Chesterfield
New Hampshire

Master Plan Update
2007

SWRPC
Southwest Region Planning Commission
20 Central Square, 2nd Floor
Keene, New Hampshire

TOWN OF CHESTERFIELD PLANNING BOARD

(as of Dec. 2007)

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Steve Pro
Thomas North
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Neil Jenness	Co-Chair---Team Lead--Community Facilities/ Historic Resources writer/Community Survey
Don Brehm	Team Lead--Economic Development/Community Survey
Tom North	Team Lead—Housing/Community Survey
McKim Mitchell	Team Lead—Transportation/Community Survey
Kathy Thatcher	Team Lead--Natural Resources/Community Survey
Jim Stanclift	Team Lead--Recreation
Ed Cheever	Community Facilities/Community Survey
Jean Hanson	Community Facilities/Community Survey
Bob Brockman	Economic Development
John Koopman	Economic Development
Bob Clarkson	Economic Development/Community Survey
Merrill Yeaw	Housing/Community Survey
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Bart Bevis	Transportation
Maryanne & Doug Foster	Transportation
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Hazel Hunter	Natural Resources/Community Survey
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Barb Atwood	Natural Resources/Community Survey
Diane Gibbons	Natural Resources/Community Survey
Fred Rowley	Recreation
Melissa Donovan	Recreation/Community Survey
Wendy Chamberlin	Recreation/Community Survey
Kristen McKeon	Recreation/Community Survey
Margaret Winn	Community Survey
Marty Potter	Community Survey
Lorraine Scrivani	Community Survey
David Wood	Community Survey

MASTER PLAN COMMITTEE (cont.)

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Howard Lane	Community Survey
Mike Bentley	Community Survey
Lloyd Green	Community Survey
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Sally Norton	Community Survey
Bill & Janet Smedley	Community Survey
Jon Starbuck	Community Survey
Fred Newton	Community Survey
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Jeff Miller	Community Survey
Jacques Reilly	Community Survey
Peter Mitchell	Community Survey
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Marie Delsesto	Community Survey
Wanda McNamara	Community Survey
Emile Legere	Community Survey

Although diligent efforts were made to capture the names of all volunteers, regretfully, it is possible that someone was left off the above list. If this is the case, we apologize. As everyone can see, at least 51 of your neighbors and friends contributed in some way to this effort, and we send our sincerest appreciation and commend you for your efforts on this project.

The Chesterfield Planning Board

PREFACE

The Chesterfield Master Plan was first completed in 1985, with an update in 1996. This is a new and updated plan started in the fall of 2004 by the Chesterfield Planning Board with the assistance of a Master Planning Committee. Southwest Region Planning Commission was retained by the Planning Board to assist in this effort.

The Planning Board would like to thank residents, non-residents, public officials, town employees and various regional, state and federal agencies that helped or provided information.

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INTRODUCTION

What is a Master Plan?

It has been stated that one of the most vital factors for orderly community growth, whether it be a rural county, suburban town, urban city, metropolitan or regional area, is master planning.

The development of a Master Plan is the process of gathering data, including input from residents, to understand where the town is today--its assets and its problems, and where its residents would like to see it head. Goals and objectives to this end are developed which should then be used as a guide in addressing the identified problems and also potential problems before they occur.

There are certain things that must be understood about a Master Plan in order for all concerned to utilize it properly.

- The Master Plan is a collection of plans, maps, studies, reports, and goals which, together, attempt to visualize the long-range growth of a community. It will consider past trends and future potentials, major problems which seek solution, and offer directions or objectives that can act as guides/tools for town leadership and residents in dealing with municipal issues.

- The Master Plan must be, as its name implies, far-reaching. It must deal with all aspects of the community's growth, not just one small area. The guiding principle for the Plan's decisions should be--"What is in the best interests of the community as a whole, not just one property owner or one interest group?"

A Master Plan is NOT--

- A legally binding document, like a regulation, although it may suggest certain regulations be adopted as a means of carrying out the Plan.

- A zoning ordinance. Zoning is merely one of the tools or methods by which certain aspects of the Master Plan can be implemented (such as land use or population density).

- Most of all, it is not a panacea for all municipal problems--it is only a guide or tool to be used by municipal officials.

Putting Together a Master Plan

The Master Plan for a small town shapes the community of the future. Faced with inevitability of growth, a town creates a plan so that when growth does occur, it happens in places most able to absorb it. This plan helps a town to determine the timing of growth and its management.

Chesterfield’s master planning process directly involved over fifty Chesterfield residents over a 30-month period. The following is a general outline of the process:

- Formulation of a 28-member Master Planning committee to assist the Planning Board in the master planning process. The committee then formed into seven subcommittees: Editor/Community Survey, Historic Resources/Community Facilities, Economic Development, Population/Housing, Transportation, Natural Resources, Recreation.

- Collection and analysis of data about all aspects of Chesterfield--from soils to economics to town services.

- Development of an attitude survey that was distributed to 1713 households to determine Chesterfield residents and non-residents' opinions on Chesterfield's present and future.

- Development of a Vision and goals/objectives and a Future Land Use Plan that recommend policies and directions for Chesterfield to attain that Vision.

This plan represents the hard work and cooperation of Chesterfield's officials, employees, and townspeople. No board or commission should make a major decision concerning the town without first consulting the Master Plan. The town has created a “road map” for the next 10 years that reflects the views of its citizens. Now it’s time to use this “map” as we travel to a better Chesterfield.

VISION FOR CHESTERFIELD

The VISION for Chesterfield was derived from the 2005 Community Attitude Survey and Master Plan Committee discussion. It is a picture of what the town could look like over the next 10 years if we pay attention to the priorities of our citizens as indicated in the survey. It might be considered a "destination" for Chesterfield with the Future Land Use Plan and Goals & Objectives being the "road map" to guide us toward this end.

Vision Statement

In 2017, Chesterfield is a town where its most important assets are its rural character and small town atmosphere. These assets are protected in a variety of ways including preservation of precious open space and farmlands through conservation easements, thoughtful land development regulations and other means. The protection of Spofford Lake and other waterways is extremely important as well as other environmental concerns which are attended to on a regular basis.

The town's growth is managed by zoning, housing types and density. The current preference is for single-family dwellings in addition to elderly housing/nursing homes. Small retail business or small manufacturing firms are preferred over larger, heavier commercial endeavors. Our town's growth rate has not adversely impacted our tax burden.

Chesterfield's treasured historical resources are protected for their importance to future generations and their contribution to our rural character and our villages remain quaint and scenic.

Our citizens and visitors enjoy an abundance of recreational opportunities including forests where motorized activities are encouraged only in designated areas and Lake Spofford where water quality is a high priority and all efforts to keep exotic milfoil out of the lake have succeeded thus far.

Chesterfield's leadership and its citizens strive to scrutinize budgets and expenditures and have found ways to maintain property and school taxes over the last 10 years, such that Chesterfield is now rated 1 of 228 NH areas for lowest equalized tax burden.

Road safety for vehicles and pedestrians on its major State Routes 63 and 9 and town roads is very important for Chesterfield's citizens, and the NH DOT works well with us to insure increased safety as traffic increases.

Chesterfield is our haven away from the "hubbub" of the typical urban setting. Its quiet, scenic beauty, including vistas, open space, farmlands, Spofford Lake, natural hillsides, black night skies, and abundant wildlife allow a quality of life so important to its residents. In addition, its light business base, low population, desirable education system, low tax burden, many family-oriented recreational opportunities and historic structures offer a way of life that we have treasured for years and hope to enjoy and protect for many years to come.

FUTURE LAND USE PLAN

Introduction

Future Land Use Plans establish land use policy that becomes a guide for Planning & Zoning Boards as they are faced with creating/changing land regulations or enforcing those already on the books.

In developing the Future Land Use Plan, the Master Plan Committee considered community input including the amount and type of growth desired and conservation/recreation needs combined with existing land use patterns. Our goal was not to identify general developable areas for growth, because the zoning and land development regulations already do that. This land use plan considers open space, the pattern of existing land uses, and the amount and type of growth desired expressed in the community survey and then suggests options and policies that will help insure growth in keeping with the desires of Chesterfield residents.

The plan includes statements concerning the extent and types of land use to be encouraged, where these uses can best be developed in terms of physical conditions and capabilities, the services and facilities needed to serve them, and similar factors. Land use policies should also state the reasons for discouraging development in certain areas, and outline restrictions under which development -- if it were to take place-- might be permitted in such areas. Finally, they should contain use criteria for areas designated problematic, based on accepted standards.

In general, growth is preferred in those developable areas that most logically and conveniently relate to existing developed areas and community facilities and services; if possible, growth should be a direct and compatible extension of existing development. Conversely, growth in inaccessible areas is not preferred.

An Overview

The proposed future land use plan for Chesterfield has been developed using the following information:

- Results of the Community Attitude Survey.
- The goals and objectives.
- The inventory information, data, and maps.
- Input by the Master Planning Committee.

Basically, the plan will attempt to achieve the following:

- Promote the existing pattern of rural land uses.
- Protect Chesterfield's valuable natural resource areas by basing future growth on the land's ability to accommodate it.
- Provide areas for the continuation of recreational activities.

- Protect Chesterfield's aesthetic and historic values to insure its continued rural beauty and character.
- Protect Chesterfield's open space and forested land
- Manage growth so that fiscal and environmental impacts are minimized.

The following future land use plan divides the town into several major land use categories. The categories are presented, as much as possible, from the areas of least developed land uses to the most highly developed. All of the categories are equally important and must be viewed as part of the whole. Chesterfield is not a stagnant group of separate land uses, but a vibrant combination of a wide variety of land use areas that make up the whole.

Critical Resource Areas

The basic premise on which land use in Chesterfield is built is that growth should occur in areas that are capable of supporting it, both environmentally and at the least expense to the taxpayer. Some lands in Chesterfield are more unsuitable than others to develop. These may include:

Wetlands
Ridgelines
Steep slopes
Floodplain Soils

These areas should be protected because of potential environmental, health and safety problems, and also because their development would increase the costs of providing the town services.

It should be remembered that Chesterfield's natural setting is one of its major assets. It is extremely important that we place an emphasis on preserving its natural beauty and open spaces for residents and tourists alike. These steep slopes, ridgelines and wetlands areas are among the most naturally beautiful areas in town and also include much of the area used by citizens for recreation.

Sensitive Natural Resources

Sensitive natural resources are areas that do not have the severe natural limitations of the critical resource areas. However, they do have some limitations that must be recognized if they are to be developed without safety or health related problems.

Mild slopes
Flood Hazard Areas

Flood Hazard Areas are being protected now from development that would cause property damage or increased flooding down stream. These regulations must be maintained in order to insure Chesterfield's continued eligibility in the Flood Insurance Program. Slopes can be developed, most generally, at a lower density and with more emphasis placed on erosion and sediment control, runoff, road design, septic system installation, etc.

Conservation/Scenic

Chesterfield is fortunate to have over 20% of its land area protected by state ownership. However, there are other important scenic and natural areas which should be considered for protection. There are

areas to be considered for open space, conservation and recreation that are important for Chesterfield to preserve and protect. These lands could be purchased outright or easements obtained to insure protection. The obtaining of easements would prevent development, but maintain private ownership.

Rural/Forestry Areas

Chesterfield does have substantial areas of land that should only be developed at a very low density due to its remoteness and the lack of adequate town services and facilities. Scattered or premature growth in these areas, which would necessitate excessive expenditures of public funds should be discouraged. These areas should remain primarily forestland and wildlife habitat, with land management geared toward producing forest products in a manner consistent with good wildlife habitat retention and improvement.

Agricultural Land

Agricultural land is another important natural resource and an important component of Chesterfield's rural character. Agricultural land preserves the rural landscape, provides open space, wildlife habitat, and recreational opportunities. Thus protecting agricultural land in Chesterfield is important.

Unlike many Connecticut River towns, the bulk of Chesterfield's 1000 acres of land currently in agricultural use is not in the floodplain. Instead, it exists on land that also has development potential and cannot be protected simply for "public health and welfare."

Therefore, specific steps need to be taken to protect it. In most cases, agricultural land will need to be protected through innovative land use planning and development. Chesterfield's zoning offers clustering in the Rural/Agricultural and Residential Districts which give developers the option of clustering development to reduce the impact on agricultural lands. Planned Development Districts offer a means to restrict development (in any district) to specific uses.

GUIDELINES FOR PROTECTING AGRICULTURAL LAND	
GOALS	IMPLEMENTATION TECHNIQUES
Minimize visual impact	1. Structures should not be placed in open fields.
	2. Residences should be located adjacent to tree lines and wooded field edges.
	3. Where clustering will yield open space that can remain in active agriculture, its use should be explored and possibly required.
Retain Rural Features	1. Existing farm roads should be incorporated into subdivision design where practical.
	2. Stone walls and tree lines should be preserved.
	3. Existing agricultural structures, such as barns and silos, should be preserved where feasible.
Minimize Site Disturbance	1. Roads should follow existing contours.
	2. Disturbance for the construction of roads, basins, and other improvements should be kept at a minimum.
	3. Disturbance on individual lots should be limited.

In order to protect Chesterfield's agricultural land, additional measures are needed. An agricultural land overlay district could be one of these measures. Limiting development on land in agricultural use will not keep it from reverting back to woodland. Therefore, any clustering or other development proposed should address this problem.

Shorelands

The Connecticut River runs the entire length of Chesterfield from north to south and offers a variety of recreational activities and scenic attractions. The river's shorelands are not heavily developed, and they should be protected.

The other important shoreland area in town is around Spofford Lake. Although heavily developed, there is still potential for more development and redevelopment of existing lots to a greater level.

The Shoreland Protection Act regulates activities around lakes, ponds, and what are called fourth order streams. Spofford Lake falls under this law's jurisdiction. The law enables towns to adopt zoning regulations to complement the state law.

GUIDELINES FOR SHORELAND PROTECTION	
GOALS	POSSIBLE IMPLEMENTATION TECHNIQUES
Minimize Visual Impact	1. A minimum setback from lakes or ponds should be consistently maintained.
	2. The maximum linear disturbance per lot should be limited. Disturbances include docks, bulkheads, decks, walkways, and beach areas.
Retain Water Quality	1. A lake management plan should be prepared to control chemical pollutants, such as hydrocarbons and fertilizers.
	2. High-quality waters should be identified and monitored to maintain and enhance water quality.
	3. On-site wastewater treatment facilities should be designed to effectively protect surface and ground water.
Minimize Site Disturbance	1. Total disturbance, especially within buffer areas, should be limited.
	2. Roads should follow existing contours.
	3. Disturbance for the construction of roads, basins, and other improvements should be kept to a minimum.
	4. Disturbance on individual lots should be limited.

Source: University of Massachusetts

Rural Residential

Chesterfield has substantial areas of rural land that is suitable for development. However, these areas should be developed only at a density that can support on-site water and sewage disposal. Many of these rural areas in Chesterfield, even though developable from a land capability standpoint, are so remote as to make their development undesirable due to the excessive costs of providing services to these areas.

Many of the rural residential areas abut agricultural lands. In these cases, an opportunity exists to provide a development scheme which will protect even more agricultural land without hardship to the landowner. This would be accomplished by utilizing cluster development, but in this case all or most of the development would go on the rural residential lands, thus protecting most of the agricultural lands.

Residential

These are lands which are suited to residential development that are also close to existing villages, state highways, and upgraded local streets. They should be developed at a higher density than the rural residential lands because of their relative closeness to existing town services and facilities.

Villages

Each of Chesterfield's villages has a unique history and mix of land use. They each have their own identity and vital role to play in Chesterfield's future just as they have in the past. The rural New England village is an important part of the heritage of a town like Chesterfield and needs to be protected. Villages can assimilate new development and actually benefit from it, if land use controls are designed to do so.

One definition of “Village” by L. Houston, in a recent article in "Small Town" is as follows:

> A village is a predominantly residential area with supporting commercial and public activities lying near its center. It does not have a clear distinction between residential and non-residential areas.
>
> A village is compact relative to its surroundings and to traditional suburban tract development, and it is easily distinguishable from the surrounding undeveloped land.
>
> The density mix and arrangement of land uses encourages pedestrian movement among local origins and destinations.

Chesterfield should encourage the continued existence of its villages and encourage a compatible mix of land uses including residential, commercial, and public. The areas currently zoned as "Village" (West Chesterfield and Spofford) are very small (11 and 6 acres respectively) and could be enlarged to provide additional areas for new village development. Chesterfield Center, Chesterfield's other village area, should be added to the village-zoned areas.

Traditional zoning, with minimum frontages, setbacks, and lot sizes, tend to stifle village development. Attempts at strict zoning in these areas makes for lengthy, cumbersome ordinances. A goal in Chesterfield could be to create land use regulations that would allow the existing villages to be built if they were proposed today.

Commercial/Industrial

Based on the survey, most respondents 48% would <u>not support</u> the rezoning of land for commercial/industrial development. However, 37% said they <u>would</u> support rezoning and an additional 10% said they <u>might</u> support rezoning. Given these numbers, it’s apparent there is no clear mandate one way or another. What is clear, however, is that respondents are concerned about high taxes in Chesterfield, with 75% indicating that it is an issue or serious issue. Without a substantial

business base, home property taxes must "pick up the slack" so to speak, to provide enough funding for the town's operation. Commercial development need not be a "bad thing" if it is done responsibly and with much planning. Restrictions should be considered on those businesses most undesirable to town residents (i.e. shopping centers/malls, large retail stores, fast food restaurants, and large manufacturing firms) and additional regulations for development that address the details insuring compatibility with a rural setting.

The most logical and accepted place indicated for this growth is along Route 9 because it provides easy access to Brattleboro and Keene and also keeps truck and other traffic out of the village and residential areas of the community. Most of the commercial/industrial zoned areas are currently located along Rte. 9, but changes can be made to land development regulations that will insure future development is restricted in the best interests of Chesterfield residents. All growth along Route 9 will require careful site plan review and layouts to minimize impacts on traffic flow, adjoining landowners, scenic and natural resources. Uses should be set back and screened heavily to avoid the appearances associated with traditional highway commercial growth.

Public Lands/Recreation

Chesterfield is fortunate to have a large amount of publicly owned land. It is the desire of the town that these areas remain primarily in their existing use without any dramatic changes.

Additional public lands should be encouraged, particularly adjacent to existing ones and to protect identified open spaces, recreation areas, and sensitive natural resources.

GOALS AND OBJECTIVES

Introduction

Our Master Plan not only describes existing conditions, assets and problems, but also provides guidance for the future development of Chesterfield. This section contains goals and objectives that are based on ideas from the town-wide attitude survey, discussion and comments from town officials, boards, and departments, input from individual citizens, and recommendations from the Southwest Regional Planning Commission. The rationale for these goals and objectives is based on data in the previous chapters.

In order to have effective results from the Master Plan, appropriate town officials and board/department members should meet to set a strategy for implementation of the following goals and objectives.

The Master Plan is not an end product but the beginning of a means for dealing with difficult decisions that face any small town, including how development and growth might affect the town's services and financial structure. The Planning Board should consult the plan regularly and see that it is regularly updated so that it remains relevant to the needs and desires of the town.

Historic Resource Goals

Individually and collectively, historic sites and properties are integral to Chesterfield's character. There are three very general types of activities that can be undertaken by public or private groups, which together, are necessary for the long-term protection of historical resources: 1) recognition in the form of identification; 2) public education and awareness through permanent and short-term efforts; and 3) protection through acquisition or regulation.

1. Chesterfield should encourage the preservation of its historic past for the enjoyment and education of its citizens and visitors. **88% who answered the question on the survey said that protecting historic buildings and sites was important.**

2. Chesterfield's three historic villages and the adjoining agricultural/woodland mix are what give Chesterfield its rural character. This mix of land uses should be protected and continued by protecting and rehabilitating existing buildings and encouraging compatible growth and expansion of the village. **61% of those answering the question said that historic character was important.**

3. New legislation now enables towns to form Heritage Commissions, much the same as Conservation Commissions for natural resources. Chesterfield should establish a Heritage Commission under RSA 674. **60% of those answering the question favored the establishment of an Historic Commission.**

4. A thorough inventory of Chesterfield's historic resources needs to be completed. The Chesterfield Historical Society is conducting such an inventory, including houses, cellar holes, farm buildings, public buildings, and mill and dam sites. These should be listed on the property tax cards.

5. Chesterfield needs to continue to educate and increase public awareness about historic resources and let people know it's not just about protecting buildings. The Chesterfield Historical Society endeavors to do that by sharing its collection of historic photographs, family and organization papers, early maps and artifacts.

6. Chesterfield should encourage the minimization of impacts of development on not only the site being developed, but also abutting sites with potential historic resources.

7. Protective buffers should be established around town-owned historic resources as well as those privately owned buildings and sites, as has been done with the cemeteries.

8. Chesterfield should encourage private property owners to preserve, protect and allow public access to historic resources. Barn owners should be made aware of the tax abatement program available for historic barns. When a permit is issued for demolition of an identified historic property, it should include the requirement that the Historic Commission be notified and given a certain amount of time (ie.30 days) to either record the building or arrange for another solution in place of demolition.

Community Facility Goals

Chesterfield provides a wide range of services for its citizens and visitors, from library books to fire protection. We are proud to provide the best possible services. Using the Capital Improvements Plan as one of its tools, the town anticipates the increased and changing needs for these services.

1. The Planning Board should annually review and update the Capital Improvements Plan. The selectmen, budget committee, department heads and other interested parties should be brought into the process. One fixed evening every year (such as the first Thursday in September) should be set aside for the capital improvements meeting.

2. Water for firefighting should be more easily available in the Chesterfield Heights area and in the Center Village. A fire pond at Chesterfield Heights, and a buried tank included in the newTown Office/Police Station Facility could accomplish this goal.

3. Improvement to the Annex at the Town Hall should be made. A modernization of the current structure could be made. However, new construction may be more desirable.

4. It is very important for the town to save money and energy by insuring that all town-owned facilities and operations are reviewed for energy usage and updated, where possible, to maximize energy efficiency.

Economic Development Goals

1. Given that 75% of survey respondents said that taxes were an issue or serious issue, Chesterfield leadership should work to lower taxes or minimize tax increases. To this end, an impact fee ordinance on new development should be researched and implemented in order to minimize any negative effect on the cost of providing services and increasing taxes.

2. Survey results regarding the growth of commercial/industrial enterprises said that 52-65% of respondents felt the following business types should be discouraged. One goal should be to

consider making zoning changes to restrict opportunities for the four top areas of concern: 1. Shopping Centers/Malls; 2. Large Retail Stores; 3. Fast Food Restaurants; 4.Large Manufacturing Firms

3. Survey results show that 53% of respondents would like elderly housing, as a business, to be encouraged. In addition, 75% of respondents feel that the town should promote the development of housing for aged residents. To this end, development of elderly/aging resident housing should be researched and promoted, perhaps with special incentives for developers.

Population and Housing Goals

An overwhelming majority (76%) of the survey respondents has concerns that Chesterfield's population is growing too fast. The 5 major impacts seen as a result of fast growth are:

1) loss of rural character (60%)
2) increased taxes (56%)
3) loss of open space (54%)
4) increased school enrollment (51%)
5) increased traffic (51%).

The top 3 types of housing survey respondents would like to see encouraged are:

1) single family (63%)
2) elderly housing (48%)
3) cluster developments (27%)

In addition, 73% of survey respondents would like to see Chesterfield promote the development of housing for aged residents.

It is with the above community views in mind that the following **goals and objectives** are suggested:

1. New housing must be done responsibly to preserve rural characteristics and the natural beauty of the surrounding area. To this end, Planning and Zoning Boards must insure that land development regulations are followed and that new regulations are introduced, that will further enhance and preserve the rural aspects of Chesterfield.

2. Current building regulations must be monitored and enforced.

3. The recreational and agricultural treasures in town need to be preserved perhaps with flexibility in planning which would utilize denser housing thus preserving more open space and wildlife habitat. For example, consideration could be given to more multi-family housing.

4. Chesterfield must give careful consideration to promoting both private and public affordable elderly housing that may allow seniors to remain in town, if not in their present homes.

5. Mixed commercial and residential areas should also be considered, particularly for home businesses.

6. Permit "accessory" apartments such as "mother-in-law" apartments given the cost of housing and the situation of "baby boomers" caring for their parents.

7. In the Residential District, reduce the lot size and/or frontage requirements for duplexes to the same as required for single family homes.

8. Consider improving the opportunities for affordable housing.

Transportation Goals

Given that the most frequent survey response identified the Rte. 63/Rte. 9 Junction and Rte. 63 along the lake as the most hazardous roadways, the following goals were developed with the Chief of Police and Road Agent:

1. The town should continue to work with NH DOT to reduce accidents/injury at dangerous state intersections and along Rte. 63.

2. The town should work with state DOT to provide sensible upgrades to Rte. 63 by the lake for public safety and environmental protection.

3. The town should work closely with state DOT to insure traffic safety with the future Welcome Center on Rte. 9.

4. Given the recent history of heavy flooding, the town should insure that roads impacted by the floods are repaired in such a way that these issues will not occur with future heavy rains.

5. The town should develop a method for inventorying and evaluating town roads, and prepare a long-range road improvement schedule. This should be conducted by the Road Agent with input from the Planning Board. The work program should be based on factors such as funding, traffic volumes, safety and maintenance problems., density of development, future development and relationship to any state or federal projects.

6. The Planning Board should consider a specific regulation to require traffic studies for major subdivisions to assess impacts on traffic flows and safety. Off-site road improvements should be required if found necessary.

Natural Resources/Conservation Goals

Community Survey respondents felt very strongly about protecting and preserving Chesterfield's natural resources. In fact, 83-93% felt that all the natural resources in question #18 were important or very important to protect. In addition, on question #19 asking if regulatory standards should be created or maintained for 12 different issues, 52% or higher of the respondents answered "Yes". The priorities were: Noise—76%, Setbacks from streams, ponds, and wetlands—72%, Protection of special habitats and places—71%, and Aquifer protection—69%. A majority of 87% of respondents indicated that Open Space preservation is important.

With these results in mind, the following goals are essential to sound community planning.

1. A Natural Resource Inventory (NRI) is mandated by the State of NH and should be done.

2. Impacts on natural resources and the quality of life from noise and lighting should be addressed in development guidelines.

3. Protection of Special Places and Habitats. Lake Spofford garnered the number one spot with 79% of respondents saying it is very important to protect. It is essential that people become aware of the Comprehensive Shoreland Protection Act (CSPA) state regulations and adhere to them. More

education, monitoring and enforcement is warranted. Have information included in packets that are presently handed out at the town office to all new property owners. In addition, explore the possibility of copies of the CSPA being included at the closings for all properties directly affected by the act.

4. Given the importance of Spofford Lake to Chesterfield and its residents, it is very important that strong efforts be made to keep invasive weeds, like milfoil, out of the lake as well as other water bodies in our town.

5. Everything we do on the land---tilling the soil, spreading fertilizer, rolling out pavement, salting roads---impact the ground water in some way or another. Additionally, there is a finite amount of water, and the greater draw on the resource, the less there is to go around. Protections for water quality and quantity should be in the forefront of any developmental decisions that occur in Chesterfield.

6. Creation of an ordinance regulating development on steep slopes and/or ridgelines. This type of development can impact erosion, water quality, scenic views, wildlife habitat and more which all can adversely affect the rural character of our town.

7. Open space is an extremely important aspect of rural living and must be preserved. The town should actively explore methods to accomplish this including:
   --income from land removed from current use
   --grants from state, federal or private resources
   --LCHIP monies
   --municipal land trusts
   --conservation easements

8. An information board should be on display in the new town office building documenting town initiatives relative to land protection.

Recreation Goals

Given that 85% of survey respondents said it was important or very important to protect recreational trails and areas, steps should be taken to help insure these sites are preserved and enhanced.

In addition, since 59% of respondents said that swimming and 43% said boating, are their favorite activities, access to and the protection of water quality for Spofford Lake and the Connecticut River should be priorities of the town.

1. The Recreation and Conservation Commissions should work together to determine how town trails and running areas might be enhanced for increased enjoyment by residents.

2. Given that the quality of Spofford Lake water is so important for recreational activities, the town should work with the state to insure that pollution from use of the island, public landings and beaches, and septic systems is minimized.

3. Baseball and soccer are played on the same fields, which limits fencing opportunities. The town should research and possibly acquire a field that can be dedicated to baseball & softball.

4. Map and document trails in Chesterfield via GPS.

IMPLEMENTATION PLAN

Introduction

The success of a Master Plan in shaping future growth and influencing public policy decisions is dependent upon the degree to which the plan is actually carried out by those responsible for its implementation.

It is strongly recommended that the Planning Board establish one meeting, annually, which is dedicated to bringing together all of the responsible entities (at least 1-2 representatives) (i.e. Selectboard, Planning Board, Zoning Board, Conservation Commission, Recreation Commission, Road Agent, etc.) for the purpose of discussing, assigning, and reporting on actions relating to the Master Plan Goals/Objectives.

The first meeting's purpose, soon after a Master Plan update, would be to come to agreement regarding which goals would be assigned to which entity, and prioritization of those goals.

Subsequent annual meetings would require each entity to report on their progress, to date, relative to each goal. The intent being that some amount of definite progress will be made each year.

These meetings should be public so that residents may provide input as appropriate.

Tools for Guiding Future Development

A number of techniques for guiding the future development of the town are listed below. Each one is a tool, better suited for some uses than others. A brief description of these techniques follows. As new tools come to light, they should be added to the list.

Techniques for Guiding Growth

Land Development Regulations
Specific Subdivision Regulations
Zoning Ordinance changes/additions
Overlay Zones
Density/Intensity Bonus
Cluster Development
Historic District
Conservation Restriction
Point System for Evaluating Development Proposals

Land Development Regulations

The Planning Board reviews and approves or disapproves site plans for the development of tracts for non-residential and multi-family uses as well as subdivisions. Projects are evaluated in great detail and the public has opportunity for input. Our Land Development Regulations have been written over past years to place standards/restrictions on these projects and insure that development happens in the best

interest of the town. These regulations must be reviewed and updated periodically to insure that they will continue to protect the town's rural character and safety requirements.

Subdivision Regulations

Chesterfield has subdivision regulations which control the way in which land is divided into lots and building development. The goals of Chesterfield's regulations are to foster the development of an economically and environmentally sound and stable community and to safeguard and protect the people of the Town of Chesterfield, the taxpayer and the public from the consequences of improper subdivision, planless growth and haphazard development by:

Zoning Ordinance

Chesterfield has a Zoning Ordinance delineating areas of town for certain uses. There is a process for rezoning land that involves residents' voting on ballot questions during Town Meeting Day.

Overlay Zones

Overlay zones are like zoning districts but occur when a certain set of circumstances are present rather than being fixed on a map. Overlay zones may be associated with standards more stringent than the controls necessarily in place in a given location and are therefore often used to protect natural resources and critical natural areas.

Density/Intensity Bonus

Underlying the use of density/intensity bonuses is the philosophy that individuals should be rewarded for good development or development that offers special benefits or amenities to the town. These are often used to encourage affordable housing.

Cluster Development

Cluster development is a form of density bonus whereby a developer may locate buildings closer together then would otherwise be permitted. The benefit to the town is the resulting open space. Other advantages to cluster development include reduced construction costs, site-responsiveness and flexibility in site planning, which may result in protection of natural resources such as agricultural land, the ability to efficiently deliver public services and minimal visual impacts.

Conservation Restriction

New Hampshire has had, for several years, a program whereby a landowner can accrue substantial tax benefits while retaining title to his land by donating a "conservation restriction" to the town. This legally binding document, executed at the discretion of the landowner, can effectively prevent development of the land forever. In return, the landowner receives federal income tax reductions, estate tax reductions, and local property tax relief. He retains title to the land and can continue to use the land within the (self-imposed) limitations of the restriction. Like donations of land, this technique should be promoted and used along with other protection methods.

Point System for Evaluating Development Proposals

A point system could be adopted as a way to evaluate development proposals. It could be used by the Selectmen prior to issuing or denying a building permit or by the Planning Board as part of its subdivision or site plan review. While absolute policies dictate which uses are allowed any place or no place in town and which areas of town may not be developed, a point system could help decision making for relative and density policies.

MASTER PLAN 2007 UPDATE, BASIC STUDIES

HISTORIC RESOURCES

Chesterfield's Setting

The town of Chesterfield is located along the Connecticut River in the southwestern corner of New Hampshire. The river creates a natural boundary between New Hampshire and Vermont and flows south ten miles to the Massachusetts state line. Chesterfield is located 65 miles from Concord, the state capital. It is a rural community, which is located between the region's two largest commercial centers, Keene, NH, and Brattleboro, VT. Route 9, which connects the two cities, bisects the town.

The town is primarily forested, with many hills and meadows. Spofford Lake is one of the town's major natural resources with an abundance of year-round homes and summer cottages. Chesterfield's population is widely scattered with heavier concentrations around three village centers, with the southern part of town being virtually uninhabited due to its remoteness and the presence of the state's largest park, Pisgah State Park.

Historic Resources

A plan for the future without a look to the past is incomplete. Historic structures and sites, which survive from earlier periods, present a visual story of a community's people, places and activity. The preservation of these resources is fundamental to the retention of a sense of place and identity in any given community. An index to the past, surviving fragments of history contribute to the character and individuality of each town, and lend a sense of continuity. Historic structures and sites are but one part of our total environmental resources and like many others, are nonrenewable.

The purpose of this chapter is to discuss significant historic sites and resources in Chesterfield and to make recommendations for their continued preservation. Existing legislation pertaining to historic preservation and preservation tools for private citizens and at local, state and national levels are included.

This chapter was prepared in recognition of the fact that Chesterfield's historic resources and historic quality play an important role in the overall quality of life in the community. It does not attempt to be a complete and comprehensive inventory of all local resources, but is intended as a departure point for the future. The present state is but a chapter in an ongoing story.

