



January 2, 2006

Dear Community Member,

To assist communities in the I-93 region plan for growth, the NHDOT is committed to a five year comprehensive Community Technical Assistance Program (CTAP). This \$3.5 million initiative will provide technical assistance to the 26 towns and cities influenced by the I-93 project. CTAP will help these communities meet the wide range of challenges faced in the region, by providing technical assistance and access to tools for innovative land-use planning practices.

The CTAP program is unique in that the specific type or form of assistance that communities can receive has not been determined. Instead, over the coming months, together we will engage local governments, local non-profit organizations, community groups, and state, regional, and federal agencies in both planning the technical assistance that is needed and in providing this assistance over a five-year period.

This Resource Book One outlines the CTAP project and reviews growth patterns and projections for New Hampshire and introduces proactive growth management. Book Two will explore the challenges associated with planning proactively for growth, and Book Three will identify potential strategies and tools for the implementation of growth management at the local level. Together these resource books and the overall program should provide a model and tools for addressing the growth that continues to take place here in New Hampshire.

Sincerely,

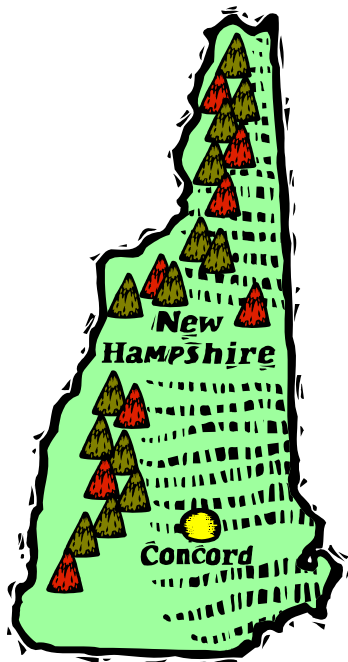
A handwritten signature in black ink that reads "Carol A. Murray".

Carol Murray, P.E.
Commissioner
NHDOT

For more information on CTAP, The Community Technical Assistance Program, please contact:

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Antioch New England Institute (ANEI) created this document and is working under contract with Clough Harbour and Associates on this project.



The goal of the CTAP initiative is to develop a broad and comprehensive program to meet a wide range of growth challenges.

