. Proactive measures are needed to make sure these lands do not become developed.

The current zoning impacting the Village, which includes the Industrial District (M-1), Commercial District (B-1), and High-density Residential District (R-1), does not adequately allow for the goals of the charrette to be met. An option available to help meet these goals is to rezone Contoocook Village and create three new Districts to be called Village High Density Residential, Village Commercial, and Village Industrial to replace existing portions of the M-1, B-1, and R-1 zones. Other zoning issues that should be addressed include: dimensional regulations, which include front setbacks and minimum lot areas; off-street parking; signage; and site/design review.

The current front setback requirement that buildings be set back 30 feet from the street line is inconsistent with the existing pattern of development. This regulation renders a number of existing buildings nonconforming and would prevent the construction of new or replacement buildings that reflect the Village's traditional character. In addition, the provision that the front yard be increased to 100 feet when facing a residential district would render several lots, at the southerly end of the district, unbuildable.

The minimum lot area requirement, currently in place of 15,000 square feet, is significantly larger than the typical lot in Contoocook Village. By reducing the minimum lot are in the Village to a size between 7,000 and 10,000 square feet, the continuation of the area's established pattern of development will be supported.

The strict application of off-street parking regulations would be an obstacle to continuing the vitality of the Village because the creation of on-site parking lots would disrupt the traditional dense development pattern and would reduce the size of the buildings that could be developed on existing lots. Most village or town centers address this issue by providing some amount of public parking, which can include both on-street and off-street spaces. In recognition of the availability of public parking, as well as the fact that people are more likely to walk between businesses in a village than in other commercial areas, the parking regulations in the Village should be relaxed. For more information on parking, please see the Current and Future Land Use Chapter.
Most signs in Contoocook Village respect the design of their buildings and the overall character of the Village: signs do not obstruct architectural details; their colors and materials complement building colors; and they respect established sight lines on adjacent buildings. A few properties have signs that are out of keeping with the traditional character of the Village, but there is currently not a widespread problem of visual clutter or the proliferation of inappropriate signs. More detail on sign regulations is outlined in the Current and Future Land Use Chapter.

Hopkinton's site plan regulations establish detailed submission procedure requirements for review and approval or disapproval of site plans for nonresidential and multifamily uses, including changes or expansions to existing uses. However, the regulations contain only very general standards for review of their plans, and address building design only indirectly. Effective design review entails two separate components. First, the Town should provide information to property owners as to what kind of design characteristics are encouraged and discouraged. The second

component involves an expansion of the site review process to encompass building design. More discussion of specific design review guidelines are included in the Current and Future Land Use Chapter.

By taking many of these steps outlined above, the vision for Contoocook Village can be realized.

Recommendations:

- Ensure that any new zoning district would not negatively impact currently existing businesses or industries located in the Village.
- Reduce the minimum required front setback from 30 feet to 10 feet or less; and consider reducing the minimum required lot area from 15,000 square feet to between 7,000 and 10,000 square feet.
- Relax the requirements for off-street parking to a percentage of the number of spaces that are required in other areas of Town, and/or provide for a special permit waiver of all or part of the required parking spaces within a specified radius of a municipal parking area.
- Amend the sign regulations to address specific design considerations for the Village, including establishing a height limit for free-standing signs, increasing the maximum aggregate sign area for multi-tenant buildings, and placing more stringent standards for individual signs.
- Revise the site plan review provisions of the ordinance by making the standards for review more specific and incorporating building design issues in addition to site development standards.

Summary

The residents of Hopkinton are the only ones suited to make decisions about what will work and what will not work in their community. The hope is that the charrette has sprouted a few new thoughts and built upon, or clarified, ideas that the Town had already considered. The Town showed a great deal of interest and enthusiasm in the process and it is clear that the Town is in a great position to get started.

It is important to keep in mind that the options discussed at the charrette and in this Master Plan are only points for discussion and are not set in stone. The most important thing to understand is the basic design principles behind any revitalization strategy the Town pursues. Residents want to re-energize the downtown area to be a hub of activity for both businesses and for residents - a place to meet, walk, and enjoy the natural environment surrounding them.

DEPOT PHASE

- Shared access / driveway with Bank
- Off-street parking lot
- Riverfront park
- Plantings / landscaping throughout

FOUNTAIN SQUARE PHASE

- Improved sidewalks and curbing
- Off-street parking lot
- Maple Street enters Main Street at a "T"
- Plaza around fountain
- Plantings / landscaping throughout

FIRE STATION PHASE

- Pine Street enters Park Street at a "T"
- Kearsarge Street enters Pine Street at a "T"
- Sidewalk on Pine Street
- War memorial relocated
- Plantings / landscaping throughout

Conceptual Site Plan of CONTOOCOOK VILLAGE.
THE NEXT FIVE YEARS.

Depot & Riverway Park

- Create a Riverfront Park
- Provide off-street parking
- Install improved sidewalks / landscaping throughout
- Develop shared access with bank

Fountain Square

- Improve sidewalks throughout
- Create a "T" intersection for Maple Street at Main Street
- Provide plantings / landscaping throughout
- Provide off-street parking
- Develop a plaza around the fountain

Fire Station

PARK AVENUE

Future Shops

Dimitrio's

River Walk

RAILROAD BRIDGE

- Create a "T" intersection at Pine Street and Park Avenue

- Relocate the War Memorial

War Memorial

KEARSARGE STREET

- Create a "T" intersection for Kearsarge Street at Pine Street

Telephone Co.

To Railway Trail

PINE STREET

Possible Expansion

Fire Station

Waterfront Park

- Provide plantings / landscaping throughout

- Complete the Pine Street sidewalk

River Walk

Chapter XI
Energy

Introduction

A growing number of New Hampshire communities have begun to incorporate energy issues into municipal policies and operations. Energy in various forms is used in all elements of our lives, for lighting, heating buildings, transportation, and daily business. Energy production and use also have impacts on the environment, from air quality to water quality to potential changes in climate and weather patterns. Municipalities can play a direct role in shaping the energy landscape in three ways. First, municipal facilities and operations can strive for energy savings and the use of more renewable sources. Second, community boards and committees can set local policies and regulations that encourage more energy-conscious development in the private sector and third, the Town can provide informational resources to residents on energy efficiency, conservation, and renewable energy. All three avenues can benefit taxpayers, residents, and business owners. Because of the integral links to community functions and associated costs and impacts, it makes sense to incorporate energy matters into a community's Master Plan.

The New Hampshire Legislature enabled cities and towns to include an energy section in their master plan in 2008 under RSA 269:1(n). An energy section "includes an analysis of energy and fuel resources, needs, scarcities, costs, and problems affecting the municipality and a statement of policy on the conservation of energy." The purpose of this chapter is to provide an overview of Hopkinton's municipal energy use, practices, policies, and regulations, and to identify strategies and tools for energy conservation, energy efficient growth, and sensible development.

Indeed, the Town of Hopkinton has already taken numerous actions to reduce energy use and costs, and to educate residents about energy issues. At the 2007 Town Meeting, Hopkinton voters adopted the New Hampshire Climate Change Resolution, along with 163 other communities throughout the state. This warrant article stated the Town's support for federal actions to address climate change issues, including reductions in greenhouse gas emissions and the development of renewable energy technologies. It also called for the Selectmen to establish a voluntary energy committee to recommend local steps to save energy and reduce emissions. In accordance with the warrant article, the Greener Hopkinton committee was established with a mission to help the Town implement a "green" initiative and "define, educate and implement programs that will materially improve our physical well-being." Town staff and Greener Hopkinton committee members have worked to introduce energy conservation efforts which will be discussed later in this chapter.

The decision to include an Energy Chapter in the Master Plan is the next step in augmenting existing efforts and encouraging energy conservation and efficiency throughout the community.

Goals and Objectives

Hopkinton will consider ways to maximize energy conservation, efficiency, and renewable energy opportunities in order to reduce energy expenditures, fossil fuel consumption and associated pollution in both the public and private sectors. The Town supports the overall goals set forth in the 2009 NH Climate Action Plan.

- Pursue reductions in municipal and school energy consumption in public buildings, vehicles, outdoor lighting, and waste disposal, and pursue renewable energy developments where feasible.

- Encourage energy conservation, efficiency, and renewable energy development among Hopkinton households and businesses, and involve community members in municipal and school energy reduction efforts.

- The Town and school district will continue to consider full life cycle costs of construction projects, and will establish best management practices and technologies in future construction, renovation, and maintenance of public buildings and facilities.

- Monitor existing energy use of public buildings/facilities and produce an Annual Energy Use Reduction Progress Report for the Board of Selectmen and school district.

  Encourage zoning and land use regulations that allow for alternative energy sources and systems and that promote energy conscious development principles such as mixed use, centralized development, and alternative transportation to help reduce energy use.

Policy Context and the Relationship Between Energy and Planning

Enabling Statutes

The state legislature empowers municipalities in New Hampshire with specific enabling legislation. There are a number of state statutes relating to energy which allow communities to take local action, including:

- **RSA 672:1, III**: "Proper regulations enhance the public health, safety and general welfare and encourage the appropriate and wise use of land."

- **RSA 672:1, III-a**: "Proper regulations encourage energy efficient patterns of development, the use of solar energy, including adequate access to direct sunlight for solar energy uses, and the use of other renewable forms of energy, and energy conservation. Therefore, the installation of solar, wind, or other renewable energy systems or the building of structures that facilitate the collection of renewable energy shall not be unreasonably limited by use of municipal zoning powers or by the unreasonable interpretation of such powers except where necessary to protect the public health, safety, and welfare."

- **RSA 674:17, I(j)** states that one of the primary purposes of zoning ordinances adopted by municipalities is "To encourage the installation and use of solar, wind, or other renewable energy systems and to protect access to energy sources."

- **RSA 155-A:2, VI** permits communities to adopt stricter measures than the New Hampshire State Building Code, such as requiring new buildings to use highly efficient insulation or to take advantage of passive solar energy.

- **RSA 72:61-72** allows municipalities to offer property tax exemptions on solar, wind, and wood heating energy systems, including solar hot water, solar photovoltaic, wind turbine, or central wood heating systems (not individual woodstoves).

- **RSA 674:62-66** concerns small wind energy systems, and prevents municipalities from enforcing unreasonable limitations on their construction and operation.

- **RSA 53-F**, adopted in 2010, enables municipalities to voluntarily create districts to finance energy conservation and efficiency improvements in residential, commercial, and industrial structures. Within the designated areas, known as Property Assessed Clean Energy (PACE) Districts, the municipality may offer financing to property owners to make energy improvements. Property owners then pay back the cost of the improvements over time in the form of special assessments on their property tax bills. The cost of the improvements runs with the property, and must be outweighed by the energy savings realized by the property owner and the property owner's successors.

  While PACE legislation has been adopted at the state level (and has been adopted by at least 24 states nationally), there are currently unresolved federal obstacles preventing its active implementation, particularly in residential initiatives. At the time of writing, Fannie Mac and Freddie Mac are unwilling to back mortgages on properties with PACE liens unless such liens are considered junior to the mortgage upon default. While New Hampshire passed an amendment in 2011 remedying this issue, most original PACE legislation gives PACE liens primacy over existing liens. Until the policy issues have been resolved, PACE programs probably will not be established locally. However, this remains a promising mechanism for communities to spur energy improvements locally among homeowners and businesses.

New Hampshire Climate Action Plan

In 2009, the Climate Change Policy Task Force published New Hampshire's Climate Action Plan, calling for a reduction in greenhouse gas emissions of 80 percent below 1990 levels by 2050, with a mid-term goal of reducing emissions 20 percent below 1990 levels by 2025. A set of ten strategies and 67 recommendations lay out a road map for New Hampshire to achieve those goals. Major strategies include maximizing energy efficiency in buildings and the transportation system, leading by example in government operations, encouraging energy-conscious land use development patterns, protecting natural resources, and public outreach and workforce training. The Climate Action Plan is available on the Department of Environmental Resources website at http://des.nh.gov/organization/divisions/air/tsb/tps/climate/action_plan/nh_climate_action_plan.htm.