Chesterfield's History

The first Master Plan of Chesterfield, New Hampshire, was presented February 11, 1752, in a Charter granted by Benning Wentworth (then Governor of the Colony of New Hampshire) and his Council. Chesterfield had existed on paper as a geographical entity since 1733 when it was established as "Number One" in a grant by the Colony of Massachusetts; the grant being conditional on the King's decision concerning the border between Massachusetts and New Hampshire. No evidence that any settlement was attempted in "Number One" under the Massachusetts Charter has been discovered.

By 1752, peace between the English, and the French and Indians appeared to have reached the Connecticut River Valley; the southern border of New Hampshire had been established as it presently exists and "Number 1" was re-chartered by the Colony of New Hampshire under the name of

"Chesterfield" - in all probability derived from the Earl of Chesterfield, a prominent Englishman of the time.

A Chart was drawn on a sheepskin parchment dividing the Town by means of ranges (numbered east to west - 16 in all) and lots (dividing each range into 17 lots of 100 acres each). Spofford's Lake is shown on the chart and was included in the grants. Thirty-one of the center lots were divided into fifty-acre house lots.

The principal grantee was Josiah Willard, who had succeeded his father as Commander of Fort Dummer. Of the 64 other grantees, some were soldiers of Fort Dummer, others were members of the Governor's Council. It appears that few ever settled here.

In 1754, hostilities between England and France renewed which seems to have prevented settlement in Chesterfield. In 1760 the grantees petitioned the Governor's Council to "lengthen out" the terms of the Charter, and a one-year extension was granted. In November 1761, Moses Smith and his son-in-law, William Thomas, and their families canoed up the Connecticut River and established the first permanent settlement. Once begun, the settlement of Chesterfield progressed rapidly. By 1767 there were 365 inhabitants, with sawmills and gristmills built and roads laid out.

Eleven years after Moses Smith arrived (1772), the first minister had been called, the Meeting House built and six school wards had been formed (schooling was provided in private homes). In addition, the three oldest public cemeteries (West Burying Ground near the River Road, the Northwest on Poocham Road, and Center Cemetery) had been established.

During the Revolutionary War, and in the years immediately following it, many families came to settle in Chesterfield. By 1786 the population numbered 1,535. Many of these newcomers were from Massachusetts, some were from neighboring towns (Westmoreland, Hinsdale, and Winchester), and a few from as far away as Rhode Island. There were among them, people of almost every occupation - physicians, teachers, traders, coopers, weavers, shoemakers, blacksmiths, carpenters, millers, and lawyers. All were, of necessity, farmers to some extent. In short, Chesterfield was becoming self-sufficient. More saw and gristmills were built. Blacksmith shops, mills, stores, and taverns came into existence.

Chesterfield's population in 1800 was 2161, the greatest until recent times (1985 population was 2629). Chesterfield was more populous than nearby Keene. Settlement had occurred in all parts of town, including New Boston (the Gulf Road area) and Hardscrabble (the southeast corner of town). The first mills were built on Partridge Brook in what was to become Chesterfield Factory (Spofford Village). Eventually thirteen mill sites would be developed in this area. The Catsbane, Broad, and Leavitt's Brooks all had a number of manufacturing operations on them. Two ferries provided transportation across the Connecticut River.

A decline in population began in the early 1800s as families moved to the more arable land in the newly opened West and to towns with greater waterpower. However, Chesterfield continued to progress even without growth in its population. Post offices were opened, churches and schools built, and a poor farm was operated. A fire-fighting company was formed in Chesterfield Factory. The present stone Town Hall was built to replace the wood frame one that had been burned. Industry was a main element in the town's economy. Among the products made in Chesterfield were cotton and woolen cloth, leather, spinning wheel heads, cider and cider brandy, gunpowder, doors, window sashes, and blinds. Also produced here were bits, augers, and boring tools, pail staves, buckets, clothespins, and brush handles.

By 1860 the population had declined to 1434. The Poor Farm, established in 1837, was sold. An early printed Town Report (1866) reveals that there were 15 school districts. The 1880s began the growth of Spofford Lake as a recreational area. The first "summer" cottages were built on its shores. Steam boats plied the lake, boat houses, summer camps, and hotels were built. With the building of Pine Grove Springs Hotel in the 1890s, the lake became a popular resort area, drawing many out-of-state visitors and, eventually, some permanent residents.

Population in 1900 had declined to 981. The Chesterfield Free Library had been established, a suspension bridge had been built spanning the Connecticut (1889), and only seven schools were in operation in town. Manufacturing had shown a marked decline. The name of Chesterfield Factory had been changed to Spofford. The Spofford Fire Company was formed in 1903. Farming had also declined. Photographs taken in the early 1900's show Chesterfield still as open and devoid of trees as did those taken in 1880. By 1927 school was kept in only three districts corresponding to the three villages - No. 1 (West Chesterfield), No. 5 (Center), and No. 13 (Spofford). Saw mills, limited manufacturing, tourism, and home occupations were the chief industries left in town. Hardscrabble and New Boston had been virtually abandoned.

By 1930 the automobile, electricity, and macadam roads had become common in town. Fire departments were established in West Chesterfield and in Center Chesterfield. Natural disasters greatly affected the town in the late 1930s. The Flood of 1936 destroyed the Suspension Bridge, which spanned the Connecticut River. A temporary bridge was destroyed in the flood of 1937. The present Arch Bridge was completed in 1938. The Hurricane of 1938 devastated the town. Considerable local employment was provided by the portable sawmill that was set up at the yarding area in Center Chesterfield to cut up the great number of pines that had been downed. In 1939 a library was built with the children's wing added the next year. The population in 1940 was 842. Big Bands were playing at the Wares Grove Dance Pavilion. In 1941 construction began on Route 9 by-passing Center Chesterfield. After WWII, Spofford Village had a shirt factory, which employed a large number of women.

Population growth had begun again by 1950. Of the 970 people in Chesterfield, most found employment outside of town. Chesterfield School was built in 1951, consolidating the three district schools. Additions were made to the school in 1955 and 1962. Chesterfield joined the New Hampshire Supervisory Union #29 in 1967. All of the high school students were sent to Keene High School. Roller-skating was popular at Wares Grove until a snowstorm collapsed the rink roof. Two cemeteries were opened in 1965 – the Friedsam Cemetery and the Spofford Annex. The state was beginning to purchase land in the southern part of town for a park. Limited dairy farming, maple sugar production, and the raising of livestock were still carried out in town. Aerial photographs show Chesterfield to be heavily reforested by the 1960s.

The decades of the 1970's and 80's, saw much growth in Chesterfield. The population had increased to 2561 by 1980. To handle this growth, the first zoning regulations were accepted in 1974. In 1972, Pisgah State Park was officially established. Wares Grove Beach was purchased by the town in 1973. The Morris Friedsam Town Forest was designated in Center Village. The Chesterfield Historical Society was incorporated in 1975. The Planning and Zoning Boards were established, as were the Conservation, Cemetery and Parks and Recreation Commissions. In 1981, the Spaulding and Clark/Ogden properties were purchased by the town to provide land for expansion of the Town Center. The town office was moved to the Clark property in 1982. The police station was moved to the renovated Clark garage in 1984. The town received its first computer also in 1984. A third addition to the school was made in 1987. Two years later, half-day kindergarten classes were added. In 1989, the Chesterfield Office Park on Rte 9 in West Chesterfield was established.

By 1990, the population was 3099. More summer cottages were being converted to year-round living. Land was set aside off the Gulf Road for the Madame Sherri Forest. A large mall was proposed for West Chesterfield. The zoning change required was voted down. The decade was one of replacing or expanding outgrown town facilities. A new public Works Garage was built in 1990. The Chesterfield and West Chesterfield Fire Companies merged into the Chesterfield Fire Service in 1992. In 1994, a new Chesterfield Fire Station was built on part of the Clark land. The fourth addition to the school was made in 1995. Four classrooms were built with volunteer help and many donated supplies. A new slate roof and an access ramp were added to the town hall in 1997. A new Chesterfield Library was completed that same year on the Spaulding property. Two years later, the Chesterfield Historical Society moved into the old library that was renamed the Friedsam Building.

The new millennium found Chesterfield with a population of 3542. A redesigned transfer station was completed in 2004, after the old one was lost to arson. In 2005, a new arch bridge was constructed by the States of New Hampshire and Vermont over the Connecticut River and dedicated to the Navy Seabees. The James O'Neill, Sr. Forest was dedicated in 2005. The year also saw the demolition of the historic Hopkins-Pierce Mill in Spofford Village. The last 19th century mill in town, it was torn down to clean up late 20th century industrial pollution. The Spofford Fire Precinct voted, in 2006, to build a new fire station on donated land off Route 9 in the village. A new Town Office and Police Station complex was built in Center Village next to the fire station in 2007/08.

Little visual evidence remains to remind us of the agricultural and industrial past that belongs to Chesterfield. Stone walls and cellar holes in the woods and fields that surround the three villages, stone foundations, and breached dams on the brooks, have become, to us, only a small part of what we call the "rural beauty" of the town.

Preservation Activities to Date

The Town of Chesterfield has no Historic District or Historic Commission. However, a very active private group, the Chesterfield Historical Society, has been in existence since 1975.

It has had several accomplishments including republishing the town history, completing an extensive inventory of town cemeteries, and establishing an historic archive and museum of photographs and artifacts.

Town Center Study

In January of 1991, a report entitled "Town Center Master Plan" by Scheer-McCrystal, Architects, was commissioned by the town. The report served as a feasibility study for the placement of future municipal buildings in Chesterfield Center. The major buildings in this report have been constructed. A copy of this report may be found in the 1996 Master Plan.

Local Regulations

The Town's regulations pertaining to historic resources are minimal. There is no Historic District, Historic District Regulations, or Historic District Commission as allowed by NH RSA 673:4 or 674:45. There is no specific reference to historic sites or buildings in the town's zoning ordinance. However, Section 205.3 does require new structures to be "compatible with the residential architecture of the Village District" in order for a special exception to be granted for a commercial use. No standards for this requirement are provided. The Planning Board's subdivision regulations do briefly address historic

resources by requiring additional setbacks of developments from historic places, buildings, or family cemeteries when appropriate (Section 606:4) but nothing to preserve historical, architectural, or archaeological sites within a subdivision or building site. Preservation or sensitive treatment of buildings or sites is done now only through landowner interests.

The concerns about this relative lack of recognition of historical resources in town regulations are several. First of all, buildings or sites of historic value may be destroyed or demolished. They may also be changed in character to the extent that the resource is effectively lost. Just as often, a new use may be inappropriate to the site or to the context of historic use. Also, abutting properties or the neighborhood may change in ways that threaten the property or site through changed property values, economic factors, or physical factors (such as aesthetics, noise, drainage, streets, signs, etc.)

It is premature at this point to restrict particular uses from historic sites or structures; this may never be appropriate. The priorities of public regulations should include exterior building preservation, protective buffer space around certain properties to protect special qualities or the enjoyment of the site (for example, churches and cemeteries) and the compatible site development of abutting properties.

Often, building codes, with their appropriate concern for safety, have the effect of forcing the destruction of historical features of a building. The state Division of Historic Resources can be a source for guidance in the application of building regulations to historic buildings as well as local uses of the U.S. Department of Interior's Historic Preservation Standards.

Many historic properties are unable to be used as they were originally, either because of technical or economic factors. How a site or structure is re-used today will also have a different effect on the immediate neighborhood than it did 50 or 100 years ago. The re-use of structures in appropriate ways may require innovative zoning and site plan review to permit economically viable uses compatible with other public goals.

National Register of Historic Places

The National Register of Historic Places is the official list of the Nation's cultural resources worthy of preservation. Established by the National Historic Preservation Act of 1966 and administered by the National Park Service within the Department of the Interior, The Register lists properties of local, state and/or national significance in the areas of American history, architecture, archeology, engineering, and culture. Resources may be nominated individually or in groups as districts, as a multiple resource area by category as a thematic group.

In New Hampshire, any individual may prepare a nomination application. National Register forms, maps, and photographs are submitted to the NH State Historic Preservation Office for review by the State Review Board. Following approval at the State level, it is sent to Washington, DC, for final review, approval, and listing. At present, the only building in town on the National Register is the Asbury United Methodist Church in Center Chesterfield. Citizen’s Hall in West Chesterfield is on the State of New Hampshire list of historic buildings. A part of Spofford Village has been deemed eligible for the National Register, but has not yet been nominated.

COMMUNITY FACILITIES AND SERVICES

Community facilities and services are provided to meet the health, safety, and welfare of the community. The need for community facilities is determined largely by existing and future population growth, land use patterns (e.g. whether concentrated or dispersed), and the need for replacing out-dated facilities.

Since both the quality and the cost of a community's facilities are greatly affected by the town's future development policies, they are an integral part of the town's planning program.

Chesterfield has a town center located on a 22-acre hilltop site along the east side of Route 63 at the intersection of Old Chesterfield Road. In the center of town are the Library, Town Hall, the Friedsam Building (housing the historical society), Town Offices, the Police Station, the Chesterfield Fire Station; a town tennis court and the Chesterfield School. Other adjacent community facilities include the U.S. Post Office, the Asbury Methodist Church, American Legion Post 86 and a cemetery.

Town Hall

The Chesterfield Town Hall consists of a one-story stone meeting hall with a bell tower and various attached wood frame buildings. The meeting hall, which was built in 1851, houses an auditorium with a stage. The attached structures house a meeting room, rest rooms, a kitchen and the Chesterfield office of Home Health Care and Community Services, Inc. The original stone hall is an architecturally attractive, dominant building, which serves as the focal point of the Town Center. The principal deficiency of the building is the rambling, inefficient nature of the wood frame buildings that have been appended to it.

The Town Hall is actively used. Meetings of town boards that are attended by the public are held in the meeting room, and the auditorium is frequently used for large public gatherings. There is a need for improving the Annex, especially the kitchen. The hall windows and doors need to be made more energy efficient. The stone exterior is in need of repointing. Shutters are missing from the south side.

Town Office

The Town of Chesterfield's administrative offices are located, at present, in the Town Center, just south of the Town Hall in the Ogden Clark house, which was acquired by the Town in 1981 and converted to Town Offices. The building contains approximately 1700 square feet of office space for the Treasurer, Selectmen, Town Clerk/Tax Collector, Administrative Assistant, Planning Board, and Code Enforcement Officer. A multi-purpose room is used for meetings and other administrative purposes. In 1987, the small garage on the site was remodeled to house the Police Department. The second floor cannot be used for offices. At the March 2007 Town Meeting, the townspeople voted to build a new Town Office/Police Station Complex on land south of the Chesterfield Fire Station on land previously purchased by the town.

Police Department

The Chesterfield Police Department has four-full time and four part-time officers. The Police Department was housed in the remodeled garage on the former Ogden Clark property immediately adjacent to the Town Offices and Chesterfield School. It will move to the new Town Offices/Police Station.

Fire Department

The Town of Chesterfield now has two fire departments, Chesterfield and Spofford. The West Chesterfield Department was joined with the Chesterfield Department in 1992. There are still three firehouses with several main pieces of fire-fighting equipment each. The departments are all volunteer with 60 to 70 firemen in total. In the future, there may need to be at least one paid fireman as most people are employed outside of town.

The Departments belong to the Southwestern New Hampshire Mutual Aid System responding to the calls in surrounding towns (and visa versa) as needed. Communication is through a single channel base station with each truck equipped with a mobile radio. All fire fighters have pagers. One of the great needs of the fire departments involves water. Chesterfield has no fire hydrants and all water for fire fighting has to be pumped. Access to existing water sources, such as Spofford Lake, needs to be expanded, particularly along the North Shore Road. Also recommended is the construction of fire ponds in Chesterfield Heights and Cobleigh Estates.

From a planning perspective, both departments would like to see more emphasis on insuring adequate water is available at new developments and that buildings are constructed to minimize fire hazard.

Ambulance

Ambulance service for Chesterfield residents is provided by private services with first response support provided by the fire departments.

Emergency Management

The purpose of the emergency management function at the local level is to coordinate the planning and preparation for potential disasters of all kinds. The planning and preparation is done within the organizational structure and guidelines of the federal and state Offices of Emergency Management. Monies are available to Chesterfield because most of the Town is within the ten-mile emergency planning zone of the Vermont Yankee Nuclear Power Plant at Vernon, Vermont. The Offices of Emergency Management will have an office and a meeting/training room in the new municipal building.

Library

The Chesterfield Library is housed in a stone-faced and clapboard building constructed in 1997 to the north of the Town Hall. The current building is adequate for the town's needs for the foreseeable future.

Highway Department

The Highway Department is managed by the Road Agent. The department maintains 73 miles of town road. Personnel include the Road Agent, 1 part-time and 6 full-time employees. A 76' x 100' highway garage was constructed in 1992. The garage is at capacity. However, the garage is adequate to meet the needs of the town for the next five years. Sufficient land is available for expansion at the present site if necessary.

Transfer & Recycling Facility

In order to minimize the amount of waste going into a landfill, Chesterfield began a substantial recycling program in 1990. The recycling facility is located at the town transfer station near the highway garage. The newly constructed building replaces the original facility, which was burned down by vandals. Hazardous waste is brought to the Keene Transfer Station.

Water and Sewage

Chesterfield has no public water or sewage systems, and none are foreseen in the near future.

Cemeteries

Chesterfield has 24 cemeteries. Only four of these are active: the Friedsam Cemetery on Route 63, the Robertson Burying Ground on Poocham Road, the Spofford Cemetery on High Street and the Chesterfield West Cemetery on Poor Road. The town performs most burials and maintains all of the cemeteries as well as the grounds of all town-owned properties. One full and two part-time personnel maintain the cemeteries. There is no plan to purchase additional land or start a new cemetery since the existing sites will serve the town adequately for the next five years. New lots are currently being laid out in the Friedsam Cemetery.

Capital Improvements Plan

The Town of Chesterfield has a Capital Improvements Plan which is currently being updated.

Spofford Fire Precinct

The Spofford Fire District is a sub-unit of local government. The District owns and maintains the Fire House and Village Hall. A new fire station is under construction. Completion is hoped for the Spring of 2008. The reuse of the Village Hall is being studied. The Spofford Department is financed through the Spofford Fire District which is a separate precinct covering about 55% of Chesterfield's total property valuation.

Chesterfield Fire & Rescue Precinct

The Chesterfield Fire & Rescue District is a sub-unit of local government. The District owns and maintains the Center and West. Chesterfield fire houses. The Chesterfield Department is financed by the Chesterfield Fire District, which is a separate precinct, and covers everything the Spofford precinct does not.

Education

Chesterfield is part of NH School Administrative Unit No. 29 along with Harrisville, Keene, Marlborough, Nelson, and Westmoreland. Students in Grades K-8 attend the Chesterfield School, which is located in the town center. High school students attend Keene High School. A small number of additional special education students are enrolled in collaborative programs administered by the Keene School District or other out-of-district placements.

School Facilities

Chesterfield has a long-term contractual agreement with the Keene School District to tuition Chesterfield's students to Keene High School for Grades 9 through 12. Keene High School's enrollment capacity is sufficient to meet Chesterfield's student population needs in the foreseeable future, well past the ten-year time period of this master plan.

The existing Chesterfield School is located in Chesterfield Center and houses educational facilities for Grades K-8. This facility is located on 10.8 acres of land and has twenty-two classrooms (this includes one art and one music room). The facility has a capacity of approximately 425 students.

Private Schools, Colleges, Day Cares

There are no private schools or colleges in Chesterfield. There are two privately owned, licensed pre-school facilities, located in Spofford.

EXISTING LAND USE

Introduction

Chesterfield is large in land area and complex in its land make-up. There are several hundred specific land uses, but, fortunately, these may be grouped into a manageable number of categories. The following pages, tables, and maps contain a generalized description of existing land use factors and categories. The purpose of this description is to paint in broad strokes a picture of the present land use patterns and to identify trends which may affect future planning decisions.

Factors Influencing Land Use

Existing land use patterns in Chesterfield are the result of a variety of factors including history, location, topography, transportation and economics.

Chesterfield's location along the Connecticut River ensured its early development. The river was used for transportation and moving goods and services. With the growth of Brattleboro and Keene, Route 9 became a major east-west highway connecting Vermont and New Hampshire.

Chesterfield's rugged topography has been an important factor in determining its development patterns. The river bottom and gently sloping areas were developed and populated while the dominant steep mountainous areas have remained forested and undeveloped.

More recently, people's desires to live in rural areas have changed, to better enjoy leisure and recreational activities. The shore of Spofford Lake is heavily developed. New development has tended to be in the rural areas on large lots as people relocate from urban and "in-town" environments.

Land Use Trends

A review of major land use trends over the past 50 years can be seen in the table below. While these figures are based primarily on remote survey determinations and should not be taken as absolute, some trends do appear.

Agricultural land has decreased over time. While over 4000 acres existed in 1950, only about 1000 acres remained in 1990. There were 1,422 acres in Current Use-Farmland in 2007 (though not all of this land was necessarily active farmland). Most of the agricultural land lost has reverted to woodland, but some has also been developed.

	1950	1970	1990	2001	2007
Agriculture	16%	13%	4%	6%	unavailable
Development/Other	3%	4%	9%	6%	10%
Woodland	81%	82%	87%	87%	90%

2001 Source: 2001 Landcover Assessment
2007 Source: Chesterfield Tax Assessor's Database

Existing Land Use

The following two tables show land use in 1992 and in 2007. The methodology used to calculate the different land uses are different, therefore comparing the two years is not appropriate. However, the general land use trends over time can be seen. The table below shows land use from 1992 calculated for the 1996 master plan.

LAND USE- 2002

Type	Acres	% of Use
Forest	18,069	59
Agricultural	1,040	4
Residential[1]	2,700	9
Commercial/Industrial	190	<1
Streets/Roads	540	2
Utilities	40	<1
Public/Semi-Public	6,975	22
Water	1,230	4

Source: Lobdell Associates, 1992

The following table shows land use from 2007. Data was gathered using the SWRPC GIS and the 2007 Chesterfield Tax Assessor's Database. The method for calculating land use is a typical model followed for land use analysis. Land use was broken down into the categories noted below. Any parcels that were less than or equal to 2 acres in area were considered using the acreage supplied in the assessor's database. Parcels over 2 acres were considered to have a 2 acre development impact. 2 acres reflects the fact that for larger parcels, the majority of land is usually not actually *developed* but remains mostly forested. Roads and water were calculated using the SWRPC GIS and the total developed area was subtracted from the total land area of Chesterfield to obtain the total undeveloped land area. The **Existing Land Use Map** reflects existing land use in Chesterfield.

LAND USE- 2007

Type	Acres	% of Town
Undeveloped Land	27,533	90
Developed Land	3,251	10
Commercial/Industrial	*229*	*0.7*
Single Family Residential	*2,004*	*6.5*
Multifamily Residential	*10*	*0.003*
Seasonal Residential	*121*	*0.4*
Institutional	*23*	*0.1*
Streets/Roads	*863*	*2.8*
Water	1230	4

Source: 2007 Tax Assessors Database; SWRPC GIS

[1] The residential figure was arrived at by assuming 2 acres of land for each single family home and 1 acre for each seasonal and manufactured home.

Approximately 90% of Chesterfield's land area is undeveloped. Much of the land area that has remained undeveloped has done so because it is too remote or unsuitable for development. Some land is managed as woodland to produce forest products, while other woodlands provide owners with buffers and open space. This calculation also includes agricultural land and undeveloped parts of private property.

Residential Land Use

In the past, residential development in Chesterfield has been focused in four locations: Chesterfield Village, West Chesterfield Village, Spofford Village, and along the shores of Spofford Lake. Recent development trends have been for larger lots in new areas along existing streets or in new subdivisions and cluster developments.

By 2007, approximately 7% of Chesterfield was developed for residential purposes.

Commercial/Industrial Land Use

Commercial/Industrial users account for approximately 229 acres, or 0.7% of Chesterfield's land area. This was calculated by assuming the actual acreage for parcels less than 2 acres in area, for the golf course and for all warehousing land uses. The remaining uses were considered to have a 2-acre impact area of development[2].

There is little in Chesterfield that can be classified as "industrial". The Stow Mills area offers the largest commercial/industrial subdivision. United Natural Foods and a Fed Ex warehouse are among the largest facilities located in the Stow Mills area.

Thomas Construction Corporation, with a large commercial structure, is located on a 26-acre lot off of Route 9 in Spofford. The remaining commercial users are small and primarily scattered along Route 9. Some commercial activity is present near Spofford Lake as well, particularly at the southern end, including the golf course, and rental cabins.

Determining the type and location and extent of future commercial/industrial growth in Chesterfield is and will continue to be the most controversial land use issue facing the town. In 1990, a large 500,000 sq. ft. mall was proposed along Route 9 at the western end of town. The proposal required a zoning amendment which was defeated at a special town meeting. In 1993 several proposals for rezoning of land along Route 9 to commercial were presented to the Planning Board.

Agricultural Land

In 1880, 64% of New Hampshire land was in farm use. In 1992, less than 15% remained farmed statewide. As of 2002, there were only 8 farms remaining in Chesterfield, according to the USDA Census of Agriculture[3].

Chesterfield has lost most of its agricultural economy as well, with no active dairy farms left in the community. Of the 4,500 acres of land in agricultural use in 1950, only about 1,040 acres remained in

[2] The 2-acre impact area refers to the amount of land that is actually impacted by the land use, rather than the size of the complete parcel. It most cases, the whole parcel is not used and a majority of the land remains undeveloped (no impact).

[3] 2002 USDA Census of Agriculture, found at http://www.nass.usda.gov/Census_of_Agriculture/index.asp

1992 - a loss of 77% of Chesterfield's agricultural land. In 2007, 1,422 acres of land were designated as Current Use-Farmland. Some has been lost to development but much has simply reverted to forestland.

The following table shows a breakdown of agricultural land in Chesterfield as determined by a comprehensive field study of agricultural land in Chesterfield in 1985 by the Soil Conservation Service. Lobdell Associates made estimates for 1992 for the last Master Plan. Data from 2001 was collected via the 2001 NH land cover assessment. These years used different methods to analyze areas of agricultural land and cannot be compared with each other, but rather these numbers provide estimates for agricultural land in their respective years.

Most of the remaining agricultural land in Chesterfield is found in the western 1/3 of the town with the largest concentration around Chesterfield Village. Most cropland is found along the Connecticut River.

Losses of farmland have dropped off somewhat since the 1960s and 70s, however, substantial agricultural land exists that could be lost to development or abandonment. Much of the agricultural land is utilized by farmers from surrounding towns.

Currently, no mechanism exists in local land use regulations for maintaining land in agricultural use. Yet much of the rural character of Chesterfield is tied to the diversity, views and landscapes created by the community's farmland.

AGRICULTURAL LAND USE

	Inventory 1985 (1)	Estimate 1992 (2)	2001 (3)
Pasture	298	260	1766
Hayland	538	500	
Cropland	176	120	85
Idle	172	160	-
# of Fields	95	89	-

Sources:
(1) USDA - SCS
(2) Lobdell Associates
(3) 2001 NH Land Cover Assessment

Conservation Land and Public/Semi-Public Lands

Chesterfield has one-fifth of its land area publicly owned. Conservation Lands are shown in the accompanying **Conservation Lands Map.** The table below lists some of the larger parcels in this category.

CONSERVATION LAND

Name	Size (Acres)
Pisgah State Park	5,695
Wantastiquet State Forest	520
Chesterfield Gorge Natural Area	16
Pierce's Island	5
Town Beaches	7
Town Complex	22
Cook Lot	57
Greenbelt Area	19
Madame Sherrie Forest	488
Friedsam Memorial Park	209

Landownership

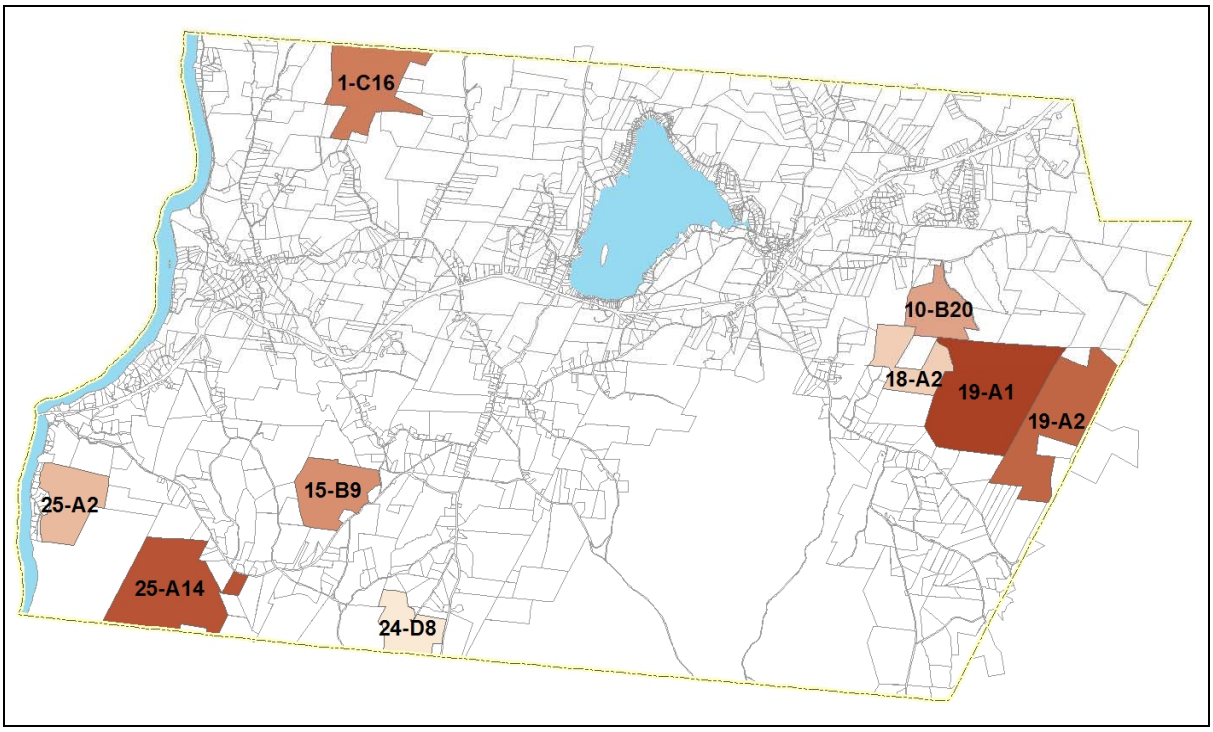
The State of New Hampshire is the largest landowner in Chesterfield and owns the parcel with greatest size (Pisgah State Forest). The state also owns several small parcels not included in the preceding table scattered throughout the town.

Private holdings are many with no single landowner owning large portions of the town. The following table lists the 10 largest lots in private ownership. The map following indicates the locations for these parcels. Their combined ownership is approximately 9% of Chesterfield's total land area.

TEN LARGEST LOTS (NON-PUBLIC)

TAX MAP #	SIZE (AC.)
19-A1	529
25-A14	488
19-A2	367
1-C16	303
15-B9	211
9-B6	191
10-B20	183
25-A2	179
18-A2	162
24-D8	151

Source: SWRPC GIS- 2007



Current Use

NH RSA 79A allows landowners to place land in a tax abatement program based on their current land use. The table below compares the status of current use lands in 1996 and in 2006. During the years in between 1996 and 2006, the total amount of current use land fluctuated; however, the ten year total change was only 5%.

LAND IN CURRENT USE

	1996	2006	% Change
Farm Land	1,462	1,438	-2%
Forest Land	13,923	14,631	5%
Unproductive Land and Wetland	483	616	28%
Total # of acres under current use	**15,868**	**16,685**	**5%**

(Source: 1996 and 2006 Current Use Reports)

As of April 2007, there were 300 landowners with a total of 519 parcels in current use (this includes 1 landowner with 10 parcels)[4].

Land can be taken out of current use with a penalty payment of 10% of land value. In Chesterfield, 100% of the penalty goes to a community conservation fund up to $25,000 a year. Anything over $25,000 goes into the general fund. In the year 2006, over $14,000 was collected for the fund.

[4] Town Current Use Report, April 2007.

Land Use Regulation

A zoning ordinance was first adopted in 1956 and has been amended several times. Chesterfield formed its Planning Board in 1961. The Board developed subdivision regulations by 1963.

Master Plan

Chesterfield's first master plan was adopted in December of 1985. The plan was put together by the Planning Board with the assistance of a citizen advisory board. The plan was developed over a three-year period and included distribution of a community attitude survey to the town's residents and public meetings to assist the Planning Board in formulating goals and objectives.

The plan contained four pages of goals and objectives including 23 goals under six headings: General Land Use, Residential Development, Public Properties and Services, Commercial and Economic Development and Recreation/Education. Specific goals included:

- Allow growth and development to occur in such a manner as to preserve and maintain rural character, charm and visual appeal.
- Record and protect the historical heritage of the town.
- Recognize different capabilities of various soils to support development.
- Encourage residential development that meets the town's housing needs while preserving the essentially rural character.
- Assure governmental functions can be conducted efficiently and economically.
- Provide for a "balanced" development with appropriate provision for a variety of land use which will maintain an adequate Tax Base.
- Create land use controls that allow commercial and economic development in areas that will not detract from the rural appearance of the town.
- Assess the impact of the Route 9 corridor on present and future needs for commercial and economic development.
- Provide for the preservation of those valued resources which give the town much of its beauty . . . and ecological values.
- Provide recreation facilities and programs.
- Support and actively pursue excellence in the education system.

Zoning Ordinance

The current zoning ordinance divides the town into 6 districts shown on the accompanying **Zoning Map**. The table below shows the percentage of land per zoning district.

LAND BY ZONING DISTRICT

	Acres by District	% of Total
Commercial/Industrial	201	0.7%
Office, Retail, Service	41	0.1%
Residential	6291	20.7%
Planned Development District	7.5	0.02%
Rural/Agriculture	23782	78.4%
Village	14	0.05%

Source: SWRPC GIS

Most of the existing residential growth occurs in the residential district (R). The vast majority of the town is in the rural agricultural zone or the residential zone. These two districts account for over 99% of the town's total land area.

Commercial and industrial activity is confined to areas ranging from a little more than 1 to over 77 acres in size adjacent to Route 9.