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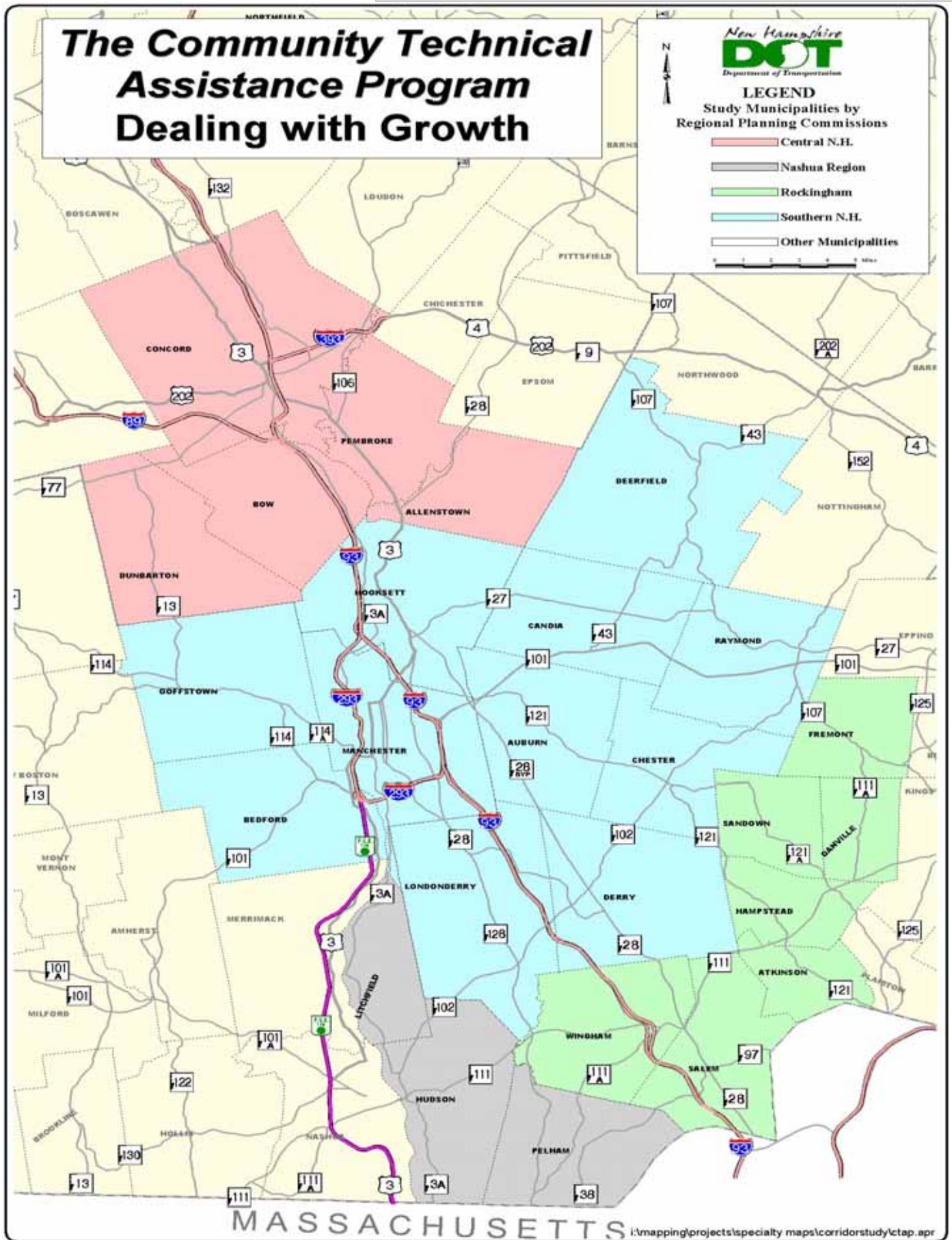
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Figure 1: The 26 Towns of the CTAP Corridor





CTAP will support a region of 26 towns and cities that are in the area influenced by the reconstruction of Interstate 93.

I. Project Overview

A. I-93 Reconstruction Project: Salem to Manchester: Scope and Timeline

The New Hampshire Department of Transportation (NHDOT), in its Final Environmental Impact Statement (April 2004), selected an I-93 project alternative that:

involves a combination of transportation infrastructure improvements and strategies for the 19.8-mile study corridor. The main element of the improvement involves widening I-93 from the existing limited access two-lane highway in each direction to a limited access four-lane highway in each direction. The so-called Four-Lane Selected Alternative (i.e., four lanes in both directions) begins in the Town of Salem, NH at the Massachusetts/New Hampshire State line and extends northerly through Salem, Windham, Derry and Londonderry, and into Manchester, ending at the I-93/I-293 Interchange. The Selected Four-Lane Alternative will accommodate space for a potential future rail corridor between the MA/NH state line northerly to the Exit 5 Interchange.¹

While the highway reconstruction is the main element, the project involves a number of additional initiatives as part of a comprehensive strategy to address transportation needs in the corridor and region. These initiatives include park and ride facilities, expanded bus service, incident management strategies, intelligent transportation system applications, and long-term planning for future transit opportunities. Providing technical planning assistance to the area communities for growth management is an integral part of this overall strategy.

Construction of this project is targeted to begin in 2006 and is anticipated to be completed by 2013.

B. Community Technical Assistance Program (CTAP) for Growth Management

1. Description, History, and Purpose

NHDOT is committed to a five year comprehensive Community Technical Assistance Program (CTAP) to support a region of 26 towns and cities that are in the area influenced by the reconstruction of Interstate 93 (see Figure 1). As part of this comprehensive growth management initiative, the NHDOT is interested in engaging the public and a wide range of stakeholders including local governments, the non-profit sector, the business sector, and governmental agencies.