A follow-up report, entitled "New Hampshire's Energy, Environmental, and Economic Development Benchmark Report," was issued by the NH Energy and Climate Collaborative in June 2012. The purpose of the benchmark report was to evaluate baseline conditions and trends related to the goals and recommendations in the Climate Action Plan. A look at twenty-four indicators for the years 2005-2009 provided initial data on progress the state has been making to reduce energy consumption and emissions while improving economic and environmental quality. The indicators showed that in sixteen of the twenty-four indicator categories, New Hampshire made progress between 2005 and 2009. Six categories showed no change, and two categories indicated a negative trend. The benchmark report is available on the NH Energy and Climate Collaborative website at http://nhcollaborative.org/benchmarkreport/.

The NH Climate Action Plan calls on municipalities to take actions to reduce energy consumption and emissions and to promote renewable energy implementation. Such actions include: better enforcement of building energy codes; adoption of ordinances and regulations that support renewable energy generation; coordinated public transit, higher density and mixed

use development; improving energy efficiency in municipal facilities and operations; and maximizing waste recycling. For example, New Hampshire has signed on to a challenge to achieve 90% compliance with the International Energy Conservation Code (IECC) by 2017. The Energy Code Compliance Roadmap Report, released in 2012, outlines specific strategies that cities and towns can use to achieve compliance. It is available at http://www.nhenergycode.com/live/index.php?go=roadmap.

Links Between Energy and Planning

Energy and land use planning are interconnected in multiple ways. Residents, businesses, and municipalities use energy for lighting, heating, and cooling buildings; for transportation, manufacturing, and food production and for utilities, communication, and entertainment. Energy in its various forms powers all aspects of community life. Geography and land development patterns, therefore, play an integral role in shaping how and where energy is used. Land use planning decisions in turn shape development patterns and the use of resources. Consequently, municipal policies and regulations affect both private and public energy use, and can significantly impact long-term energy trends in a community.

The most direct way this happens is by regulating the construction of buildings. Considerations of site design such as building orientation, construction materials, and landscaping can all reduce energy consumption throughout the life of the building. On-site renewable energy generation, if allowed and supported by regulations, offers additional opportunities for energy and emissions savings.

At a broader scale, municipal land use regulations can support energy-conscious development. Examples include:

- Clustering homes within subdivisions to save infrastructure costs and conserve blocks of open space
- Encouraging compact, mixed use development within or close to existing village areas
- Encouraging the provision of pedestrian, bicycle and public transportation facilities with new development, especially in downtown areas
- Adopting standards for sustainable stormwater management techniques, which reduce flooding vulnerability, community stormwater infrastructure costs and pressure on water treatment facilities
- Encouraging drought-resistant landscaping which requires less watering, thereby reducing utility costs
- Encouraging low-energy outdoor lighting, which can be bright enough for safety but still use highly efficient fixtures.

By adopting and supporting energy-conscious development, municipalities often achieve more than one positive outcome. Development patterns that are designed to use less energy often place homes closer to where residents work, shop, and recreate. This can encourage more active and healthy forms of transportation such as walking or biking. Such development patterns can also help to reduce emissions, resulting in better air and water quality for everyone. Any reduction in the use of fossil fuels also means less dependence on external energy

sources, economies, and markets over which residents have little control; and finally, energy conscious development at the town scale can, over time, minimize or reduce infrastructure and public service costs (for example, by avoiding the need to expand water treatment facilities, or by avoiding excessive new public roadways that must be maintained). In short, by incorporating energy considerations into municipal land use planning and regulation, a variety of benefits may accrue.

Capital Improvement Planning and Long-Term Energy Projects
Many municipalities in New Hampshire, including Hopkinton, develop and regularly update a capital improvements plan (CIP). The CIP is an advisory document, prepared by the Planning Board, which inventories and prioritizes expected future capital spending over a period of years. The purpose is to advise voters and the budget committee about anticipated needs and to avoid unexpected large appropriations in any given year that would overburden taxpayers.

One way to achieve facility energy improvements or other long-term energy projects is to incorporate them into the CIP. This may mean simply ensuring that building improvements which were needed anyway include energy efficiency and conservation measures; or it could involve utilizing new technology and design when replacing or adding to town facilities so that they are energy efficient. In this way, energy-conscious municipal facilities can be gradually phased in. In some cases, initial construction costs could be higher than if conventional construction practices were used; however, lower operational energy costs throughout the life of the facility should outweigh the upfront costs.

Hazard Mitigation Planning and Emergency Preparedness
Planning with energy matters in mind can dovetail with hazard mitigation planning and emergency preparedness. For example, adopting permanent stormwater management standards requiring stormwater to be handled on-site will reduce runoff into streams and rivers. This lessens the chances for flooding during storm events, which are exacerbated by runoff. Extreme weather events have become more common in recent decades, indicating a need to address flood potential and mitigation. As another example, on-site renewable energy generation can provide needed electric power even when the grid is down during a storm. The more distributed our energy generation, the less dependent property owners will be on power from the grid. In emergency situations, the fewer people who are forced to leave their homes to seek alternate shelter, the better. Finally, buildings that are energy efficient will hold their heat better and may receive passive solar benefits if advantageously oriented. Whether or not energy is being generated on-site, residents in such homes will have some advantages in the event of a power loss.

These are just a few examples of how incorporating energy issues into municipal policies, practices, and regulations can result in a variety of benefits for residents and property owners. There are few downsides to taking such steps, and the impacts can include energy and cost savings, improved environmental quality, improved building comfort, and more active, healthy, and resilient communities.

Current Community Efforts in Hopkinton

Municipal Policies and Practices
Hopkinton has already taken numerous actions on energy issues. Following adoption of the 2007 NH Climate Change Resolution, Greener Hopkinton formed as the Town's energy committee. Since that time, Town staff and Greener Hopkinton members have worked together to improve municipal facilities and make operational changes focused on saving energy. The

Town participated in the Municipal Energy Assistance Program (MEAP) in 2009-2010, which provided a baseline energy report for town facilities and vehicles and funded an in-depth energy audit of the Highway Garage. In 2010-2011, Hopkinton enrolled in the statewide Energy Technical Assistance Program (ETAP), through which additional building energy assessments and technical assistance were provided. Throughout the Town's involvement in these programs, Town staff and boards have also worked to identify operational and policy changes focused on energy savings.

Municipal Facility Performance Improvements
Building energy assessments conducted through MEAP, ETAP, and utility-based programs identified a number of operational and structural recommendations to improve the energy performance of Hopkinton's municipal facilities. The Town has implemented many of the items feasible in the short-term. For example, the Town Hall has had a full lighting retrofit, programmable thermostats installed, and air sealing and insulation work completed. Operationally, the Town made the decision to close Town Hall on Friday afternoons, thus saving energy over a longer weekend period while it is unoccupied. Similarly, the Public Works Department shifted to a compressed four-day work schedule in the summer to maximize operational efficiency and reduce energy use.

Likewise, the Library's energy performance has significantly improved since recommendations were implemented such as resetting HVAC controls, improving attic insulation, and improving air sealing. Since 2009, the Library has achieved an approximately 40% reduction in annual oil usage. While the building remains one of the Town's largest energy users, its extended open hours mean that it is more heavily used by the community than other buildings.

Additional improvements have been made where possible at the schools and other municipal buildings. Looking forward, the Town has also made a commitment to incorporate energy efficient design in future construction. This includes consideration of full life cycle costs (operational and maintenance costs) of various proposals, and not just up-front construction costs. As one example, in 2012 for the first time, the Board of Selectmen issued an RFP for conceptual building designs that included language requiring bids to consider energy conservation, efficiency, and adaptability to new technologies.

As of this writing, the Town of Hopkinton has completed nearly all of the short-term, lower-cost improvements and operational changes possible given the age and condition of existing buildings. Larger energy savings may be achievable in the future as facilities undergo major renovation or reconstruction.

Cooperative Energy Purchases
The Town and the Hopkinton School District have begun aggregating heating oil purchases in order to save money. In the future, they may also consider cooperative electricity purchase. Other communities in the region and across the state have realized significant savings through such practices. While cooperative energy purchases do not affect energy efficiency or conservation in any way, they are a sound strategy for saving on energy costs, especially in a market where consumers have very little, if any, influence over prices. There could be potential for wider cooperation with neighboring communities, particularly in the electricity market.

Energy Regulatory Audit
As part of the ETAP program, the Town of Hopkinton commissioned an energy and land use regulatory audit in 2011 by the Central New Hampshire Regional Planning Commission

(CNHRPC).[1] The audit reviewed land use and regulatory documents (master plan, zoning ordinance, subdivision and site plan regulations, and building code) of the Town and the Hopkinton Village District to assess how energy issues are addressed.

The regulatory audit reported that Hopkinton's land use documents already incorporate many elements of energy-conscious development. Additional policy and regulatory changes were suggested to augment the community's existing framework. A major recommendation was to include an energy section in the Town's Master Plan in order to more formally articulate the community's dedication to saving energy and seeking less polluting alternatives. Additional possible actions include the adoption of tax exemptions for renewable energy system installation, enacting a formal energy policy for municipal operations, and adopting additional ordinances and regulations to support green building, renewable energy generation, and efficient development patterns.

Community Outreach and Events

Greener Hopkinton functions as the Town's energy committee as well as promoting a greener, healthier lifestyle among Hopkinton residents. The committee publishes an e-newsletter and a blog with energy saving tips and resources. Greener Hopkinton has also sponsored an eco-fair and a Button Up NH household weatherization workshop for residents and homeowners. The committee organized a film series as well, covering various topics such as energy, transportation, food, and other environmental issues of interest to local residents.

Greener Hopkinton encourages and supports the municipality in its efforts to save energy and seek greener alternatives. Committee members collaborate with Town staff on moving energy-related projects forward. They also play a public outreach role in educating Hopkinton residents about the Town's energy activities. In this way, Greener Hopkinton adds value as an advisory partner and educational outlet not otherwise present within the municipal structure.

Participation in Regional Energy Initiatives

Hopkinton has participated in several regional energy efforts. Although many of the actions and policies discussed in this chapter focus on the municipality itself, energy is clearly not a locally specific issue. Regional and statewide collaboration is essential to making any major changes in the energy landscape. Across New Hampshire, a number of initiatives are underway to reduce energy consumption and pollution emissions.

For example, Hopkinton participates in the Central NH Regional Roundtable for Local Energy Committees, a loosely affiliated group of local energy committee representatives meeting regularly throughout the year. This group looks for ways for energy committees to collectively advocate for and achieve energy savings within their communities. Greener Hopkinton members have also attended workshops and conferences such as the annual Local Energy Solutions Conference, Transition Towns trainings, Button Up NH programs, and other events. As communities continue to cooperate and build momentum across the state and region, greater changes to energy policies and practices may be realized.

Implementation Recommendations

There are several avenues to pursue in order to reduce energy use, increase efficiency, and encourage more renewable energy alternatives. First, the Town of Hopkinton can modify its

[1] Town of Hopkinton, NH Energy and Land Use Regulatory Audit. Prepared by the Central NH Regional Planning Commission, September 2011.

policies and regulations to more clearly reflect energy priorities. Second, the municipality can continue to hone operational practices to save energy. Finally, additional public outreach and education play an important role in influencing community awareness and changes within the private sector. If the Town leads by example, residents and business owners will be better informed and may take action on energy issues in their own lives. A comprehensive strategy could include all of these elements. Numerous informational resources and model programs exist around the state which can be readily tailored to suit Hopkinton's desires and objectives. A resource summary is provided at the end of this chapter.

The following recommendations list ideas for actions the Town could consider in its continuing efforts to reduce energy consumption and promote clean energy alternatives. Recommendations address actions both within the municipal government and within the wider community.