Two small areas were added in 1991 in a new district called Office, Retail and Services District (O/R/S) at the eastern end of Route 9 focusing on offices and retail uses. An additional small area was subsequently added on the western end of Route 9. In 2006, a portion of the eastern O/R/S land was rezoned to residential.

The Planned Development District (PDD) was assigned to one 7.5 acre area within the Residential District adjacent to NH 9. The purpose of a PDD is to provide the town and the applicants with an alternative development approach intended to promote flexibility and innovation in land planning.

The following table provides a breakdown of each district relative to area, minimum lot size, frontage requirements, and permitted uses.

CHESTERFIELD ZONING ORDINANCE (2007)

Rural/Agricultural District (R/A)	
% of Town	78.4%
Minimum Lot Size	5 acres
Frontage	400
Coverage	Building not to exceed 10%, impermeable surface not to exceed 20%
Clustering	Yes
Manufactured Housing	Yes
Excavations	Yes (SE)
Multifamily	No (unless in Cluster development)
Major Permitted Uses	Farming, forestry, single family, municipal, greenhouses, golf courses, manufactured housing subdivisions, kennels, cemeteries, outdoor recreation, public utilities, churches
Major Permitted Uses by Special Exception:	Home occupations, tourist homes (bed and breakfasts), manufactured housing parks, sand and gravel pits

Residential (R)	
% of Town	20.7%
Minimum Lot Size	2 acres
Frontage	200 ft (300 ft for two-family buildings)
Coverage	Building not to exceed 10%, impermeable surface not to exceed 20%
Clustering	Yes
Manufactured Housing	Yes
Excavations	Yes (SE)
Multifamily	Yes
Permitted Uses	Single family, two family, multiple family, manufactured housing parks and subdivisions, clusters, municipal, farming, forestry, outdoor recreation, churches, schools, public utilities, cemeteries
Permitted Uses by Special Exception	Home occupations, sand and gravel pits
Village District (V)	
% of Town	.05%
Minimum Lot Size	2 acres
Frontage	200 (300 ft for two-family buildings)
Coverage	Building not to exceed 10%, impermeable surface not to exceed 20%
Clustering	No
Manufactured Housing	Yes
Excavations	No
Multifamily	Yes
Permitted Uses	Single family, two family, multiple family, municipal, church, school, libraries, public utilities, meeting halls/lodges for non-profit social organizations
Permitted Uses by Special Exception	Home occupations, general stores, tourist homes, day care, offices, gift shops, studios
Commercial/Industrial (C/I)	
% of Town	.7%
Minimum Lot Size	2 acres
Frontage	200
Coverage	Building not to exceed 50%, impermeable surface not to exceed 75%
Clustering	No
Manufactured Housing	No
Excavations	No
Multifamily	Yes (if in a building operating a permitted use and it occupies no more than 50% of the floor area)
Permitted Uses	Offices, laboratories, retail sales, shopping centers, motels, business services, restaurants, wholesale businesses, warehouses, auto/RV sales, boat sales, gas stations, greenhouses, farm stands, and public utilities.
Permitted Uses by Special Exception	Manufacturing plants, assembly plants, trucking and freight terminals, attached dwelling units

Planned Development District	
% of Town	0.02%
Minimum Lot Size	2 acres
Frontage	200
Coverage	Building not to exceed 20%, impermeable surface not to exceed 50%
Clustering	No
Manufactured Housing	No
Excavations	No
Multifamily	No
Permitted Uses	Business offices, warehouse and distribution, manufacturing, personal and business services, public utility and municipal buildings, multi use buildings and accessory uses containing uses permitted in PDD#3.
Permitted Uses by Special Exception	none
Office, Retail and Services (O/R/S)	
% of Town	.1%
Minimum Lot Size	2, 5 acres maximum
Frontage	200
Coverage	Building not to exceed 20%, impermeable surface not to exceed 50%
Clustering	No
Manufactured Housing	No
Excavations	No
Multifamily	Yes (if in a building operating a permitted use and it occupies no more than 50% of the floor area)
Permitted Uses	Offices, retail sales, personal business services, day care, banks, nursing homes, clubs
Permitted Uses by Special Exception	Restaurants, assembly/repair businesses, attached dwelling units

Building Permit Activity

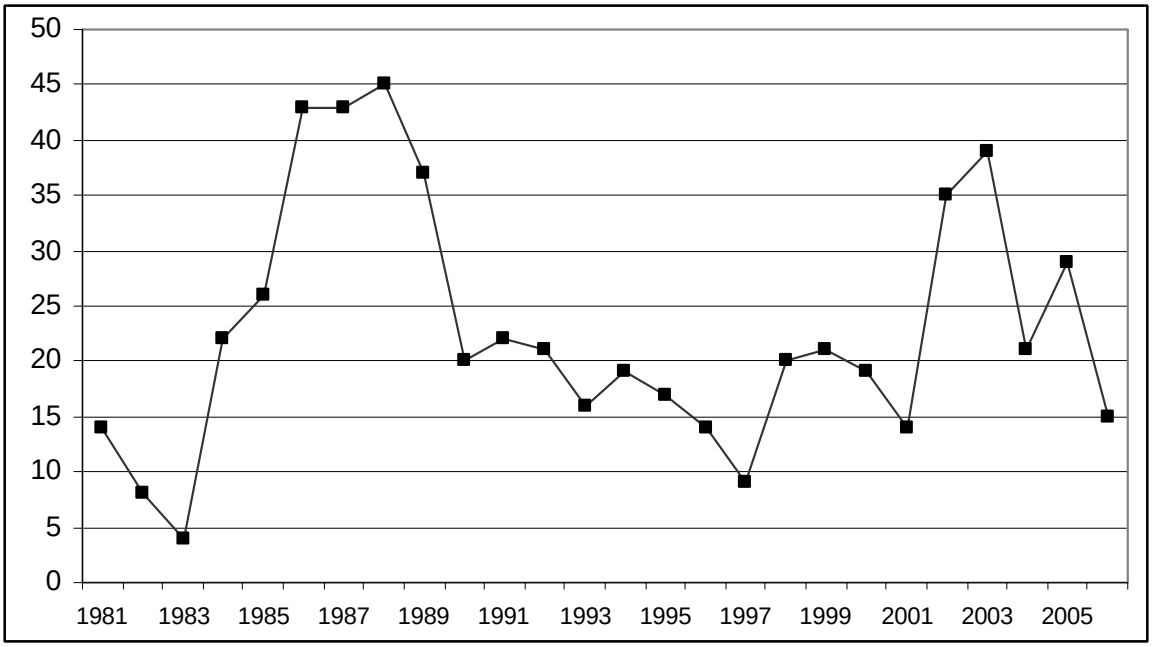
The zoning ordinance requires a building permit to be received prior to most building activity and an occupancy permit prior to utilizing a new structure. The following table and graph reflect the number of building permits issued by year.

BUILDING PERMITS ISSUED OVER TIME

YEAR	**TOTAL #**	NEW HOMES	MOBILE HOMES	COMM./IND.	OTHER*
1981	**70**	14	2	0	54
1982	**100**	8	3	2	87
1983	**109**	4	4	4	87
1984	**104**	22	4	5	73
1985	**138**	26	3	4	105
1986	**159**	43	4	2	110
1987	**187**	43	1	7	137
1988	**174**	45	1	11	117
1989	**150**	37	1	9	103
1990	**152**	20	0	4	128
1991	**149**	22	1	6	120
1992	**121**	21	0	5	95
1993	**106**	16	0	3	87
1994	**111**	19	3	4	85
1995	**74**	17	1	3	53
1996	**93**	14	1	3	75
1997	**68**	9	0	3	56
1998	**94**	20	0	4	70
1999	**110**	21	2	2	85
2000	**105**	19	1	4	81
2001	**88**	14	1	2	71
2002	**104**	35	-	13	56
2003	**121**	39	-	7	75
2004	**120**	21	-	-	99
2005	**163**	29	-	5	129
2006	**147**	15	-	2	130

*Includes Residential garages, porches, additions, remodeling, etc.
Source: Town Reports

BUILDING PERMITS ISSUED FOR NEW HOME CONSTRUCTION 1981-2006



Land Development Regulations and Building Ordinance

The Chesterfield Planning Board adopted subdivision regulations in 1963 as permitted by state law. The regulations outline administrative procedures for receiving subdivision approval and contain a variety of requirements for approval including lot layout, roads, traffic, drainage, open space, flood hazard, etc. These regulations were most recently updated in 2007.

The Chesterfield Building Ordinance was adopted in 1992 and was last updated in 2007. The purpose of this ordinance is to promote the health, safety, convenience and general welfare of the community by regulating the construction of building in the Town. National Building Code standards (building, plumbing, mechanical, fire, electrical, and life safety codes) were adopted in 1991.

Building Permits are issued by the building inspector for all new construction and renovation. All construction must meet zoning and other local and state regulations. Prior to occupying any structure an occupancy permit is also required.

Subdivision Activity

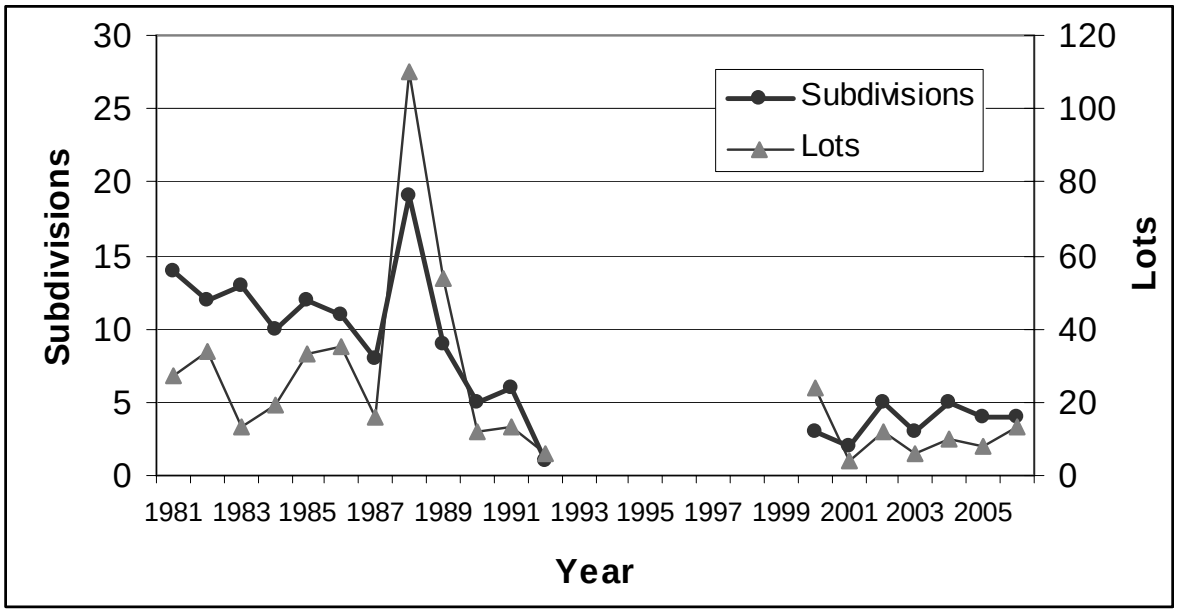
Subdivision activity in Chesterfield was very heavy in the 1980's but slowed in the 1990s with the recession and the slowdown in the housing market as the following table and graph show. From 1981 to 1992 many new lots were created, however over the past 6 years, only 77 new lots were created. There have been far fewer subdivisions since 2000 as there had been in the 80s and 90s.

SUBDIVISIONS AND LOTS- 1981-2006

Year	Subdivisions	Total Lots
1981	14	27
1982	12	34
1983	13	13
1984	10	19
1985	12	33
1986	11	35
1987	8	16
1988	19	110
1989	9	54
1990	5	12
1991	6	13
1992	1	6
1993	Data unavailable	
1994		
1995		
1996		
1997		
1998		
1999		
2000	3	24
2001	2	4
2002	5	12
2003	3	6
2004	5	10
2005	4	8
2006	4	13

Source: Town Office Records

SUBDIVISIONS AND LOTS- 1981-2006



Growth Control Regulations

Chesterfield has no growth control regulations as permitted by the state in RSA 674:22. However, Section 104 of the zoning ordinance spells out certain limitations for specific types of development:

1) New dwellings per subdivision *per year* are limited to 8.
2) New apartments are limited to 36 units per year.
3) Mobile home parks are limited to one per year.

Land Use Regulations in Surrounding Towns

The table below summarizes the zoning regulations for the seven towns surrounding Chesterfield.

All land areas in towns in New Hampshire abutting Chesterfield are zoned primarily for rural residential use. Although the zones are called by a variety of names (Forestry, Agricultural, etc.), Westmoreland has a zone called Medium Density Residential (MDR) which is along Route 63, but it has a 2-acre minimum lot size and is rural in uses allowed. Land east along Route 9 in Keene is zoned for single family use with a 5-acre minimum lot size. The abutting lands of Swanzey, Winchester and Hinsdale are all rural, primarily forested and zoned for rural residential uses on 1- to 3-acre lots.

Lands adjacent to or near the Connecticut River in Vermont are zoned for a higher intensity level of use primarily because of the presence of Interstate 91 and Route 5. Brattleboro has zoned land around the Junction of 5 and 9 as commercial, and land areas to the north of this junction as industrial. Dummerston has zoned most of the area as rural commercial, which allows a wide variety of residential and commercial uses in a mixed use zone.

ZONING IN SURROUNDING TOWNS

	District	Frontage	Lot Size
Keene	Conservation	50	5 acres
	Ag	50	10 acres
	Rural	50	5 acres
	Low Density (R)	60	10,000 sq ft
	Low Density-1 (R)	100	1 acre
	Medium Density (R)	50	8,000 sq ft
	High Density (R)	60	6,000 sq ft
	High Density-1 (R)	50	2 acres
	Central Business	-	-
	Commercial	50	15,000 sq ft
	Industrial	50	-
	Industrial Park 1	200	4 acres
	Industrial Park 2	100	5 acres
Dummerston, VT (from 1991 Ordinance)	Forest Reserve	400	25 acres
	Reserve District	400	10 acres
	Conservation District	300	10
	RR	200	2
	Rural Community	200	2
	Community	250	3
	Village	150	1

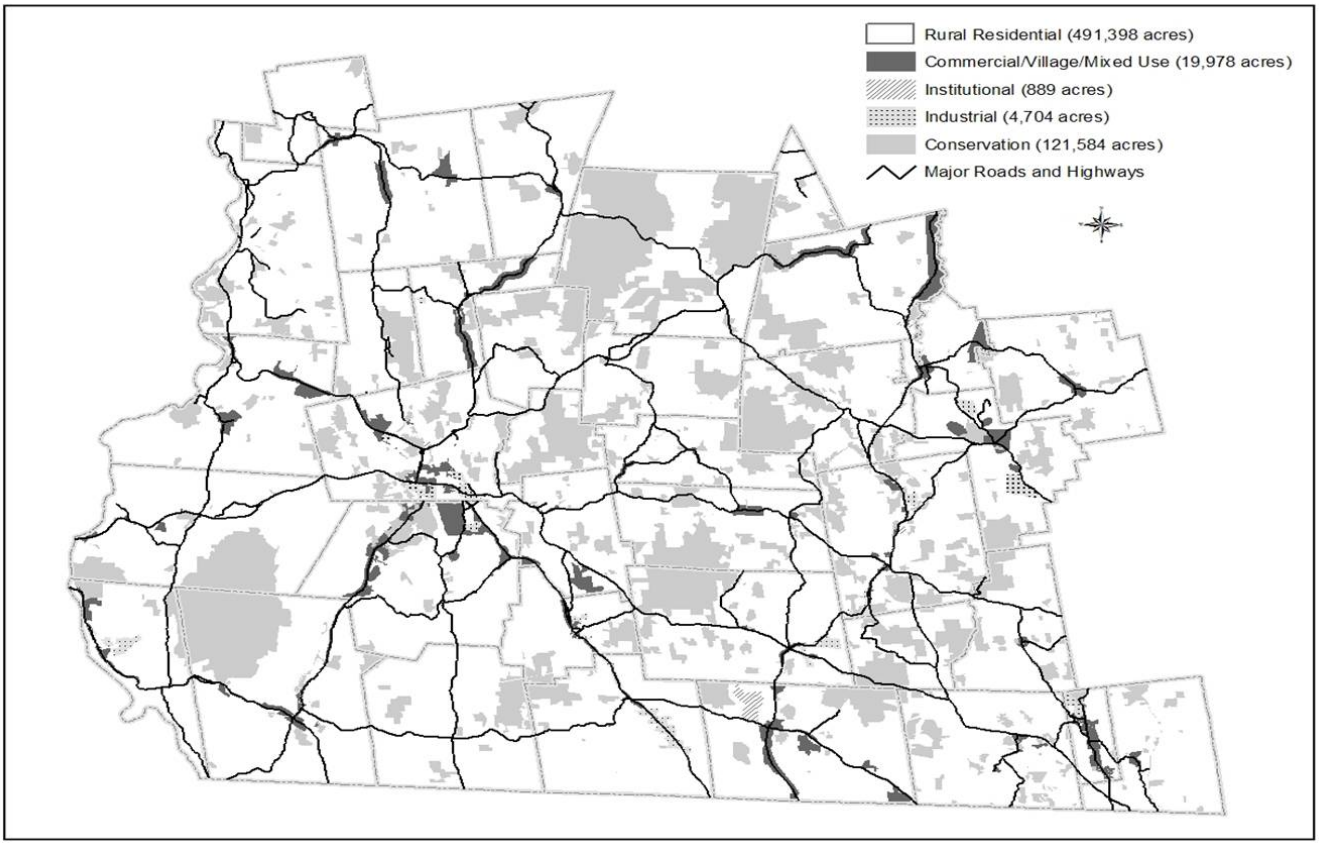
	District	Frontage	Lot Size
Winchester	Agricultural	200	2 acre
	Residential	100	1 ac. w/o TW/TS*
			15,000 sq ft w/ TW/TS
	Rural Residential	100	1 acre
	Central Business	75	15,000 sq. ft.
	Commercial	150	35,000 sq. ft w/o TW/TS
			20,000 sq. ft. w/ TW/TS
	Commercial/Industrial	500 (Class II)	10 acres
	Highway Commercial	500	10 acres
	Forest Lake	200	1 acre
	Shoreland Protection	-	-
	Wetlands	-	-
Hinsdale	Rural Agricultural	200	2 acre
	Residential	100	1/2 acre
	Business	41	5,000 sq. ft.
	Roadside Commercial	100	1 acre
	Commercial/Industrial	100	1 acre
Swanzey	Rural/Agricultural	225	3 acres
	Residential	150	1 acre
	Village Business	100	1/2 acre
	Business	125	1 acre
	Comm./Ind.	400/125	3/1
	Lake, Flood, Wetland	-	3
	Airport	-	-
Westmoreland	Comm./Industrial	200	2 acres
	Forestry Residential	500	10 acres
	Med. Density Residential	300	2 acres
	Rural Residential	500	5 acres
	Village Center	200	1 acre
Brattleboro, VT	Rural	300	3 acres
	Rural Residential	150	1.5 acres
	Residential	60-100	6,000 sq ft
	Multiple Residential	60-100	6,000 sq. ft.
	Residential Office	60-100	6,000 sq ft
	Commercial Office	60-100	6,000 sq ft
	Village Center	60	6,000 sq ft
	Urban Center	0	2,000 sq ft
	Suburban Commercial	60-250	.25 - 1acre
	Commercial	100	20,000 sq ft
	Commercial Industrial	60-100	6,000-20,000 sq ft
	Industrial	75	22,000 sq ft
	Flood Hazard	-	-
	Shorelands	-	-

***TW = Town Water**
TS = Town Sewer

Regional Land Use

The image below shows the regional zoning in the Southwest Region of New Hampshire. A great proportion of the region is rural residential with conservation land the next highest "use." This is important to note considering the fact that conservation land cannot be developed. Other uses are far less prevalent in the region. Most commercial/industrial/mixed uses are located along the state highways.

REGIONAL ZONING
Source: SWRPC GIS (2006)



ECONOMIC DEVELOPMENT

Introduction

Like many small towns in New Hampshire, Chesterfield has limited commercial and industrial development. Most goods and services, including medical and professional services, are provided in towns such as Keene and Brattleboro, VT. These towns are also major employment centers.

Economic issues facing the town include increasing school tax burden and the limited commercial and industrial tax base from which to draw upon. Because of economic restructuring in recent years, today, the proportion of residential to industrial and commercial valuations is extremely disproportionate. It has been demonstrated across the nation that residential development alone does not generate the tax base necessary to fund the service demands which accompany such development.

Following are highlights of Chesterfield's economic environment:

- Chesterfield's population almost doubled between 1970 and 2000. During this 30-year period, the town's population increased by 1,725 residents (95%).

- From 1970 to 2000, the number of employed Chesterfield residents increased by 141%, an increase greater than the population growth rate of 95% during the same time period. In that period, the number of Chesterfield residents classified as managerial/professional sector employees increased by 576%. This increase far exceeds the corresponding rates for Cheshire County (177%) and New Hampshire (264%).

- Chesterfield's major employer continues to be United Natural Foods with around 300 employees. Other top employers include Thomas Companies with 50 employees, Foard Panel with 24 employees, Prospect Park Press with 16 employees, and Chesterfield Tire with 15 employees.

- Chesterfield's 2000 per capita income of $25,051 exceeded the average incomes in Cheshire County ($20,685) and New Hampshire ($23,844).

- Between 1990 and 2003, Chesterfield's average unemployment rate of 2.9% was lower than the average rates for Cheshire County (3.7%) and the State of New Hampshire (4.6%).

- In 2004, 90% of Chesterfield's total valuation came from residential land and buildings. The remaining 10% came from commercial and industrial properties, utilities, and land in current use.

- Between 2002 and 2004, after revaluation, Chesterfield's total tax rate decreased by $7.89. Chesterfield's 2003 equalized tax rate of $19.03 ranked at a 142 out of the 228 communities in the State.

- In terms of defining labor market influences, Chesterfield is located in the Keene-Brattleboro Labor Market Area. As of the 2000 Census, 85% of employed Chesterfield residents (1,555) commuted to another town for work. The most common destination was Keene with 753 trips, followed by Brattleboro, VT with 345 trips and Westmoreland with 59 trips. There are 380 jobs in Chesterfield that are held by employees who live in another town. The most common residence for out-of-town employees is Keene with 65, followed by Swanzey with 37 and Brattleboro, VT with 32.

Population

Since 1970, Chesterfield's population has increased by 1,725 residents. This growth represents an increase of 94.9% during those three decades. Chesterfield's population has increased at a much higher pace than the surrounding towns. Chesterfield experienced significant population growth during the entire three decades. In terms of population density, Chesterfield grew from a density of 38 persons per square mile in 1970 to 75 persons per square mile in 2000.

COMPARISON OF POPULATION GROWTH RATES, 1970 – 2000

	1970	1980	1990	2000	# change 1970-2000	% change 1970-2000
New Hampshire	737,681	920,610	1,109,252	1,235,786	498,105	67.52%
Chesterfield	**1,817**	**2,561**	**3,112**	**3,542**	**1,725**	**94.94%**
Swanzey	4,254	5,183	6,236	6,800	2,546	59.85%
Keene	20,467	21,449	22,430	22,563	2,096	10.24%
Westmoreland	998	1,452	1,596	1,747	749	75.05%
Winchester	2,869	3,465	4,038	4,144	1,275	44.44%
Hinsdale	3,276	3,631	3,936	4,082	806	24.60%
Brattleboro, VT	12,239	11,886	12,241	12,005	-234	-1.91%

Source: US Census

Employment

Between 1970 and 2000 the growth rate for total employed Chesterfield residents outpaced the growth in total population. In this period, population grew by 95%, while the number of employed residents over age 16 increased by 141%. Most of this increase can be attributed to a greater percentage of the population joining the workforce. In 1970, about 43% of Chesterfield's population was in the workforce; by 2000 this rate had increased to over 52% workforce participation.

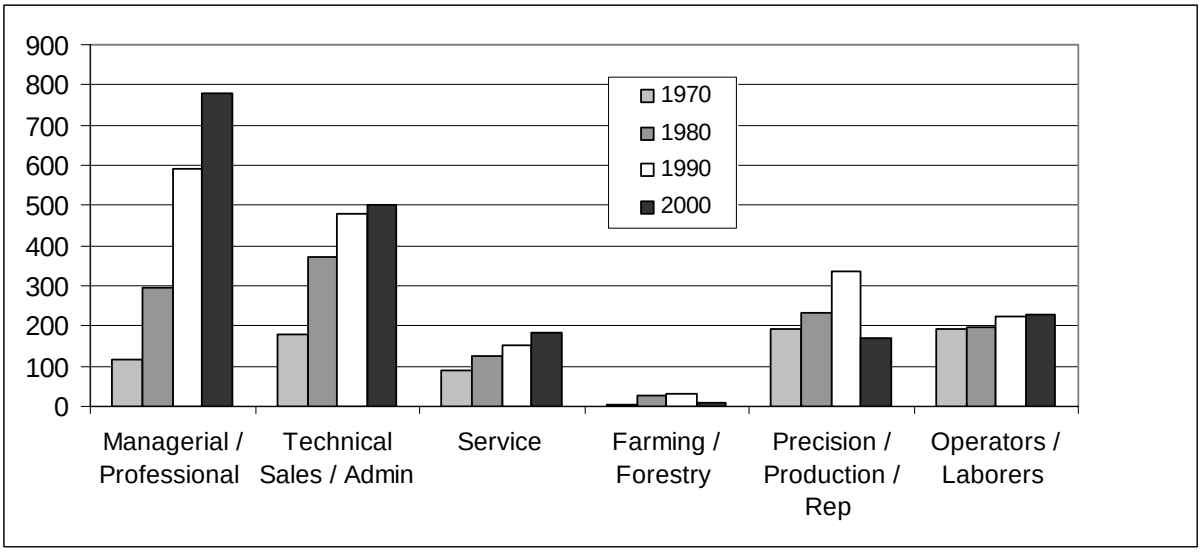
Occupational Trends: Looking at the occupation of Chesterfield residents over time, the largest occupational sector increases since 1970 have occurred in the managerial/professional and sales/administrative service fields. In 1970, 15% of workers were employed in the managerial and professional fields; by 2000 this rate has grown to 42%. This growth in "white collar" employment and the decline in manufacturing employment witnessed in Chesterfield are typical throughout the region and across the country. Regional labor market projections forecast these trends to continue into the foreseeable future. Another trend projected to grow with the spread of high-speed telecommunications availability is home-based employment. In 2000, 117 Chesterfield's residents reported conducting home-based business.

OCCUPATION OF CHESTERFIELD LABOR FORCE AGE 16 AND OLDER, 1970-2000

	1970	1980	1990	2000	% Change 1970-2000
Managerial / Professional	115	295	593	777	576%
Technical Sales / Admin	179	371	480	501	180%
Service	91	124	153	185	103%
Farming / Forestry	5	26	32	8	60%
Precision / Production / Rep	193	234	336	171	-11%
Operators / Laborers	194	199	223	228	18%
TOTAL	**777**	**1,249**	**1,817**	**1,870**	**141%**

Source: US Census

OCCUPATION OF CHESTERFIELD LABOR FORCE AGE 16 AND OLDER, 1970-2000



Source: US Census

OCCUPATIONAL TRENDS OF LABOR FORCE AGE 16 AND OLDER, 1970-2000

Change from 1970-2000	Chesterfield	Cheshire County	New Hampshire
Managerial / Professional	576%	177%	264%
Technical Sales / Admin	180%	104%	158%
Service	103%	95%	139%
Farming / Forestry	60%	-11%	-20%
Precision / Production / Rep	-11%	-3%	31%
Operators / Laborers	18%	8%	24%
Total Labor Force	141%	**71%**	**121%**

Source: US Census

Major Employers

Chesterfield's top employers are shown below. Based on the 2004 employer data, it is apparent that the vast majority of Chesterfield's businesses are small businesses that employ less than five employees.

TOP EMPLOYERS, 2004

	Employees
United Natural Foods	300+/-
Thomas Companies	50
Foard Panel	24
Prospect Park Press	16
Chesterfield Tire	15

Source: NH Employment Security, Personal Communications

Per Capita Income

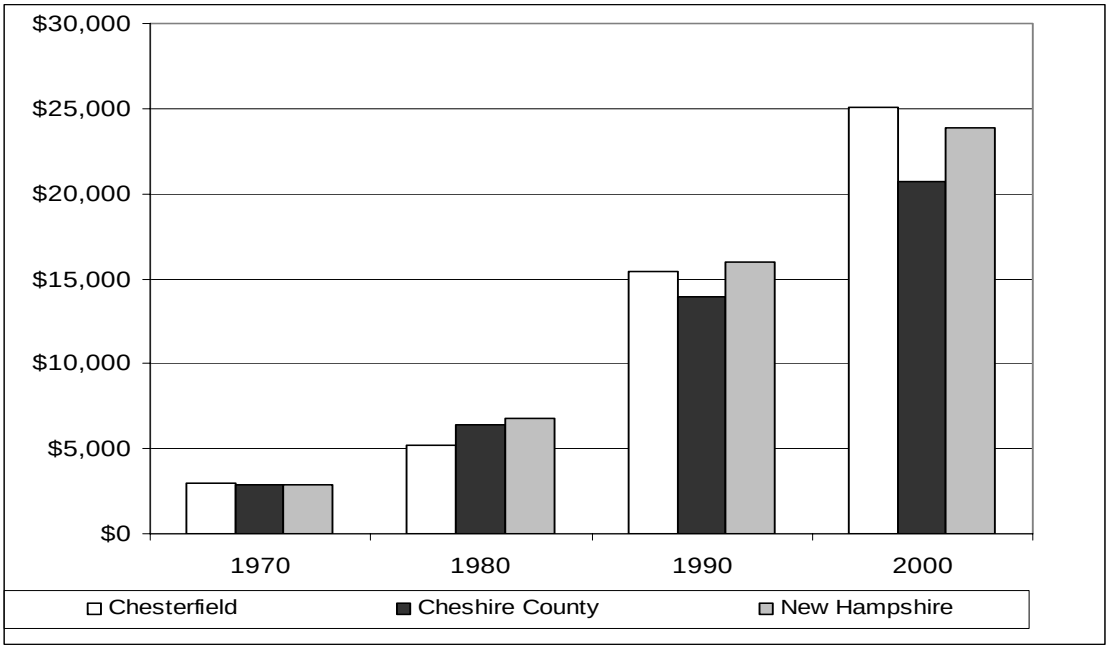
In unadjusted dollars, Chesterfield's per capita income has increased from $2,947 in 1970 to $25,051 in 2000. In 1970, Chesterfield's per capita income was just around the average incomes for Cheshire County and New Hampshire. Between 1970 and 2000, incomes increased in the region and across the state. In 2000, Chesterfield's per capita income was more than $4,000 higher than the Cheshire County average income and more than $1,000 higher than the New Hampshire average.

PER CAPITA INCOME, 1970-2000

	1970	1980	1990	2000	# change 1970-2000	% change 1970-2000
Chesterfield	$2,947	$5,215	$15,412	$25,051	22,104	750.05%
Cheshire County	$2,865	$6,442	$13,887	$20,685	17,820	621.99%
New Hampshire	$2,892	$6,747	$15,959	$23,844	20,952	724.48%

Source: US Census

PER CAPITA INCOME, 1970-2000



Source: US Census

Educational Attainment

A well-educated workforce is an important resource for both existing and new businesses. As the comparison below shows, the educational attainment of many Chesterfield residents changed between 1990 and 2000. The percentage of Chesterfield residents over twenty-five with a high school diploma decreased from 31% in 1990 to 26% in 2000. On the other hand, residents holding an associates degree increased from 2.8% in 1990 to 9.4% in 2000. The percentage of residents holding bachelor's and graduate degrees remained practically the same. A comparison shows that educational attainment in Chesterfield differs from trends in Cheshire County and New Hampshire in that Chesterfield residents in general are better educated.

EDUCATIONAL ATTAINMENT PERCENTAGE INCREASE OF RESIDENTS AGES 25 AND OLDER, 1990 AND 2000

	Chesterfield	Cheshire County	New Hampshire
High School Degree (1990)	30.6%	34.2%	31.7%
High School Degree (2000)	26.2%	34.5%	30.1%
Associates Degree (1990)	2.8%	6.8%	8.1%
Associates Degree (2000)	9.4%	6.6%	8.7%
Bachelor's Degree (1990)	20.5%	15.8%	16.4%
Bachelor's Degree (2000)	20.3%	17.3%	18.7%
Graduate Degree (1990)	12.1%	8.1%	8.0%
Graduate Degree (2000)	12.2%	9.4%	10.0%

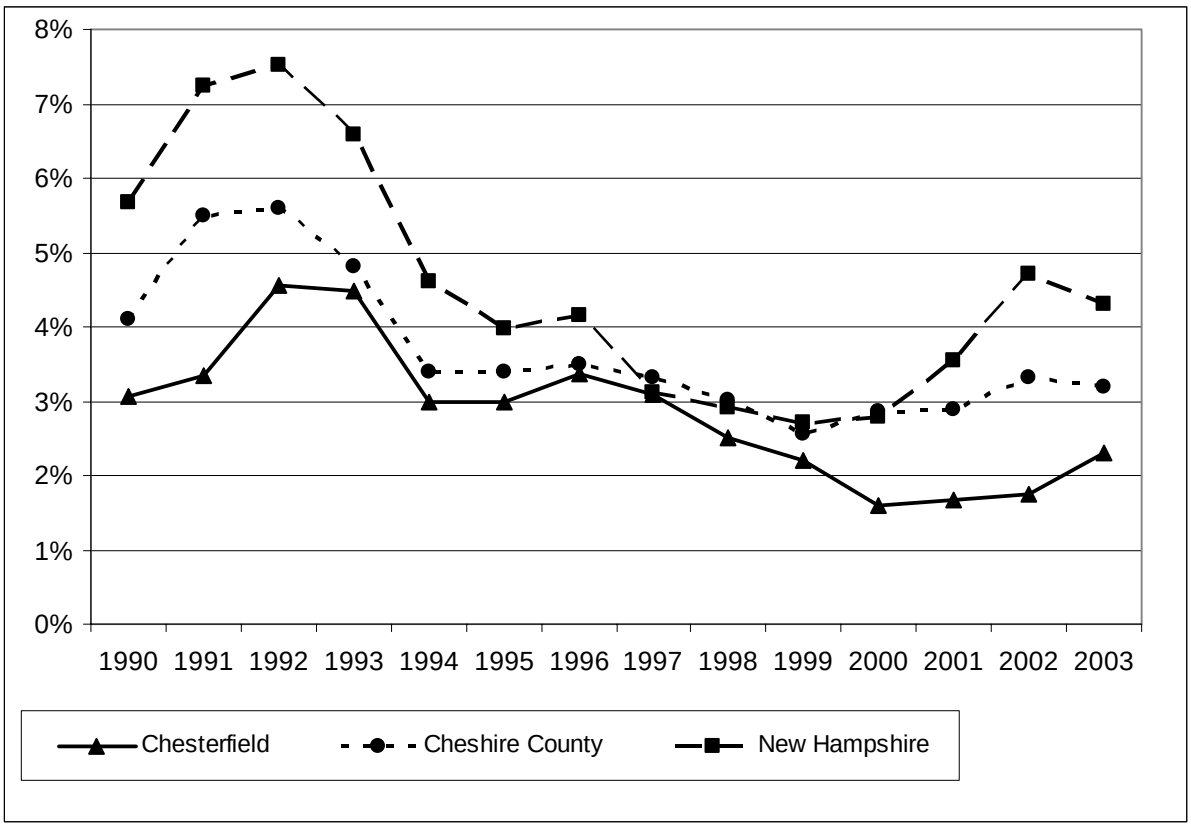
Source: US Census

Unemployment Rates

Between 1990 and 2003, Chesterfield's average unemployment rate of 2.9% was lower than the average rates for Cheshire County (3.7%) and the State of New Hampshire (4.6%).