CTAP is designed to provide technical assistance to communities in the I-93 corridor area on sound land-use planning practices. The primary purpose of CTAP is to minimize the unplanned and negative effects of growth on community services, remaining open space, schools, existing traffic patterns, quality of the environment, and existing residential and commercial zones.

Under the CTAP program, NHDOT and its contractors will convene and facilitate a large, multi-stakeholder planning process designed to achieve consensus on how to best address growth management issues and allocate program funds. The primary outcome of this process will be the preparation of a work plan that will include a set of proposed actions and a timeline for addressing growth management issues in the region.

¹ Final Environmental Impact Statement (2004), NHDOT. Prepared by Vanasse Hangen Brustlin, Inc., Bedford, NH.



2. Timeline and Phases

Antioch New England Institute (ANEI) will facilitate a group planning process from December '05 through April '06, which will include three large-group planning sessions. A steering committee selected by planning session members will meet separately to develop a five-year CTAP work plan that will be presented in the Spring of 2006.

II. Growth Patterns and Projections for New Hampshire

Many of the opportunities and challenges communities face are inherently linked to trends in population and growth. As populations rise, so does the need for more services and infrastructure, and accompanying fiscal resources. Inversely, as regional populations decline, infrastructure is sometimes left underutilized and fiscal resources decline.

Thriving, livable communities meet both current community needs and anticipate and plan for future needs through open, participatory processes. It is important for community members to constantly evaluate not only the present status of their communities, but also how the future needs of their communities will change over the short and long term.

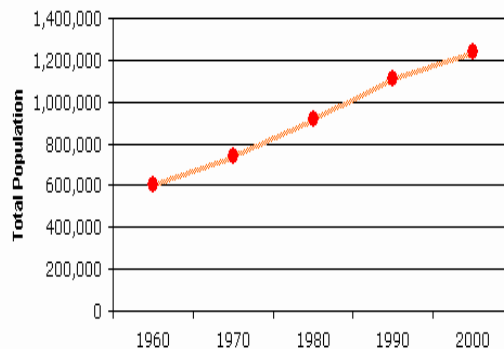
The following sections take a detailed look at how New Hampshire has grown over the last few decades and where it is projected to head in the future. Special attention has been given to the growth of the I-93 corridor communities.²

A. Historical Growth in NH: 1960-2005

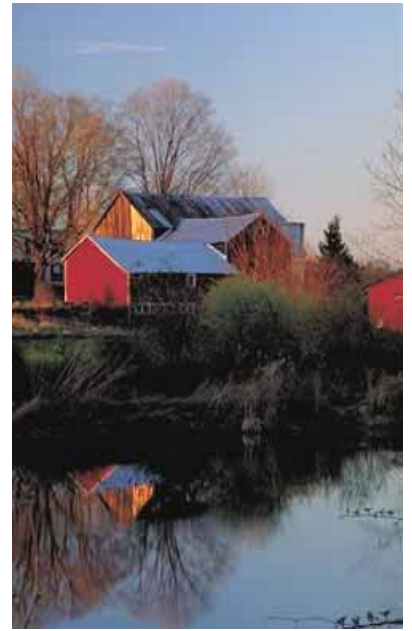
New Hampshire's population has grown steadily over the past few decades. The following statistics illustrate this trend in detail:³

- New Hampshire's population doubled from 600,000 people in 1960, to 1.2 million in 2000.
- New Hampshire's population grew 17.2% from 1990 to 2004 – twice the rate of the rest of New England.
- In 1970, 139 New Hampshire towns were classified as rural; by 2025, this number is estimated to drop by approximately half to 72.