- Develop energy conservation and renewable energy policy for municipal operations and vehicle fleets
- Consider adopting tax exemptions for renewable energy systems
- Consider adopting comprehensive energy efficiency zoning ordinance
- Assess street lights throughout Hopkinton in order to improve energy efficiency
- Consider adopting a "Complete Streets" policy to promote bicycle and pedestrian transport
- Encourage new residential construction to meet more robust energy efficiency guidelines, such as the ENERGY STAR for New Homes, v. 3 guidelines
- Consider adopting International Green Construction Code for non-residential new development
- Sponsor public education and outreach on green building codes and other energy issues
- Promote Hopkinton as an energy conscious community to attract environmentally responsible commercial and residential development
- Promote and facilitate pedestrian, bicycling, carpooling, and public transportation options
- Actively participate in regional energy committee roundtable to effectively collaborate on energy efforts in the region
- Encourage and partner with community efforts to reduce energy use, build renewable energy systems, etc.
- Consider setting a goal for a measurable reduction in municipal and school energy use

This is not intended to be an exhaustive list. No single strategy will lead Hopkinton to achieving its energy goals. The pursuit of both small and large changes will be necessary to reach the

desired level of savings. It is also important to note that policy shifts, planning considerations, and behavioral changes are just as important as making physical improvements to facilities.

Additional Resources

The resources listed below provide additional information guidance on model ordinance language, design standards, and other concepts of energy conscious development. This list was largely drawn from one developed by the Rockingham Planning Commission, which is available on their website at http://www.rpc-nh.org/energy-resources.htm.

Energy Resources for Communities

Innovative Land Use Planning Techniques Handbook – The Innovative Land Use Planning Techniques Handbook provides background information, legal references, and model ordinance and regulation language for a number of innovative land use tools available to communities. Model language for energy efficient development, stormwater management, infill development, agriculture incentive zoning, access management, and landscaping is included in the guide. Produced by the NH Department of Environmental Services, in cooperation with the NH Association of Regional Planning Commissions, NH Office of Energy and Planning, and the NH Municipal Association.

NH Climate Action Plan – Released in 2009, the New Hampshire Climate Action Plan was developed by the statewide Climate Change Policy Task Force in coordination with the NH Department of Environmental Services. The Plan sets a long-term goal for the state to reduce greenhouse gas emissions to 80 percent below 1990 levels by 2050, and an interim goal of 20 percent below 1990 levels by 2025. The Plan focuses on economic opportunities, increasing energy security, and improving environmental quality. A total of 67 recommendations are made in order to achieve the reduction goals.

NH State Energy Plan – In 2002, the Governor's Office of Energy and Community Services, now known as the Office of Energy and Planning, drafted the 10 year State Energy Plan. It identified the concerns of a growing population, increasing energy demand and the need for affordable energy to expand the economy. The plan addresses electricity and natural gas while excluding deliverable fuels such as home heating oil (No. 2), propane and kerosene despite them being noted as important. The single most cost effective means identified in the plan to address energy concerns is to improve energy efficiency. It also serves as a great guide for municipalities to follow in addressing their energy concerns.

New Hampshire Guidebook on Energy Efficiency and Climate Change – The "New Hampshire Guidebook on Energy Efficiency and Climate Change" was developed in spring 2007 by the NH Carbon Coalition, a nonpartisan organization focusing on global warming solutions. The plan is largely based off of the Vermont Energy and Climate Action's excellent Town Energy and Climate Action Guide. This first volume serves as an aid to fledgling energy committees to help them get started. Subsequent volumes of the guidebook will focus in greater detail on energy audit software, establishing reduction targets, highlight successful projects, identify funding sources, and discuss the technological changes.

ICLEI – ICLEI- Local Governments for Sustainability is the foremost organization offering structured programs that can be customized to individual community needs. They offer guidance for communities to inventory current energy use, adopt an emissions reduction target, draft an action plan, implement the plan and evaluate the progress. Their Clean Air and Climate

Protection (CACP) software tool is useful to conduct a community wide energy audit. It reviews transportation, residential, commercial, and industrial energy use.

EPA Energy Star Program – The US Environmental Protection Agency (EPA) offers municipal services through their Energy Star Challenge. Their focus is on the energy consumption of buildings and they have developed the Portfolio Manager Software package to conduct energy audit. The software assigns buildings into one of five classes, analyzes historical energy use and normalizes the data to allow buildings to be benchmarked or compared to one another. Through their Energy Star Community Challenge, communities can sign on to the campaign to reduce the energy consumption by 10%. The EPA Region 1 offices in Boston are coordinating the community programs and as of fall 2007, four New Hampshire communities including Dover, Rochester, Somersworth and Nashua have signed onto the program along with the NH state government.

Sierra Club-Cool Cities – The Sierra Club has adjusted their focus towards combating global warming. Through this change they have created the Cool Cities Campaign. Municipalities who adopt the U.S. Mayors Climate Protection Agreement can become members of Cool Cities. The campaign provides guidance on what municipalities and residents can do to reduce their greenhouse gas emissions.

US Mayors Climate Protection Agreement – US Mayors Climate Protection Agreement began in 2005 by Mayor Greg Nickels of Seattle Washington. The mayor urged mayors from around the country to take local action to reduce global warming pollution. Since 2005, over 680 mayors representing 3 provinces and all of the 50 states have signed on to the agreement. The agreement has spurred the US Mayors Climate Center in 2007 to oversee the coordination of ICLEI with the Agreement and municipalities who have adopted the agreement. In New Hampshire the cities who have adopted the resolution include Dover, Hanover, Keene, Manchester, Nashua, Portsmouth and Rochester.

NH Energy Committee – Internet portal to facilitate the interaction between Local Energy Committees across New Hampshire. Website is Wiki based and Local Energy Committees are encouraged to update information on the website pertaining to their committees. Website address is www.nhenergy.org.

Clean Air-Cool Planet Toolkit – Clean Air - Cool Planet, a non profit organization based in Portsmouth New Hampshire, has created a community program to assist municipalities to reduce their greenhouse gas emissions. One of the highlights of their program is the Community Toolkit. The toolkit is a conglomeration of over 30 success stories of municipalities taking action. Highlighted programs include community owned wind turbines, performance contracting experiences, LED streetlights, expanded alternative transportation, and pay as you throw waste management solutions. They offer communities valuable resources to enable communities to duplicate the successful experiences of others.

Performance Contracting – In 1993, the New Hampshire legislature created RSA 21-I:19-d which allows a municipality to sign a performance contract with an energy service company (ESCO). A performance contract allows costs of energy efficient upgrades to be financed through the ESCO and paid off over time through the energy savings. There is no upfront capital costs associated to the town for such programs. Performance contracts also protect municipalities by requiring the ESCO to meet a certain reduction of energy use. If this level is not reached, the ESCO is required to pay the difference in the energy bill. It is a win-win

situation allowing municipalities to become more energy efficient, reduce their energy costs and protect itself from increase costs. The City of Concord, for example, has entered into a performance contract to manage energy services.

Property Tax Exemption – New Hampshire RSA 72:61-72 permits municipalities to offer a Property Tax Exemption on solar, wind, and wood heating systems. These systems include solar hot water, solar photovoltaic, wind turbine or central wood heating systems (not stovetop or woodstoves). Sixty two cities and towns in New Hampshire have passed an article or resolution permitting the exemption within their locality. A list of communities who have adopted exemptions can be found on the NH Office of Energy and Planning's Renewable Energy Program.

Green Building Ordinance – The NH Office of Energy and Planning's energy efficiency model ordinance and the US Green Building Council's LEED certification criteria provide a starting point for communities interested in adopting a green building ordinance. For example, in 2007, the town of Epping New Hampshire became the first municipality in the state to pass an ordinance often referred to as a Green Building Ordinance. It established a requirement for nonresidential development to be constructed in a manner that increase energy efficiency and utilizes renewable energy. More information on Epping's ordinance is available at http://www.cleanair-coolplanet.org/for_communities/green_design_epping.php.

Community Choice Aggregation – New Hampshire's electric industry functions underneath a deregulated market. This allows the commodity of electricity to be separated from the regulated transmission and distribution services. RSA 53-E allows for residents, business and municipalities to aggregate their electric load together to form a Community Choice Aggregate (CCA). A CCA is a regional entity formed through the legislative body of a municipality, whose purpose is to offer energy services to its members. The Nashua Regional Planning Commission is currently in the process of forming a CCA with over ten municipalities in its planning region. For more details, visit http://www.nashuarpc.org/energy/collaboration.html.

NH Partnership for High Performance Schools – The NH Partnership for High Performance Schools is an initiative within the Jordan Institute whose mission is to enhance the health of people and the environment in ways that make economic sense. The Partnership strives to improve energy efficiency of public schools in the state to increase attendance, improve teacher satisfaction and retention, and reduce operating costs, liability exposure and environmental impacts. With 70% of the NH public schools over 36 years old, many communities can utilize the services of the organization as they build new facilities and retrofit older ones.

NH Carbon Challenge – The NH Carbon Challenge began in 2006 with a purpose to help individual residents reduce their greenhouse gas emissions. Community Energy Programs can utilize their materials, available via internet download, to create a residential campaign. They also have a great speaker series that can help educate the community on what they can do to reduce greenhouse gas emissions.

Building Codes – All of the elements of the New Hampshire State Building Code are available on the NH Department of Safety's State Building Code Review Board website. These include the 2009 codes and amendments adopted by the Review Board.

The International Code Council offers information on the 2012 International Energy Conservation Code (IECC) and the International Green Construction Code (IGCC).

ENERGY STAR for Homes Version 3 Guidelines can be found on the energystar.gov website.

Funding Sources

Utility Programs – In 2002, the Public Utility Commission began the Systems Benefit Charge (SBC) on electric bills. The SBC is a use based charge on electric bills which funds two energy efficiency programs which are run through the local utilities. The two programs are the Low Income Assistance Program aimed at subsidizing cost for eligible households and Energy Efficiency Programs for residential and commercial customers. They brand their programs underneath the NH Saves name. One of the more notable programs for municipalities is the Smart Start program offered through PSNH and Large Business Services program by Unitil. These programs allow municipalities to upgrade electric lighting to more efficient technology and pay for the upgrades over time through the energy savings.

Database of State Incentives for Renewable Energy (DSIRE) – DSIRE is a state by state collection of financial incentives and rules/regulations pertinent to renewable energy projects. It lists some of the programs highlighted above such as the property tax exemption and the utility programs, but in greater detail. Additionally, topics regarding NH Renewable Portfolio Standard and US Department of Energy's Alternative Fuels which are not included in the Community Tools are listed on the DSIRE website.

USDA High Energy Cost Grant Program – The US Department of Agriculture (USDA) offers annual grants between $75,000 and $5 million through their High Energy Cost Grant Program. The funding began in 2001 and has gone through four rounds of disbursement. It is open to a wide range of applicants including individual residents and municipalities. The grant is able to pay up to 100% of the costs of the project. Past projects include transmission and distribution upgrades for rural areas but as of FY07 there has been an increase level of renewable energy and energy efficiency projects.

New England Grassroots Environmental Fund – The New England Grassroots Environmental Fund is a nonprofit organization helping communities with grassroots environmental initiatives by offering small grants to fund such projects. In the past these projects have included maps for conservation lands, creation of urban gardens and municipal energy efficiency programs. The latter of the three is a relatively knew undertaking and the Fund is encouraging energy committees to seek funding to help in their pursuits.

NH Renewable Energy Fund – In 2007, the state legislature passed a Renewable Portfolio Standard (RPS) bill and it was subsequently signed by Governor Lynch. The RPS requires a certain percentage of renewable energy be purchase by electric supply companies. It also created a Renewable Energy Fund. Funds generated by the Renewable Energy Fund are earmarked for the expansion of renewable energy projects within the state.

Municipal Energy Reduction Fund – The NH Community Development Finance Authority (CDFA) offers low-cost loans through the revolving Municipal Energy Reduction Fund. This fund is available to help municipalities improve the energy efficiency of their municipal buildings, street lighting, water and sewer treatment facilities, and where appropriate, electrical distribution systems. The goal is to reduce energy usage and costs.

NH DES Used Oil Management Program – The Used Oil Management Program offers annual grants of up to $2,500 to assist with the establishment of residential used oil collection centers.

Such grants may also be used to help fund the installation of a waste oil heating system in a municipality, and annually to help with maintenance costs to service the systems.