Over the fourteen-year period, Chesterfield's unemployment rate has generally followed the ups and downs of the regional and statewide trends with a peak in the early 1990's followed by a steadily declining rate through the 1990's and an increased rate after 2000.

AVERAGE ANNUAL UNEMPLOYMENT RATE, 1990-2003



Source: NH Employment Security

Valuation and Taxation

Valuation

Municipal property taxes are levied as a percentage of the assessed value of buildings and land in the community. Between 2000 and 2004, after revaluation, Chesterfield's total valuation rose by more than 125 million dollars or 52%. This increase occurred predominantly in residential land and building values, while most of the property in the other sectors increased in value at a lower rate between 2000 and 2004. The value of commercial and industrial land and buildings saw an increase of 10 million dollars or 41% during this time period.

Looking at a breakdown of valuation in 2004 by use, 90% of Chesterfield's valuation comes from residential buildings and land, 9% from commercial and industrial uses, 0.6% from utilities, and 0.4%

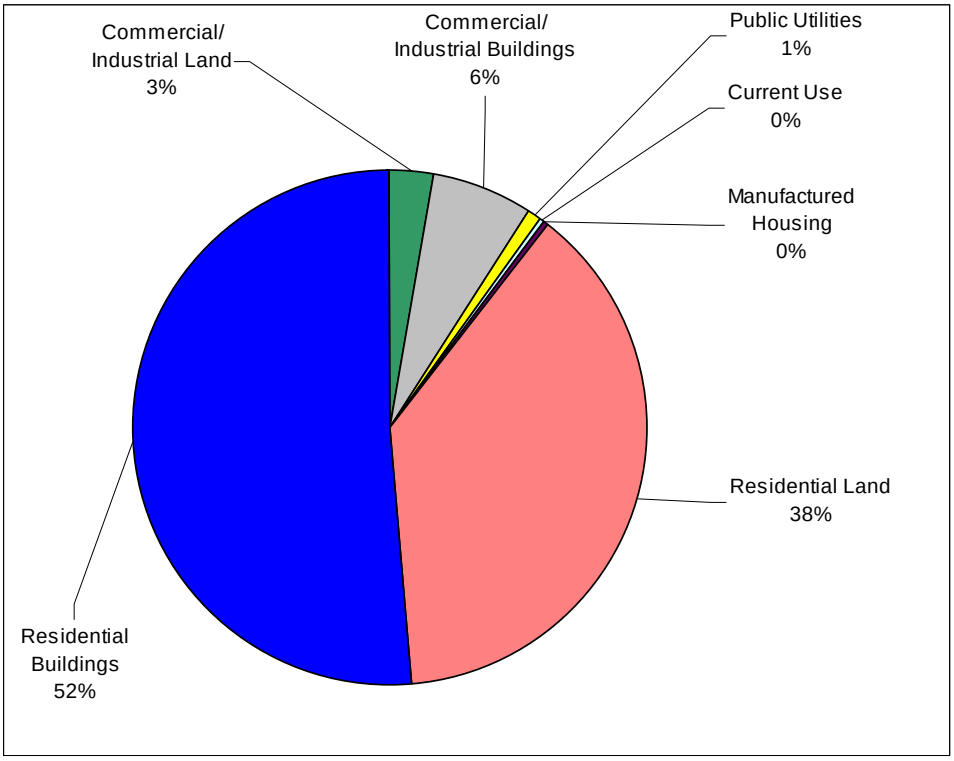
from properties in current use. Compared to surrounding towns, Chesterfield relies more on residential property valuation and less on commercial/industrial use valuation.

SUMMARY OF VALUATION BY LAND USE, 2000 AND 2004

	Assessed Value (2000)	Percent of Assessed Value (2000)	Assessed Value (2004)	Percent of Assessed Value (2004)
Commercial/ Industrial Land	$7,807,414	3.2%	$10,645,800	2.9%
Commercial/ Industrial Building	$16,542,480	6.7%	$23,792,000	6.4%
Commercial/ Industrial TOTAL	$24,349,894	9.9%	$34,437,800	9.2%
Manufactured Housing	$396,800	0.2%	$832,100	0.2%
Residential Land	$100,976,400	41.1%	$142,633,600	38.2%
Residential Building	$115,728,500	47.1%	$191,901,800	51.4%
Residential TOTAL	$217,101,700	88.4%	$335,367,500	89.8%
Public Utilities	$2,642,678	1.1%	$2,208,822	0.6%
Current Use	$1,422,400	0.6%	$1,519,400	0.4%
TOTAL	$245,516,672	100.0%	$373,533,522	100%

Source: NH Department of Revenue Administration

PERCENTAGE OF VALUATION BY LAND USE, 2004



Source: NH Department of Revenue Administration

REGIONAL PROPERTY VALUATION STATISTICS, 2003

	Chester-field*	Swanzey	Keene	Westmore-land	Winchester	Hinsdale	Brattleboro, VT
Residential Land and Buildings	**89.8%**	82.5%	65.9%	85.7%	80.3%	69.4%	45.6%
Commercial/ Industrial Land and Buildings	**9.2%**	15.8%	32.2%	10.6%	16.7%	16.3%	48.7%
Other, Including Public Utilities	**1.0%**	1.7%	1.8%	3.7%	3.0%	14.4%	5.7%
TOTAL	**100%**	100%	100%	100%	100%	100%	100%

*2004

Source: NH Department of Revenue Administration, Town of Brattleboro Lister's Office

Taxation

The table below shows tax rates in Chesterfield from 2002-2007. There was a revaluation in 2003 which resulted in a decrease in the tax rate between 2002 and 2003. From 2003 to 2007, the tax rate increased by $2.35 per $1,000 of assessed value. Of note is that the municipal tax rate remained steady from 2005-2007 and that the increase in the total rate can be attributed mostly to the state education tax rate increase. Chesterfield's total tax commitment for 2007 was $8,596,118 and the total valuation was $386,850,105.

TAX RATES PER $1,000 OF ASSESSED VALUE, 2002-2007

	2002	**2003**	**2004**	**2005**	**2006**	**2007**
Municipal Tax Rate	$3.36	$2.91	$2.72	$3.22	$3.22	$3.22
Local Education Tax Rate	$13.37	$9.98	$10.49	$12.33	$12.43	$12.25
State Education Tax Rate	$6.53	$3.93	$3.10	$2.84	$2.83	$3.25
County Tax Rate	$3.11	$2.28	$2.17	$2.2	$2.79	$2.73
Total Tax Rate	**$26.37**	**$19.10**	**$18.48**	**$20.59**	**$21.27**	**$21.45**

Source: NH Department of Revenue Administration

In order to levy a fair and proportional state-wide education property tax, the imbalance created by varying municipal assessments must be resolved. This process, called "*equalization*", involves the adjustment of a town's local assessed value, either upward or downward, in order to approximate the full value of the town's property.[5] The equalized tax rates allow a comparison between towns.

[5] *"Explanation of State Education Property Tax Rate Shown on Your Tax Bill", NH Department of Revenue Administration, 2001.*

EQUALIZED TAX RATE COMPARISON PER $1,000 OF ASSESSED VALUE, 2006

	Chester-field	Swanzey	Keene	Westmore-land	Winchester	Hinsdale	Brattleboro, VT
Actual Tax Rate	$21.27	$23.63	$25.54	$12.89	$23.76	$31.93	$14.28
Equalization Rate	69.10%	77.70%	96.20%	100%	92.60%	67.60%	n/a
Equalized Tax Rate	$14.70	$18.36	$24.57	$12.89	$22.00	$21.58	n/a

Source: NH Department of Revenue Administration, Vermont Department of Taxes

Commuting Patterns

Of the 1,839 residents of Chesterfield who were employed in 2000, 85% (1,555) commuted into another town for work. Almost half of those (753) headed to Keene for work everyday, 345 employees commuted into Brattleboro, VT for work, and 59 to Westmoreland. The average commute time for Chesterfield's workers in 2000 was 22.3 minutes. Commute times in surrounding towns differ depending on their distance from such regional centers as Keene and Brattleboro, VT.

	Chesterfield	Swanzey	Keene	Westmoreland	Winchester	Hinsdale	Brattleboro
Commuting Out							
Residents working	1,839	3,445	11,109	840	1,948	2,192	6,069
Residents commuting - out of Town	1,555	2,799	2,812	638	1,500	1,675	1,996
Commuting rate - out	84.6%	81.3%	25.3%	76.0%	77.0%	76.4%	32.8%
Most common commute to:	Keene	Keene	Swanzey	Keene	Keene	Brattleboro, VT	Putney, VT
# of Commuters	753	1,991	372	339	667	991	285
2nd most common commute to:	Brattleboro, VT	Winchester	Brattleboro, VT	Brattleboro, VT	Brattleboro, VT	Keene	Guilford, VT
# of Commuters	345	95	315	64	212	194	178
3rd most common Commute to:	Westmoreland	Brattleboro, VT	Peterborough	Chesterfield	Hinsdale	Winchester	Hinsdale
# of Commuters	59	83	119	29	108	55	126
Commuting In							
Total Working in Town	664	1,650	18,575	676	845	1,065	7,481
Residents working in home Town	284	646	8,297	202	448	517	3,993
Non-residents commuting - in	380	1,004	10,278	474	397	548	3,488
Commuting rate	57.2%	60.9%	55.3%	70.1%	47.0%	51.5%	46.7%
Most common commute from:	Keene	Keene	Swanzey	Keene	Swanzey	Brattleboro, VT	Hinsdale
# of Commuters	65	372	1,991	104	95	126	991
2nd most common commute from:	Swanzey	Winchester	Winchester	Chesterfield	Keene	Winchester	Dummerston, VT
# of Commuters	37	108	667	59	92	108	549
3rd most common commute from:	Brattleboro, VT	Troy	Marlborough	Rockingham, VT	Hinsdale	Keene	Vernon, VT
# of Commuters	32	61	604	48	55	83	522
Avg. Commute Time (min.)	22.3	22.2	16.4	23.1	27	21.5	17.1

POPULATION AND HOUSING

Introduction

The examination of population and housing statistics is a critical element of a master plan. By understanding Chesterfield's past growth and expected future it is possible to estimate the level of town services necessary to serve the population and to guide change in an orderly manner.

An analysis of population and housing statistics also enables the Planning Board to determine whether amendments to the zoning ordinance might be required to address any inequities made apparent through the analysis. Following two important NH Supreme Court cases,[6] the concept of equal opportunity housing is now firmly established in the master plan process. In short, every town must, through its Master Plan, address the current and future housing needs of all its residents—and in doing so, must consider the housing situation in its neighboring towns as well.

Two accompanying maps, **Parcels Shaded by Size** and **Household Density**, reflect where the concentrations of housing and population are in Chesterfield. The Household Density Map shows concentrations of low and high population density by block group from the 2000 Census. The Parcels Shaded by Size Map shows the different parcel sizes as calculated from 2007 parcel boundaries.

Population Trends

Population Change

The table below shows population in Chesterfield for 1980, 1990, 2000 according to the US Census and the estimate for 2005 population according to NH OEP. There was a 38% increase in population from 1980 to 2000.

POPULATION 1980 - 2000

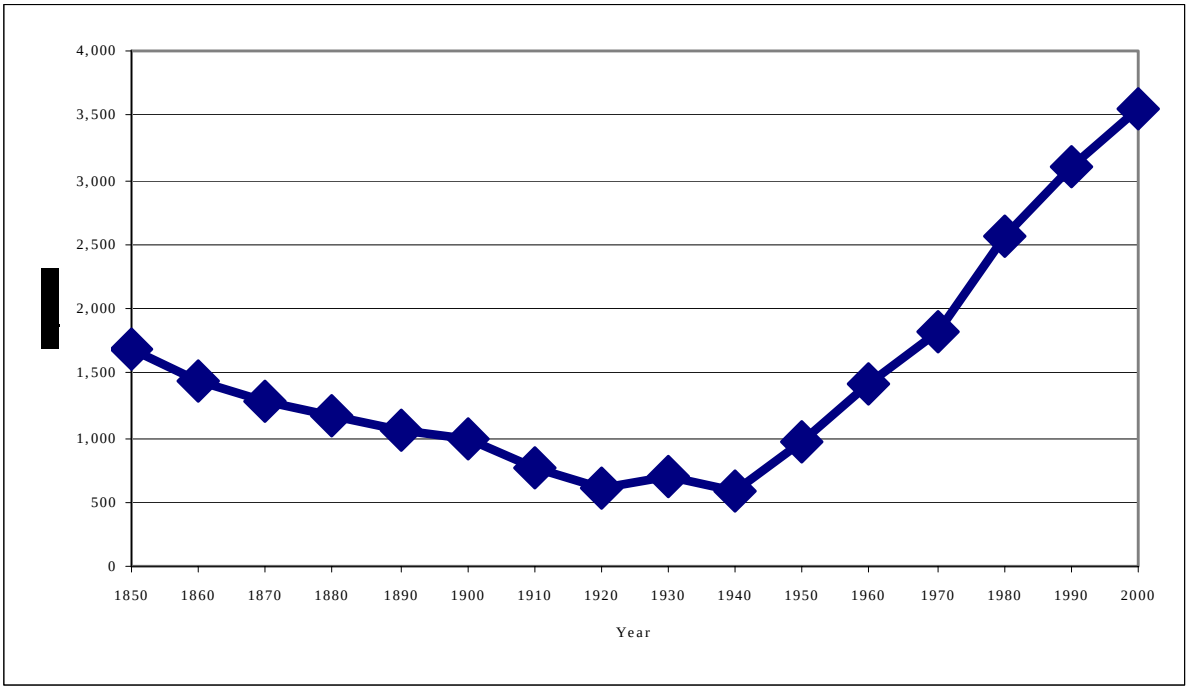
YEAR	POPULATION	% CHANGE
1980	2,561	--
1990	3,112	21.5%
2000	3,542	13.8%
2005	3,770	6.4%

Source: U.S. Census and 2005 NH OEP Estimates

The following graph shows population change 1850 to 2000. The decade of the 1980s saw the greatest increase in population within this time period. From 1850 through 1970 Chesterfield's population was punctuated by periods of growth and decline. Population declined until 1940 and has increased ever since.

[6] *Soares v. Atkinson,* 128 NH (1986) and *Britton v. Town of Chester*, 134 NH (1991). In both cases, the court held that the local zoning ordinance did not provide reasonable housing opportunity for low and moderate-income residents.

POPULATION, 1850 – 2000



Source: US Census

Population projections conducted by the NH Office of Energy & Planning (OEP) suggest a 17.4% increase in population from 2010 to 2030 as shown in the following table.

POPULATION PROJECTIONS, 2010-2030

YEAR	PROJECTED POPULATION	% CHANGE
2010	3,860	-
2020	4,240	9.8%
2030	4,530	6.8%
Change	**670**	**17.4%**

Source: NH Office of Energy & Planning, January 2005.

Population change is affected by two factors: natural increase due to an excess of births over deaths in any given time period; and migration, the movement of people into or out of the community. In 6 out of 11 years during the period 1990-2000, births exceeded deaths, resulting in a gain of 9 persons.

Population increase attributed to in-migration for the period 1990-2000 was 421 persons or 100%. Natural increase played no role in affecting population increase compared to in-migration.

YEAR	*BIRTHS*	*DEATHS*	NATURAL CHANGE
1990	16	13	3
1991	32	22	10
1992	27	20	7
1993	25	27	-2
1994	24	34	-10
1995	18	21	-3
1996	18	19	-1
1997	28	24	4
1998	36	31	5
1999	15	20	-5
2000	24	23	1
Total	**263**	**254**	**9**

Source: Chesterfield Annual Reports

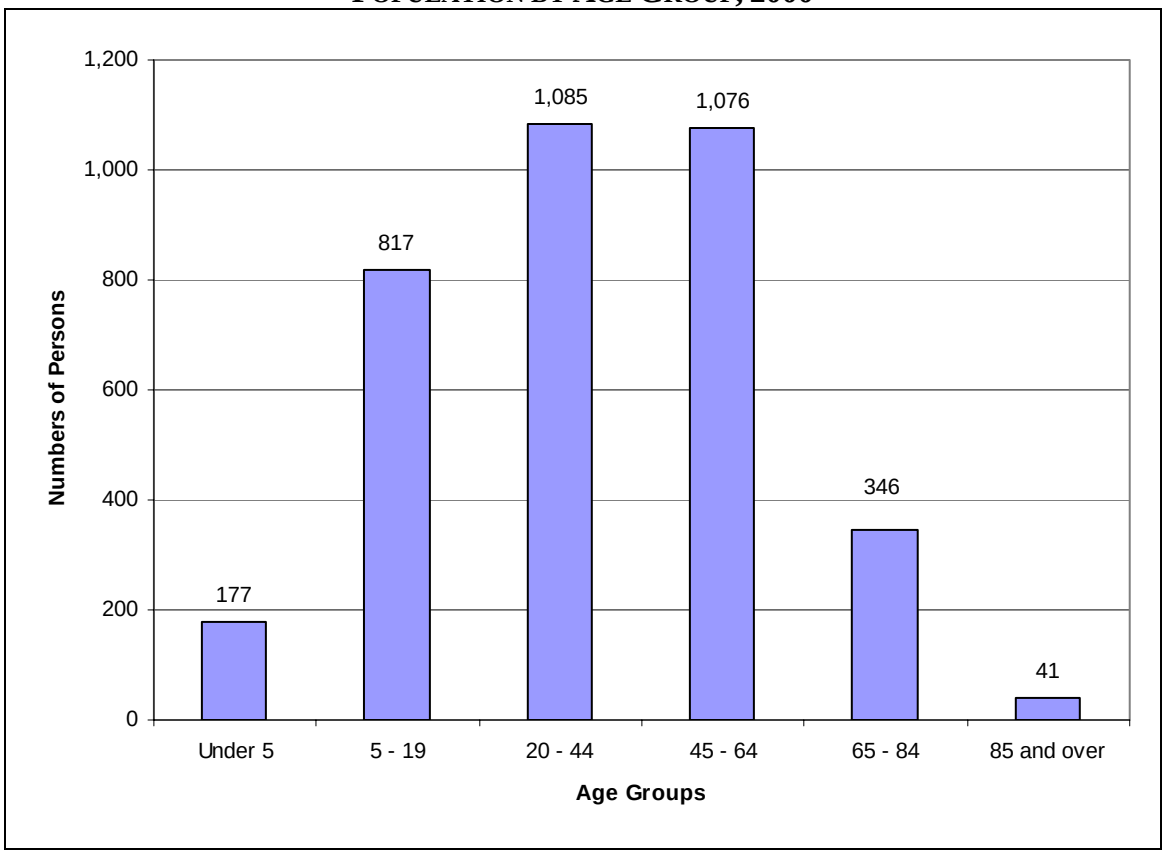
Actual Population, 1990	**3,112**
Natural Increase, 1990-2000 (Births minus deaths)	**9**
Population in 2000 (with no in-migration)	**3,121**
Actual Population, 2000	**3,542**
Actual increase (due to in-migration)	**421**

Sources: US Census; Chesterfield Annual Reports

Population and Age Group

The following graph shows the ages among Chesterfield's residents according to the 2000 census. The majority of Chesterfield's residents were less than 45 years of age (2,079 persons); the most populous age group was 20 to 44 year-olds, accounting for 31% of the total population. The second most populous group was the 45 to 64-age group accounting for 20% of the population. Children under five years of age accounted for only 5% of the population. The median age in Chesterfield in 2000 was 40.4 years.

POPULATION BY AGE GROUP, 2000



Source: US Census

Population mobility

46% of Chesterfield's population lived in the same house five years prior to the 1990 Census, but 95% lived in the same house five years prior to the 2000 Census – an increase of more than 100%. Only 15 percent of Chesterfield residents lived in another state prior to 1990 and 14 percent prior to 2000.

PLACE OF RESIDENCE	1990	% OF TOTAL	PLACE OF RESIDENCE	2000	% OF TOTAL
Same House in 1985	1,424	46%	Same House in 1995	3,372	95%
Different House, Same County	837	27%	Different House, Same County	0	0%
Different County, NH	95	3%	Different County, NH	91	3 %
Different State	482	15%	Different State	492	14%
Different Country	21	1%	Different Country	40	1%

Source: US Census

Neighboring Population Comparisons

An analysis of population is not complete without a comparison of Chesterfield's population with that of its immediate neighbors – Westmoreland, Keene, Swanzey, Winchester, Hinsdale, and Brattleboro, VT. The table below presents this information for 1980, 1990 and 2000.

NEIGHBORING POPULATION COMPARISONS, 1980 – 2000

POPULATION	1980	1990	2000
Chesterfield	**2,561**	**3,112**	**3,542**
Swanzey	5,183	6,236	6,800
Keene	21,449	22,430	22,563
Westmoreland	1,452	1,596	1,747
Winchester	3,465	4,038	4,144
Hinsdale	3,631	3,936	4,082
Brattleboro, VT	11,886	12,241	12,005
Cheshire County	62,116	70,121	73,825
New Hampshire	920,610	1,109,252	1,235,786

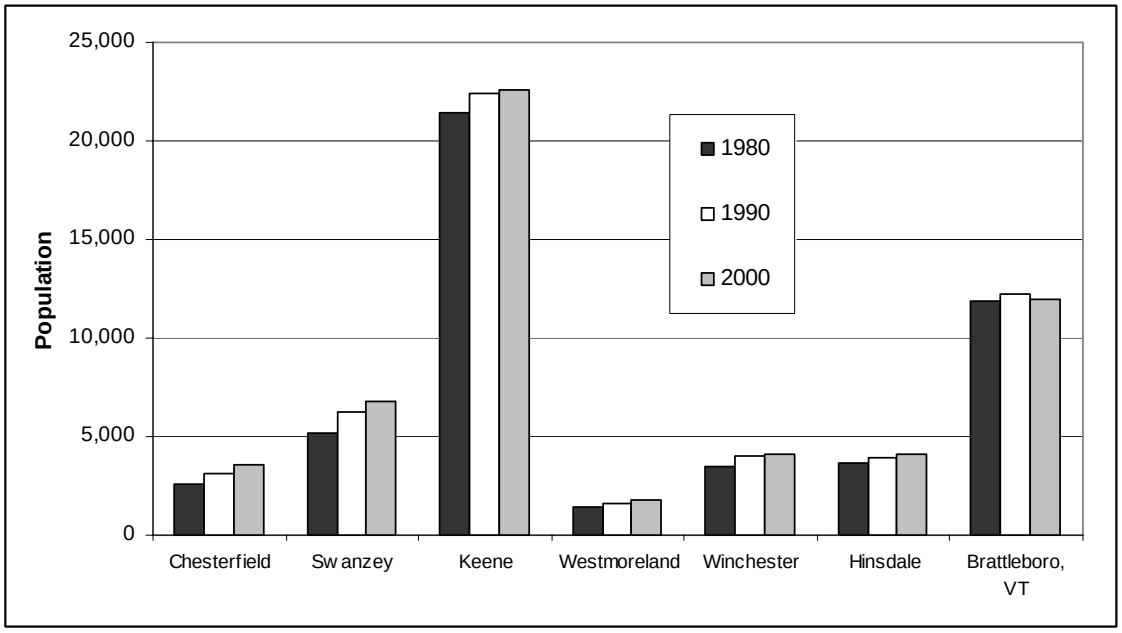
% CHANGE	1980-1990	1990-2000	1980-2000
Chesterfield	**21.5%**	**13.8%**	**38.3%**
Swanzey	20.3%	9.0%	31.2%
Keene	4.6%	0.6%	5.2%
Westmoreland	9.9%	9.5%	20.3%
Winchester	16.5%	2.6%	19.6%
Hinsdale	8.4%	3.7%	12.4%
Brattleboro, VT	3.0%	-1.9%	1.0%
Cheshire County	12.9%	5.3%	18.9%
New Hampshire	20.5%	11.4%	34.2%

Source: US Census

The table above shows that all seven towns in this "subregion" had more growth in the 1980s than they did in the 1990s. This is consistent with the growth experienced by Cheshire County as well as the State of New Hampshire. The towns of Chesterfield and Swanzey experienced the largest growth in the 1980s (21.5% and 20.3% respectively). The Town of Brattleboro, VT and the City of Keene experienced the least amount of growth during the 1980's (3.0% and 4.6% respectively).

During the 1990s, the towns of Chesterfield and Westmoreland experienced the greatest growth in this subregion (13.8% and 9.5% respectively). The Town of Brattleboro, VT and the City of Keene experienced the least amount of growth during the 1990s (-1.9% and 0.6% respectively). The graph below shows the population of the towns in this subregion in each census year examined.

NEIGHBORING POPULATION COMPARISONS, 1980 – 2000



Source: US Census

Population Projections

The NH Office of Energy & Planning population projections for Chesterfield and surrounding towns are presented below in five-year intervals up to the year 2025, beginning with the Census count from the year 2000.

POPULATION PROJECTIONS, 2010 - 2030

							# Increase	% Change
	2000	**2010**	**2015**	**2020**	**2025**	**2030**	**2000-2030**	**2000-2030**
Chesterfield	**3,542**	3,860	4,050	4,240	4,390	4,530	988	28%
Swanzey	6,800	7,400	7,750	8,090	8,370	8,640	1,840	27%
Keene	22,563	23,160	23,610	24,080	24,640	25,220	2,657	12%
Westmoreland	1,747	1,910	1,990	2,080	2,140	2,210	463	27%
Winchester	4,144	4,410	4,620	4,820	4,970	5,130	986	24%
Hinsdale	4,082	4,360	4,560	4,750	4,900	5,040	958	23%
Brattleboro, VT	12,005	11,885	11,826	11,767	11,708	n/a	n/a	n/a

Source: NH Office of Energy & Planning, November 2007; Vermont Department of Health, 2005

Chesterfield has the largest projected population growth as compared to its neighbors at 28%. Swanzey, Westmoreland, Winchester and Hinsdale all have projected growths that are almost as high as Chesterfield. Keene's projected growth is 12%, while projections for Brattleboro suggest a decrease in population each year.

Income Analysis

Chesterfield's median household income and per capita income increased from 1990 to 2000--- 35% and 63% respectively. The rate of increase for median household income was comparable to the trends in Cheshire County and the State, however, per capita income in Chesterfield grew more rapidly.

Median and per capita income levels in Chesterfield were higher than Cheshire County and State averages. Chesterfield's median and per capita income levels in 1990 were 11 to 20 percent higher than the County's. Chesterfield's median income level in 1990 was 5% higher than the State average; but the town's per capita income was 3% lower than the State average. By 2000, Chesterfield's median and per capita income levels were 21% and 4 to 5%, respectively, higher than those for the county and the state.

INCOME, 1990-2000

	1990			2000		
	Chesterfield	**Cheshire County**	**State**	**Chesterfield**	**Cheshire County**	**State**
Median Household Income	$38,000	$31,648	$36,329	$51,351	$42,382	$49,467
Per Capita Income	$15,412	$13,887	$15,959	$25,051	$20,685	$23,844

Source: US Census

PERCENT CHANGE, 1990-2000

	Chesterfield	**Cheshire County**	**State**
Median Household Income	35%	34%	36%
Per Capita Income	63%	49%	49%

Between 1990 and 2000, the percentage of people below the poverty level in Chesterfield decreased by almost 2%. This is a positive development when compared to trends in Cheshire County where poverty levels rose by 1% during the 1990s. The State of New Hampshire's poverty rate remained relatively steady between 1990 and 2000.

POVERTY RATE, 1990 AND 2000

PERSONS FOR WHOM POVERTY STATUS IS DETERMINED:	**Chesterfield 1990**	**Cheshire County 1990**	**State 1990**	**Chesterfield 2000**	**Cheshire County 2000**	**State 2000**
Poverty Rate	6.2%	7.0%	6.4%	4.5%	8.0%	6.5%

Source: US Census

Housing Analysis

Housing Units

In 2000, Chesterfield's housing units totaled 1,632 units an 87 unit increase from 1990. The total number of occupied housing units is the total number of households in Town, whereas the number of housing units reflects both occupied and vacant units.

HOUSING SUPPLY AND TENURE, 1980 -2000

	# of Units			% Change		
	1980	**1990**	**2000**	**1980-90**	**1990-2000**	**1980-2000**
Owner Occupied	751	998	1,145	33%	15%	52%
Renter Occupied	165	199	221	21%	11%	34%
Total Occupied Units	**916**	**1,197**	**1,366**	31%	14%	49%
Vacant Units	87	348	266	300%	-24%	206%
Total Housing Units	**1,003**	**1,545**	**1,632**	54%	6%	63%
Seasonal Units	256	244	216	-5%	-11%	-16%
% vacant	9%	23%	16%			
% owner-occupied	82%	83%	84%			
% renter-occupied	18%	17%	16%			

Source: US Census

The percent increase in the total number of housing units from 1980 to 1990 was much greater than the population percent increase over the same time period, 63% and 38% respectively, indicating a surplus of housing built in the 1980s. The surplus of housing units during this period is also evidenced by the large increase in vacant units from 1980-1990.

The number of renter-occupied units has steadily increased since 1980. Nevertheless, the majority of housing units remain owner-occupied. The average household size for renter-occupied units is 2.48 persons and 2.61 persons for owner-occupied units. In 2000, seasonal units accounted for 13% of the total housing stock, down from 16% in 1990.

Like most towns in the region, Chesterfield has more single family housing than multi-family housing. The proportion of single, multi-family and manufactured housing changed between 1980 and 2000. Most importantly, the number of single-family homes increased, but the number of multi-family homes and manufactured homes stayed almost the same. In 2000, single-family units accounted for 91% of the housing stock, multi-family for 7%, and manufactured housing for 2%.

HOUSING SUPPLY BY TYPE, 1980 – 2000

	1980		1990		2000		% Change	
	Number	**% of Total**	**Number**	**% of Total**	**Number**	**% of Total**	**1990-2000**	**1980-2000**
Single Family	837	83%	1,349	88%	1,472	91%	9%	76%
Multi-Family	128	13%	123	8%	119	7%	-3%	-7%
Mf. Housing	38	4%	56	4%	35	2%	-38%	-8%
Total	**1,003**		**1,528**		**1,626**			

Source: US Census

The age of the housing stock is useful in gauging its probable condition. There is a presumption that homes built prior to 1940 are more likely to be dilapidated or have outdated heating, water and septic systems.

The decades of the 1960s, 1970s, and 1980s saw the greatest surge in construction; 47% of Chesterfield's housing stock was built between 1960 and 1989. Approximately 25% of the housing stock was constructed prior to 1940. Units constructed between 1940-1969 accounts for another 17% of the housing stock. Only 13% of units were constructed between 1990 and 2000. The number of housing units without complete plumbing and kitchen facilities is minimal.

AGE OF HOUSING STOCK BY DECADE OF CONSTRUCTION

YEAR BUILT	NUMBER	% OF TOTAL
1939 or earlier	398	24.4%
1940 to 1949	151	9.3%
1950 to 1959	122	7.5%
1960 to 1969	217	13.9%
1970 to 1979	288	17.6%
1980 to 1989	247	15.1%
1990 to 1994	97	5.9%
1995 to 1998	88	5.4%
1999 to 2000	24	1.5%
Total	**1,632**	**100%**

Source: US Census

	1990	2000
	# Units	
Lack Complete Kitchen	34	6
Lack Complete Plumbing	34	22

Source: US Census

Overcrowding

Persons per unit and per room are two measures the Census relies on to determine whether or not dwelling units are overcrowded. The Census defines an overcrowded unit as one that is occupied by more than one person per room. Data for Chesterfield indicate that overcrowding is not an issue. In all three Decennial census counts examined here, nearly 100% of the housing stock had a measure of 1.00 person per room or less.

OCCUPIED UNITS BY PERSONS PER ROOM, 1980 – 2000

	1980	% of Total	1990	% of Total	2000	% of Total
1.00 or less	**897**	**98%**	**1175**	**99%**	**1343**	**98%**
1.01 or more	**15**	**2%**	**9**	**0.01%**	**15**	**0.01%**
1.51 or more	**4**	**0.4%**	**2**	**0%**	**8**	**0%**

Source: US Census

The average number of persons per unit increased slightly between 1980 and 1990, and remained relatively steady from 1990 to 2000. The average number of persons per unit in 2000 was 2.59 compared to 2.61 in 1990. Single-person households experienced the greatest percent change over the past decade, in keeping with the nationwide trend toward smaller households.