Figure 2: New Hampshire Population 1960-2000



Source: Census 2000 analyzed by the Social Science Data Analysis Network (SSDAN). [www.censuscope.org/us/s33/chart_popl.html](http://www.censusscope.org/us/s33/chart_popl.html)



**New Hampshire
had the fastest
population growth
in New England
during the 1990s.**

²I-93 Manchester to Salem Expert Panel Analysis Final Report, submitted to the New Hampshire Department of Transportation, 2002

³Adapted from New Hampshire's Changing Landscape, 2005. Published by the Society for the Protection of New Hampshire Forests.

**B. Rockingham
County Land Use
Map: 1962**

The following two maps (Figures 3 & 4) illustrate regional trends in land-use changes by focusing on a section of Rockingham county over a 36-year period from 1962-1998.

The maps show a significant increase over time in residential and industrial/commercial development. The mixed urban areas themselves, however, haven't increased substantially in size over the same time period.

The trend of increased residential development corresponds with a decrease in active agricultural areas and the loss and fragmentation of forested open space. Remaining forest lands in 1998 are largely surrounded by development and cut off from other large open space blocks.

Source: Forty Years of Land Use Change in Rockingham and Strafford Counties. UNH Complex System Research Center and CICEET.

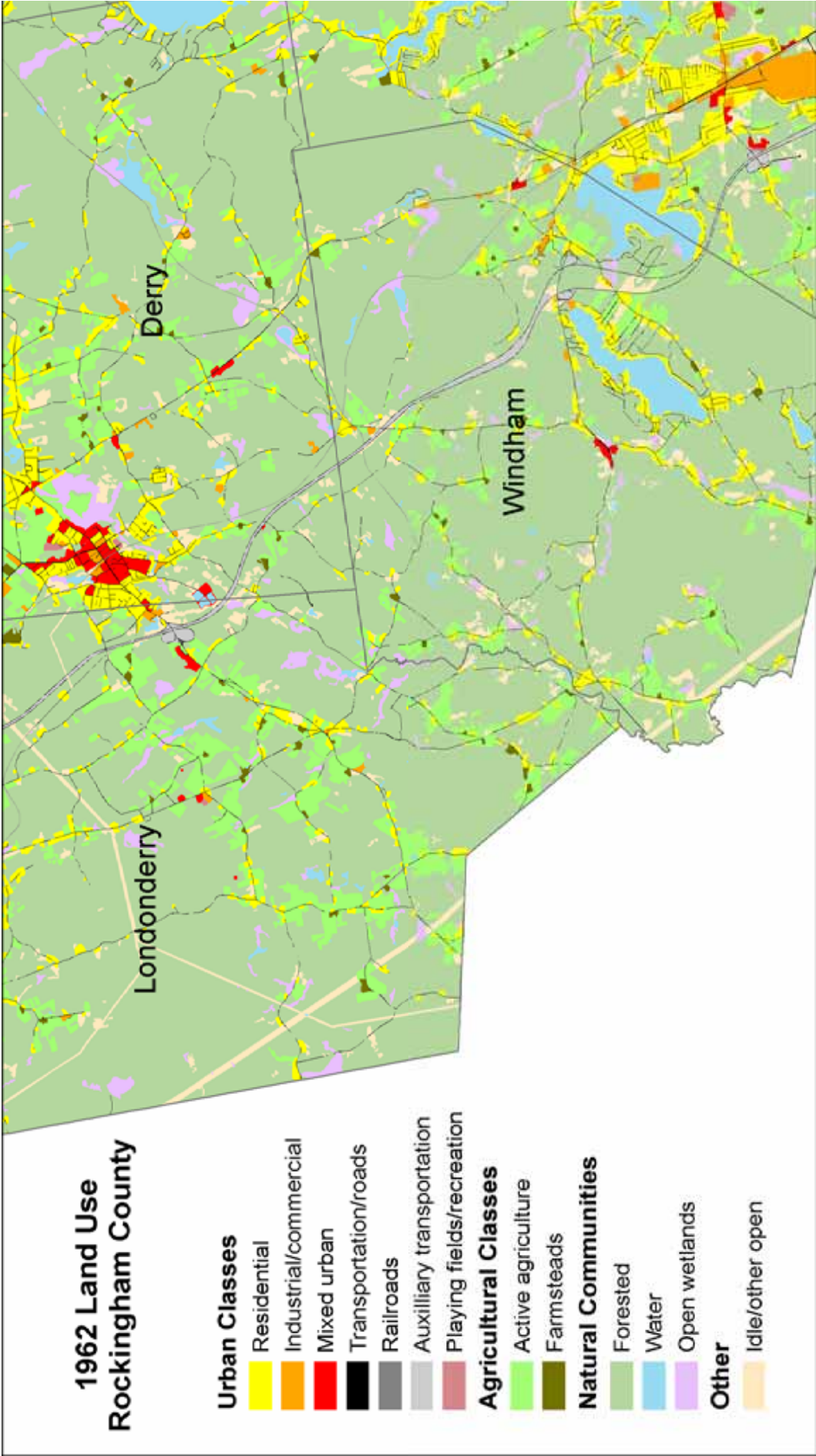


Figure 3:

B. Rockingham County Land Use Map: 1998

Between 1962-1998, this area of Rockingham county went from having 36,519 acres of developed land (7.9% of all acreage) to 98,417 acres of developed land (21.2% of all acreage)—an average of 1,750 acres converted each year.

Source: Forty Years of Land Use Change in Rockingham and Strafford Counties. UNH Complex System Research Center and CICEET.

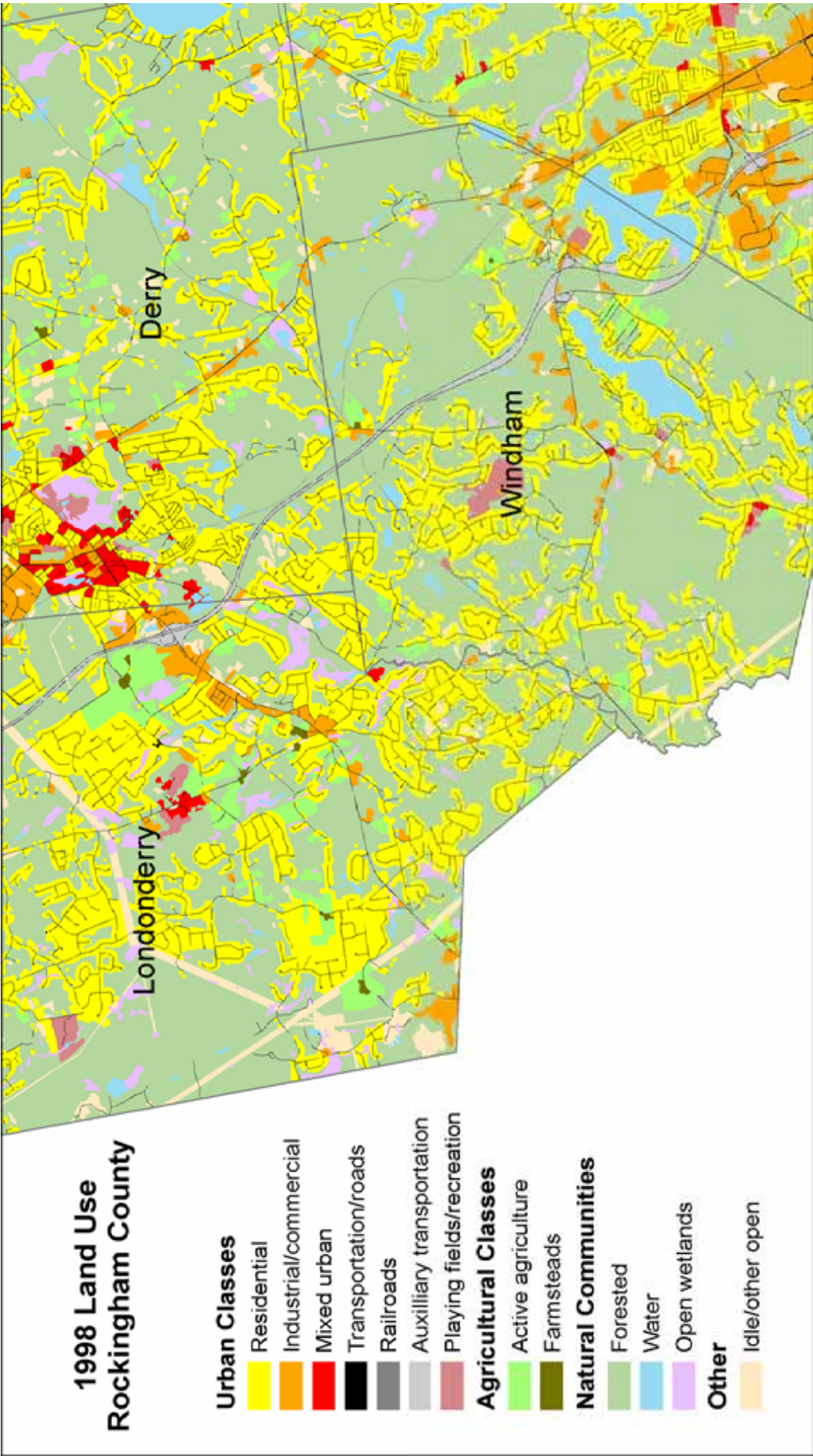
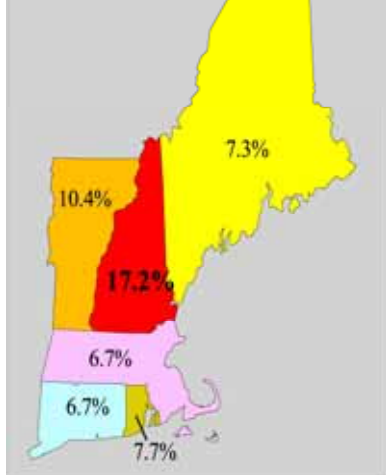