Summary

The overall goal of this chapter is to provide a general analysis of Hopkinton's municipal energy use and to identify strategies for the Town to pursue energy conservation, efficiency, clean energy options, and energy-conscious development. The Town has already taken many steps toward reducing energy consumption and costs. Additional opportunities exist for the Town to continue its efforts, including changes to land use policy documents, municipal operations, and public outreach. By implementing such changes, Hopkinton can save energy and taxpayer dollars, reduce pollutant emissions, and create an even more livable community.

As global energy costs continue to rise and clean energy technology options become more feasible, both the private and public sectors will find energy-saving options more plentiful. A wide range of financial and informational resources exist to help municipalities, business owners, and residents make changes in their energy consumption. Taken together, these actions will contribute to statewide energy reduction goals and increased energy independence, while creating economic and environmental benefits.

Glossary

Abutments – A structure that supports the end of a bridge or arch; the side of an earth bank that supports a dam.

Abutter – In New Hampshire, any person whose property adjoins or is directly across the street or stream from land under consideration by the local land use board. For the purposes of receiving testimony only, and not for purposes of notification, the term "abutter" shall include any person who is able to demonstrate that his land will be directly affected by the proposal under consideration.

In the case of an abutting property being under a condominium or other collective form of ownership, for purposes of receipt of municipal hearing notification for local land use board hearing, the term "abutter" means the officers of the collective or association, as defined in RSA 356-B:3, XXIII.

Access management – The process of providing and controlling access to land development while preserving the flow of traffic in terms of safety, capacity, and speed.

Aesthetics-based land use regulations – The regulation of building or site design to achieve desirable appearance.

Affordable housing – Housing units where the occupant is paying no more than 30% of gross income for housing costs, including taxes and utilities.

Agriculture – The production of plants, animals, or their products, including, but not limited to: forage and sod crops; grain and feed crops; dairy animals and dairy products; livestock (cattle, poultry, sheep, swine, horses, ponies, mules and goats); breeding and grazing of all such animals; bees and apiary products; fruits of all kinds including grapes, nuts, and berries; vegetables; nursery, floral ornamental and greenhouse products and other commodities as described in the Standard Industrial Classification for agriculture. Commercial agriculture shall not include poultry or swine production or animal feedlot operations.

Aquifer – Water-saturated stratified deposits of sands and/or gravel capable of yielding private and public potable water supplies.

Arterial – Main street or roadway with many branches to carry traffic from one place to another with increased access and mobility.

Bedrock – Solid rock underlying soils and/or other unconsolidated materials.

Berm – The upward slope of land from a water surface or from the bottom of a dry excavation; shoulder of the road

Buffer – For screening purposes, a strip of land, fence, or border of trees, etc., designed to set apart one land use area from another. An appropriate buffer may vary depending on uses, districts, size, etc., and shall be determined by the appropriate board.

Bump-outs (curb bulbs) – Raised curb edging that juts out into the road to slow traffic.

Cable drops – single connection to the cable network. Often describes the installation of voice/data cable from a central location in a building to a specific outlet.

Capital Improvement Plan (CIP) – A schedule of proposed town projects requiring the expenditure of funds in the next 5-6 years. The CIP is updated annually and includes prioritized items, cost estimates, and the anticipated means of financing each project.

Carrying capacity – The ability of a natural system to absorb population growth as well as other physical development without significant degradation.

Chicane – A physical impediment on the side of a road to narrow the roadway in order to slow down traffic.

Class A Trail – A public right-of-way of indefinite duration subject to public trail use restrictions. It shall not have the status of a publicly approved street and shall not be used as a vehicular access for any new building or structure, or for expansion, enlargement, or increased intensity of use of any existing building or structure. It may be used by the owners of land abutting, such trail or land served exclusively by such trail, to provide access for non-development uses such as agriculture and forestry, or for access to any building or structure existing prior to its designation as a trail, and such owners' access for such uses shall be exempt from applicable public trail use restrictions, subject only to reasonable time, season and manner regulations imposed by the local governing body. The municipality shall bear no responsibility for maintaining the trail for such uses by abutting owners. Prior to excavation, construction or disturbance of a Class A Trail, Such owners shall obtain permission from the municipal officers, in the same manner prescribed for highways in RSA 236:9-11

Class V Road – All traveled highways which the town or city has the duty to maintain regularly.

Class VI Road – Roads under this category consist of all other municipal public ways, including highways subject to gates and bars, and highways not maintained in suitable condition for travel for more than 5 years.

Charrette – A public workshop in which citizens, property owners, public officials, developers, designers and other interested parties, work together to plan a particular project or achieve a particular objective.

Co-location – The placement of a personal wireless service provider's equipment on a wireless facility (towers and antennas) owned by another service provider.

Conservation – The preservation of natural resources.

Conservation easement – A non-possessory interest in real property by imposing limitations or affirmative obligations on such property in order to retain and protect natural, scenic, or open-space areas and thus assure its availability for agricultural, forest, recreational, or open space use.

Conservation Subdivision Design – A development strategy that focuses house construction on a smaller portion of the total land being developed and provides for permanent protection of the surrounding open space not used for construction.

Current Use Tax Program – A preferential property tax approach to encourage land owners to keep open space undeveloped. In the Current Use program, land is taxed on its potential to generate income in its present use, frequently as a farm or wood lot.

DSL (digital subscriber lines) – High-speed internet connection provided over ordinary twisted-pair copper wire typically ground in homes and businesses.

Easement – Authorization by a property owner for the use by another of a designated part of the property, for a specific purpose.

Electric grid – Interconnected network of transmission lines used to distribute electricity.

Endangered species – A species of animal or plant whose prospects for survival and reproduction are in immediate jeopardy from one or more causes.

Energy conservation – Reducing the overall use of energy, particularly wasted energy (such as installing programmed thermostats that turn on the heating or cooling only when a building is occupied).

Energy efficiency – The ability to produce the same output or benefit using less energy in the process (such as replacing an incandescent light bulb with a fluorescent one).

Energy use – The amount of energy used over a given amount of time to accomplish an action (often measured in the number of kilowatt hours of electricity, or gallons of fuel consumed).

Environmental science-based zoning – Regulations based directly upon measurable scientific characteristics of the land-base of the community, rather than on possible arbitrary standards. This type of zoning should reflect the actual ability of the land-base to handle development. An example of this technique includes Soil-Based Zoning.

Exemplary Natural Communities – Distinctive areas of forests, wetlands, grasslands, etc., that are found in few other places in New Hampshire, or are communities that are very old and in good condition.

Floodplains – The areas adjoining a river or water course, subject to flooding.

Floodway – A river or watercourse and adjacent land that must be reserved in order to discharge flooding without increasing the water elevation more than a designated height.

Forest – A biological community dominated by trees and other woody plants covering an acre or more, including those areas where trees have been cut but not cleared. Forest includes: areas that have at least 100 trees per acre with at least 50 percent of those trees having a two inch or greater diameter at 4.5 feet above the ground and larger. In a critical area, a forest would cover an acre or more. In other areas, a forest covers a land area of 10,000 square feet or greater.

Fragmentation – Undisturbed land area that becomes too small causing damage and loss of native plants from overgrazing, a reduced breeding gene pool, loss of natural predators, and increased susceptibility to disease.

Franchise areas – Service area of a public utility or telecommunication company.

Geographic Information System (GIS) – A method of storing geographic information on computers. This information may be obtained from a variety of sources, including topographical maps, soil maps, aerial and satellite photographs, and remote sensing technology.

Glacial kettle hole pond – Water-filled, steep sided depression, typically lacking surface drainage; formed by glacial ice melting in area of till (unstratified mass of mingled clay, sand, pebbles, and boulders, deposited by glaciers).

Greenways – A linear park, alternative transportation route, or open-space conservation area providing passive recreational opportunities, pedestrian and/or bicycle paths, and/or the conservation of open spaces or natural areas, as indicated in a greenway or open space plan.

Groundwater – Water that occurs beneath the land surface; also called "subsurface" water or "subterranean" water.

Groundwater Recharge – The natural process of infiltration and percolation of rainwater from land areas or streams through permeable soils into water-holding rocks that provide underground storage (aquifers).

Heritage Commission – A Board which advises and assists local boards and commissions on issues concerning areas of significant historical, cultural, agricultural, or visual resources and themes. Heritage commissions may be also empowered to accept and expend funds for a non-lapsing heritage fund, and to acquire and manage property and property rights.

Historic District – Designated by ordinance, an area within definable geographic boundaries, which contains properties or buildings that contribute to the overall historic character of the designated area.

Impervious cover – Any artificially covered or hardened surface, preventing or impeding the percolation of water into the soil mantle, including but not limited to roof tops, swimming pools, paved or gravel roads, and walkways or parking areas and excluding landscaping, surface water retention/detention facilities, access easements serving neighboring property, and driveways to the extent that they extend beyond the street setback due to location within access panhandle or due to the application of requirements to site features over which the applicant has no control.

Infill development – Construction or redevelopment on an existing lot on an existing street, in an existing neighborhood.

Inter-modal transportation – Using or accommodating more than one type of transportation - rail, ship, bicycle, car, etc.

Land and Community Heritage Investment Program (LCHIP) – This New Hampshire state fund is designed to assist communities wanting to conserve outstanding natural, historical, and cultural resources. This program requires that the towns match the state money from LCHIP with a 50% match from other sources.

Land trust – Private, nonprofit conservation organization formed to protect natural areas, historic structures, and recreational areas, as well as natural resources, such as productive farm and forest land. Land trusts purchase and accept donations of conservation easements and educate the public about the need to conserve land.

Land Use Change Tax – If property is removed from the Current Use tax rate, a "land use change tax" penalty (10% of the full market value) is paid to the town where the property is located

Large lot zoning – Ordinances that require a certain number of acres for every dwelling; typically a range from 10-30 acres per lot.

Manufactured housing – Houses manufactured in a factory rather than on-site.

Mitigation – Measures taken to eliminate or minimize damages from development activities by replacement of resources or other means of compensation.

Multi-family housing – A detached building designed and used as a dwelling by three or more families occupying separate units.

New Hampshire Natural Heritage Inventory (NHI) – As a state program in the Division of Forests and Lands, the NHI finds, tracks, and facilitates the protection of New Hampshire's plant and animal species of special concern and/or in exemplary natural communities.

New Hampshire Comprehensive Shoreline Protection Act (CSPA) – Passed by the General Court in 1991, and effective July 1, 1994, the CSPA establishes minimum standards for the subdivision, development, and use of the shorelands within 250 feet of the state's public waters. Department of Environmental Services is responsible for enforcing the standards within the protected shoreland, unless a community adopts a local ordinance or shoreland provisions which are equal to or more stringent than the CSPA.

Open space – Land area designed and intended for the common use by the residents or occupants of a development - not individually owned or dedicated for public use. Generally open space areas of scenic or natural beauty; parks and forests; hiking and riding trails; and landscaped areas adjacent to roads.

Overlay District – A zoning district that extends on top of more than one base zoning district. Overlay districts are intended to protect critical features and resources and where the standards of the overlay and base zoning district differ, the more restrictive standards apply.

Per capita income – Mean income for every person in a particular group, derived by dividing the total income of a group by the total population in the group.

Performance Zoning – Zoning regulations permitting uses based on a particular set of standards rather than on particular type of use, such as noise, emissions, or water usage.

Phased growth plan – Towns may adopt regulations to control the growth rate of development. In certain rapid growth situations, slowing the rate of development can be a way to retain some open space in town for a short period of time, during which it may be possible to determine if there is a need or mechanism to preserve it permanently.

Prime agricultural soil – Land that has the best combination of physical and chemical characteristics for sustained high yields.

Recharge areas – Area in which precipitation infiltrates surface material and reaches groundwater.

Renewable energy – Energy sources and systems that produce power from sources that are unlimited or can be cyclically renewed, such as solar, wind, geothermal, or biomass. Non-renewable energy sources are those which have a limited supply, such as oil, natural gas, or coal.

Retention ponds – Pond, pool, or basin used for the permanent storage of water runoff. Retention ponds should include provisions for controlled release of the stored water and groundwater recharge.