OCCUPIED UNITS BY NUMBER OF PERSONS

	1980		1990		2000		*% Change 1990-2000*
	Number	**% of Total**	**Number**	**% of Total**	**Number**	**% of Total**	
1 person	179	20%	227	19%	279	15%	*46%*
2 persons	297	32%	435	37%	531	28%	*24%*
3 or 4 persons	323	35%	425	36%	431	22%	*-6%*
5+ persons	117	13%	99	8%	125	7%	*21%*
Total			1186		1918		
Persons per Unit	**2.44**		**2.61**		**2.59**		

Source: US Census

Affordability

Indicators of housing affordability include median housing cost, percentage of income spent on housing, and available income.

Housing costs for both owners and renters have increased over the years, as they have in the region and state. While the median house value in Chesterfield has increased by 184% since 1980, it actually decreased from its 1990 value by 6.49% in 2000. Chesterfield's housing costs have been high relative to the regional value for the past three decennial censuses. Housing values in 1980 and 1990 were 5% and 21% higher than regional values, respectively. By 2000, housing value in Chesterfield remained 21% higher than regional value. Contract rent has been comparable to regional rents over the past 20 years.

COST OF HOUSING, CHESTERFIELD AND REGION, 1980 – 2000

	Cost of Housing in Chesterfield			% of Regional Median Cost		
Median Housing Cost	**1980***	**1990**	**2000**	**1980**	**1990**	**2000**
House Value	$45,700	$138,700	$129,700	105%	121%	121%
Gross Rent	$218	$483	$631	108%	107%	104%
Regional Value**	$43,714	$114,986	$106,800			
Regional Rent**	$201	$453	$607			

Source: US Census

* Median contract rent ** does not include Brattleboro, VT

Housing affordability is gauged by the percentage of household income spent on housing. According to the US Department of Housing and Urban Development, housing is affordable when no more than 30% of household income is spent on housing costs. In 1999, approximately 72% of owner-occupied units in Chesterfield were considered affordable; this is a decrease from the 1989 figure of 79%. Approximately 71% of renter-occupied units were paying less than 30% of household income on housing in 1999 - this value has remained steady since 1989.

% OF INCOME SPENT ON HOUSING IN CHESTERFIELD, 1989 AND 1999

	OWNERS		RENTERS	
	1989	**1999**	**1989**	**1999**
Less than 20%	381 (53%)	407 (46%)	71 (39%)	83 (43%)
20.0 to 24.9%	100 (14%)	124 (14%)	42 (23%)	23 (12%)
25.0 to 29.9%	85 (12%)	104 (12%)	15 (8%)	32 (16%)
30.0 to 34.9%	19 (3%)	47 (5%)	7 (4%)	13 (7%)
35.0 to or more	131 (18%)	197 (22%)	38 (21%)	29 (15%)
Not Computed	--	13 (1%)	10 (5%)	15 (8%)
Total	**716**	**892**	**183**	**195**

Source: US Census

The possibilities for home ownership in Chesterfield are examined in the table below based on the assumption that no more than 30% of a household's income should be spent on housing to be considered affordable. The property tax calculation is based on the 2000 tax rate of $24.73 per $1,000. The median value of a home in Chesterfield in 2000 was $129,700. The median household income in 2000 was $51,351.

HOME OWNERSHIP AFFORDABILITY IN CHESTERFIELD, 2000

2000 MEDIAN HOUSEHOLD INCOME	**$51,351**	**80% OF MEDIAN HOUSEHOLD INCOME**	**$41,081**	**50% OF MEDIAN HOUSEHOLD INCOME**	**$25,677**
30% of monthly income	$1,284	30% of monthly income	$1027	30% of monthly income	$642
Monthly Property Tax (Median Home)	$238	Monthly Property Tax (80% Median Home)	$190	Monthly Property Tax (50% Median Home)	$119
Available for mortgage*	$1,046	Available for mortgage	$837	Available for mortgage	$523
Mortgage affordable at 6.0% for 30 years	$141,102	Mortgage affordable at 6.0% for 30 years	$125,730	Mortgage affordable at 6.0% for 30 years	$78,570
Plus 10% down payment	$15,678	Plus 10% down payment	$13,970	Plus 10% down payment	$8,730
PROJECTED AFFORDABLE HOME	$156,780	PROJECTED AFFORDABLE HOME	$139,700	PROJECTED AFFORDABLE HOME	$87,300

* Includes payment on principal, interest, mortgage insurance, and home owners insurance.

Under the three scenarios examined above, households earning at least 80 percent of the median household income could afford Chesterfield's median priced home. Those earning 50 percent of the median household income could not afford such a home.

Duration of Occupancy

According to the 2000 Census, 54% of people in Chesterfield lived in their homes for 10 or fewer years. The number of people staying in their homes for more than 10 years increased more from 1990-2000 than did people staying in their homes for 10 years or less, suggesting a trend toward longer-term residency.

DURATION OF OCCUPANCY

Number of Years in Home	1990 # of People	2000 # of People	% Change 1990-2000
1-5 years	**492 (41%)**	**508 (37%)**	**(4%)**
6-10 years	**180 (15%)**	**230 (17%)**	**2%**
11-20 years	**232 (19%)**	**308 (23%)**	**4%**
More than 20 years	**293 (24%)**	**320 (23%)**	**(1%)**
Total	1197	1366	

Source: US Census

Home Ownership and Age

Data on ownership by age indicates that 51% of the units in Chesterfield are owned by people between 35 and 54 years of age. The proportion of home ownership among the older groups is divided evenly, while the youngest age group has the fewest percentage of homeowners.

HOME OWNERSHIP BY AGE, 2000

	# of Units	% of Total
18-34 years	**106**	**9%**
35-54 years	**580**	**51%**
55-64 years	**222**	**19%**
65 years and over	**240**	**21%**

Source: US Census

Neighboring Housing Comparisons

Most of the growth seen in the Monadnock region, in terms of both population and housing, occurred in the 1980s. Growth was dramatically less in the 1990s as evidenced in the following comparison of total housing supply for Chesterfield and its sub-region from 1980 to 2000.

HOUSING UNITS, 1980-2000

				Percent Change	
Housing units	**1980**	**1990**	**2000**	**1980-1990**	**1990-2000**
Chesterfield	1,330	1,527	1,632	14.81%	6.87%
Swanzey	1,894	2,582	2,818	36.32%	9.14%
Keene	7,934	8,841	9,295	11.43%	5.14%
Westmoreland	451	573	618	27.05%	7.85%
Winchester	1,342	1,673	1,741	24.66%	4.06%
Hinsdale	1,357	1,655	1,714	21.96%	3.56%
Sub-Region Total*	**14,308**	**16,851**	**17,818**	17.77%	5.74%
Cheshire County	23,274	30,350	31,876	30.40%	5.03%

Source: US Census
* does not include Brattleboro, VT

Of the six towns in the sub-region, Westmoreland has the fewest number of housing units, accounting for 3.5% of the sub-region total. None of the towns experienced a loss in the total number of units for the

period 1980-1990 or 1990-2000. Swanzey experienced the greatest percent increase in housing units over the past ten years (9.14%), followed by Westmoreland (7.85%) and Chesterfield (6.87%). Hinsdale and Winchester grew at the lowest increase in housing units over the last ten years, at 3.56% and 4.06% respectively.

Housing Needs Assessment

The enabling statute that addresses the development of Master Plans (RSA 674:2) requires that the housing section address current and future housing needs of all residents, at all income levels, of the town and the region in which it is located. In order to do that, opportunities for housing development in Chesterfield are examined, as well as population projections that give some indication as to what the town can expect in terms of housing needs for new population.

Housing Opportunity

Chesterfield's zoning provisions relative to opportunities for various housing types in the town, specifically which types are permitted and what the minimum lot requirements for those dwelling units are presented on the following page.

Three of Chesterfield's five zoning districts accommodate a variety of residential types at varying scales. Nevertheless, there are other housing types that the town may want to consider that are not addressed by the current zoning provisions; in particular, provisions for housing for the elderly.

Based on updated national Census information, the country can expect to see a dramatic increase in the number of elderly residents (those aged 65 and over); in fact, by the year 2010, this number could increase from 1 in 8 to 1 in 5 persons. This fairly rapid increase in the elderly population is not only expected to increase the level of effort needed by society as a whole to support publicly-funded retirement programs, health care and social welfare agencies, but strains will also be experienced due to changing family structures. That is, more and more, the profile of the elderly is one of increasing numbers who have either never married, or have married and divorced, and have fewer children to call on for assistance; either they never had children, or the children have moved away for career/employment reasons. Contributing to the isolation from a family network is also the geographic isolation caused by our development pattern that depends so greatly on the automobile. All of these factors have the potential to interfere with the desire to "age in place", that is, to be able to live out the remainder of one's life in the same town one calls home.

At this time, the elderly population in Chesterfield amounts to less than 11% of the total population of the town. Granted, this is not a significant proportion of townspeople, but it does represent an increase since 1980 and, based on the national trend data, it is expected to increase through the year 2010. However, as important as the existing elderly population, is the potential for the large group of middle-age residents of Chesterfield needing to provide care for aging parents --- in the form of on-site housing accommodations.

HOUSING OPPORTUNITIES IN CHESTERFIELD

ZONING DISTRICT	PERMITTED HOUSING TYPES	LOT AND YARD STANDARDS
Rural Residential	1. Single Family Dwellings – Permitted by right. 2. Two-family Dwellings – Permitted by right. 3. Multiple Family Dwellings – Permitted by right. 4. Manufactured Housing Parks – Permitted by right. 5. Manufactured Housing Subdivisions – Permitted by right.	◆ 2 acres, 200ft. frontage, 50ft. front setback, 20ft.side/rear setback ◆ 4 acres, 300ft. frontage, 50ft. front setback, 20ft.side/rear setback ◆ 5 acres, 250ft. frontage, 50ft. front/side/rear setback ◆ 4 unit minimum, 10 acres, 75ft. frontage per unit, 75ft. from center line of road front setback, 20ft. side/rear setback ◆ 4 lot minimum, 10 acres
Rural/ Agricultural District	1. Single Family Dwellings – Permitted by right. 2. Manufactured Housing Subdivisions – Permitted by right. 3. Manufactured Housing Parks – Permitted by Special Exception 4. Two-family Dwellings – Permitted by right.	◆ 5 acres, 400ft. frontage, 50ft. front setback, 20ft.side/rear setback ◆ 4 lot minimum, 10 acres ◆ 4 unit minimum, 10 acres, 75ft. frontage per unit, 75ft. from center line of road front setback, 20ft. side/rear setback ◆ 5 acres, 400ft. frontage, 50ft. front setback, 20ft.side/rear setback
Village District	1. Single Family Dwellings – Permitted by right. 2. Two Family Dwellings – Permitted by right. 3. Multiple Family Dwellings – Permitted by right.	◆ 2 acres, 200ft. frontage, 50ft. front setback, 20ft. side/rear setbacks ◆ 2 acres, 200ft. frontage, 50ft. front setback, 20ft. side/rear setbacks ◆ 2 acres, 200ft. frontage, 50ft. front setback, 20ft. side/rear setbacks
Commercial / Industrial District	1. Dwelling units in buildings containing uses permitted in this zoning district – Permitted by Special Exception.	◆ Dwelling units occupy no more than 50% of total floor area of a building, no more than one dwelling unit per 2 acres
Office, Retail, and Service District	1. Dwelling units in buildings containing uses permitted in this zoning district – Permitted by Special Exception.	◆ Dwelling units occupy no more than 50% of total floor area of a building, no more than one dwelling unit per 2 acres

* In addition to the above housing provisions, Cluster Developments are permitted in the Residential District and Rural/Agricultural District pursuant to the conditions of Section 301 of the Zoning Ordinance. Planned Developments are permitted at the discretion of the Planning Board in accordance with the conditions of the Planned Development District, Section 302 of the Zoning Ordinance.

Source: Town of Chesterfield Zoning Ordinance, 2004

Future Housing Need

Future housing needs can be estimated from the NH Office of Energy & Planning population projections, or from the past population change trends for the 20 year period 1980-2000. The future population values are then divided by an average person per unit estimate, resulting in a total housing estimate.

CHESTERFIELD POPULATION GROWTH TRENDS, 1980 - 2000

Population			# Increase	% Change	# Increase	% Change
1980	**1990**	**2000**	**1980-1990**	**1980-1990**	**1990-2000**	**1990-2000**
2,561	3,112	3,542	551	21.5%	430	13.81%

Source: US Census

CHESTERFIELD'S POPULATION PROJECTIONS, 2000 - 2030

							# Increase	% Change
2000	**2005**	**2010**	**2015**	**2020**	**2025**	**2030**	**2000-30**	**2000-30**
3,542	3,770	3,860	4,050	4,240	4,390	4,530	988	28%

Source: NH Office of Energy & Planning, November 2007

Population increased 35.3% during the period 1980-2000. A review of the housing and population data for Chesterfield indicates that an oversupply of housing was built during the 1980s, which reflects the decline of housing stock in the 1990s. The Census data show that, in general, Chesterfield's housing stock is in good condition and the incidence of overcrowding of dwelling units is very low.

The average growth for each 10-year period using the historical census data was 17.7%. Projecting this to the period from 2000-2030, there could be an increase in population to 5,775 by 2030 (an increase of 2,233).

The NH Office of Energy & Planning population projections suggest a 28% increase in population from 2000–2030.

To calculate housing need, a reasonable person per unit figure for the future must be assumed. The value 2.59, the value reported in the 2000 Census, is used here.

Growth Projection for 2030 using NH OEP Projections

Population Increase	2000 Population	Additional Persons using 28% increase	Total Population	Persons/ Unit	=	Total Increase In Units*
28%	3,542	988	4,530	2.59		1,749 (117 more units than in 2000)

Source: US Census and NH OEP

* Includes seasonal dwelling units which do not contribute to total population.

Growth Projections Using Past Trends

(Assumes growth continues at a rate consistent with Census years)

Population Increase	2000 Population	Additional Persons using 17.7% x 3 decades	Total Population	Persons/ Unit	=	Total Increase* In Units**
17.7%/decade	3,542	2,233	5,775	2.59		2,229 (598 more units than in 2000)

* This population increase was calculated from the average growth per 10 years between 1980 and 2000.
** Includes seasonal dwellings as above and assumes no increase in number of seasonal dwellings.

The observations and projections indicate that, if Chesterfield were to experience the same level of population growth between now and the year 2030 as it did between 1980 and 2000, the need for housing units would increase from the actual number of units in 2000 (1,632) to 2,229 units – an additional 598 units. This would mean approximately 20 units per year, compared to the 302 units that were added over the previous 20 years (approximately 15 annually). If, on the other hand, the NH OEP projections are more accurate, the town would expect an increase of 4 housing units annually, or 117 units from 2000-2030.

As shown in the Land Use Chapter of this Master Plan Update, the average number of building permits issued for new homes between 2000 and 2006 was 25 permits per year. If this average was used to calculate the number of new homes constructed from 2000-2030 using the methodology above, it would reflect an additional 750 new homes in the 30 year period, greater than either of the estimates shown above.

TRAFFIC AND TRANSPORTATION

Introduction

Good transportation planning is important because of its capital-intensive nature: Road Maintenance typically represents the most significant public investment in a town's infrastructure. Outside of school taxes, the highway budget is usually the largest percentage of a town's operating costs.

The primary goal of this section, then, is to identify current issues and/or needs crucial to orderly development and the safe and efficient movement of traffic. A corollary purpose is to assist the Town of Chesterfield in fully participating in all levels of transportation planning. Transportation infrastructure is heavily dependent on public funds, and the NH Department of Transportation (DOT) sets the priorities for spending through the development of a statewide Transportation Plan and Transportation Improvement Program. Both of these are required under federal legislation that prescribes the disbursements to states; in order for New Hampshire to qualify for its full allocation of funds, the NH DOT must comply with federal planning requirements.

To accomplish this task, the NH DOT requires each of the nine regional planning commissions in the state to develop a regional transportation plan. This plan describes existing state road conditions within its region, identifies problems and concerns, declares goals and objectives for the regional network, and makes specific recommendations for improvements or new construction. Any local concerns relative to state-maintained roads must be addressed through the Regional Transportation Plan in order to be included in the State Plan. This section, therefore, takes the regional issues into account in the process developing local goals for a safe and efficient transportation network.

Road Classifications

State Classifications

Public roads are defined by DOT by the type of service they provide and/or by the funding that is available to build, maintain, and repair them. New Hampshire statute RSA 229:5 specifies the following roads within the state system:

Class I: Trunk Line Highways. These belong to the primary state highway system, and the state assumes full control and responsibility for construction and maintenance.

Class II: State Aid Highways. These belong to the secondary state highway system. The NH DOT assumes full control and responsibility for construction and maintenance.

Class III: Recreational Roads. These consist of all roads leading to and within state reservations designated by the NH Legislature. The NH DOT assumes full control and responsibility for construction and maintenance.

Class III-a: Boating Access Roads. These consist of roads that lead to public waters from any existing highway. The NH DOT assumes full control and responsibility for these roads.

Class IV: Town and City Streets. These consist of all sections of road that fall within urban compact areas of towns and cities with populations greater than 7,500. The municipality assumes full control and responsibility for construction and maintenance.

Class V: Rural Highways. These consist of all other maintained roads that are not in the state system. They are town-owned and maintained.

Class VI: Unmaintained Highways. These are all other existing public roads that are not maintained by the town and have not been for at least five years. The road may be closed subject to gates and bars, but it continues as a public roadway.

Of these seven state road classifications, Chesterfield roads fall into four, as follows: Route 9 is the only Class I road, Route 63, Route 9A, Stage Road and Brook Street to Farr Road are Class II roads, all other roads in town are Class V and Class VI town roads. These are illustrated on the accompanying **Transportation Infrastructure Map** and the number of miles comprised by each classification is described in the following table.

ROAD MILEAGE BY STATE CLASSIFICATION

Class:	Mileage:
Class I	10.650
Class II	11.020
Class V	69.827
Class VI	2.071
Total Mileage	**93.568**

Source: NH Department of Transportation

Functional Classification

A functional classification system identifies roads by the type of service provided and by the role of each highway within the state system, based on standards developed by the US DOT. Recognition of the principal function that any road is intended to serve can reduce potential conflicts between land use activities and traffic movements. For Towns such as Chesterfield, the following categories are identified by the US DOT:

Other Principal Arterial/Controlled Access

These are Interstates and some primary state routes. They are designed to move large volumes of truck and car traffic through and between population centers without disturbing local traffic and land uses. Controlled Access is a means of minimizing the number of curb cuts, thereby controlling the amount of turning movements along the roadway.

Within Chesterfield Route 9 is a Principal Arterial. Within the Southwest Region Routes 12 south of Keene and 101 are Other Principal Arterials.

Arterial System – Major and Minor

These are the streets and highways that connect communities and regions. They are designed to move large volumes of traffic to and from large traffic generators without disturbing local traffic and land uses. Minor arterials distribute traffic to smaller geographic areas, and place more emphasis on providing land access than the major arterials.

Within Chesterfield there are no Major or Minor Arterials. Within the Southwest Region Routes 202, 10 south of Keene, and 12 north of Keene are Minor Arterials.

Collector System – Major and Minor

Major Collectors are designed to move medium traffic volumes at low speeds between or within communities. They differ from the Arterial system in that collector streets go through residential neighborhoods, distributing traffic from the arterials through the area to its ultimate destination. Minor Collectors provide alternate routes to Major Collectors.

Within Chesterfield Route 63, Route 9A, Stage Road and Brook Street to Farr Road in Chesterfield are classified as Major Collectors. There are no Minor Collectors in Chesterfield.

The Local Street System

This consists of all streets not classified in one of the other higher systems. Its primary function is to provide direct access to abutting properties and to other roads and highways. It offers the lowest level of mobility.

Most of Chesterfield's roads fall within this clasification.

Scenic Roads

In addition to the state and federal classifications, RSA 231:157 authorizes towns, by a vote at Town Meeting, to designate any road other than a Class I or II highway as a Scenic Road. The effect of this designation is that, except in emergency situations, there shall be no tree cutting or alteration of stone walls within the right-of-way without approval of the Planning Board, after a duly-noticed public hearing. The law does not affect the rights of individual property owners; nor does it affect land uses as permitted by local zoning. The statute also authorizes towns to adopt provisions dealing with Scenic Roads that are different from, or in addition to, those that are spelled out in the law.

Chesterfield's only designated scenic road is Gulf Road.

Traffic Patterns

Traffic Counts

Information on traffic volume is collected by the NH DOT through the placement of traffic counting devices at various locations around the state. Some of these are permanently installed under the roadway and provide figures based on a full year count, while others are set out on a rotating basis for varying lengths of time – generally during the months of May to October for a seven-day period. Permanent counters are used only on state roads, while temporary counters are used on both state and local roads. Table #2 following presents averaged annual daily traffic (AADT) counts for 12 counters.

Roughly, there are 11,000 – 13,000 vehicles per day traveling on Route 9. Route 9 is the second largest traffic corridor providing access to the Keene area. With the most direct access to Interstate Route 91, the volume of 12,047 cars per day on Route 9 near the Vermont line represents the largest traffic volume entering and leaving the Southwest region.

AVERAGE ANNUAL DAILY TRAFFIC 1999-2006

Station	Location	1999	2000	2001	2002	2003	2004	2005	2006
87021	NH 9, 8/10 of a mile east of Vermont Stateline	11,194	11,321	11,482	11,684	11,988	12,210	12,000	12,047
87022	NH 9 at Westmoreland Townline	11,000		12,000				13,000	
87050	NH 63 at Westmoreland Townline	870						1,000	
87051	River Rd north of Woodbury Rd		400					520	
87056	NH 9 2.0 miles east of Vermont Stateline		10,000		11,000				11,000
87057	NH 9A 1.5 miles east of junction NH 9 & NH 13	340			710			780	
87058	NH 9 0.5 miles west of NH 63	9,700						11,000	
87059	NH 9 1.5 miles east of NH 63	11,000			11,000			12,000	
87060	Cross Rd over Catsbane Brook	500			470			590	
87061	Brook St over Catsbane Brook	580			540			550	
87062	Brook Pond Rd over Town Brook	620			620			500	
87063	Westmoreland Rd over Partridge Brook	260			380			430	

Source: NH DOT

The present traffic on Route 9 represents an increase of 75 percent since 1980, the second largest regional increase (the largest was along Route 202 South). The Route 9 corridor contains, along with Chesterfield, the City of Keene, Roxbury, Sullivan, Nelson, Stoddard, and Antrim. There has been significant growth in the last decade along this corridor. Route 9 connects to the east with Concord, and to the southeast via Route 101 with Manchester, Nashua, and Boston. While the road links Chesterfield with other cities and markets to the east, it also funnels regional traffic through Town to Interstate 91.

Turning Movements Counts

Turning Movement Counts are obtained through the use of a hand-held device that is designed to imitate a standard intersection. Engineers typically use the information collected to analyze how the intersection operates under different traffic conditions. The Level of Service determines whether capacity improvements are needed on roadways, or if traffic signals need new timing to accommodate changes in traffic flows. Types of improvements may include addition of turn lanes, dual turn lanes (dual lefts, dual rights), additional through lanes, new signal timing or new signal phasing.

A typical turning movement will include AM and PM counts in order to determine the peak 15 minute timeframe at each location (when the most cars are using the intersection). At some locations there is an obvious peak time while at other locations the large volumes of traffic area spread out over a longer period of time. The tables below present all the information collected at each location. The peak 15 minute periods are highlighted for each location. The locations of these counts are shown on the **Transportation Infrastructure and Traffic Data Locations**.

INTERSECTION OF ROUTE 9, SUGAR MAPLE LANE, & WELLINGTON DRIVE

	Southbound Sugar Maple Ln			**Westbound NH 9**			**Northbound Wellington Dr**			**Eastbound NH 9**			**Total**
Time	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
6:30	4	0	1	6	104	1	0	0	3	5	140	1	265
6:45	1	0	3	1	116	1	3	0	2	1	139	1	268
7:00	3	1	0	0	110	1	1	2	2	4	122	1	247
7:15	1	0	2	3	151	0	1	0	1	1	122	2	284
7:30	0	0	3	3	127	0	1	1	1	1	136	2	275
7:45	0	0	0	1	131	0	2	0	1	2	128	1	266
8:00	**1**	**0**	**0**	**2**	**164**	**0**	**1**	**0**	**3**	**3**	**133**	**2**	**309**
8:15	0	1	1	2	145	2	2	0	2	5	137	2	299
8:30	0	0	3	5	149	3	0	1	1	2	126	2	292
8:45	0	0	0	3	107	0	1	0	0	1	112	2	226

	Southbound Sugar Maple Ln			**Westbound NH 9**			**Northbound Wellington Dr**			**Eastbound NH 9**			**Total**
Time	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
15:30	1	0	2	0	78	0	2	0	4	1	121	1	210
15:45	2	0	2	0	82	0	2	1	0	0	125	1	215
16:00	0	0	2	1	92	1	1	0	5	1	104	1	208
16:15	1	0	2	1	117	0	4	0	4	0	115	2	246
16:30	**1**	**1**	**2**	**0**	**121**	**0**	**2**	**0**	**1**	**0**	**157**	**2**	**287**
16:45	0	1	0	0	126	0	0	0	1	2	142	4	276
17:00	2	1	4	0	82	0	0	0	1	1	123	0	214
17:15	1	0	3	0	99	0	0	0	0	0	94	1	198
17:30	1	0	2	0	102	0	0	1	1	2	129	0	238
17:45	0	0	1	1	88	0	2	0	3	1	101	1	198

INTERSECTION OF ROUTE 9A & ROUTE 9

	Southbound NH 9A		Westbound NH 9		Eastbound NH 9		Total
	Left	Right	Thru	Right	Left	Thru	
6:30	15	2	92	0	0	131	240
7:45	13	0	91	7	1	125	237
8:00	9	0	82	1	1	124	217
8:15	15	1	94	5	0	111	226
8:30	10	1	81	5	1	103	201
8:45	10	1	84	5	0	89	189

	Southbound NH 9A		Westbound NH 9		Eastbound NH 9		Total
	Left	Right	Thru	Right	Left	Thru	
15:30	7	1	98	15	2	137	260
15:45	2	2	87	5	0	120	216
16:00	10	1	95	12	2	106	226
16:15	8	0	104	4	0	136	252
16:30	11	2	128	10	1	132	284
16:45	8	1	106	17	2	129	263
17:00	**9**	**1**	**134**	**15**	**0**	**153**	**312**
17:15	5	0	126	8	0	149	288
17:30	9	0	128	12	0	121	270
17:45	8	0	115	14	1	101	239
6:45	7	0	73	3	0	96	179
7:00	10	1	106	3	0	93	213
7:15	10	0	137	2	0	92	241
7:30	**20**	**1**	**146**	**6**	**0**	**158**	**331**

INTERSECTION OF ROUTE 9A, ROUTE 9, & PROSPECT HILL ROAD

	Southbound NH 9A		**Westbound NH 9**			**Northbound Prospect Hill Rd**		**Eastbound NH 9**			**Total**
Time	Left	Right	Left	Thru	Right	Left	Right	Left	Thru	Right	
6:30	0	2	0	101	0	1	0	4	101	0	209
6:45	0	5	0	86	0	0	0	1	87	0	179
7:00	1	2	0	95	0	0	0	3	93	0	194
7:15	0	3	0	139	0	0	0	3	92	0	237
7:30	**0**	**9**	**0**	**122**	**0**	**1**	**0**	**2**	**145**	**1**	**280**
7:45	1	5	0	95	0	0	0	3	116	0	220
8:00	1	5	0	78	1	0	0	3	89	0	177
8:15	0	1	0	73	0	0	0	3	111	1	189
8:30	2	2	1	103	1	0	1	1	85	2	198
8:45	0	5	1	76	2	0	0	4	76	0	164

	Southbound NH 9A		**Westbound NH 9**			**Northbound Prospect Hill Rd**		**Eastbound NH 9**			**Total**
Time	Left	Right	Left	Thru	Right	Left	Right	Left	Thru	Right	
15:30	0	7	0	105	0	0	1	3	106	1	223
15:45	3	7	0	91	3	0	0	5	131	1	241
16:00	0	4	0	90	1	0	0	6	123	0	224
16:15	0	8	0	110	1	0	0	3	139	0	261
16:30	1	3	0	106	5	0	0	4	130	0	249
16:45	0	3	4	128	0	0	0	7	108	0	250
17:00	**1**	**1**	**1**	**109**	**4**	**3**	**0**	**10**	**143**	**2**	**274**
17:15	1	3	1	136	3	0	0	9	109	2	264
17:30	0	6	0	103	1	1	0	7	119	2	239
17:45	2	6	0	126	3	1	0	5	117	0	260

INTERSECTION OF ROUTE 63 & ROUTE 9

	Southbound NH63			Westbound NH 9			Northbound NH63			Eastbound NH 9			Total
Time	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
6:30	3	2	11	4	87	2	1	3	20	3	78	3	217
6:45	2	4	12	5	83	3	0	1	23	3	84	3	223
7:00	2	2	11	12	81	1	2	4	23	2	73	1	214
7:15	5	6	12	24	101	4	0	3	25	4	83	7	274
7:30	**4**	**3**	**8**	**15**	**99**	**4**	**3**	**0**	**41**	**4**	**97**	**7**	**285**
7:45	5	3	6	20	99	3	5	1	31	3	81	6	263
8:00	6	3	14	13	91	4	2	4	14	6	79	5	241
8:15	3	3	5	13	67	0	1	3	30	2	66	6	199
8:30	1	1	6	2	79	1	3	0	15	6	100	1	215
8:45	4	1	8	11	64	5	2	2	12	4	68	4	185

	Southbound NH63			Westbound NH 9			Northbound NH63			Eastbound NH 9			Total
Time	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
15:30	0	1	5	8	80	4	3	2	19	10	120	0	252
15:45	5	1	8	14	83	3	2	5	12	6	91	0	230
16:00	5	1	2	14	72	5	0	5	22	7	83	5	221
16:15	5	3	5	23	90	0	4	5	8	11	118	4	276
16:30	**3**	**2**	**6**	**36**	**94**	**3**	**1**	**1**	**20**	**7**	**139**	**5**	**317**
16:45	4	2	3	27	99	9	5	5	16	12	98	2	282
17:00	2	2	8	21	76	5	1	3	12	10	132	4	276
17:15	3	1	2	35	90	1	1	2	18	11	101	7	272
17:30	9	7	7	24	81	2	1	0	13	13	107	2	266
17:45	3	1	5	16	71	4	2	3	13	6	94	4	222

INTERSECTION OF SARGENT HILL ROAD, ROUTE 9, & BROOK STREET

	Southbound Sargent Hill Rd		Westbound NH 9			Northbound Brook St			Eastbound NH 9			Total
Time	Left	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
6:30	5	1	0	97	4	0	0	0	1	71	0	179
6:45	5	1	0	79	2	0	0	0	2	68	0	157
7:00	4	5	0	70	3	0	0	0	4	86	0	172
7:15	4	2	0	100	2	0	0	1	4	93	0	206
7:30	**2**	**2**	**0**	**140**	**2**	**1**	**1**	**0**	**3**	**105**	**0**	**256**
7:45	4	8	0	114	4	0	0	0	3	103	0	236
8:00	2	8	0	95	1	1	0	1	4	91	0	203
8:15	6	2	0	100	4	0	0	0	4	80	0	196
8:30	1	3	0	114	1	0	0	0	4	120	0	243
8:45	0	3	0	91	3	0	0	0	1	71	0	169

	Southbound Sargent Hill Rd		Westbound NH 9			Northbound Brook St			Eastbound NH 9			Total
Time	Left	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
15:30	1	1	0	66	1	0	0	2	3	87	1	162
15:45	2	2	2	105	4	0	0	0	3	109	0	227
16:00	6	0	1	94	8	0	0	0	6	129	1	245
16:15	1	1	0	105	1	0	0	0	6	137	1	252
16:30	1	2	0	96	0	3	0	0	3	118	1	224
16:45	1	9	1	101	1	1	0	0	3	127	0	244
17:00	**5**	**2**	**0**	**96**	**2**	**0**	**0**	**2**	**4**	**155**	**1**	**267**
17:15	6	1	0	95	1	1	0	0	2	155	0	261
17:30	4	1	0	104	4	0	0	0	5	125	0	243
17:45	1	1	0	109	2	0	0	0	2	108	0	223

Commuting Patterns

The US Census collects information on commuting patterns of the labor force – that is, where people go to work from their town, and where people come from to work in a particular town. According to these 2000 Census figures, Chesterfield has an estimated 1,839 workers; of these, 1,555 (84.6%) commute out of town to work. The number of people who work in Chesterfield, regardless of residence, is estimated to be 664; of these, 380 (57.2%) commute into Chesterfield from somewhere else. The table following illustrates where Chesterfield residents go to work, and where nonresidents working in Chesterfield come from.

As these figures in the table illustrate, the largest percentage of Chesterfield's workers go to Keene – 84.6% of all commuters, whereas those who commute in 57.2% originate from Keene. Without more detail, it would appear that Route 9 carries the greatest amount of commuter traffic each day – both in and out of town. Reference to the traffic count data seems to support this assumption.