Figure 4:

Figure 5: Percent Population Growth: 1990 to 2004

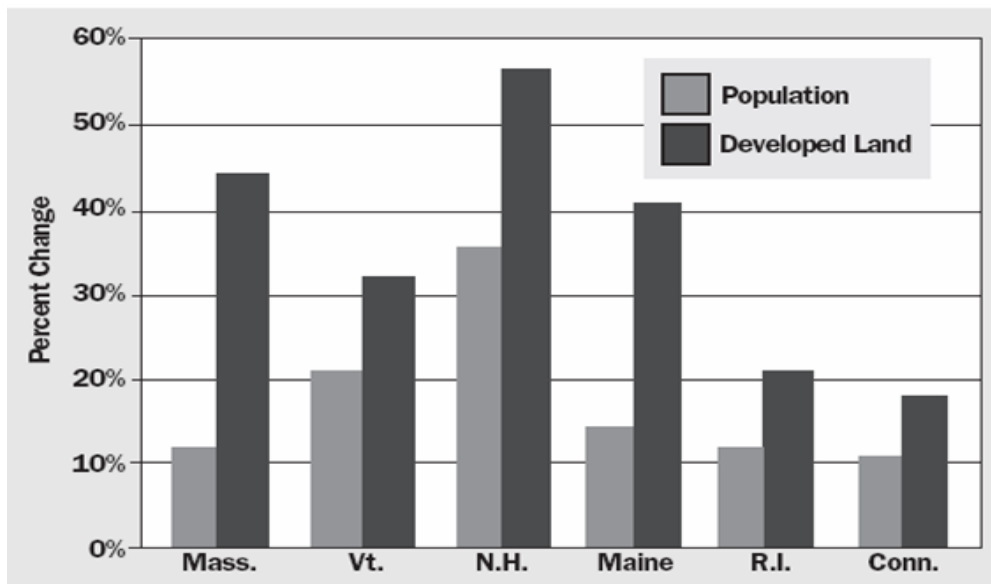


Source: Society for the Protection of New Hampshire Forests—based on U.S. Census Bureau

In each New England state, the rate of land development has exceeded the rate of population growth. In New Hampshire, approximately 35% population increase from 1980-2000 yielded a nearly 60% increase in land development.