Riparian – Pertaining to the bank of a river, pond, or small lake.

Roundabouts – A raised island, usually landscaped, located at the intersection of two streets for the purpose of reducing traffic speeds and accidents.

Safe yield – The rate of water removal from an aquifer equivalent to the rate of water entering the aquifer.

Scenic views/vistas – Any area of particular scenic beauty or significance; land that has been acquired for the restoration, preservation, and enhancement of scenic beauty.

Sedimentation/siltation – The process of depositing suspended matter (sediment) carried in water through the action of gravity.

Site plan – A plan for a commercial or industrial project, drawn to scale, showing uses and structures proposed for a particular parcel of land.

Soil – The natural or processed, unconsolidated, mineral and organic material on the immediate surface of the earth which serves as a natural medium for the growth of land plants.

Species of Special Concern – Those animals and plants listed as threatened or endangered under the New Hampshire Endangered Species Conservation Act of 1979 or under the New Hampshire Native Plant Protection Act of 1987.

Speed table – Raised paved surface several inches above the road used to slow vehicles. Similar to a speed bump, speed tables consist of longer lengths of raised pavement.

Sprawl – Haphazard growth or outward extension of a city resulting from uncontrolled or poorly managed development.

Steep slope – Land where development is not recommended and poorly suited due to slope steepness and the site's soil characteristics, as mapped and described in available county soil surveys or other technical reports, unless appropriate design and construction techniques are used in accordance with the provisions of this ordinance. Steep slope is usually anything over 15%.

Stormwater – Precipitation that accumulates in natural and/or constructed storage and water systems during and immediately following a storm event.

Stream – Areas where surface waters produce a defined channel or bed, areas that demonstrate clear evidence of the passage of water. The channel or bed includes bedrock, gravel beds, sand and silt beds, and defined-channel swales but it need not contain water year-round. This definition is not meant to include artificially created irrigation ditches, canals, storm or surface water runoff devices, or other entirely artificial water courses unless they are used by salmon or created for the purposes of stream mitigation.

Streetscape – A design term referring to all elements that constitute the physical makeup of a street including building frontage, street paving, street furniture, landscaping (trees and other plantings) awnings and marquees, signs, and lighting.

Subdivision – The division of a tract of land into two or more lots, building sites, or other divisions for the purpose of sale or building development.

Switching Station – Facility operated by the local telephone provider to supply voice/data service to a specific area of the community.

Telecommunication towers – Shall mean any Personal Wireless Facility "PWSF" as defined in the federal Telecommunications Act of 1996, 47 U.S.C. section 332(c)(7)(C)(ii), including facilities used or to be used by a licensed provider of personal wireless services, which for purposes of this Ordinance shall also include, as the context may require, all towers and antennas used in connection therewith.

Threatened Species – Group of animals or plants with a possibility of becoming endangered, due to living conditions.

Three-phase power – An efficient and economic method of generating, transmitting, and distributing large amounts of electricity.

Topography – Physical land surface features, terrain, elevation and slope.

Traffic calming measures – Methods used to reduce the adverse impact of motor vehicles on built-up area, generally by reducing vehicle speeds, providing more space for pedestrians and cyclists, and improving the local environment for pedestrians.

Unproductive land – Unable to produce growing plants or crops.

Urban growth districts – Areas delineated in an adopted regional or county comprehensive plan within which urban development is encouraged by delineation of the area, compatible future land-use designations, and implementing actions from the plan, and outside of which urban development is discouraged. An "urban growth district" shall allow existing or proposed land

uses at minimum densities sufficient to permit urban growth that is projected for the region or county for the succeeding 20-year period and existing or proposed services to adequately support that growth.

Virtual Private Network (VPN) – Technology that allows secure transmission of data over the internet.

Water table – The surface marking of the upper level of soil that is completely saturated with water. The seasonal “high-water table” is the highest level to which the soil is saturated, as may be indicated by mottling (soil color patterns).

Watershed – The total area above a given point on a watercourse that contributes water to its flow; the entire region from which a river receives its supply of water

Wetlands – Areas that are inundated and saturated by surface or groundwater at a frequency and duration sufficient to support a prevalence of vegetation typically adapted for life in saturated soil conditions, including swamps, marshes and bogs.

Wildlife corridors – Open space protected for its value in allowing wildlife to travel safely from one place to another.

Wildlife habitat – Lands that contain ample food, water and cover for native terrestrial and aquatic species of animals to live. Examples include forests, fields, riparian areas, wetlands, and water bodies.

Appendix A

Community Survey Results

Town of Hopkinton Master Plan
Community Survey Results
May, 2000

Are you a resident of:

	Total	Pct.
Hopkinton	916	94.0%
Other State	25	2.6%
Other Town	32	3.4%
Total	973	100.0%

If you are a resident of the town, what general area do you consider yourself a resident of?

	Total	Pct.
Contoocook	452	49.3%
Hopkinton	260	28.4%
Hopkinton Village	120	13.1%
West Hopkinton	68	7.4%
No Answer	16	1.7%
Total	973	100.0%

How long have you lived in Hopkinton?

	Total	Pct.
Less than 5 years	207	22.6%
5 - 10 years	131	14.3%
10 - 20 years	219	23.9%
Over 20 years	341	37.2%
No Answer	18	2.0%
Total	916	100.0%

What is the highest level of education completed by each adult in the household?

	Total
Some High School or Less	49
High School Graduate/GED	227
Technical or Junior College	87
Some College	226
College Graduate	409
Post Graduate	356

Where do you work?

Full Time		
	Total	Pct.
Concord	350	41.4%
Hopkinton	97	11.5%
Contoocook	82	9.7%
Manchester	88	10.4%
Henniker	26	3.1%
Bow	20	2.4%
Hooksett	11	1.3%
Nashua	11	1.3%
Boscawen	8	0.9%
New London	8	0.9%
Penacook	8	0.9%
Weare	8	0.9%
Hillsborough	8	0.9%
Franklin	7	0.8%
Bedford	6	0.7%
Warner	6	0.7%
Boston, MA	5	0.6%
Pembroke	5	0.6%
All Others	85	10.0%

Part Time		
	Total	Pct.
Concord	105	39.9%
Hopkinton	67	25.5%
Contoocook	38	14.4%
Manchester	10	3.8%
Warner	7	2.7%
Bow	4	1.5%
New London	4	1.5%
All Others	28	10.6%

Type of employment for each person employed:

Type of Employment	Total
Professional	196
Retired	136
Health	115
Education	112
Retail	77
Government	69
Business Services	68
Homemaker	66
Manufacturing	65
Student	59
Computers / High Tech	54
Building Trades	46
Finance	43
Agriculture/Forestry	27
Non-profit	25
Telecommunications	22
Real Estate	10
Unemployed	7
Other	105

What are the desirable qualities of Hopkinton? Check all that apply.

Feature	Total
Small Town / Rural Atmosphere	852
Location	665
People / Community Spirit	496
Historical Character	487
Educational System	444
Scenic Areas	431
Villages	370
Natural Resources	293
Community / Recreational Facilities	264
Town Services	262
Employment Opportunities	48
No Opinion	22

Do you believe the Town should adopt building codes?

	Total	Pct.
Yes	391	40.2%
No	301	30.9%
Unsure	159	16.3%
No Opinion	39	4.0%
No Answer	83	8.5%
Total	973	100.0%

Does Hopkinton need to establish specific design or architectural requirements to regulate how buildings should look? Check all that apply.

	Total
Residential	62
Non-Residential	239
Both	219
None	386
No Opinion	84

If specific design or architectural requirements are desirable, what areas of Town would be most appropriate for such standards? Check all that apply.

Area	Total
In Hopkinton Village	425
In Contoocook Village	342
Along Routes 9 and 202	99
Along Route 103	124
Along Route 127 (Maple St.)	126
In Rural Areas	35
Throughout Town	183
None	222

What types of housing would you like to see Hopkinton encourage?

Housing Type	Total
Single Family	707
Two Family (Duplexes)	108
Multi-Family (3-4 units)	55
Elderly Housing	367
Conversion to Apartments	112
Manu. Housing on Individual Lots	70
Manufactured Housing in Parks	55
Condominiums/Town Houses	143
New Apt. Buildings (5+ units)	47
Cluster Developments	247

Should Hopkinton try to encourage commercial/non-residential growth to broaden its tax base?

	Total	Pct.
Yes	551	56.6%
No	257	26.4%
No Opinion	85	8.7%
No Answer	80	8.2%
Total	973	100.0%

Are current commercial and industrial zones in Hopkinton adequate?

	Total	Pct.
Yes	314	32.3%
No	225	23.1%
No Opinion	368	37.8%
No Answer	66	6.8%
Total	973	100.0%

Should the Town implement policies to limit the amount of new homes which are built in Town?

	Total	Pct.
Yes	561	57.7%
No	189	28.4%
Unsure	148	13.1%
No Opinion	33	7.4%
No Answer	42	1.7%
Total	973	100.0%

In your opinion, which statement characterizes Hopkinton's rate of residential growth?

	Total	Pct.
Hopkinton is growing too fast	213	21.9%
Hopkinton is growing too slow	22	2.3%
Hopkinton is growing as fast as appropriate	519	53.3%
No Opinion	165	17.0%
No Answer	54	5.5%
Total	973	100.0%

Which of the following commercial enterprises would you like to see in Town? If you would like a particular type of development, please note where such development should be located.

			Location						
	Want in Town	Don't Want in Town	In Hopkinton Village	In Contoocook Village	With Access to Routes 9 and 202	With Access to Route 103	With Access to Route 127 (Maple St.)	Burnham/Intervale	In Rural Areas
Professional Offices	550	86	198	325	222	193	188	91	35
Light Industrial Parks	406	209	24	37	197	142	166	219	65
Heavy Industrial Parks	79	500	12	15	57	34	35	65	17
Retail	417	178	187	322	108	96	87	36	13
Restaurants	543	83	337	395	133	115	107	28	26
Services	351	107	165	241	104	100	102	43	22
Home Businesses / Occupation	465	87	209	229	149	145	143	113	152
Recreational Businessees	349	174	81	140	112	109	98	53	78
Hotels / Motels / Inns	210	366	78	87	125	95	81	22	36
Major Shopping Malls	36	592	11	17	25	19	22	4	6
Major Grocery Store	118	508	30	60	48	34	31	8	5

Should the Town appropriate money to be used for the protection and preservation of natural, cultural and historic resources?

	Total	Pct.
Yes	589	60.5%
No	117	12.0%
No Opinion	168	17.3%
No Answer	99	10.2%
Total	973	100.0%

In your opinion, what is the general condition of roads in Hopkinton?

	Total	Pct.
Good	410	42.1%
Fair	419	43.1%
Poor	48	4.9%
No Opinion	6	0.6%
No Answer	90	10.2%
Total	973	100.0%

Should recreational opportunities be:

	Total	Pct.
Increased	427	43.9%
Stay the Same	337	34.6%
Decreased	11	1.1%
No Opinion	132	13.6%
No Answer	66	6.8%
Total	973	100.0%

Please indicate which community services and facilities you would like the Town to develop and/or improve in the future.