COMMUTING PATTERNS

COMMUTING CHARACTERISTICS	Chesterfield	Westmoreland	Keene	Swanzey	Winchester	Hinsdale
Commuting Out						
Residents working (2000)	1839	840	11109	3445	1948	2192
Residents commuting - out of Town / County (2000)	1555	638	2812	2799	1500	1675
Commuting rate - out (2000)	84.6%	76.0%	25.3%	81.3%	77.0%	76.4%
Most common commute to: (2000)	Keene	Keene	Swanzey	Keene	Keene	Brattleboro, VT
No. of Commuters (2000)	753	339	372	1991	667	991
2nd most common commute to: (2000)	Brattleboro, VT	Brattleboro, VT	Brattleboro, VT	Winchester	Brattleboro, VT	Keene
No. of Commuters (2000)	345	64	315	95	212	194
3rd most common Commute to: (2000)	Westmoreland	Chesterfield	Peterborough	Brattleboro, VT	Hinsdale	Winchester
No. of Commuters (2000)	59	29	119	83	108	55
Commuting In						
Total Working in Town / County (2000)	664	676	18575	1650	845	1065
Residents Working in home Town (2000)	284	202	8297	646	448	517
Non-residents commuting - in (2000)	380	474	10278	1004	397	548
Commuting rate (2000)	57.2%	70.1%	55.3%	60.9%	47.0%	51.5%
Most common commute from: (2000)	Keene	Keene	Swanzey	Keene	Swanzey	Brattleboro, VT
No. of Commuters (2000)	65	104	1991	372	95	126
2nd most common commute from: (2000)	Swanzey	Chesterfield	Winchester	Winchester	Keene	Winchester
No. of Commuters (2000)	37	59	667	108	92	108
3rd most common commute from: (2000)	Brattleboro, VT	Rockingham, VT	Marlborough	Troy	Hinsdale	Keene
No. of Commuters (2000)	32	48	604	61	55	83

SOURCE: US CENSUS, 2000

Traffic Generators

Travel can be defined by a wide variety of characteristics; the purpose of the trip, the time the trip was made, the mode that was used, and the length of the trip. A starting point in all transportation studies is the number of trips generated for a particular land use. This measure is called trip generation and is usually described in terms of person trip generation or vehicle trip generation.

A trip is one way movement from origin to destination. Each trip has two trip ends. Although the term round-trip is often used to describe travel that starts and ends at home it is not a technical term and is considered to be two or more separate trips. Trip generation is always given for a specific period of time, which is generally a single hour (normally a peak hour) or a full day. Trip generation may be given for a weekday and/or a weekend day. Since the vast majority of travel is conducted by automobile, most trip generation data are provided in terms of vehicle trips. Vehicle occupancy varies by the purpose of the trip. Work trips tend to have low occupancies, which relates to the high percentage of commute trips that are drive-alone types.

Most of Chesterfield's traffic is residential, since that is the primary land use in Town. There is of course some amount of truck/commercial traffic that services the businesses, as well as travel through Chesterfield to and from neighboring towns; Route 9, in fact, carries a significant amount of through truck traffic.

DESTINATIONS

Destination Type	Destination Name	Street Address	Capacity or size
Athletic/Rec Facility	Pisgah State Park	Multiple Trailheads	5,695 acres
Athletic/Rec Facility	Chesterfield Gorge State Park	Route 9	13 acres
Athletic/Rec Facility	Daniels Mountain & Cook Town Forest	Gulf Road	57 acres
Athletic/Rec Facility	Friedsam Town Forest	Twin Brook Road	209 acres
Athletic/Rec Facility	Madame Sherri Town Forest	Gulf Road	488 acres
Athletic/Rec Facility	Spofford Lake	Spofford Lake	793 acres
Athletic/Rec Facility	Pine Grove Springs Country Club	Route 9A	
Athletic/Rec Facility	Wantastiquet Mountain State Forest	Route 119	1,010.7 acres
Community Facility	Town Hall	Route 63	7, 027 sq ft
Elementary School	Chesterfield Elementary School	Old Chesterfield Road	399 students
Library	Library	Route 63	5,400 sq ft
Municipal Office	Town Offices	Route 63	4,964 sq ft
Post Office	US Post Office	Route 63	
Post Office	US Post Office	North Shore Road	
Post Office	US Post Office	Gulf Road # C	

In 2004, DES developed a statewide GIS coverage to identify appropriate indicators for sprawl and changing development patterns in New Hampshire. SWRPC together with DES, UNH, and OEP developed a methodology to generate data on destinations and city/town/village centers for each community. Above are the destinations identified for the Town of Chesterfield.

Aside from the residential and local business traffic, Chesterfield has several large traffic generators, the single largest being United Natural Foods, in the center part of Town. Based on the 2004 employer data, it is apparent that the vast majority of Chesterfield's businesses are small businesses that employ less than five employees.

Chesterfield is also home to Pisgah Wilderness State Park, with over 13,500 acres (5,695 of which are located in Chesterfield) of rough forested terrain. Six year round trailheads disperse hikers, mountain bikers, ATV's and snowmobiles throughout the park. As the largest property in the New Hampshire state park system, Pisgah Wilderness State Park attracts visitors from near and far.

Emerging Trends in Changes of Land Use

The decade of the 1980's saw vast growth in America's suburbs, not only in terms of residential development but also in terms of mixed-use development dominated by employment-based activity centers. The rapid improvements in telecommunications allowed companies greater flexibility in location. No longer were they tied to downtown locations with their easy access to finance and government. By moving into lower-density rural areas, they could still communicate with related business and government while enjoying the many amenities the rural environment offers. Those businesses found that those with whom they needed to interact were also joining them in the more rural areas. Employment growth in the suburban and rural areas far outstripped employment growth in central cities. This trend appears to be continuing and is by far the greatest challenge to our transportation system faced by our nation today.

Other changes that continue to take place, and also affect our transportation system, include greater affluence and an increase in the number of older Americans as a result of improved medical care. Therefore we have an increase in the number of women in the labor force and greater mobility needs for our elderly population.

Road and Bridge Conditions

Surface Widths and Conditions

Roads in Chesterfield are of varying widths and surface conditions. The wideness of a road is not necessarily related to the ownership – i.e., the state roads are not always wider than the town roads, although they are more likely to have wider shoulders.

The NH DOT has developed standards for road construction, published in April of 1995 and titled "Minimum Geometric & Structural Guides for Local Roads and Streets". The specifications recommended for minimum width and materials are based on average daily traffic – in other words, the more traffic a road carries, the wider the traveled way and shoulders, the deeper the base and top coat, etc.

According to these standards, the minimum width for the least-traveled road should be 18 feet, plus a two-foot shoulder; this is for a road carrying no more than 50 vehicle trips per day. Most town roads do not meet this standard and, even with new construction, many small towns will approve an 18-foot width for a Class V town road carrying more than 50 vehicle trips per day.

Bridges

Bridges present an ongoing maintenance and repair concern for all towns, oftentimes accounting for a large portion of local highway budgets. Bridges also present the potential for a number of safety hazards in instances where they are severely deteriorated or are significantly narrower than the road they serve. Bridges are rated by the DOT, using a system based on federal standards for type of construction, widths, surface conditions, ability to handle traffic volumes, etc. The status of these bridges is presented in the

following table and their locations are shown on the **Transportation Infrastructure and Traffic Data Locations Map.**

BRIDGES

Bridge ID	Name	Status	FSR	Ownership
040/095	Bypassed Historic over Connecticut River	Not Applicable	N/A	NH DOT
040/096	NH 9 over Connecticut River	Not Deficient	94	NH DOT
044/091	Mountain Rd over The Gulf	Not Deficient	94.3	Municipality
051/090	Gulf Rd over The Gulf	Not Applicable	95	Municipality
070/128	Farr Rd over Catsbane Brook	Not Deficient	95	Municipality
077/122	Cross Rd over Catsbane Brook	Not Deficient	78.7	Municipality
080/120	Brook Street over Catsbane Brook	Structurally Deficient	77.2	NH DOT
082/113	NH 9 over Catsbane Brook	Not Deficient	97.2	NH DOT
102/096	Stage Rd over Town Brook	Not Applicable	91.8	NH DOT
177/138	Westmoreland Rd over Partridge Brook	Not Applicable	69.8	Municipality
181/153	Edgar Rd over Brook	Not Applicable	95	Municipality

Sources: NH DOT Bridge Summary, 2007

NH DOT maintains an inventory of all bridges in NH using Federal Sufficiency Ratings (FSR), a nationally accepted method for evaluating bridges. An FSR represents the relative overall effectiveness of a bridge as a modern day transportation facility. An FSR greater than 80 means that a 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. According to the table above, all bridges in Chesterfield have a sufficient FSR.

Functionally obsolete refers to a bridge with substandard deck width, under clearance, approach roadway alignment, or inadequate waterway. There are no bridges with this status in Chesterfield. Structurally deficient 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. Brook Street over Catsbane Brook is the only bridge in Chesterfield with this status.

The Route 9 bridge over the Connecticut River was replaced in 2003. The new 430 foot long steel arch bridge has a higher clearance and a 10 foot shoulder on the new alignment, just north of its predecessor, which was built in 1936. Additional work on the project included drainage installation, pavement removal on the old road alignment, and the construction of a sidewalk.

Accident Locations

The NH DOT collects data on accident locations throughout the state. The most recent years for which this information is available for the Town of Chesterfield is 2002, over half (54%) of the accidents in Town occurred on Route 9, about nine percent on Route 63, five percent on the Gulf Road, and about two percent on the North Shore Road. The location of accidents on local roads will vary, but in situations where road conditions contributed to the accidents loose gravel/matter was often cited.

CHESTERFIELD ACCIDENTS BY LOCATIONS 1995-2002

Street	# of accidents
Atherton Hill Road	6
Bennett Road	1
Bradley Road	3
Brook Street	4
Cady Lane	4
Canal Street	1
Chesterfield School Parking Lot	1
Church Street	2
Cross Road	2
Edgar Road	2
Farr Road	3
Forestview Road	1
Friedsam Drive	1
Glebe Road	4
Grace Community Church	1
Granite Bank	1
Gulf Road	27
Hulslander Road	1
Hutchins Road	2
Kendall Pond Road	1
Lincoln Road	3
Maple Road	1
Merrifield Road	1
Mountain Road	5
North Hinsdale Road	9
North Shore Road	13
Old Brattleboro Road	1
Old Chesterfield Road	6
Old Swanzey Road	5
Orchard Road	1
Perkins Home Center	2
Perry Road	1

Street	# of accidents
Pinnacle Springs Road	2
Plain Road	2
Pond Brook Road	4
Poocham Road	7
Poor Road	4
Private Driveway	4
Recycling Center	1
River Road	4
Riverside Parking Lot	2
Rosewood Lane	1
Route 63	52
Route 9	301
Route 9A	6
Sherman's Parking Lot	2
Spofford Cabin Way	1
Spofford Post Office	3
Spring Street	2
Stage Road	9
Stow Drive	1
Stow Mills Parking	1
Streeter Hill Road	5
Texaco Parking Lot	5
Tuttle Road	1
Twin Brook Road	4
Twin State Parking	1
Valley Park Drive	3
Welcome Hill Road	4
Wellington Drive	2
Westmoreland Road	2
Winchester Road	1
Zuverino Road	1
TOTAL	**555**

Problem Areas

The Chesterfield Police Chief, Road Agent, and Committee Members met with SWRPC staff to discuss existing transportation problems in Town. Two separate discussions led to the creation of a transportation matrix and accompanying **Transportation Problem Locations Map**. The matrix focuses on the location, description, additional comments, and possible solutions to problems such as road width, surface type, speed limit, accidents, other safety hazards, bridge deficiencies, drainage, pedestrian access, parking, vehicle class, snow and ice, and other maintenance issues.

TRANSPORTATION PROBLEM AREAS

Problem	Location	Description	Additional Comments	Possible Solutions
Erosion	Mountain Rd	There are approximately15 residences on Mountain Rd that have received damage from flooding of the Connecticut River. The entire road is located in the 100 yr. floodplain.	There are records of subsidence and erosion along several town roads, which have presented problems in the past when trying to evacuate local residents. The erosion is primarily along roadsides due to improperly sized roadside drainage systems as well as undersized culverts. The damage due to erosion is mainly in the form of undercut roadways. If nothing is done about this particular road it will soon be impassable.	
Traffic & Drainage	North Shore Rd	One residential structure could be affected by heavy rain runoff or rapid snowmelt compounded by road and culvert failure.	The number one issue around Spofford Lake is drainage. Summer cottages are being converted into year round residences, which increase traffic and road runoff.	
Flooding	River Rd	Approximately 3 residential structures could be affected by heavy rain runoff or rapid snowmelt with the rise of the Connecticut River.	There is a quarry between Chesterfield and Westmoreland. Trucks continually drive this stretch of road resulting in substantial damage to the road.	
Flooding	NH 9 Bridge to Old Ferry Rd	Six residences could potentially be affected in a disaster. There is the potential of flooding of the road due to accumulation of heavy rain and runoff.		
Flooding	Pond Brook Rd	Road and Culvert Repair.	The Pond Brook project is pending.	

TRANSPORTATION PROBLEM AREAS, (continued)

Problem	Location	Description	Additional Comments	Possible Solutions
Erosion	Old Ferry Rd	There are 10 residences located along this road. Annual repair is required due to spring storm patterns, plugged ditches during spring runoff and mud season. Snow melt and accumulated runoff from heavy rains causes erosion of conveyance ditch and road.	Slopes are showing signs of considerable erosion & possibly impending collapse.	
Flooding	Twin Brook Rd/Dean's Landing	Road and 2 Culvert Repairs, 3-4 residences.		
Flooding	Horseshoe Rd	Road and Culvert Repair.		
Flooding	Old Chesterfield Rd (paved section behind school)	One residential structure could be affected by heavy rain runoff or rapid snowmelt along with repair of dam failure.	An Engineer has designed how to control the outflow of water.	
Flooding	Old Chesterfield Rd (East) (gravel portion)	Road and Culvert Repair and Drainage.		
Flooding	Atherton Hill Rd	One residential structure could be affected by heavy rain runoff or rapid snowmelt along with road and culvert repair.		
Flooding	Chandler Rd	Two residential structures could be affected by heavy rain runoff or rapid snowmelt along with road and culvert repair.		
Flooding	Hines Meadow Area	One residential structure could be affected by heavy rain runoff or rapid snowmelt.		
Visibility	Twin Brook Rd Intersection	Dangerous Intersection.		
Visibility	Streeter Hill Road	The angle of both of the intersections on Streeter Hill Road is dangerous. The stop sign is too far back.		Both intersections should be reengineered.

TRANSPORTATION PROBLEM AREAS, CON'T

Problem	Location	Description	Additional Comments	Possible Solutions
Visibility	Brook Street & Main St	There is low visibility from both directions when approaching the stop sign. It is also difficult to see around the barn at the corner.	Maintenance is shared between the Town and the State.	Reengineer the intersection into a T intersection and move the telephone pole to the northeast corner.
Other Safety Hazards	Old Swanzey Rd	Sharp corners, blind spots, & drop offs	Pretty road, but dangerous. It's an old Town road that can't handle the current amount of traffic. One quarter mile of it was made into a Class A trail to deter potential influx of traffic due to a proposed development in Swanzey.	The Planning Board can require new developments to upgrade existing roads to meet standards.
Accidents	North Hinsdale Rd	There are a disproportionate number of accidents on this road due to its narrow width (12'), unmarked intersections, and blind corners.	The NH Supreme Court ruled in favor of Hinsdale and the road is now open for public use.	
Dangerous Intersection	North Hinsdale Rd, Bradley Rd, Merrifield Rd, & Plain Rd	This is a very confusing intersection that is locally referred to as the "Spider Web".	This area has RSA designation as "road to summer cottages", but no homes are located here. It is not maintained in the winter.	
Left Turning Movements	RT 63 onto Twin Brook Rd	There is low visibility when turning left from RT 63 onto Twin Brook Rd.		
Dangerous Curve	Farr Rd	There is a telephone pole tucked into a very sharp corner just before Snow Rd and has been hit several times.		
Spring Melt & Runoff	Woodbury Rd & River Rd	Spring melt & runoff blows out the slopes along these roads each year.	Debris eventually ends up on River Rd.	

TRANSPORTATION PROBLEM AREAS, CON'T

Problem	Location	Description	Additional Comments	Possible Solutions
Dangerous Roadway	NH 63 South near house number 162	Substantial drop off on West side of roadway causes any accidents to have potentially more serious injury.		Have NH DOT put up guardrails in this location
Landslides	Ferry Rd	On one side of the road is a steep slope that has resulted in mudslides.	There are sink holes on the top of this hill approximately 25' x 30'.	
Steep Slope	Westmoreland Rd onto RT 9A	Dangerous intersection		Fill in the area to make it even with High St. (i.e. slow easy grade)
Placement of Stop Sign	Atherton Hill Rd	Awkward placement of stop sign.		The stop sign should be placed on Tuttle Rd. A critical speed study should also be conducted.
Speed	Farr Rd & Cross Rd	This is a 4-way stop. There is a stop sign on the through street, which makes this intersection awkward.	This is more of an enforcement issue of speed, rather than a placement of stop signs. In theory folks should slow down and the signs could be removed. However, this hasn't worked in the past, so the stop signs should remain in place.	
Dangerous Curves & Flooding	Gulf Rd	Approximately 8 structures have been affected or have the potential to be affected by flood waters. This is an annual event - some flooding occurs in the floodplain from spring runoff and heavy summer/fall rains. There is annual damage/repair to the road surface as well as annual repair and upkeep to bridges and culverts.	This is a pretty Scenic Rd, but very dangerous. Because of its designation as a Scenic Rd the Town has limited options.	

Public/Alternative Transportation Modes

Bus service

Vermont Transit Lines offers service to Montreal, New York and Boston with stops in Greenfield, Northampton and Springfield, MA; Brattleboro, Bellow Falls, White River Junction, Ascutney, Montpelier, and Burlington, VT; Hartford, CT; and Hanover, NH. Eight trips daily leave from Keene Transportation Center with 48 to 56 riders: mostly Keene State College students and seniors.

Bicycle/Pedestrian Travel

The focus of this analysis has been on vehicular, private transportation. Alternative travel is limited in this region, although it has certainly seen resurgence over the last several years. Most roads were designed and built with little or no consideration for anything but vehicles; pedestrians and bicyclists must share the road with cars and trucks. In recent years there has been an increase in both pedestrian and bicycle traffic, and with it a recognition of the potential dangers of mixing these activities with vehicular traffic. These issues can be partly addressed at the local level by designing new roads with attention to alternative traffic. With existing roads the problems are more difficult, since the Road Agent is dealing with a circumscribed width in most cases; warning signs and speed limits are the traditional techniques for minimizing the conflicts, although not always effective.

Other Public Transportation

Many human service agencies in southwestern New Hampshire provide transportation to elderly, low-income and disabled residents. Most of the need is to access agencies' services or for employment, medical appointments, shopping, etc. Agencies such as Home Health Care, Red Cross, New Hope/New Horizons provide such transportation. Many agencies feel that their transportation service to their own clients is limited because of the costs in the frequency of service (service is usually weekdays only) and in geographic coverage (residents in outlying communities cannot be as frequently transported).

Ideal Taxi Service offers intra-city and inter-city service from Keene mainly for seniors, persons without vehicles or licenses, and persons in wheelchairs (not wheelchair-bound). In winter, inclement weather increases clientele. Service is used for trips to work and shopping by about 36 to 50 customers daily.

Thomas Transportation Services, Inc. offers service to airports and throughout the Northeast. Service is available 24 hours, including private vehicle service, courier service, charter and connections. Thomas Transportation provides approximately 20,000 round trips annually, employing 45 persons in the region.

Monadnock Transportation offers door-to door service to any city or airport in the Northeast including limited courier services. Currently 400 to 500 trips are provided monthly. Clients are business and corporate with some medical trips to regional hospitals (Dartmouth-Hitchcock-Keene and Boston General Hospital). Regarding the future, Monadnock Transportation cited possible expansion into the low-income market which is not currently served by public transportation or by private carriers.

First Student company provides service for public school (6,000 children, 68 routes, 90 buses) in Cheshire County (excluding Westmoreland) including special transportation for handicapped students (20 vehicles), sports and extra-curricular activities. Other service for Keene State and Franklin-Pierce Colleges include 12 to 15 trips daily (1600 to 200 annually). First Student employs 100 persons locally. First Student also operates fixed-route/fixed-schedule bus service in Brattleboro, VT. Ridership levels are steady at 50 to 60 riders/day with 180 service-miles/day.

Adventure Limousine offers limousine and mini-van service for corporate clients and special events with four to five trips per week (50/50 corporate/special events). Regarding its future, Adventure reports increased demand for inter-city service (e.g. Keene to Jaffrey) but is unable to identify a cause for this increased demand.

Swanson Limousine provides stretch limousines for weddings, special events and airport trips (corporate customers) averaging six trips/month. Demand is highest in May and October, and lowest in January.

Road Improvement Program

The State Department of Transportation's 10-Year Transportation Improvement Program directs the spending of state and federal money on highways. This plan is a product of federal priorities, state legislative decisions, the Advisory Commission on Highways, and public input. There are projects planned in Keene and other communities such as reconstruction of Branch Road, the Keene Bypass project, resurfacing, guardrail improvements, and bridge replacement.

Both the Windham Regional Plan and the Town of Brattleboro Plan address the current and projected traffic problems along Route 5 and at the intersections of Route 5, 9 and I-91. Changes such as signalization, travel lane design, and roadway geometry are planned to maintain the capacity of the Brattleboro area highways. These plans are important to Chesterfield and the Keene area. However, along with road improvements, Brattleboro is also interested in limiting access to major thoroughfares in order to maintain desirable traffic flow and capacity, and in further developing ridesharing and public transit.

In Chesterfield, the Town Public Works Department has an annual program for tarring and reconstruction of road sections, although there is no long-term schedule for major road capital improvements.

Techniques for Addressing Transportation Issues

Planning Strategies

FOCUS DEVELOPMENT IN THE VILLAGE.
Provide for mixed uses and higher densities in the Village rather than in the outlying parts of Town.

IDENTIFY APPROPRIATE LAND USES.
Existing land uses can be monitored and the Zoning Ordinance consulted to ensure that development will be compatible with the road system. Applications for development must always be reviewed with the scale of proposal relative to the road network and abutting land uses in mind.

PLAN FOR PEDESTRIAN AND BICYCLE CONNECTIONS.
The Town can make sure that it is always at the table when the NH DOT is considering plans involving the state routes, and make every effort to see that all due consideration is given to the accommodation of non-motorized traffic.

DEVELOP AND ADOPT A ROAD POLICY.
The Planning Board & Road Agent, in conjunction with the Board of Selectmen, can develop a road policy that would guide development, in town, based on the status of existing roads and any future plans for roads. This can go far to minimize potential questions and problems when applications are submitted for the upgrading of a road, or for a building permit on a Class VI road.

CAPITAL IMPROVEMENTS PROGRAM.
A Capital Improvements Program (CIP) that sets forth the planned capital expenditures over a six year period can also help to guide road development. In conjunction with a Road Policy, the CIP can set the schedule as well as the degree and type of road improvements.

SWRPC TRANSPORTATION ADVISORY COMMITTEE
Participation in this Committee provides an opportunity for the Town to be involved in the development of the Region's 10-Year Highway Plan.

Regulatory Strategies

ROAD STANDARDS
Included in the Subdivision Regulations administered by the Planning Board are standards for road construction. These essentially mirror the DOT standards discussed above, which address such things as width of the traveled way, width of shoulders, type of materials to be used and depth of each level. The Board also has the option, through a waiver procedure, of accepting plans for new roads with modified standards: for example, approving a graveled road rather than a paved road for developments of low traffic impact.

DRIVEWAY STANDARDS
The Planning Board is allowed by state statute to adopt and administer regulations for the construction and permitting of driveways. The NH DOT regulates curb cuts on state roads; towns are allowed the same authority for town roads. A local driveway regulation, however, can cover all aspects of driveway construction for the entire length, not just the access area off of the road. Driveway standards can encourage safe and efficient transportation corridor management through provisions that:

- reduce the number of curb cuts along a road;
- separate curb cuts and intersections;
- align driveways either opposite one another or offset them by at least 125 feet for safe sight distance;
- relate driveway design such as width, length and curb radii, to travel speed and traffic volumes;
- require shared access and parking where appropriate; and
- prohibit parking that requires backing out onto the road.

ACCESS MANAGEMENT TECHNIQUES
These techniques range from various driveway standards and requirements to the use of medians, signalization and signage.

SUBDIVISION AND SITE PLAN CONSIDERATIONS

During the subdivision or site plan review process the Planning Board has an opportunity to review all proposals based on the transportation issues identified in this section.

VIEWING THE WHOLE PARCEL

It is always important to step back from an individual plan and look at it in relation to the neighboring properties and land uses. If the lot fronts on more than one road, decisions can be made about which roads would better serve as access, how the parking should be laid out, etc.

LOT LAYOUT

When the opportunity presents itself through a multi-lot subdivision, the subdivision design should consider interior streets, with lots fronting off of the interior rather than the main roads.

NATURAL RESOURCES

Introduction

The natural features section of the Master Plan uses the environmental criteria of topography, soils, and water resources to evaluate the town's land area and its potential for various types of development. Although natural features can often enhance a particular development site, they just as often pose significant barriers to development. This can be seen by examining the locations of existing development. It is true that transportation routes are another factor in the location of development; however, to a great degree, the natural features of the land also determine the location of roads and the former railroads.

This section enables the Planning Board to address areas of the town that are most suitable for development and high intensity land uses, and evaluate the existing limitations of the land that would have to be accommodated. Environmental limitations may include steep slopes, seasonally wet soils, wetlands, floodplains, shallow bedrock, and aquifers.

This section also identifies the areas of town that deserve special protection due to the environmental function of the land, for example, a specific wetland area that provides flood water storage during times of heavy rain. In addition, this section notes specific areas the town may wish to conserve for future community use due to their aesthetic or historic qualities. Not all open spaces need to be steep slopes or wetlands. Some areas may be prime lands set aside for future school sites, parks, intensive farming operations, or other limited low intensity land uses that add value to the overall community.

Chesterfield has many natural features that make the town a very desirable place to live. The Town has remained a typical New England rural community with three distinct population/village centers. Eighty percent of the Town is undeveloped and consists primarily of wooded and brush-covered areas, many of which have substantial development constraints (as shown on the accompanying **Development Constraints Map**). As development pressures mount, however, there will be more pressure on the Planning Board to allow smaller lot sizes in other parts of Town. This section will aid the Planning Board and the residents to decide where they want growth to occur while at the same time preserving the natural environment that is critical to a high quality of life.

Topography

The Town of Chesterfield consists of 47.5 square miles or 29,184 acres. The approximate elevation at the Connecticut River is 220 feet, with elevations rising to 1,340 feet in the southwest corner of town at the Hinsdale border on Wantastiquet Mountain. Chesterfield contains three town forests, Madam Sherrie Forest, Friedsam Town Forest and O'Neil Forest, Pisgah State Park, Wantastiquet State Park, and Chesterfield Gorge are at least partially located in Chesterfield. There are also several streams of varied orders in the Town of Chesterfield, some of which are protected. The vast majority of these streams drain small valleys into the Connecticut River to the west and Spofford Lake (740 acres) to the north. The topography of Chesterfield consists of rolling hills interrupted by narrow valleys. The higher areas vary from very stony loam to rock outcrops. The accompanying **Topography** map shows the topography in the Town of Chesterfield.

Topography is an important consideration when assessing the development potential of land. Soil conditions are directly related to topography, with slope and drainage features having a determining influence. While slope is only one of many factors influencing the soil type of a particular site, it is the primary component of topography. The following discussion defines slope and addresses the influence slope has on the development potential of land.

Soils

Soils information is an important consideration in land use planning since the various characteristics of soils, such as steepness, wetness, flood susceptibility, etc. have considerable impact on land use opportunities. Soil information for Chesterfield was obtained from the following sources:

1) Soil descriptions and mapping: Soil Survey of Cheshire County, New Hampshire, published by the US Department of Agriculture Soil Conservation Service, 1989.

2) Soil development capability: Soil Potential Ratings for Development; Cheshire County, NH, prepared by the Cheshire County Conservation District in August 1984.

The soils of Chesterfield are uncharacteristic of the Monadnock Region with an almost forty sixty split between developable and undevelopable soil types. Approximately 36% of the soils in Town are suitable for development while 64% have restrictive features such as wetness, steepness of slope, hardpan or floodplain conditions. Soils on steep slopes are usually thin with exposed bedrock or a shallow depth to bedrock. Floodplain soils tend to be fine and sandy with wetland conditions. Floodplain areas often have a well-developed topsoil making them desirable for certain agricultural uses. The **Construction Materials Map** shows the locations of various construction materials throughout Chesterfield as identified by soil type.

Steep Slopes

Generally speaking, the steeper the land the greater the possibility for erosion and sedimentation, and more problems can be encountered in siting wells and septic systems.

Steepness is measured in terms of slope, which is defined as the change in elevation (vertical distance) over horizontal distance; the more abrupt the change in elevation, the steeper the slope. Slope is measured and expressed as a percentage that represents the relationship between elevation and horizontal distance.

Typical categories that might be seen on a slope map are 0-8%, 9-15%, 16-24%, and over 25%. Land in the 0-8% slope category is generally preferred for all types of development. Gradual slopes are most favorable for building roads, and public water and sewer facilities can be installed at the least cost to the community. Also, excavations for most structures can be done at a minimal cost and the erosion associated with such work can be reduced easily on-site. The exceptions to this would be wetland areas and floodplains because they occur primarily in the 0-5% slope range. An examination should be made as to the environmental function of such wetland and floodplain areas, as well as the risks that might be inherent in development before such lands are utilized for building sites.

As slopes increase to 8-15%, the land is more suited to less intensive forms of development. Carefully placed residential dwellings and some agricultural uses (orchards and field crops) may be suitable for this terrain. As development approaches a 15% gradient, it requires more careful consideration for all types of development. Once a slope exceeds a 25% gradient, restrictions on development are advisable.

Areas having 25 percent or greater slope have benefits as conservation areas for low intensity recreational uses and wildlife habitats. Also, their disturbance can create serious erosion problems, washing out topsoil and even roadways downhill. Forestry practices on such slopes must be confined to low-impact operations, with proper erosion controls in place. Other important controls for forestry uses include minimal basal area cutting, and skid roads designed for steep slope harvesting.

When developing steep terrain, the potential for environmental damage increases as the slope gradient increases. Overly steep slopes consisting of sands and gravels left after the excavation of an area will quickly gully and erode. Erosion control barriers should be in place at the time of excavation and prompt reseeding and regrading should take place afterwards. Surface water run-off rates and erosion factors increase as the slope steepens. This will cause sedimentation of the surface waters down slope and will clog stream channels and rivers if no erosion controls are in place.

Shallow to Bedrock Soils

This group of shallow to bedrock soils predominate and have formed on a thin layer of glacial till which is underlain by solid bedrock at about 2 feet, (the depth of bedrock fluctuates greatly between less than one foot to four or five feet). Steep slopes with exposed bedrock are common in some of these soils. The mountainous eastern sections of Chesterfield are dominated by these types of soils and they occupy 44% or nearly one-half of the town's total land area.

Wetland Soils

Wetland soils in Chesterfield are those that the soil survey categorizes as being poorly drained or very poorly drained (including muck and peat). Chesterfield has a very scattered pattern of wetland soils, accounting for only seven percent of the total land area, or 2,043 acres. This compares with about 9.6 percent of the southwestern part of New Hampshire as a whole.

Floodplains

Floodplains are land areas that are susceptible to flooding. These areas actually have two parts: the floodway and floodway fringe. The floodway includes the channel and an additional area that often carries excess flow. The floodway fringe (more commonly known as the 100-year floodplain or the Special Flood Hazard Area) is a broader area over which floodwater may spread, but where the flow velocity is slower. This is an important distinction for land use planning, since some uses can safely occur in the Special Flood Hazard Area, but not in the floodway.

The Federal Emergency Management Agency (FEMA) has mapped the floodplains for all relevant municipalities; the boundaries of the floodplains were computed at cross sections interpolated between cross sections, based on hydraulic information and past experience of flooding. Flood Insurance Rate Maps define the 100-year floodplain (meaning there is a 1 out of 100 chance of flooding in any given year; over long periods of time, base floods will occur on the average once every 100 years), and an area of 500-year floodplain (a 1 out of 500 chance of flooding in any given year).

The Flood Insurance Rate Maps for Chesterfield became effective December 1977, and the town then entered into the National Flood Insurance Program, which permits homeowners who live in the floodplain to purchase insurance for their property. However, in order for landowners to be able to purchase this insurance, the town needed to adopt a Floodplain Management Ordinance, which it has done. This Ordinance requires the town to keep track of all development in the Special Flood Hazard Areas (SFHA)

and ensure that if any new construction or substantial improvements to a home are proposed for the SFHA, the lowest enclosed floor must be at or above the base flood elevation.

The purposes of this requirement are to minimize the potential for flood damage, to avoid damage-prone uses in the floodplains, and to reduce development pressure of flood hazard areas. Communities that do not maintain and/or enforce their floodplain regulations may be suspended from the insurance program, which could have serious consequences for any affected landowners if their mortgage holders wished to cancel the mortgage. For these reasons, it is very important for the town to keep the floodplain management ordinance up to date by amending it as necessary, and to monitor all development within these areas. Zoning can be amended by vote at Town Meeting to disallow any development within floodplains.

Chesterfield has very little floodplain soil, only about 292 acres or 2% of the total land area. The majority of this area is located adjacent to the Connecticut River. Most of the floodplain areas that are not wetlands are in agricultural use. Floodplain soils do not necessarily include all areas that flood – only those areas that flood frequently enough to change soil make-up.

Besides floodplain soils there are areas that flood so infrequently that soil conditions are not changed. These are called flood hazard areas. Flood hazard areas include the banks of Hubbard Brook, Catsbane Brook, Town Brook, and the inlet streams leading to Fullam Pond. All told, approximately 1,000 acres in Chesterfield fall within the identified flood hazard areas.

Water Resources

Chesterfield has a land area of approximately 45.5 square miles, or 29,184 acres. Surface water accounts for approximately 1,280 acres. Chesterfield has one sizable water body, Spofford Lake (740 acres). There are several streams of varied orders throughout the Town. Aquifers, or groundwater, are also included in this analysis, since they provide an important source of water for private and community wells. A description of the town's watersheds, waterbodies, watercourses, and aquifers is presented below.

Watersheds

A watershed is the land area made up of a series of connecting higher ridges that drain surface water to the lowest point, which is where a stream or a river flows out of the watershed.