As figure 6 illustrates, while population growth in the region has been significant, the rate of land development has outpaced population increases in every New England state. In New Hampshire, the approximately 35% population increase from 1980-2000 yielded a nearly 60% increase in the amount of land that was developed.

Figure 6: A Comparison of Population and Development Growth Rates in New England 1980-2000

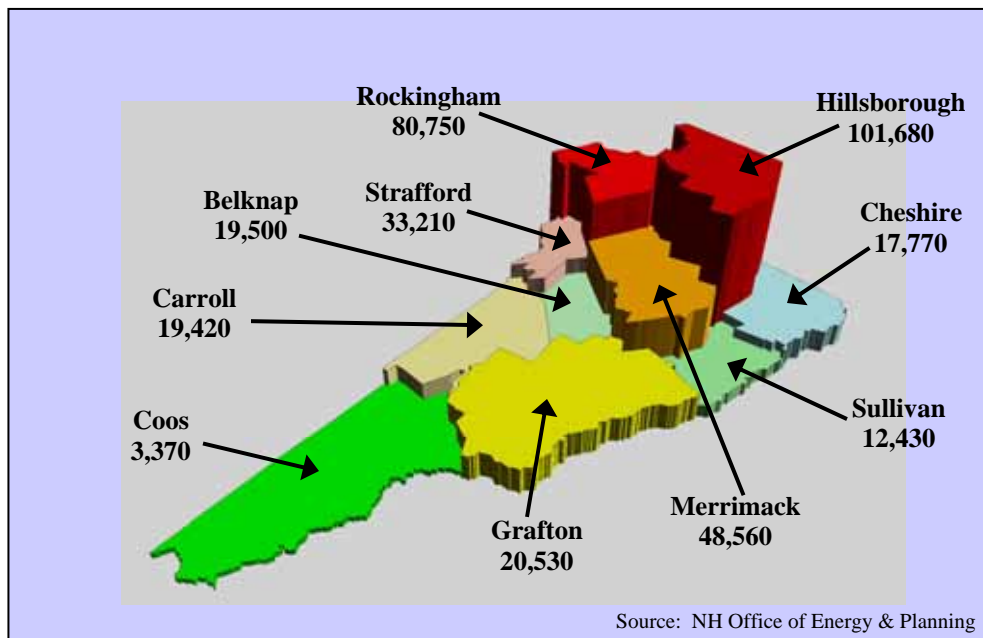


Source: Community Rules : A New England Guide to Smart Growth Strategies. Vermont Forum on Sprawl: From US Census and NRCS.

C. Growth Projections for NH: 2005-2025

All of New Hampshire is expected to grow over the next two decades, with the southeast region of the state—including many towns within the I-93 corridor—projected to receive the largest increases in population (Figure 7).

Figure 7: Projected Population Increase 2000 to 2025



Source: NH Office of Energy & Planning

Source: New Hampshire's Changing Landscape 2005. Published by Society for the Protection of New Hampshire Forests.

III. Growth Challenges

A. Undesirable Attributes of Growth

With New Hampshire's growth comes both great opportunities and significant challenges. The opportunities are many, including economic development and community enhancement. The challenges, however, are also several, including how to retain a traditional town feel, how to meet housing needs, and how to keep taxes in check.