Community Service/Facility	Total
Non-Motorized Recreational Paths	426
Canoe / Boat Launch	421
Teen Center	350
Picnic Areas	326
Elderly Recreational Facilities	301
Community Center Services	287
Senior Citizen Needs (non-physical)	245
Cultural Activities	227
Play Grounds	225
Tennis Courts	216
Extension of Concord Area Transit (CAT)	211
Basketball Courts	196
Public Swimming Pool	172
Additional Athletic Fields	133
Hockey / Ice Rink	115
Golf Course	100
Recreational Needs (non-physical)	91
Motorized Trails	62

In order to help Town Officials better direct their efforts to meet the needs of the community, we need your opinion on the relative importance/rating on the following Issues and Town Services

Issues

	Effort Should Be (Please Check)				
	More	Same	Less	No Opinion	No Answer
Protection of Ground and Surface Water	508	301	11	52	101
Protection of Woodlands and Wildlife Habitat	430	373	25	55	90
Preservation of Farmland and Pastures	430	351	31	68	93
Expansion of Town Forests / Conservation Lands	381	354	55	80	103
Encourage Development of Light Industry	380	245	170	61	117
Encourage Commercial / Retail Growth	363	271	175	53	111
Preservation of Historic Sites and Buildings through Zoning	356	390	61	69	97
Designation and Protection of Wetlands	353	386	64	72	98
Operation of Parks and Recreational Facilities	312	441	37	72	111
Development of Motorized and Non-Motorized Trails	250	230	242	124	127
Expansion of Sewer System	222	380	90	160	121
Maintenance / Expansion of Town Water System	195	431	77	151	119

Town Services

	Please "Rate" These Town Services				
	Good	Fair	No Opinion	Poor	No Answer
Animal Control	296	154	316	102	105
Building Code Enforcement	213	148	390	91	131
Cemetery Care	454	110	295	13	101
Fire Protection	693	64	124	3	89
Health Regulations and Enforcement	249	125	450	27	122
Historical Preservation	388	255	199	27	104
Library	737	61	75	12	88
Natural Resource Conservation	283	265	259	32	134
Parks and Recreation	370	306	141	45	111
Planning Regulation Administration	223	215	352	52	131
Police Protection / Enforcement	664	130	68	18	93
Rescue / Ambulance Service	702	54	127	4	86
Road Maintenance	482	318	32	58	83
School System	545	181	106	47	94
Garbage Disposal and Recycling	514	188	117	62	92
Welfare	185	115	517	23	133
Zoning Administration / Enforcement	195	157	407	66	148

Appendix B

Local Historic Markers

Local Historic Markers[1]

1. George Hamilton Perkins Birthplace, Pine Street
2. Poors Bridge and First Sawmill in Contoocook, 1787; top of east bank of the Contoocook River near the dam.
3. Stumpfield Cemetery. This cemetery was moved to this location in 1961 from its original location due to the construction of the Hopkinton-Everett Flood Control Project, 1793 – 1961 (at original site); at rear of Contoocook Cemetery on Route 103.
4. Original site of Stumpfield Cemetery, oldest marked grave is 1793. The cemetery was relocated to Contoocook in 1961 on Elm Brook at the end of Stumpfield Road.
5. First Saw Mill, 1753; at Elm Brook crossing near the water's edge.
6. Cloughville 1806; near a two-story house at camp on Lake Josylvia.
7. John Brockway Nature Preserve; land was given to Town in 1991, opposite 798 Farrington Corner Road.
8. Boutwell Sawmill, 900 Farrington Corner Road.
9. First Ferry, 1766; 100 yards upstream from 945 Penacook Road.
10. WWII, Korean and Vietnam War Memorial, in common at the intersection of Kearsarge and Park Avenues, Contoocook.
11. Mt. Lookout Sentinel Post, 1744 – 1763, Ancient Witchwood; 50 yards south of 113 Watchtower Road.
12. Putneys Garrison, 1774; corner of Putney and Old Putney Hill Road.
13. First Parsonage, 1757; 250 Putney Hill Road
14. Reverend James Scales, first pastor in Hopkinton 1757 – 1770, died in Hopkinton 1776 at age 69; 336 Putney Hill Road.
15. Dr. John Clement, first physician in Town before 1776; 447 Putney Hill Road.
16. Abraham Kimball and Samuel Putney were captured by Indians 1753; 244 Old Putney Hill Road.
17. First Baptist Meeting house, 1795 – 1834; 274 Gage Hill Road.
18. Town Pound, 1805; 69 Old Putney Hill Road.
19. Woodwells Garrison and Stockade, 1744. Captured on April 22, 1746, Stockade on opposite side of the road; 44 Indian Ridge Road.
20. Abraham Kimball, first white male born in Hopkinton 1742; 180 yards on Buswell's Corner Road from Patch Road extension.
21. Revolutionary War of 1812, Civil War Monument, Hopkinton Village Green.
22. Hon. Horace Chase organized Hopkinton Village Aqueduct Association 1884; erected 1882 on water trough in Hopkinton Village Green.
23. Chase Park; between 376 – 390 Main Street on land belonging to the New Hampshire Antiquarian Society.
24. WWI Soldiers Monument; 330 Main Street at Town Hall.
25. First Grist Mill, 1765; 142 Main Street.
26. First Meeting House, 1766 – 1789; Hopkinton Village Green.
27. Rev. Jacob Cram ordained, February 25, 1789; General Lafayette visited on June 22, 1825; 376 Main Street.
28. Grace Fletcher Home, born 1782, first wife of Daniel Webster; 18 Garrison Lane.
29. Kimballs Garrison, 1744; corner of Jewett and Hopkinton Roads.
30. Hillsborough-Merrimack County Jail, 1792 – 1852; 196 South Road.

[1] Refer to National Register and Local Historical Marker Location Map

Appendix C

Heritage Commission Guidelines
Sample Warrant Article

NEW HAMPSHIRE DIVISION OF HISTORICAL RESOURCE:
State of New Hampshire, Department of Cultural Resources 603-271-348:
19 Pillsburv Street, P.0.Box 2043. Concord NH 03302-2043 603-271-3558
Voice / TTY RELAY ACCESS 1-800-735-2964 FAX 603-271 -343:
httpllwww.state.nh.us/nhdhr *preservation@nhdhr.state.nh.us*

HERITAGE COMMISSIONS FOR NEW HAMPSHIRE COMMUNITIES

HERITAGE COMMISSIONS *give local governments in New Hampshire new abilities to recognize and protect historical and cultural resources.*

Unlike historic district commissions, whose responsibilities are limited to specific parts of a community, heritage commissions are intended to have a town-wide or city-wide scope, and a range of activities that is determined by each individual municipality. Heritage commissions do for cultural resources what conservation commissions do for natural resources. Functionally, heritage commissions are somewhere between historical societies and historic district commissions, with their precise role determined locally. And while their primary duties are to advise and assist other local boards and commissions, including the planning board, heritage commissions are also empowered to accept and expend funds for a non-lapsing heritage fund, and to acquire and manage property and property rights.

Some communities may have heritage commissions that are only advisory, but others will want their commissions to take a much more active role, and to assume the responsibilities of a historic district commission. And all of these are local decisions, authorized by the state enabling legislation: it gives communities a MENU, NOT A MANDATE.

The "heritage commission" concept provides communities with broader choices for the form and function of a municipal heritage body:

-no entity (nothing at all);
-a heritage commission only, with community-wide but non-regulatory responsibilities;
-a historic district commission only, with regulatory responsibilities limited to designated districts;
-both a broadly focused non-regulatory heritage commission and a more narrowly focused, regulatory historic district commission; or
- a heritage commission (or historic district commission) that *combines* the functions of *both* entities.

The heritage commission statutes are "local option" legislation. They enable communities to establish heritage commissions with educational, advisory, and technical responsibilities; and, *if desired,* to merge an existing historic district commission with the heritage commission (or to give an existing historic district commission the additional responsibilities of a heritage commission), so that the commission would also have regulatory powers within locally-designated historic districts.

1995 legislation brought the membership requirements of conservation commissions, historic district commissions, and heritage commissions into conformity; it also specifically stated that members of these commissions may serve on other municipal boards and commissions. This clarification was made to help communities especially those with few available volunteers that wish to establish parallel conservation and preservation commissions; and it will also make citizens' expertise more widely available to a broader range of local decision making bodies.

For *the first time, New Hampshire's municipalities can choose a level of official involvement in heritage activity that each community is comfortable with. And they will also be able, if they wish, to start out with a heritage commission and then, as local preservation sentiment grows, assign historic district responsibilities to the commission.*

One of the other innovations of the heritage commission legislation is that it allows municipalities to establish a non-lapsing HERITAGE FUND which the heritage commission can spend after a public hearing and subject to approval of the local governing body, without going back to the town meeting or citywide balloting to acquire property and property interests (easements, etc.). However, to protect private property rights, neither the municipality nor the commission can condemn property for acquisition with the Heritage Fund.

This is an exact analogue to the conservation fund provisions (RSA 36-A:4 and RSA 36-A:5) which have been in effect, very successfully, for municipal conservation commissions for over thirty years. The heritage commission is also responsible to " manage and control" the acquired property, just as the conservation commission manages and controls the property *IT* acquires under RSA 36:A:4 and RSA 36:A-5.

New Hampshire Revised Statutes Annotated (RSA]
TITLE 64
Planning And Zoning
CHAPTER 674
Local Land Use Planning And Regulatory Powers

Heritage Commission

673:4-a & 674:44-b

673:4-a Heritage Commissions.

I. The heritage commission shall consist of not less than 3 members and no more than 7 members who shall be appointed in a manner as prescribed by the local legislative body.

II. Each heritage commission member shall be a resident of the city or town which establishes the commission. One commission member shall be a member of *the* local governing body. One commission member may be a member of the planning board. Not more than 5 alternate members may be appointed. When an alternate sits in absence or disqualification of a regular member, the alternate shall have full voting powers. If there is a historic district commission, one member of this commission shall be an ex officio member of the heritage commission. In determining each member's qualifications, the appointing authority shall take into consideration the appointee's demonstrated interest and ability to understand, appreciate and promote the purpose of the heritage commission.

III. Members of a heritage commission also may serve on other municipal boards and commissions, including but not limited to a conservation commission established under RSA 36-A, and a historic district commission established under RSA 673:4.

Source. 1992, 64:6. 1995, 138:4, eff. July 23, 1995.

SECTION 674:44-b

g674:44-b Powers.

1. Generally. Heritage commissions shall have advisory and review authority, specifically, as follows:
(a) Survey and inventory all cultural resources.
(b) Conduct research and publish findings, including reports to establish the legal basis for a district and preparation of historic district ordinances within the municipality prior to its adoption or amendment as provided in RSA 675:6.
(c) Assist the planning board, as requested, in the development and review of those sections of the master plan which address cultural and historic resources.
(d) Advise, upon request, local agencies and other local boards in their review of requests on matters affecting or potentially affecting cultural and historic resources.
(e) Coordinate activities with appropriate service organizations and nonprofit groups.
(f) Publicize its activities.
(g) Hire consultants and contractors as needed.
(h) Receive gifts of money and property, both real and personal, in the name of the city or town, subject to the approval of the city council in a city or the board of selectmen in a town, such gifts to be managed and controlled by the commission for its proper purposes.
(i) Hold meetings and hearings necessary to carry out its duties.

II. ***Property***. The commission may acquire, in the name of the town or city, subject to the approval of the local governing body, by gift, purchase, grant, bequest, devise, lease, or otherwise, a fee or lesser interest, development rights, covenant, or other contractual right, including conveyances with conditions, limitations, or reversions, as may be necessary to acquire, maintain, improve, protect, limit the future use of, or otherwise conserve and properly use the cultural resources of the city or town, and shall manage and control the same; provided, however, that the city, town, or commission shall not have the right to condemn property for these purposes.

III. Historic District Commission. Heritage commissions also may assume, if authorized by the local legislative body, the composition and duties of historic district commissions.

Source. 1992, 64:2. 1993, 32:1.1995, 138:5, eff. July 31 1995

SAMPLE WARRANT ARTICLES TO ESTABLISH A HERITAGE COMMISSION

HB 564-FN (Chapter 64, Laws of 1992) enabled towns & cities to establish Heritage commissions and HB 277-Local (Chapter 32, Laws of 1993) extended the provisions.

HB 398-Local (Chapter 138, Laws of 1995) brought the membership requirements of conservation commissions, historic district commissions, and heritage commissions into conformity, and stated that members of these commissions may serve on other municipal hoards and commissions. It also standardized the manner in which heritage and conservation fund expenditures are authorized.

FIRST ARTICLE To see if the Town will vote to establish a Heritage Commission in accordance with the provisions of RSA 673 and RSA 674, or take any other action relating thereto.

[If more detail is needed, use" ...to establish a Heritage Commission and a Heritage Fund in accordance with the provisions of RSA 673 and RSA 674:44-a, 44-b, 44-d, and 44-c if applicable (supp. 1995)."]