Chesterfield forms part of two different major watersheds: the Lower Connecticut River Watershed and the Ashuelot River Watershed. Both are part of the Connecticut River Basin. The lower Connecticut River Watershed consists of approximately 61,350 acres in portions of Chesterfield, Hinsdale, Westmoreland, Walpole, Keene, Surry, and Alstead. Chesterfield's portion of this watershed consists of approximately 21,238 acres. The Ashuelot Watershed is 282,900 acres in size with only 9,546 acres in Chesterfield. In Chesterfield, the Ashuelot Watershed is composed of the Pisgah Area and the California Brook Natural Area, both protected as conservation areas.

The town's drainage pattern is such that water drains away from the town. Chesterfield receives little or no drainage from surrounding communities.

Waterbodies

Chesterfield has approximately 32 waterbodies scattered throughout Town. Most are quite small, only measuring a few acres or less in size. The largest is Spofford Lake (740 acres) in the north. Most of these waterbodies are connected to the streams and brooks which form the drainage pattern; there are a few small isolated bodies of water around Town. Chesterfield's waterbodies are really too small to support much recreational use, with the exception of Spofford Lake.

Rivers and Streams

Chesterfield's most significant watercourse is the Connecticut River, running north-south along the western border of town. The Connecticut River forms the town's western border with the Town of Brattleboro, VT, and therefore shares the river. There are many significant streams in the town as well; these are delineated on the **Water Resources Map**.

Aquifers

Aquifers are geologic formations (either fractured bedrock or sand and gravel) that by virtue of their physical structure and location on the landscape can provide water through drilled wells in sufficient quantities to support human uses. Characteristics of high-value aquifers include being situated down stream in a watershed, being in a watershed with a preponderance of natural forested land cover, and having a physical structure that is highly permeable (open spaces between particles of sand and gravel or open fissures and interconnected networks of cracks in bedrock to both store and transmit water). Aquifers are re-supplied primarily by water falling as precipitation. Rain and snow melt move downward through soil, sand and gravel and/or cracks in bedrock to a saturated zone where the spaces between particles and cracks in rock are filled with water. It is very important that the surface of the earth be able to transmit water so that a certain percentage can be stored underground. Excessive compaction or extensive covering of the land surface reduces the volume of groundwater, which affects the supply of water to wells.

Aquifers of medium to high potential occur in southwestern New Hampshire as unconsolidated deposits of sand and gravel, or in bedrock fractures. The unconsolidated deposits in this region are principally stratified drift deposits (sand and gravel sorted and deposited by running water from the melting glaciers) that are usually in valley floors or on adjacent hill slopes. These materials have abundant pore space to store water, and pore space may amount to more than 30 percent of the total volume of the deposit. Consequently, stratified deposits at the bottom of watersheds are good aquifers.

Fractured bedrock can be highly productive aquifers, especially when overlaid by a layer of sand gravel, which allows the recharge to occur directly from above. Most domestic water wells in Chesterfield are drilled into bedrock - and while many have low yields, bedrock fractures can be staggeringly water rich - and sometimes transmit great volumes of water over many miles.

In contrast, a till aquifer will typically have a lower-yielding well life due to its mixture of clay, silt, gravel and boulders that tend to compact. The transmission and storage of water is greatly decreased in this type of aquifer. The water table (the top of the saturated zone) can fluctuate, depending on the volume recharge to aquifer material.

Groundwater in saturated soils is generally vulnerable to pollution because surface contamination can infiltrate directly into it. It is possible, however, to trace the source of pollution by finding the watershed boundary. Once a pollutant enters an aquifer, it may remain in place for an indeterminate period of time.

While pollutants can enter an aquifer easily because sand and gravel are porous and transmit water rapidly, once in the aquifer their movement is then governed by groundwater flow, which moves very slowly through the tiny pore spaces of the glacial till.

Sources of aquifer pollution are frequently located on the ground surface directly above or contiguous to the aquifer: septic tank effluent, landfill refuse, leakage from sewer lines or ruptured fuel tanks, agricultural fertilizers and pesticides are among the many possible sources of pollution for an aquifer. In addition to these potential contaminants are the materials such as fuels, lubricants or other toxic materials associated with earth excavation, an activity that is, of course, directly associated with sand and gravel aquifers.

The US Geological Survey provides aquifer delineation maps for the entire state. The map is essentially a surficial geology map, showing the distribution of unconsolidated (not bedrock) geologic material on the land surface. Bedrock aquifers do exist, but these were not part of this particular study. This study identifies areas of sand and gravel and measures the rate of transmissivity - that is, the speed with which water passes through the materials, in increments of 1,000 feet squared per day.

The **Water Resources Map** for Chesterfield shows the locations of soils that are commonly associated with concentrations of groundwater (aquifers).

Open Space

Providing open space is an important aspect of town planning. Open space provides many benefits to a community:

- Maintenance of rural character and pleasant scenery.
- Provides buffers between developments.
- Wildlife habitat protection.
- Groundwater protection, water retention, and groundwater recharge.
- Flood control.
- Food production.
- Air purification and the production of oxygen.
- Recreational opportunities.

Federal, State and LCHIP Properties

The following tables show the amount of federal and state owned open space lands, as well as all parcels protected under the Land and Community Heritage Investment Program (LCHIP) in Chesterfield and surrounding towns.

CHESTERFIELD PROTECTED LAND

Protected Property	Protected Acres (in Chesterfield)
Pisgah	4250
Wantastiquet Mountain	600
Madame Sherri	500
O'Neil	80
Friedsam	200
California Brook Natural Area (CBNA)	500
Chesterfield Gorge State Park	16
TOTAL ACRES	**6146**

Personal Communication

NEIGHBORING OPEN SPACE COMPARISONS

TOWN	OPEN SPACE IN ACRES	% OF TOTAL AREA
CHESTERFIELD	7,775	27%
Westmoreland	1,193	5.1%
Keene	7,227	30.3%
Swanzey	2,187	7.5%
Winchester	8,682	24.7%
Hinsdale	590	4.1%

Source: Southwest Region Planning Commission GIS

Current Use

The Current Use Taxation program was enacted in 1973 to promote the preservation of open land in the state by allowing qualifying land to be taxed at a reduced rate based on its current use value as opposed to a more extensive use. The minimum land area currently needed to qualify is ten acres. The price of this favorable treatment is a 10 percent penalty tax (10% of the fair market value) when the property is later changed to a non-qualifying use.

In comparing conservation easements to current use taxation, easements are permanent, while current use may be reversed by change to a non-qualifying use and payment of the Use Change Tax. Thus, current use may satisfy the goals of a landowner who cannot afford to permanently abandon future development value, but desires current property tax relief. If it becomes financially necessary to subdivide, the use change tax becomes an element of the development costs.

In Chesterfield, 100% of the monies collected from the Use Change Tax (10% of the market value of a piece of land taken out of current use and sold for development) until a maximum amount of $25,000 is reached, goes to the Conservation Commission for the acquisition of land and/or conservation easements.

The current use designation, authorized by RSA 70-A, provides the town other benefits as well: it encourages landowners to maintain traditional land-based occupations such as farming and forestry; promotes open space, preserving natural plant and animal communities, healthy surface and groundwater; and provides opportunities for skiers, hikers, sightseers, and hunters. More information about current use can be found in the land use chapter of this master plan.

Landowner Liability – Recreational Use

The conclusion of the Legislative Study Committee, charged with studying House Bill 244, establishing a committee to study landowner liability for owners providing public access to snowmobile trails is below:

(From http://www.nhtrails.org/Trailspages/LandownerLiablty.html. The complete study, including referenced appendices, is available at the State Library, 20 Park St, Concord, NH , 271-2144 or at the House Clerk's Office, NH State House, Main St, Concord, 271-2548.)

Conclusion

After having investigated the issues raised in HB 244 regarding the liability of landowners when persons are injured on the landowner's property when engaged in recreational pursuits, the Committee has unanimously concluded that existing statutes fully and adequately protect landowners from suit. To add any additional statutes regarding the subject would be duplicitous.

This bill was spawned, in part, by [landowners] of Dalton and Milford, New Hampshire, when their "Letter to the Editor" appeared in several north country newspapers. (Their letter is included in this report as Appendix "G.") The [landowner's] letter raises many issues, most of which the Committee found to not be relevant. Paragraph seven of the letter does raise a fair issue - that being of machines that leave the trail. If the operators are consequently injured in a mishap, the landowner is still indemnified by the four strong statutes previously discussed in this report, plus RSA 507:15, the frivolous actions statute which should deter a frivolous suit (see Appendix "H").

Apparently, the [landowners] own a large tract of land in the Town of Dalton, intersected by a Class 6 town road on which a state snowmobile trail was located. The [landowners] attempted to close the road. Since they did not own the land upon which the trail was located, it is difficult to understand their intense interest in the landowner liability issue.

In an attempt to keep the trail in town with the associated economic advantage of servicing snowmobiles, the town voted at the 2003 Town Meeting to upgrade the road to a Class 5 road, and have made provisions for the trail to be located beside it.

In January 2003, the Department of Insurance contacted twenty of the insurance companies that write the majority of the homeowner policies in the State to determine if they would cancel homeowner policies if the homeowners allowed snowmobile trails on their properties. Of the 20 companies, seventeen replied, and sixteen of them stated that they would provide homeowner coverage. These companies stated that they were aware of both the immunities provided by the recreational use statutes as well as the insurance coverage provided by the Department of Resources and Economic Development. As a result, there does not appear to be an issue with the homeowner insurance industry allowing snowmobile trails on their policyholders' properties (see Appendix "I").

The Committee members sincerely respect the anxiety experienced by participating landowners and can understand what precipitated that increased anxiety, particularly in the northern part of the State. We feel that if landowners are made aware of the protections afforded by existing statutes, participating landowners can be made comfortable once again with a State program which has operated well since 1981.

The New Hampshire Snowmobile Association, Department of Resources and Economic Development,

the Timberland Owners Association, and the Society for Protection of New Hampshire Forests have all pledged to utilize their periodic publications to publicize the results of this study.
There are no laws, written or possible, to prevent litigation. The success of that litigation is minimal in the opinion of this Committee, considering the subject matter contained herein. It is the view of the Committee that the status quo is sufficient at this time.

Most, if not all, of the New Hampshire statutes that govern landowner liability when members of the public are allowed to use private, Federal, State, or municipal lands free of charge are listed below. These statues are generally referred to as "recreational use" statutes. The limited liability in all of the recreational use statutes is based on the premise that the public is allowed to use the property without being charged a fee by the landowner to use the property.

All of these statutes apply to the State Trail System on which OHRVs are ridden.

RSA 508:14, I - An owner, occupant, or lessee of land, including the state or any political subdivision, who without charge permits any person to use land for recreational purposes or as a spectator of recreational activity, shall not be liable for personal injury or property damage in the absence of intentionally caused injury or damage.

RSA 215-A:34, II - It is recognized that OHRV operation may be hazardous. Therefore, each person who drives or rides an OHRV accepts, as a matter of law, the dangers inherent in the sport, and shall not maintain an action against an owner, occupant, or lessee of land for any injuries, which result from such inherent risks, dangers, or hazards. The categories of such risks, hazards, or dangers which the OHRV user assumes as a matter of law include, but are not limited to, the following: variations in terrain, trails, paths or roads, surface or subsurface snow or ice conditions, bare spots, rocks, trees, stumps, and other forms of forest growth or debris, structures on the land, equipment not in use, pole lines, fences, and collisions with other operators or persons.

RSA 216-F:3 - No person who has granted a right of way for a trail across his land, or his successor in title, shall be liable to any user of the trail for injuries, suffered on said portion of the trail unless the same are caused by the willful or wanton misconduct of the grantor or such successor in title, as the case may be.

RSA 212:34 - I. An owner, lessee or occupant of premises owes no duty of care to keep such premises safe for entry or use by others for hunting, fishing, trapping, camping, water sports, winter sports or OHRVs as defined in RSA 215-A, hiking, sightseeing, or removal of fuelwood, or to give any warning of hazardous conditions, uses of, structures, or activities on such premises to person entering for such purposes, except as provided in paragraph III hereof.

II. An owner, lessee or occupant of premises who gives permission to another to hunt, fish, trap, camp, hike, use OHRVs as defined in RSA 215-A, sightsee upon, or remove fuelwood from, such premises or use said premises for water sports, or winter sports does not thereby:

(a) Extend any assurance that the premises are safe for such purpose, or

(b) Constitute the person to whom permission has been granted the legal status of an invitee to whom a duty of care is owed, or

(c) Assume responsibility for or incur liability for an injury to person or property caused by any act of such person to whom permission has been granted except as provided in paragraph III hereof.

III. This section does not limit the liability which otherwise exists:

(a) For willful or malicious failure to guard or warn against a dangerous condition use, structure or activity; or

(b) For injury suffered in any case where permission to hunt, fish, trap, camp, hike, use for water sports, winter sports or use of OHRVs as defined in RSA 215-A, sightsee, or remove fuelwood was granted for a consideration other than the consideration, if any, paid to said landowner by the state; or

(c) The injury caused by acts of persons to whom permission to hunt, fish, trap, camp hike, use for water sports, winter sports or use of OHRVs as defined in RSA 215-A, sightsee, or remove fuelwood was granted, to third person as to whom the person granting permission, or the owner, lessee or occupant of the premises, owed a duty to keep the premises safe or to warn of danger.

RECREATION

Introduction

Recreation is an essential part of our lives. With abundant mountains, streams and open spaces, Chesterfield offers a wide variety of outdoor recreational opportunities which include activities for every age group.

Planning and implementing recreation facilities and programs can be one of the most rewarding activities a community can involve itself in. It also can be a source of pride for the community, something to point to when a business is considering a move into town, or a family is looking to relocate.

It is, therefore, an important component of any Master Plan. The 1980's saw a dramatic shift in recreation and leisure activities due to more available time and an increased health awareness. The 1990's followed in the same pattern with even more use of our local recreational resources, especially Spofford Lake and the forests. It will be interesting to see if the 2000's bring the same use patterns given that the population's average age is increasing.

Public & Private Recreation Facilities in Chesterfield

Pisgah State Park - The largest state park in New Hampshire, occupying over 13,500 acres located in Chesterfield, Hinsdale and Winchester. Approximately 4,250 acres are in Chesterfield. The park includes forested terrain, 7 ponds, 4 highland ridges and numerous wetlands. Unlike most parks, Pisgah is not highly developed or utilized. Often referred to as "Pisgah Wilderness" the park has only small primitive parking areas and a variety of hiking, biking, and ATV trails. Two parking areas are located in Chesterfield off Horseshoe Road and Old Swanzey Road. A self-guided wildlife habitat trail starts at the Horseshoe Road parking lot. The main access point for the park is in Winchester.

Wantastiquet Mountain State Forest - Located in the southwest corner of Chesterfield, the 900-acre forest also includes land in Hinsdale. Approximately 520 acres are located in Chesterfield. The forest has a few trails and is mostly used by hunters and fishermen.

Pierce Island State Park - Located on Spofford Lake, the island park is undeveloped but is used by boaters for picnicking.

Chesterfield Gorge State Park - Located off Route 9, the 16-acre park contains an unusual rock gorge with 9 waterfalls. The gorge is circled by a hiking trail.

Spofford Lake offers abundant recreational activities such as sailing, water skiing, fishing, snorkeling, canoeing, kayaking, and much more.

Two beaches are owned and operated by the town, one at each end of Spofford Lake. Ware's Grove is located at the southern end and is the larger of the two occupying nearly six acres. Facilities include a one-acre beach area, picnic tables, barbecue pits, play area, bathhouse, snack bar, and parking for approximately 140 cars. The North Shore Town Beach is a one-acre site with about one-half dedicated to the beach and small picnic area and one-half for a 40-car parking lot. A bathhouse and snack bar are also available.

A recreational complex located in Chesterfield Center which includes a gymnasium in the Elementary School, a tennis court, playground and athletic field used for baseball, softball, and soccer.

Two boat launches are owned by the state and maintained by the town--one on each of the two major water bodies. A boat launch on the Connecticut River is located about midway along Chesterfield's frontage. The Spofford Lake's boat ramp is located to the west of Camp Spofford at the south end of the lake. It has a concrete ramp and parking area for 12 cars and trailers.

Conservation land is also abundant in Chesterfield with several parcels of land including Madame Sherri's Forest, an 18-acre parcel located on Gulf Road, the 209-acre Friedsam Town Forest, and the James O'Neil Forest.

Pine Grove Springs Golf Course is a 9-hole course located at the southern end of Spofford Lake and is open to the public.

Roads End Farm is a 400-acre riding camp and cross-country ski center. With over 20 miles of trails and 50 horses, it offers summer camping to about 75 persons. Other activities include retreats and functions.

Camp Spofford, a religious overnight and day camp, offers summer camping for children and families and a wide variety of activities including swimming, tennis, boating, canoeing, baseball, archery, etc.

Paths and Trails

The largest trail system is for snowmobiles with miles of trails, including a state-numbered trail that connects with a statewide trail system. A portion of the trail system is located on state land, but most is operated over private lands. The local snowmobile association maintains the trails and works with private landowners to gain access.

Hiking trails are located throughout the town and also on state land.

Another winter passion, cross-country skiing can be found in abundance throughout Chesterfield including Pisgah State Forest and unmaintained town roads. Roads End Farm also offers many miles of trails for hiking, skiing, running, riding, etc.

Recreation Commission

Chesterfield's recreational facilities and programs are administered by a six-member Parks and Recreation Commission. Daily operations and programs are managed by the Parks and Recreation Director, who has a staff of up to 12 persons in the summer season to run various programs and to staff the two town beaches. Programs offered by the Commission include swimming, swimming lessons, picnicking, men's basketball, field trips, crafts, and special events. Expenses incurred for recreation are primarily for salaries, particularly in the summer season.

Recreational Needs

In the community attitude survey done by the Master Planning Advisory Committee in 2005, residents and seasonal residents were asked several questions about recreation. Over half (56%) of the respondents felt the town was providing good recreational facilities and services, and 85% said it was important or very important to protect recreational trails and areas. Question #17 asked respondents how they felt

about the growth of recreational facilities and services---45% of respondents felt that growth should be encouraged.
The Spofford Lake Association is concerned about maintaining the environmental/recreational quality of the lake in light of the current heavy boat activity and possible exotic weed infestation.

RECREATION FACILITIES AND ACTIVITIES Top 4 Activities Enjoyed by Town Residents	
Activity	**% of Respondents**
Swimming	59%
Hiking/Running	52%
Bird Watching	45%
Boating	43%

RECREATION FACILITIES/AREAS

Facility	Chesterfield Has
Baseball Diamond	2
Basketball/Hard Courts	2
Boat/Fishing Access	2
Football Field	0
Golf Courses	1
Gymnasiums	1
Ice Hockey Rinks	0
Ice Skating Area	0
Open Space/Natural Areas (acres)	5000+
Picnic Tables	54
Parks, Community (acres)	30+
Playgrounds	2
Shooting Ranges	0
Skiing (x-country areas)	1
Skiing (downhill areas)	0
Soccer Fields	1
Swimming (beaches)	2
Swimming (outdoor pools)	0
Tennis Courts	1
Track	0
Trails, Snowmobile (miles)	20

UTILITIES AND PUBLIC SERVICES

Introduction

Presence and availability of adequate utilities is vital to the welfare of the community, in particular for meeting the health, safety, and security needs of the citizens, and in general for meeting their desires for comfort, entertainment, and quality of life. Further, the availability of certain utilities can support the community's goals for economic development.

To meet these needs, utilities presently being provided in the Town of Chesterfield include electricity and 3-phase power; telecommunications infrastructure (broadband, cable television, telephone/wireless communications, internet service); and, solid waste service. Because of their diverse nature, each of these, as well as some public and private service not currently provided such as water, sewer, and gas, is considered separately in the following sections. It will be seen that, due to the rural nature of the Town, not all utilities are available throughout the community, such as advanced cable and internet technologies and 3-phase power. However, electricity and certain telecommunications services being somewhat easier to distribute, are available virtually everywhere in the Town. Electrical and telecommunications infrastructure are provided by private business entities. There are not presently any municipal or private systems for general distribution of gas, either natural or propane, within the Town of Chesterfield.

Water and Sewer

The community does not currently provide public sewer and water, and there are no plans to develop such infrastructure systems in the next five to ten years. Residents and businesses are served by private water and sewer systems.

The Chesterfield Zoning Ordinance currently requires common sewage disposal systems for manufactured housing parks.[7]

Electrical Infrastructure

Electricity

Public Service of New Hampshire (PSNH) is the main electricity supplier for the Town of Chesterfield..

In Chesterfield, PSNH provides service to approximately 1,984 customers, or "accounts," which include homes, commercial and industrial businesses and all streetlights. Distribution and transmission lines, which are placed along roadways, carry power throughout the Town to the individual customers. The voltage from these lines is stepped down to the voltage that is used by the specific customer by way of transformers.

Electricity to most of Chesterfield is distributed through a 39X1 circuit substation located on Chestnut Hill (off NH 63) in Hinsdale. Additional service is provided to about 176 customers in the eastern part of

[7] Source: Chesterfield Zoning Ordinance (2004), Article III, Section 300.2:B.7

Chesterfield through a W110 circuit substation located on Emerald Street in Keene. The 39X1 is a 19.92/34.5 kV circuit. Step transformers reduce the voltage for taps off the main line to 7.2/12.47 kV. The W110 is a 7.2/12.47 kV circuit.

PSNH anticipates being able to provide adequate supply of electricity to Chesterfield at full build-out, extending distribution lines only where and when necessary. There are no foreseeable plans to add another substation or any new circuits given the availability of the current stations to supply the necessary power to the customers in Chesterfield.

3-Phase Power

Public Service of New Hampshire has indicated that three phase service, required for manufacturing operations, is available in selected areas of the Town: Rte. 9 Westward from its intersection w/Wellington Drive to its intersection with Cross Rd.; NH 63 from the Hinsdale border to NH 9; along NH 9A to the old Spofford Hall, and extending out of Westmoreland along Old Westmoreland Road. While there are no plans to expand this service at the present time, it is possible that service could be expanded, within reason, if new customers requested the service. The cost for such projects would be reviewed on a case-by-case basis. PSNH indicates that the projected revenue from a new customer requiring three phase service would be reviewed and may be used to reduce customer contribution for the upgrade. 3-Phase Power areas are identified on the **Community Facilities Map**.

Telecommunications Infrastructure

Understanding Broadband (a.k.a. High-Speed Internet) Technology

What is Broadband?
Broadband is the common term for a high bandwidth internet connection one that can send or download information many times faster than with a standard telephone and modem. You can do everything you want to do online more quickly and more easily with broadband including logging-on, working from home through network connections, downloading files and music, and more.

Who Provides Broadband?
There are different ways of delivering broadband services over telephone lines, cable connections, via one or two way satellite systems and even by radio and there are many companies who offer these services. High speed or Broadband Internet connectivity, when locally available, is provided through either a Local Exchange Carrier (LEC), typically a phone carrier or an Internet Service Provider (ISP).

Is Broadband Available in Chesterfield?
The capability of existing infrastructure in the Town of Chesterfield to provide broadband service such as DSL (Digital Subscriber Line) through telephone and cable service, satellite cable, and wireless to individual homes and businesses is described in the sections below.

Cable Television

Pine Tree Cablevision, an area-wide company headquartered in Pembroke, Maine, provides service to most of Chesterfield and some neighboring communities. Analog cable is available town-wide, providing 40-45 channels with options for receiving HBO, Showtime, and the Movie Channel at an additional cost. Digital television and High-Definition Television (HDTV, an improved image-processing method that lends itself particularly to large-screen displays) are not currently available via cable in the Town of Chesterfield.

The cable distribution system serving the Town of Chesterfield is presently comprised of coaxial wire from the master station to neighborhoods and into individual homes or other customer sites served by Pine Tree Cable.

Satellite Television

Satellite television is available to individual residences and businesses throughout the community, provided a southeasterly exposure is available. Direct TV and Dish Network are the major satellite providers and there are a number of installers serving the area.

Telephone and Wireless Communications

Landline phone service is provided for new and existing residences and businesses in Chesterfield by Verizon. Long distance calling service through landline phones is available through a number of service providers. A list of Authorized Toll Providers is available from the NH Public Utilities Commission at http://www.puc.state.nh.us/Telecom/telecom.htm. In addition, Verizon and various other telecommunications companies provide cellular and personal wireless service to the area.

There are currently three wireless towers in Chesterfield. In 2001, the Town adopted a Telecommunications Facilities Ordinance in order to establish guidelines for the siting of towers and antennas.[8] Currently, telecommunications facilities may be permitted in all districts, provided that they comply with the ordinance. The table below identifies existing telecommunications towers in Chesterfield:

TELECOMMUNICATIONS TOWERS

Tower/Location	Date Constructed	Owner
Mt. Pistareen	1995	U.S. Cellular Corporation
Mt. Pistareen	2007	Verizon Wireless
Welcome Hill	2003	Crown Caste International

Source: NH OEP Cell Tower Database (Nov. 2007), Personal Communications

Federal law regulates the placement of cellular towers in a given community; however, emphasis has been placed on balancing the need for telecommunications infrastructure with a community's desire to maintain community character. The Telecommunications Act of 1996 preserved state and local regulatory authority for the placement, construction or modification of wireless facilities.

Internet Systems

While 56k dialup connections over telephone lines are universally available, Digital Subscriber Line (DSL) high-speed computer internet service is the most widely available high-speed telephone connection type in the region. DSL phone service may be available to individual residential and business customers in Chesterfield through local phone service providers. Availability will depend on the residential or business location in proximity to a central office or substation of the service provider (DSL broadband has a limited service area of 18,000 feet from the central office or substation providing service).

[8] Source: Chesterfield Zoning Ordinance, 2004.

High speed or Broadband Internet connectivity, when locally available, is provided through either a Local Exchange Carrier (LEC), typically a phone carrier or an Internet Service Provider (ISP). LECs typically provide bandwidth and contract with ISPs to market and sell connectivity. ISPs also typically offer value added products including web-hosting space, web design assistance, email and access to news groups and other services. For competitive reasons, LECs and ISPs offering services in Chesterfield change frequently. An up-to-date list is provided by the NH Public Utilities Commission at http://www.puc.state.nh.us/Telecom/internetbroadband.htm.

Gas

Natural gas is a private, for-profit utility that provides customers with gas through underground pipes. This service is not currently available in Chesterfield. NH Gas Corp., based in Keene, provides limited service of a propane/air mix to approximately 1,000 customers within the City of Keene. NH Gas Corporation does not anticipate the expansion of its service area to include the Town of Chesterfield in the coming years. An up-to-date list of providers is maintained by the NH Public Utilities Commission at http://www.puc.state.nh.us/Gas-Steam/gas-steam.htm.

Propane gas is a private, for-profit utility that provides customers with on-site storage tanks and periodic delivery of gas by truck. Several private companies provide service to residents of Chesterfield and other communities in the region.

Solid Waste

Solid waste in Chesterfield is collected at a Transfer Station located at 5 Brattleboro Road. There is no curbside collection program in Chesterfield. Residents either take their waste to the Transfer Station or hire a private, commercial hauler that collects residential waste.

An arson fire in 2002 destroyed a 60’ x 40’ open, pre-fab building for collecting and holding solid waste and recyclables. A new open, pre-fab steel building was constructed by the town in 2004 on the same footprint. The facilities are handicap accessible.

In 2004, the Town purchased a used roll-off truck to haul solid waste to a commercial transfer station in Brattleboro. Recyclables are transferred to the Windham Solid Waste Management District in Brattleboro. Chesterfield pays a tipping fee for transferring the waste to these locations

The Transfer Station currently accepts construction and demolition debris, household solid waste, and recyclables including glass, plastic, aluminum, cardboard, paper, brass, tires, and tin. In 2004, the facility collected approximately 747 tons of solid waste which included: 232 tons construction and demolition debris; 144 tons commingled recyclables; 169 tons paper; 91 tons cardboard; and, 111 tons scrap metal.[9] The facility currently accepts commercial material, generated in Chesterfield, on a limited basis from commercial businesses.

The Solid Waste Facilities Director for the Town indicates that increasing demand by commercial businesses is a potential concern in the coming years. The Ordinance may need to be amended in the future to address increasing demands for service.

[9] Chesterfield Annual Report, 2004

Hazardous household waste is processed through a contract with the Keene Transfer Station through funding from the NH Department of Environmental Services Household Hazardous Waste grant program. Twelve household waste collection days are held annually. The contract with the City of Keene allows Chesterfield residents to deliver, at no cost to the residents, up to 10 gallons per collection day to the Keene Transfer Station. The Chesterfield Transfer Station maintains a schedule of the annual hazardous household waste collection days each year.

REGIONAL CONTEXT

Introduction

While other chapters of this Master Plan address conditions and issues specific to the Town of Chesterfield, or within the Town's control to some extent, this chapter surveys the region of which Chesterfield is a part. Chesterfield's Master Plan is stronger when it accounts for regional development patterns and trends such as; the geographic distribution of homes, jobs, shopping and services; the water, soil, forests and wildlife that blanket the hills around Chesterfield without regard for political boundaries; the highway network; regulations and policies of neighboring towns; and the often far-reaching social networks of residents. While development within New Hampshire's Monadnock Region is affected by local regulations, services and infrastructure, it is driven by the central New England economy and strongly influenced by the Merrimack Valley and central and eastern Massachusetts. The Monadnock Region gets its name from Mount Monadnock, which rises 3,165 feet above sea level and is the second most climbed mountain in the world.

This chapter is included in Chesterfield's 2006 Master Plan update to ensure awareness of the regional conditions that create limitations and opportunities for private and public enterprise within Chesterfield and shape opinions and ideas of Chesterfield residents.

To have more of what we want and less of what we do not want. Principles of sustainable development are based in the ability to adapt to change and seek innovate solutions to recurring problems. The better we are at adapting to change the better we can protect our assets and opportunities.

The Southwest Region

The landscape of the Southwest Region, a 36-town area in Cheshire, western Hillsborough, and Sullivan counties, is mostly forested with rural and suburban residential development dispersed between village centers. More than 98,000 people lived in 42,066 households in the 1,031-square-mile Region of 36 towns in 2000. Town populations ranged from 22,563 in Keene to 201 in Windsor; with the regional average being 2,171 excluding Keene. Population density region-wide has grown from 64 persons per square mile in 1970 to 95 persons per square mile in 2000. For comparison, Hillsborough County's population density in 2000 was 422 persons per square mile, Cheshire County was 100, and Sullivan County was 73.

The vast majority of the Region's land area has one house for every ten or more acres. Between 1990 and 2000 there was a very small increase in the percentage of land in the Region with household densities ranging from 2 to 10 households per acre and a small decrease in the percentage of U.S. Census Blocks with high densities, less than 1 acre per household. The trend in housing densities observed during recent decades is slight but consistent: no increase in density in the existing high-density areas; a slow expansion of the edges of the existing high density areas; increasing densities in the medium-density areas; and little change in the existing low-density areas. This dynamic may have three basic causes: 1) new residents and residents whose changing economic status allows them to relocate to larger properties choose new homes on moderate lot sizes (more than 1 acre, less than 10 acres); 2) our traditional development centers may be approaching development capacity given existing zoning and infrastructure; and 3) new development in the lower density areas tends to be within 1,000 feet of existing municipal and state roads.

The Region's natural and historic rural landscape is prized by residents and considered an asset to be guarded and managed. About 15% of the Region's land area is encumbered against development through deed restrictions, conservation easements and public ownership for protection - including Mount Monadnock and New Hampshire's largest State Park, 13,000-acre Pisgah State Park. There is a strong ethic in the Southwest Region for environmental protection and preservation of the visual community character. Pressure to exercise public or private control over the rates and kinds of growth the Region might experience is persistent.

Most of the land area in the Region is zoned for low density residential use, with a variety of agricultural and commercial uses allowed by right or special exception, and typically requires from two to five acres as a minimum lot size. A relatively small proportion of the land in Southwest Region towns is zoned for medium or high density (smaller than 2-acre lots) residential, commercial or mixed uses and these areas are usually existing village centers and downtowns. There are few and small areas zoned exclusively for commercial or industrial use.

Historic development patterns in the Ashuelot and Contoocook river valleys (separated by the Monadnock Highlands), create a socio-economic geography of two sub-regions: one dominated by Keene as an employment, commercial, and population center at the intersection of NH routes 9, 10, 12, and 101, and the other being a more linear configuration of Contoocook Valley population centers of Rindge, Jaffrey, and Peterborough on the US 202 corridor. The Region's commerce and employment is dominated by light manufacturing, business and service industries. While seven businesses employ more than 500 workers (1,196 maximum), few of the approximately 4,400 businesses in the Region employ more than 50.[10] Tourism, retail and resource extraction are also important sectors of the economy. There are about 40,000 workers employed in the Region. Almost half of these employees work in Keene (18,000+), 4,700 in Peterborough, 2,700 in Jaffrey, and the average number of jobs in the remaining towns is about 300 in each. The Region has recently experienced two periods of rapid growth: in the early 1970's and again in the late 1980's. Both episodes brought substantial increases in population, commerce and demand for housing and public services.

While a strong sense of local identity defined by town boundaries prevails, there is great variety in the "personal geography" of residents. That is, the map people carry in their minds determined by where they work and shop, where they have social connections, and where they spend leisure time. The Region is as connected with Vermont and Massachusetts, socio-economically, as it is with the rest of New Hampshire. And the Region's population is as highly mobile as any in the U.S. Most residents work and shop outside their towns of residence. Sixty-four percent of the Region's households owned two or more cars in 2000. Southwest Region residents travel for an average of 27 minutes one way for work each day with most (79%) driving alone. Nationwide, the average commute time is 25.5 minutes with a 76% drive alone rate.

The Region's residents and visitors have reasonable access to interstate highways and major airports. Interstates 89, 91 and 93 can be reached from most parts of the Region within an hour. Three international airports are also within convenient driving range: Manchester International Airport: 55 miles from the center of the Region; Logan International Airport (Boston): 95 miles; and Bradley International Airport (Hartford): 95 miles.

The Southwest Region is many things: natural beauty, historic villages, Yankee tradition, good jobs, strong economy, and, perhaps most importantly, a community of capable residents. All of these things that residents enjoy and take pride in are, in part, products of change. Change has come to the Region by design and by chance, bringing good fortunes and misfortune. While residents have many different

[10] The total number of businesses is difficult to specify due to the absence of a definitive centralized inventory and the dynamic nature of business starts, failures and changes. The figure used is based on a 1998 Dun and Bradstreet Business Inventory.

visions and hopes for the future, there seems to be consensus that protecting the good things we have and improving our community are priorities.

Figure 1. Rural Development Pattern

The development of forests and fields along town and state roads may be the single most common concern among residents and local governments in our region today. There are many opinions about how the ongoing development of new homes and commercial sites affect our community character, services and infrastructure, our social fabric, our economic vitality, and our natural resources. Figure 1 is a hypothetical bird's-eye view of the New England landscape most of us envision for the Monadnock Region and want to preserve.

Figure 2. shows a different version of that same view developed for housing using medium-sized lots conventional subdivisions. Whether arising one new house at a time or in large developments, this suburban development pattern is what most of the region's rural residential zoning is creating.

Figure 2. Suburban Development Pattern

The Monadnock Region's lower cost of living, economic vitality, scenic beauty, access to outdoors, and appeal of small town life will continue to attract new residents and drive the development of new homes and commercial sites. Managing development to create opportunities for positive change while protecting against loss is a principal challenge for the entire Region today. To adequately prepare for continued development it is important to understand that the Southwest Region is on the edge of very powerful engine of change to the south and east – powerful in terms of numbers, number of people, dollars, households, commercial floor space, and jobs.

Figure 3 depicts the urban areas in New England and eastern New York State after the 1990 U.S. Census. Figure 4 shows urban areas designated by the 2000 Census. Figure 5 illustrates the frontier effect on the edge of the urbanizing areas to the south and east that is driving much of the change in our Region by mapping the densities of households using 2000 U.S. Census data.

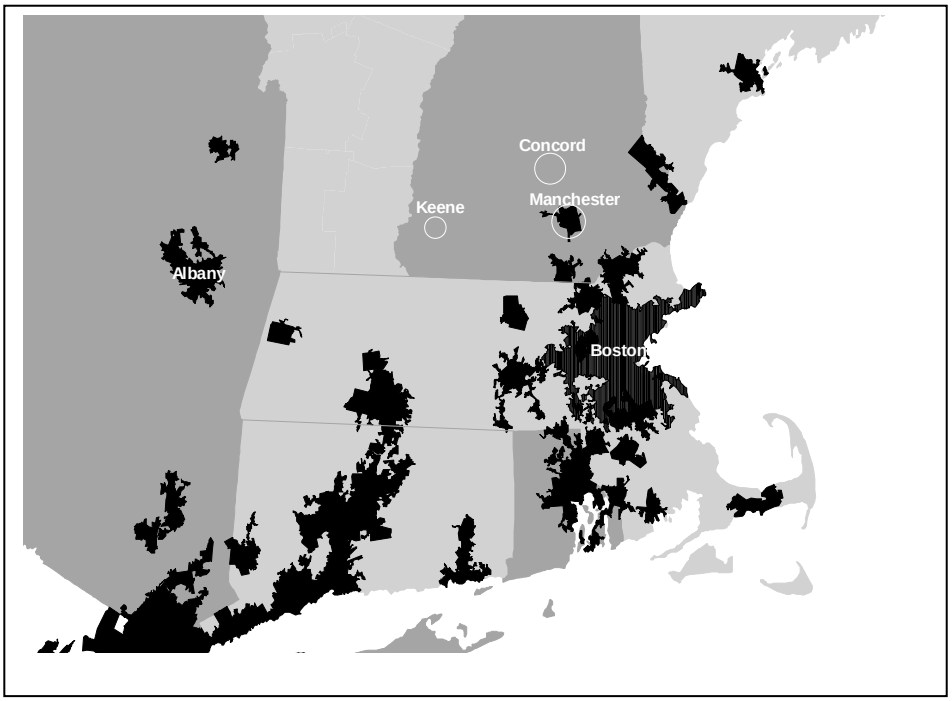


Figure 3. Urban Areas in New England Designated by the 1990 U.S. Census

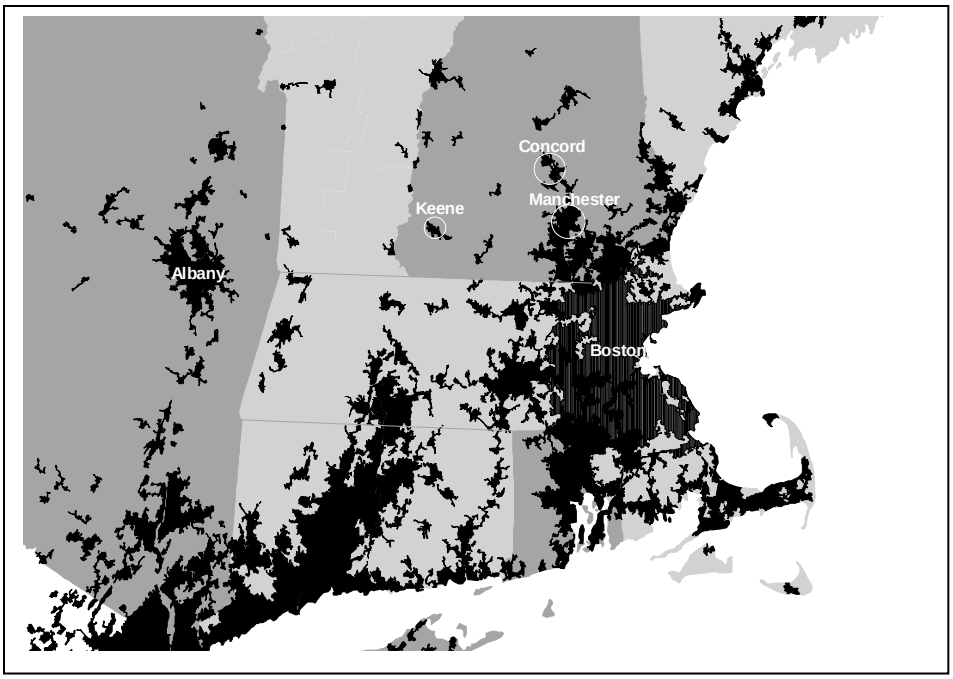


Figure 4. Urban Areas in New England Designated by the 2000 U.S. Census

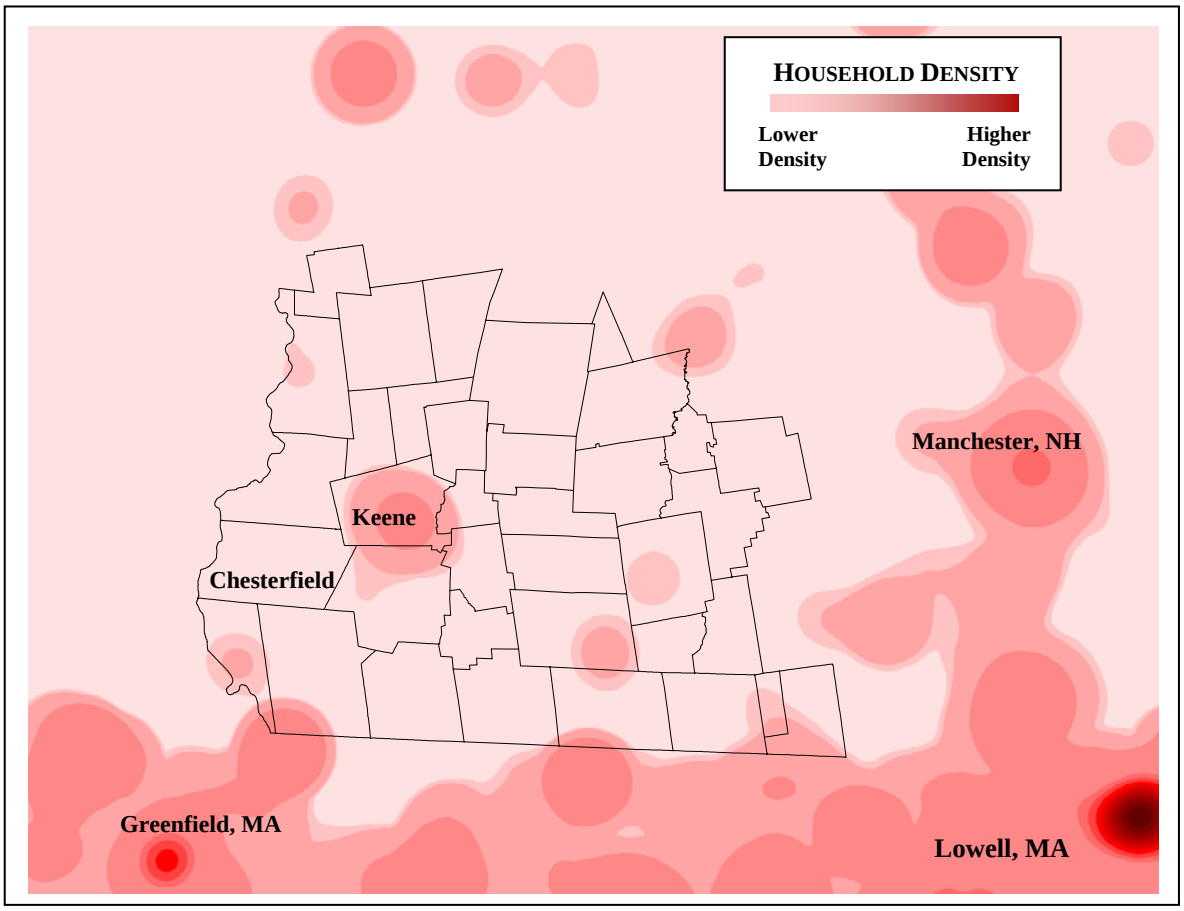


Figure 5. Household Densities in Central New England based on 2000 U.S. Census Block Data

As the regional economy waxes and wanes with national business cycles and regional advancements and downturns, the principal determinants of development patterns are highway access, public infrastructure and services, and municipal zoning.

The Region's 36 municipal zoning and capital spending plans are our future land use plan. Figure 6 on the following page is a map of zoning districts in the Southwest Region. While there are 124 unique districts among the 36 towns, they have been generalized as rural residential, village, commercial, industrial, and institutional. The map also shows conservation land – land permanently protected against development through legal stipulations. The vast majority of the land in the Southwest Region is zoned for medium or low density residential use with a variety of commercial uses allowed by right or special exception. The availability of road frontage and public sewer and water is an important determinant of development density. While there are only seven municipal sewer and water systems in the Region, more than half of the households on the Region are served by those systems.

The current distribution and future development of highway access, public infrastructure and services, and municipal zoning will have immediate effects on land values, development patterns, traffic patterns, distribution of jobs versus housing, demand for public services and infrastructure, and the quality of our natural resources ranging from scenic beauty and biodiversity to water supply and clean air.

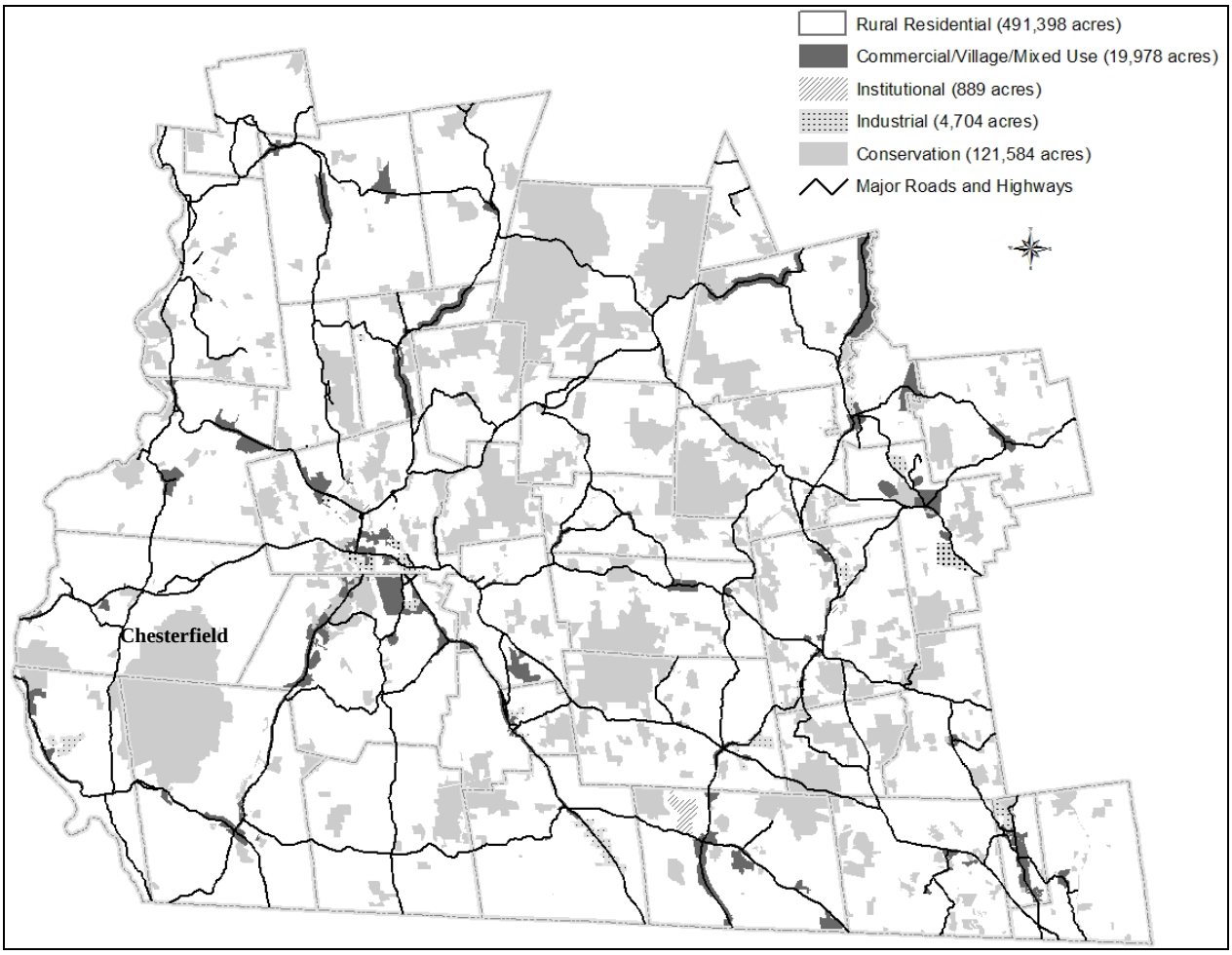


Figure 6. Southwest Region Municipal Zoning and Protected Land

The Southwest Region Planning Commission (SWRPC) publishes studies and reports to provide a more developed regional perspective for use by municipal governments. Several of the Commission's reports and research, which are available on the SWRPC website (www.swrpc.org) or by contacting the Commission, are described below:

Guiding Change, The Southwest Region at the Beginning of the 21st Century (2002)
Guiding Change, The Southwest Region at the Beginning of the 21st Century, is Region's Master Plan. RSA 36:45 requires regional planning commissions to prepare plans for their respective regions ... "taking into account present and future needs with a view toward encouraging the most appropriate use of land, such as agriculture, forestry, industry, commerce, and housing; the facilitation of transportation and communication, the proper and economic location of public utilities and services; the development of adequate recreational areas; the promotion of good civic design; and the wise and efficient expenditure of public funds."

This Plan, prepared by Commission staff and the SWRPC Board of Directors with input from municipal officials and citizens, considers those qualities and attributes which residents thought defined the Southwest Region, and were considered important to preserve. This list includes the physical environment, the historical and cultural richness, a strong economy, and the public spirit of citizens who

have worked together for years to preserve these qualities in the Monadnock Region. The Regional Plan will be updated every five years.

Southwest Region Trends and Conditions (June 2003)
The Southwest Region Housing Trends and Conditions report presents 1) a brief discussion of housing as a community development issue, including an overview of housing related information at the national, state, regional and municipal levels, and 2) an array of data and statistics relevant to housing and prevailing socioeconomic conditions in the Southwest Region.

Southwest Region Housing Needs Study (September 2004)
The Southwest Region Housing Needs Study 1) provides a detailed analysis of housing trends and housing cost burdens by income level based on US Census data for the Southwest Region, and 2) develops an approach to estimating future housing production needs for the Southwest Region. The report highlights housing needs and trends in the Southwest Region and its counties, as well as statewide totals. The report uses Census data to analyze changes in population, households by tenure, vacancy rates, and housing cost burden for renters and single family homeowners, and estimates the range of and demand for housing production for the 2000-2010 period.

Southwest Region Natural Resources Inventory (October 2003)
The Southwest Region Natural Resources Inventory provides a basic analysis of natural resources and landscape fragmentation on a regional scale that can be used "as is" by municipalities as their first edition NRI, or used as a template to be enhanced with original local research and local knowledge. While a set of topographic maps annotated with information by residents about the character of the forests and ponds, movement of wildlife and viewscapes that define their town is a perfectly acceptable starting point for conservation planning, the Planning Commission offers this analysis of available GIS information. It is hoped that this project can provide a common point of departure for the development of municipal NRI's in the Southwest Region.

Southwest Region Transportation Plan (2001 update)
The Regional Transportation Plan presents policy and technical information relevant to local, regional, and state activity of the planning and management of the transportation system. The Plan facilitates a regional approach among local and state decision makers to planning and decisions regarding transportation, land use, and community development.

Comprehensive Economic Development Strategy for Southwest New Hampshire (2005)
The purposes of the Comprehensive Economic Development Strategy (CEDS) for Southwest New Hampshire are to promote greater coordination among communities and economic development interests and to establish eligibility for federal assistance through the U.S. Economic Development Administration. The current CEDS was developed through a year-long effort by the CEDS Advisory Committee, with input from interested stakeholders at a series of public meetings and support from experts in such fields as workforce development, vocational training and housing. The Committee reviewed and analyzed existing trends and developed goals and objectives to help the Region control its destiny and protect its competitive advantage in New England and the global economy in the coming years. The CEDS will be updated annually and revised every five years.

CHESTERFIELD'S ROLE IN THE REGION

Located in the southwestern area of New Hampshire's Monadnock Region, there are a number of outside influences that affect Chesterfield, but which the community has little control over. For many of these issues, Chesterfield can similarly affect other communities with its own actions. This section highlights

the primary areas that Chesterfield should be concerned about and offers suggestions on how the Town can work toward addressing the issues. The Town's awareness of these issues will help to ensure that Chesterfield is prepared to deal with issues as they arise and that Chesterfield is a good neighbor to its abutting communities.

Environment

Ashuelot River Watershed

The Ashuelot River watershed, which comprises 268,800 acres in southwestern New Hampshire, is a remarkably diverse and ecologically significant river system. The river and its tributaries, which flow through 25 New Hampshire and two Massachusetts towns, provide clean water, extensive wildlife habitat, abundant wetlands, productive forests and outstanding recreational resources. The Ashuelot River watershed is the largest watershed in southwestern New Hampshire, and comprises a major tributary of the Connecticut River basin.

While the river does not flow through the Town of Chesterfield, a significant portion of eastern Chesterfield is located within the watershed. As Chesterfield and the region grow and change, it is critical that the type and location of development be considered in relation to the significant role of the watershed both within and beyond the region.

Connecticut River

The Connecticut River, New England's largest river, comprises the entire western border of the Town of Chesterfield. The Connecticut River flows 410 miles from its source at Fourth Connecticut Lake just yards away from the Canadian border, to Long Island Sound. New Hampshire and Vermont share some two thirds of the river's length, or 271 miles with fifty-three towns bordering the river, 26 in Vermont and 27 in New Hampshire, and 114 Vermont towns and 93 New Hampshire communities within the Connecticut River Watershed. In 1998, the White House designated the Connecticut as an American Heritage River.

The river is a valuable resource within the landscape that provides habitat for wildlife including abundant wetlands and productive forests; supports fisheries and agriculture; and, tells the story of the region's historic and cultural heritage. Today, several entities exists with the mutual purpose of protecting the river: Connecticut River Joint Commissions which maintains a River Corridor Management Plan and promotes communication about the river in the New Hampshire and Vermont river corridor; the Connecticut River Watershed Council which advocates for the conservation and protection of the entire river; and, the Wantastiquet River Local Advisory Committee (a subcommittee of the Connecticut River Joint Commissions) which implements its own River Management Plan.

In addition to the resources identified above, the Connecticut River provides tremendous recreational and economic opportunities for its bordering communities. Currently, one public access point to the river for boating, swimming, or fishing exists within the Town of Chesterfield; access is located on River Road. Many other public access points exist in the regional communities through which the river flows. Economic benefits of the river include regional tourism encouraged by the many activities promoted along the river as well as the attraction of businesses to the region due in part to its unique resources, including the river.

The Shoreland Protection Act, New Hampshire's state law, protects the New Hampshire shoreline of the river, while local ordinances protect the shoreline in Vermont. Chesterfield's Zoning Ordinance enforces

the state shoreland protection requirements for the portion of the river that borders the Town from the Westmoreland town line to the Hinsdale town line.

Spofford Lake

Spofford Lake is one of the regions largest and most spectacular fresh water lakes. At 793 acres, Spofford Lake provides habitat for wildlife including a variety of fish such as rainbow trout, small and largemouth bass, white perch, northern pike, pickerel, and horned pout. The Lake is one of the state's "trophy" lakes for local and out-of-state fishermen.

In addition to its many natural resource values, the lake has a long history of serving as a resort area for seasonal respite – a legacy that continues today. Public access allows local residents and visitors to swim and boat on the Lake. Much of the development that exists today around the Lake is seasonal dwellings, though many of the dwellings are being converted to year-round use.

Transportation

NH 9

Chesterfield is located between the larger communities of Keene, New Hampshire and Brattleboro, Vermont, with NH 9, which runs east to west through the town, dividing the community. NH 9 serves as the most efficient route for traveling between these two major regional centers for employment and shopping. In addition, the nearest interstate to Chesterfield, Interstate 91, can be accessed in Brattleboro, VT from NH 9. Seasonal tourism to New Hampshire's Lakes Region, White Mountains, and Seacoast, as well as the southwest region's lakes, ski mountains, and other tourist attractions, greatly increases traffic on NH 9 with visitors from Massachusetts, Connecticut, Vermont, New York, and beyond. As the region grows, increased use of NH 9 for accessing Keene and Brattleboro should be expected, and may require improvements or increased maintenance of the road in coming years.

Connecticut River Scenic Byway

In 1999, the States of Vermont and New Hampshire officially designated a bi-state route for the new Connecticut River Scenic Byway along the Connecticut River. The designated byway runs some 271 miles the length of the border between New Hampshire and Vermont. The goals of the two states in designating the scenic byway include balancing the preservation, promotion, enjoyment and stewardship of the river valley and linking people, organizations, communities, and agencies in promotion of the river byway as a tourism asset.

NH Rte. 63, which runs north to south through the Town of Chesterfield, is one of the scenic driving routes along the southern portion of the river in New Hampshire and Vermont. Waypoint interpretive centers have been established in river valley communities with larger populations and commercial centers to provide Byway travelers with amenities and information about dining, lodging, things to see and do, as well as the natural and social history of their community. Brattleboro is the closest Waypoint community to the Town of Chesterfield.

Recreation

Pisgah State Park

Pisgah State Park, located within the Cheshire County towns of Chesterfield, Winchester, and Hinsdale, comprises more than 13,500 acres (21 square miles), 5,695 of which are in Chesterfield. The park is of rough forested terrain, and encompasses a complete watershed north of the Ashuelot River. In addition, the park protects seven ponds, four highland ridges and numerous wetlands. Pisgah State Park is the largest property in the New Hampshire state park System.

Six trailheads around the park disperse use and subsequently lessen visitor impact and encouraging the discovery of Pisgah's natural and cultural features. Three of the six trailheads are located in Chesterfield on Winchester Road, Horseshoe Road, and Beal's Road. Maintained trails offer a diversity of options for short, moderate and long treks into the backcountry for year-round use. Park staff monitor the impact of motorized and bicycle use on the park seasonally. Trail and road use designations, specific to surface conditions, can be found on the park map at the trailheads.

The park is maintained and operated by the State of New Hampshire Division of Parks and Recreation. The Friends of Pisgah, Inc. is a group of volunteers organized to assist the New Hampshire Division of Parks and Recreation in the planning, operation and maintenance of the Park, so that the lands are preserved in a natural condition and conserved in accordance with an approved management plan. The Friends have been critically involved in the development and maintenance of the park's trail system and have extensively documented the history of the area. All are welcome to join the Friends. Members receive periodic mailings throughout the year to keep them informed about meetings and upcoming events such as hikes, volunteer work details, picnics and field trips.

Utilities

Vermont Yankee Nuclear Power Plant

Vermont Yankee Nuclear Power Plant, owned by Louisiana based Entergy Corporation, is located on the Connecticut River in Vernon, Vermont. The single reactor plant, online since 1972, produces 550 megawatts – enough for 500,000 homes. The only major power plant in Vermont, Vermont Yankee produces nearly 80% of the electricity produced in Vermont. The plant is currently licensed until 2012.

Five New Hampshire communities are located within the plant's emergency evacuation zone: Chesterfield, Hinsdale, Richmond, Winchester, and the Westport section of Swanzey.

The Engineering Division of the Vermont Department of Public Service monitors the activities and operation of Vermont Yankee through daily status reports and periodic plant inspections. The Engineering Division maintains close contact with the federal officials from the Nuclear Regulatory Commission (NRC) who are the primary regulators of Vermont Yankee.

On September 10, 2003, Entergy Corporation submitted an application to the NRC for 20% extended power uprate (EPU). The application was approved.

Recommendation: Due to Chesterfield's proximity to the Yankee Nuclear Power Plan, it is critical that the Town maintain a current understanding of any changes or proposed changes to the plant, and subsequently update the Town's Vermont Yankee Emergency Response Plan in accordance with any changes. Residents and business owners in the Town of Chesterfield should be made aware of the

Emergency Response Plan to ensure safe, orderly response if an incident should occur at the plant. Communication with other New Hampshire and Vermont communities in the emergency evacuation zone would assist local emergency responders and municipal officials with ensuring adequate preparedness.

Regional Resources

The following regional and state groups, organizations and agencies are key resources for implementation of the Master Plan:

Connecticut River Joint Commissions
New Hampshire's Connecticut River Valley Resource Commission, created by the legislature in 1987, and Vermont's Connecticut River Watershed Advisory Commission, similarly created in 1988, were directed to cooperate with each other to preserve and protect the resources of the Connecticut River Valley, and to guide its growth and development. They have met together as the Connecticut River Joint Commissions since 1989. Both Commissions are advisory and have no regulatory powers, preferring instead to advocate and ensure public involvement in decisions which affect their river and their valley.

Connecticut River Watershed Council
The Connecticut River Watershed Council is a broad-based citizen advocate for the environmental well-being of the entire Connecticut River. The Council's primary mission is to promote improvement of the water quality and the restoration, conservation, wise development and use of the natural resources of the Connecticut River watershed.

Heading for Home – A Regional Housing Coalition
Heading for Home is a regional Workforce Housing Task Force convened in 2003 by the Greater Keene Chamber of Commerce to respond to a growing lag in housing production and a growing disparity in area wages and housing costs throughout the Monadnock Region. The Coalition is a partnership between area finance and business leaders including Keene State College, Antioch New England, City of Keene, Keene Housing Authority, Southwestern Community Services, Cheshire Housing Trust, and the Southwest Region Planning Commission. The Coalition's efforts are focused on the development of a unified and consistent voice for addressing the region's housing problems. Workforce housing applies to all income groups, not just low income groups. Both the rental market and owner-occupied dwellings are impacted.

Monadnock Business Ventures
Monadnock Business Ventures (MBV) is one of 15 Non-Profit Regional Economic Development Corporations located through out New Hampshire. MBV provides the following services to 16 communities in the Contoocook Valley region:

- Assist business start-ups, expansions and relocations.
- Advise businesses and communities about state programs available for economic assistance.
- Operate a 70,000 square foot "incubator" facility for new business start-ups.
- Maintain a database of available commercial and industrial property
- Initiate, process and receive Community Development Block Grants (CDBG) for local governments to create employment opportunities.
- Operate a revolving loan fund for new and expanding businesses.
- Work with others to market the region for the creation of jobs.

Monadnock Conservancy
The Monadnock Conservancy is a regional non-profit land trust that assists land owners and municipalities with protecting land through easement, donation or purchase of land. Preservation efforts may include farmland; productive forest; open space; recreational trails; water supply; wildlife corridors;

scenic ridgelines above the City of Keene and the Ashuelot River Valley; floodplain, aquifer and wetlands along the Contoocook River; and, scenic forests along the Wapack Trail and the Monadnock-Sunapee Greenway.

Monadnock Economic Development Corporation

Monadnock Economic Development Corporation (MEDC) is one of 15 Non-Profit Regional Economic Development Corporations located through out New Hampshire. MEDC is a private, not-for-profit regional development organization committed to the creation of jobs and the broadening of the tax base for New Hampshire's Monadnock Region communities. The Board of Directors and staff of MEDC concentrate their efforts on business retention, relocation, expansion, and recruitment projects, as well as downtown revitalization and rehabilitation projects. In addition to its revolving loan fund, its USDA Rural Development Intermediary Re-lending Program and its network of financial institutions, MEDC has access to state and federal funds earmarked for economic development.

NH Department of Environmental Services

The goals of the NH Department of Environmental Services (NH DES) are to protect and promote wise management of the State's environment. The Department's responsibilities include ensuring high levels of water quality for water supplies, regulation the emissions of air pollutants, fostering the proper management of municipal and industrial waste, and managing water resources for future generations.

NH Department of Resources and Economic Development

The Department of Resources and Economic Development (NH DRED) consists of four divisions: Forest and Lands, Parks and Recreation, Travel and Tourism Development, and Economic Development. The Division of Forests and Lands protects and promotes the values provided by trees, forests and natural resources (and includes the Natural Heritage Bureau) while Parks and Recreation aims to protect historic and natural resources. Promoting New Hampshire as a travel destination is the mission of Travel and Tourism Development. Similarly, Economic Development promotes businesses and the expansion of existing businesses.

NH Municipal Association of the NH Local Government Center

The New Hampshire Municipal Association was established in 1941 to serve member cities and towns. NHMA has evolved into a service and action arm for New Hampshire local governments. The Association prides itself on its ability to meet the ever-changing educational and training needs of municipal officials and employees, as well as the flexibility to develop new programs designed to meet the needs of local governments. Today, NHMA represents 233 of the 234 Granite State Communities and offers legal and technical assistance, legislative representation, training, workshops, and personnel services.

NH Office of Energy and Planning

The NH Office of Energy and Planning (NH OEP), formerly known as the Office of State Planning, is based in Concord and is legislatively required to plan for the orderly development of the State and the wise management of the State's resources. NH OEP compiles, analyzes, and disseminates data, information, and research services to advance the welfare of the State; encourages and assists with planning, growth management, and development activities of cities and towns; administers select Federal and State grant-in-aid programs; and, participates and advises in matters of land use planning regarding lake and river management programs. NH OEP typically does most of its work with communities through the regional planning commissions.

Southwestern Community Services

Southwestern Community Services, Inc. (SCS) is one of six community action agencies throughout New Hampshire, and part of the larger network of 70 agencies in New England and nearly 900 agencies nationwide. SCS advocates for and assists citizens in need through a variety of program areas including Head Start, fuel assistance, developmental services, economic development, elderly services, weatherization, homeless services, housing rehabilitation, affordable housing, health and nutrition, and workforce development.

Southwest Region Planning Commission

The Southwest Region Planning Commission (SWRPC) currently serves 36 member-municipalities in Cheshire, western Hillsborough, and Sullivan Counties. SWRPC provides local assistance on a wide range of planning issues to member municipalities through activities including community master planning, site plan review, capital improvement planning, subdivision reviews, ordinance preparation, interpretation of state and local planning requirements, grant administration, cartographic support, and geographic information system (GIS) applications. The agency has a diverse work program made up of six major program areas: Local Planning Assistance, Natural Resources Planning, Community and Economic Development, Transportation Planning, Hazard Mitigation Planning, and Regional and Geographic Information Systems.

U.S. Environmental Protection Agency, Region I

The goal of the Environmental Protection Agency Region I (New England) is to protect human health and safeguard the natural environment where people live, learn, and work in the six New England states: Connecticut, Massachusetts, Maine, New Hampshire, Rhode Island, and Vermont. One way to help accomplish this goal is to ensure that communities have access to accurate information sufficient to effectively participate in managing human health and environmental risks. This federal agency is a resource for information on environmental regulation, resource protection, and human health protection.

Wantastiquet River Subcommittee of the Connecticut River Local Advisory Committee

The Wantastiquet River Subcommittee of the Connecticut River Local Advisory Committee (LAC) is one of six LAC's in Southwestern New Hampshire convened by the Rivers Management and Protection Program of the NH Department of Environmental Services. The main responsibilities of this citizen advisory committee is to develop and implement a local river corridor management plan and advise local, state, and federal governing bodies and agencies of activities which may affect the water quality or flow of the protected river or segment. The DES offers the committee technical assistance in developing and implementing the management plan.

Conclusion

The information presented in this chapter offers Chesterfield the opportunity to work closely with abutting communities and communities of the greater Monadnock Region to accomplish together what they could not accomplish alone due to funding, resources or the sheer size of the goal. The regional concerns identified in this chapter could have a greater impact on the Town of Chesterfield if the Town takes an isolated approach to addressing the issues.

The larger regional context, as described in the identified resources prepared by the Southwest Region Planning Commission, provides a basis for Chesterfield to more fully understand the problems at hand, in order to better plan for the changes to come. In addition, the resources identified in section IV can assist the community, and its neighbors, with addressing forthcoming pressures or problems. Establishing a relationship with abutting communities and regional groups will ensure that the Town is in the best possible position to handle each demand that comes its way.