SECOND ARTICLE To see if the town will vote to authorize the Board of Selectmen to appoint [3 or 5 or 7] citizens as members of the Heritage Commission pursuant to the provisions of RSA 673:4-a and RSA 673:5, and to appoint not more than 5 additional citizens as alternate members, or take any other action relating thereto.

? ? ? ?

This article may be included on the warrant either by direct action of the Selectmen, or as a petitioned article, if submitted as u petition, the petition must he signed by 25 registered voters or 2% of the town's registered voters, whichever is less, but "in no event shall fewer than 10 registered voters lie sufficient. " This change was made by 1990 and 1991 amendments to RSA 39:3.

REVISED January 24, 1994 (deleted a reference to RSA 673:6 and to RSA 674:45)
REVISED March 18, 1994 (cited HB-277-Local [Chapter 32, Laws of 1993];
and added citation for RSA 674:44-c, if applicable)
REVISED September 22, 1995 (to incorporate changes made by HB 398-Local [Chapter 138, Laws of 1995])
REVISED October 8, 1997 (reformatted; clarified RSA citations)

Appendix D

Traffic Counts
1981-2001

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S
1	**NHDOT Counts**	**Annual Average Daily Traffic**																	
2	**Roadway**	**Location on Roadway**	**1981**	**1982**	**1983**	**1988**	**1989**	**1990**	**1991**	**1992**	**1993**	**1994**	**1995**	**1996**	**1997**	**1998**	**1999**	**2000**	**2001**
3																			
4	Bound Tree Road	Near American Legion Hall								528									
5	Briar Hill Road	North of US 202 & NH 9									560	910			950			1200	
6	Briar Hill Road	South of Rollins Road							1,016										
7	Briar Hill Road	South of Patch Road							348										810
8	Broad Cove Road	East of Briar Hill Road							222		120								
9	Burnham Intervale Rd.	At Pine Street															828		
10	Clement Hill Road	South of Pine Street								538				451					
11	College Hill Road	Off of Hatfield Road											374						
12	Dolly Road	Off NH 127										310							
13	Dustin Road	West of Penacook Road													570				
14	East Penacook Rd.	Over Blackwater River								1,200	1,200				1,200			1500	
15	East Penacook Rd.	Near Blackwater Bridge											1,600						1574
16	East Penacook Rd.	Near Tyler Rd. Intersect (near 7/4/97)													1,057				
17	East Penacook Rd.	Near Tyler Road Intersect													171				
18	Farrington Corner Rd.	At Jewett Road															345	411	317
19	Farrington Corner Rd.	West of Brockway Road						194											364
20	Gould Hill Road	At Blaxe Hill Rd																	310
21	Gould Hill Road	North of Gould Hill Orchard									117								
22	Hatfield Road	Above College Hill Rd.											317						306
23	Hatfield Road	South of US 202								725						509			
24	I-89	South of NH 127 Exit 5-6 (NB-SB)							17,200	19,000			20,000	18,000	25,000	23,000		22,000	
25	I-89	South of US 202 & NH 9 Exit 4-5							26,700			29,000	30,000	31,000	34,000			30000	
26	I-89	Ramp Over US 202 & NH 9 EB Exit 5										5,000				9,600			
27	I-89 EB	East of NH 127	10,000																
28	I-89 EB	East of NH 127			10,000														
29	I-89 EB	East of NH 127					8,296												
30	I-89 EB	East of NH 127						10,076											
31	I-89 EB	Concord Town Line	14,000																
32	I-89 EB	Concord Town Line			16,000														
33	I-89 EB	Concord Town Line					12,173												
34	I-89 EB	East of US 202 & NH 9	13,000																
35	I-89 EB	East of US 202 & NH 9		14,000															
36	I-89 EB	East of US 202 & NH 9					11,829												
37	I-89 EB	East of US 202 & NH 9						14,049											
38	I-89 NB-SB	North of Concord TL (exit 3-4)															31766	32635	
39	I-89 NB	South of NH 127								8,501									
40	I-89 SB	South of NH 127								8,501									

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S
41	I-89 WB	East of NH 127	10,000																
42	I-89 WB	East of NH 127			10,000														
43	I-89 WB	East of NH 127					8,431												
44	I-89 WB	East of NH 127						9,939											
45	I-89 WB	Concord Town Line			14,000														
46	I-89 WB	Concord Town Line			16,000														
47	I-89 WB	Concord Town Line					13,131												
48	I-89 WB	Concord Town Line						14,896											
49	I-89 WB	East of US 202 & NH 9	13,000																
50	I-89 WB	East of US 202 & NH 9			14,000														
51	I-89 WB	East of US 202 & NH 9				16,537													
52	I-89 WB	East of US 202 & NH 9					12,741												
53	I-89 WB	East of US 202 & NH 9						13,710											
54	Jewett Road	South of US 202 & NH 9 & 103						1,124			1,100		1,100			1,400			877
55	Kast Hill Road	Midpoint btw. Clement & Maple St.									280								
56	Kast Hill Road	Off NH 127 past fork in road										620							
57	Kearsarge Avenue	At Browne's Brook		500			759		882	940		900				990		780	
58	Kearsarge Avenue	North of Spring Street											1,096		1,027		1,405		
59	Maple Street	At Provan & Lorber																	4452
60	NH 103	North of US 202 & NH 9										3,800				3,500			
61	NH 103	Over Contoocook River										6,900				8,000			6,907
62	NH 103	West of Putney Hill Road		2,400			2,719	2,838	3,100		3,400		3,000		3,100				2439
63	NH 103	North of Spring Street															4,874		
64	NH 103	South of NH 127															4,293		
65	NH 127	North of Dolly Corner Road						3,522	3,658				3,500			4,700			4,399
66	NH 127	West of I-89							2,624		2,300		2,500		3,200	3,300			3,055
67	NH 127	South of I-89															1,526		
68	Penacook Road	At Contoocook River Bridge									1,100							1600	
69	Penacook Road	Near Briar Hill Intersect											1,190						
70	Penacook Road	Near Tyler Bridge													1,374				
71	Penacook Road	Near Cemetery								1,376									
72	Penacook Road	West of Briar Hill Road							1,181										
73	Penacook Road	At Blackwater River						1,307											
74	Pine Street	West of Bount Tree Road							1,009										
75	Pine Street	At Fire Station															3,491		3209
76	Pine Street	West of Bound Tree Road						1,058									1,076		
77	Pine Street	West of Spring Street							1,009										
78	Pine Street ext.	Near American Legion Hall								528									
79	Rollins Road	At Hutchins Hill																	266
80	Rollins Road	West of Crowell Road						156											

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S
81	Rollins Road	West of Crowell Road																	
82	South Road	West of Irish Hill Road							311										
83	South Road	West of Irish Hill Road							311										
84	Stickney Hill Road	Over Boutwell Mill Brook								280	310				370			440	
85	Stumpfield Road	South of US 202								312									
86	Stumpfield Road	Over Hopkinton Lake								430	190				220			250	
87	Stumpfield Road	South of US 202								312									
89	Stumpfield Road	South of Intersection w/ Thaine Rd.														272			
90	Sugar Hill Road	At Weare Town Line										570							
91	Sugar Hill Road	South of Old Holmes Road							501										
92	Sugar Hill Road	South of US 202 & 9								437									
93	Sugar Hill Road	South of Intersection w/ Bassett Rd.														237		584	
94	Sugar Hill Road	South of US 202 & NH 9								437									
95	Sugar Hill Road	South of Old Holmes Road							501										665
96	Sugar Hill Road	W. of US 202																	734
97	Town Road	Over Contoocook River								430				330				390	
98	Upper Straw Road	South of Main Street									210								
99	US 202	East of Hawthorn Hill Road										6,000				6,000			
100	US 202 & NH 9	East of NH 103		3,600					5,579	6,447		6,200	5,500		6,200	6,500		6,500	2,832
101	US 202 & NH 9	Under I-89 Underpass										2,300				2,500			2,488
102	US 202 & NH 9	West of Currier Road										4,400				3,700			
103	US 202 & NH 9	West of NH 103									2,700				2,900			3200	
104	US 202 & NH 9	West of NH 113													3,100				
105	US 202 & NH 9	Henniker Town Line	6,250	6,610	6,610		9,348	10,129	9,509	11,603	9,100	10,000	10,000		10,000				12503
106	Gould Hill Rd	At Blaxe Hill Rd.																	310
107	Hatfield Rd.	Above College Hill Rd.																	306
108	I-89 (SB-NB)	North of Concord TI (Exit 3-4_																32635	
109	Maple St.	At Provan & Lumber																	4452
110	Rollins Rd.	At Hutchinson Hill																	266
111	Sugar Hill Rd.	W. of US 202																	734

Appendix E

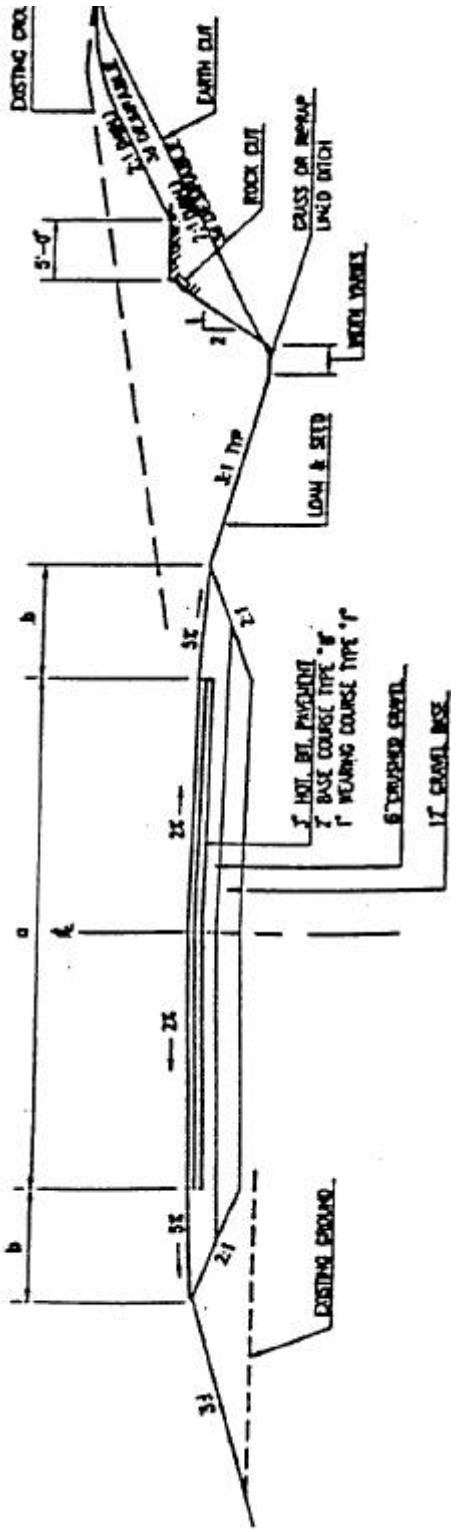
Sample Flexible Road Design Standards

MINIMUM ROAD DESIGN STANDARDS

Traffic Load	ADT 0-50	ADT 50-250	ADT 250-400	ADT 400-750 (or greater)
Design Speed	20	20	30	35
Centerline Curve Radius	120	150	250	425
Roadway Width	20′	22′	22′	24′
Shoulder Width (each side)	2′	2′	3′	4′
Vertical Curve Crest Sag: K Values (min)	 15 24	 15 24	 30 40	 50 50
Sight Distance	150	200	300	350
Sight Distance @ Road Intersections	200	300	350	400
Profile Grade Minimum: Maximum:	 .5% 10%	 .5% 9%	 .5% 8%	 .5% 7%
Minimum Platform @Road Intersection	2%-50′	2%-75′	2%-100′	2%-100′
Minimum Pavement Radius @ Road Intersection	30′	30′	35′	40′

Source: Subdivision and Site Plan Review Handbook Prepared by Southwest Region Planning Commission, December 2001.

ADT - Average Daily Traffic

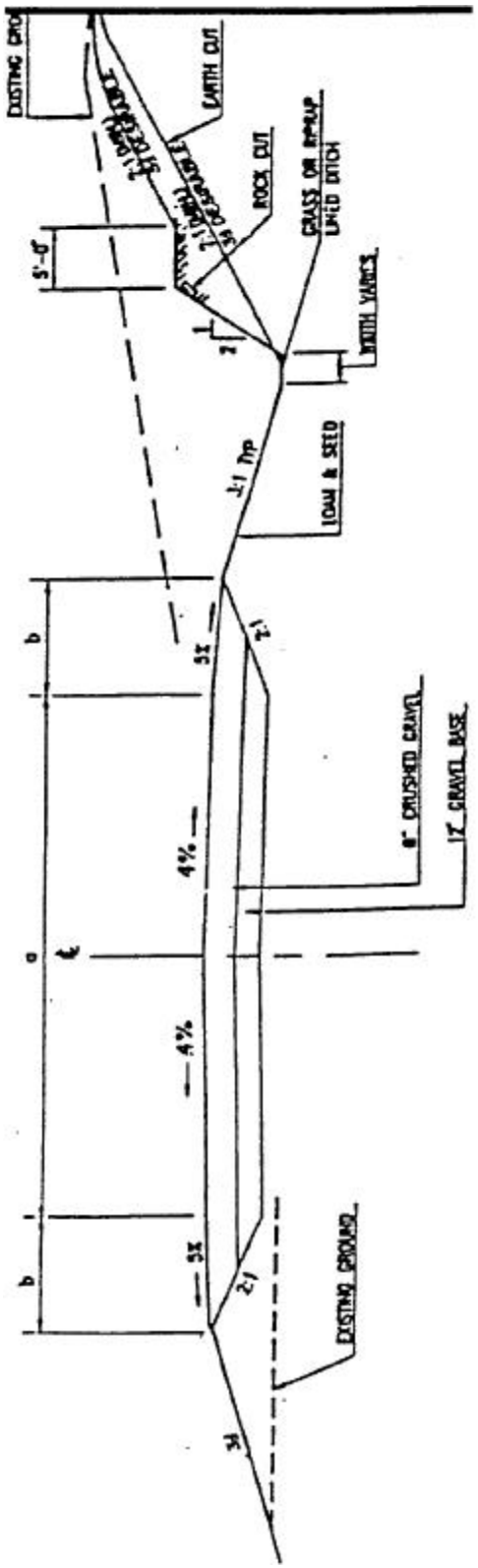


Typical Section
Paved Roads

Set Table 1 For a AND b DIMENSIONS
a = ROADWAY WIDTH
b = SHOULDER WIDTH

EXHIBIT I

Source: Subdivision and Site Plan Review Handbook, Prepared by the Southwest Region Planning Commission, December 2001.



SEE TABLE 1 FOR a AND b DIMENSIONS

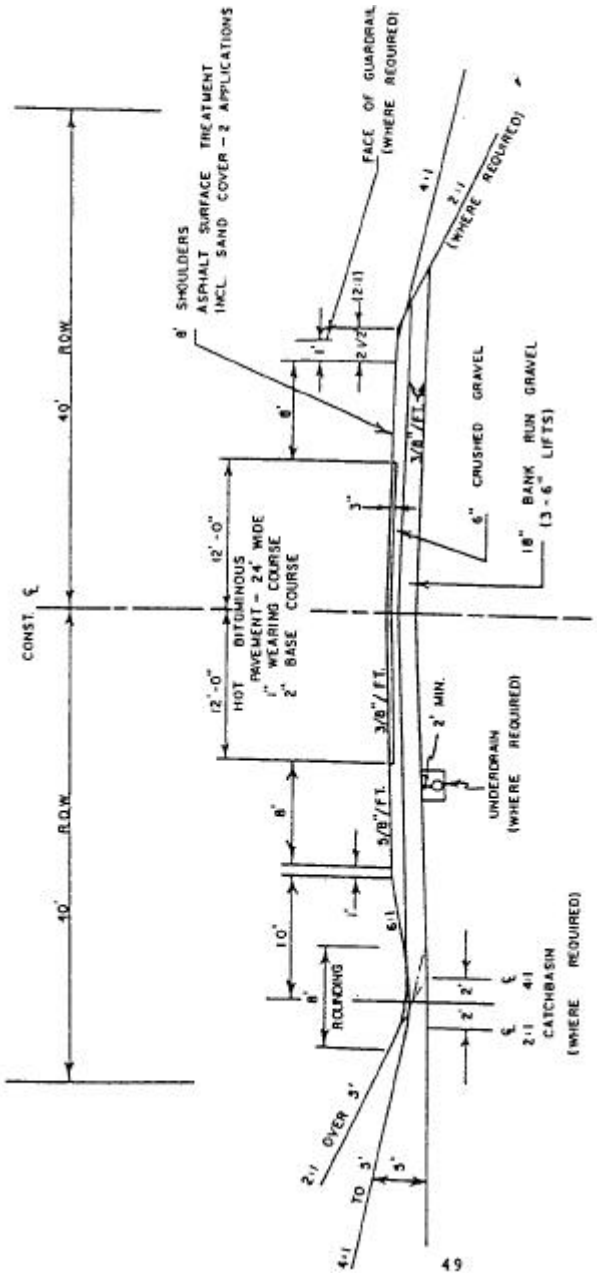
a = ROADWAY WIDTH
b = SHOULDER WIDTH

Typical Section
Gravel Roads
(not to scale)

EXHIBITS

Source: Subdivision and Site Plan Review Handbook, Prepared by the Southwest Region Planning Commission, December 2001.

Road Cross Section

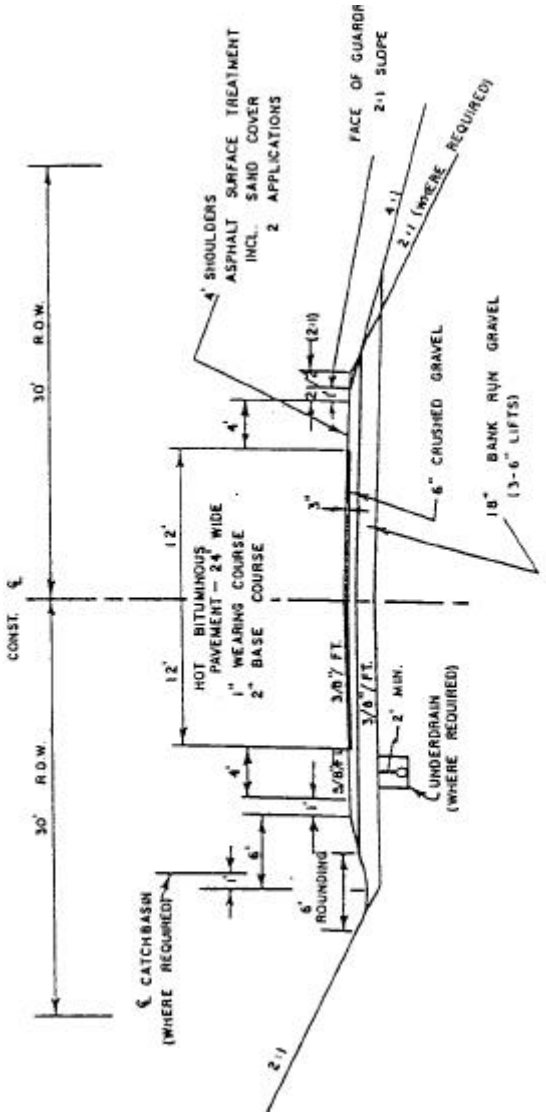


TYPICAL SECTION

CLASS " A" ARTERIAL ROAI

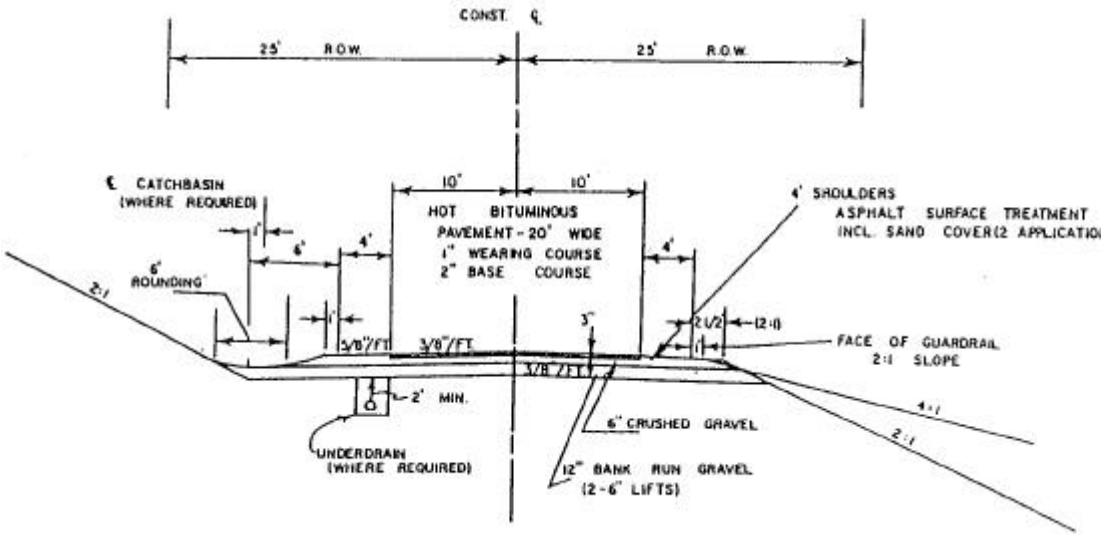
Source: Subdivision of Land, Chapter 205, Town of Pembroke, January 2001.

Road Cross Sections



TYPICAL SECTION

CLASS " B" COLLECTOR ROAI



TYPICAL SECTION

CLASS " C" LOCAL ROAI

Source: Subdivision of Land, Chapter 205, Town of Pembroke, January 2001

Appendix F

Road Improvement Plan

ROAD IMPROVEMENT PROGRAM 2001 - 2006
TOWN OF HOPKINTON, NH

YEAR	ROAD NAME	RECLAIM	SHIM & PAVE
2001	Sugar Hill Road	Gravel & Grade	2" Base (Rte. 202 to Drew Lake)
2001	Dolly Road		1" Overlay
2001	College Hill Road		1" Overlay
2001	Kast Hill Road		1" Overlay
2001	Clarke Lane	Town Grader	Shim & Sealer
2002	Farrington Corner Road	Gravel & Grade	2" Base
2002	Putney Hill Road	Gravel & Grade Sections	2" Base
2002	Pine Street	Gravel & Grade	2" Base (Kearsarge Ave. to 1-89 Overpass)
2003	Beech Hill Road		I" Overlay
2003	Sugar Hill Road		I" Overlay (Section from 2001)
2003	East Penacook Road		I" Overlay (Transfer Station to Concord Line)
2003	Hutchins Hill Road		I" Overlay
2003	Sugar Hill Road	Gravel & Grade	2" Base (Drew Lake to Stumpfield Road)
2004	Gould Hill Road	Gravel & Grade	2" Base (Gould Hill Orchards to Blaze Hill Road)
2004	Gould Hill Road		I" Overlay (Blaze Hill Road to Route 103)
2004	Stickney Hill Road		I" Overlay
2004	Farrington Corner Road		I" Overlay (Brockway Road to Stickney Hill Road)
2004	Pine Street		I" Overlay
2004	Indian Ridge Road		I" Overlay
2005	Fine Street		I" Overlay (1-89 Overlay to gravel section)
2005	Burnham Intervale Road		I" Overlay
2005	Public Works Road		I" Overlay
2005	Clement Hill Road		I" Overlay (Pine Street to Brookwood Lane)
2005	Brookwood Lane		I" Overlay
2005	Prospect Street		I" Overlay
2006	Gage Hill Road	Gravel & Grade	2" Base (Rte. 202/9 to Dolly Road)
2006	South Road	Gravel & Grade	1" Overlay (Rte. 202/9 to 1-89 Overpass)
2006	South Road		2" Base (1-89 Overpass to gravel section)

This proposal will be examined every year and changes may be made other than specified depending on an unexpected emergency, deterioration and funding.