Efforts in planning for and managing growth over the past 45 years have addressed some of these challenges in certain places, but they have not addressed them all. So what is "undesirable" growth, and how do we know it when we see it? What is the essence of what some refer to as "sprawl?" The Southern New Hampshire Planning Commission offered this description: "Sprawl consumes land at a rate that is not sustainable in this country, including southern New Hampshire. Sprawl has caused the loss of thousands of acres of trees and open space in our state."⁴

Opinions vary greatly over the merits of particular aspects of growth, but the following excerpt from NHOEP's "Managing Growth in New Hampshire: Changes and Challenges" highlights areas that are often cited as undesirable attributes of current growth patterns:

Sprawl-related commercial residential development is often criticized as unattractive, repetitious, and unimaginative in design, lacking aesthetics, and inconsistent with local architecture... The negative characteristics cited [for commercial strip development] include the big, boxy buildings, large parking lots, endless signage, poor pedestrian access, and the lack of a sense of place created along highway corridors. Residential sprawl development is often represented as large-lot subdivisions, with houses set well back from overly wide roadways. This type of development reduces the sense of neighborhood that might be created with more compact development.⁵

The Vermont Forum on Sprawl identified similar trends in their investigation of growth, which are excerpted below:⁶

Scattered residential lots in outlying areas: Housing lots are created away from village, downtown or growth areas.

Housing development in or near town centers with a suburban pattern and comparatively large lots: Compared to traditional village settlements, these subdivisions are larger, streets are wider, and homes are set farther back from the road.

Multi-lot housing developments on new access roads in outlying areas: These residential subdivisions are sited away from town centers, typically with a new, separate access road. They are often in isolated areas, not near commercial services, towns services or local industries.

Commercial strips: Commercial strips occur outside village and town centers and generally along major connecting roadways. Commercial strip development is a linear pattern of individual uses, primarily single-story buildings, each with a separate driveway or curb cut and a private parking area.

Other commercial and industrial areas with large lots and inefficient layouts: New commercial and industrial areas that have been developed away from town centers and residential neighborhoods, either at interstate highway exchanges or along major connecting roads. These areas have large lots, with large buildings set back from the road surrounded by parking lots.

Outlying location of public buildings: Location of public buildings, such as schools, town offices, police and fire departments, libraries, and post offices outside of town centers.



These
management
decisions will play
an essential role
in determining
how New
Hampshire will
look and feel in
the future.

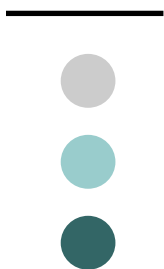
⁴ A Handbook on Sprawl and Smart Growth Choices for Southern New Hampshire Communities. 2002. Southern New Hampshire Planning Commission.

⁵ Managing Growth in New Hampshire: Changes and Challenges. 2000. NH Office of State Planning.

⁶ From Exploring Sprawl #2: What is Sprawl in Vermont? VT Forum on Sprawl, Burlington, VT



**Nearly 800,000
citizens
statewide depend
on public water
supplies.**



Source: New Hampshire's Changing Landscape 2005. Published by Society for the Protection of New Hampshire Forests.

B. Impacts of Growth

The undesired consequences of current growth trends can be significant, particularly their impact on natural resources, public services, transportation, and community development. Sprawl-style growth can compromise critical natural resources and diminish essential ecosystem functions that are important to human health (i.e. clean air and clean water). In addition, poorly managed growth can cause stresses on community services (such as roads, schools, and water supply), and can lead to increases in property tax rates.

The following pages offer brief synopses of how New Hampshire's rapid population growth over the last few decades has impacted vital resources and affected the cost of community services for both the entire state and several specific municipalities.

1a. Natural Resources: Water Supply

A majority of the lands surrounding New Hampshire's public drinking water supplies are not under permanent protection. As a result, land remains susceptible to contamination and other adverse impacts of land conversion. The following examples illustrate these trends:⁷

- There are approximately 460,000 acres of high yielding aquifers, public wellheads, and surface protection areas statewide, which comprise about 8% of the total state land area.
- 12.5% of the 460,000 acres are already developed as roads or as other urban land uses.
- Nearly 800,000 citizens statewide depend on these public water supplies.
- Of the 460,000 acres, 11.6% are protected from development.

⁷ Adapted from New Hampshire's Changing Landscape 2005: Society for the Protection of New Hampshire Forests—based on water supply data provided by the NH Department of Environmental Services, Water Division.

Table 1: Protected Critical Water Supply in Selected New Hampshire Towns

County	Total Acres CWS*	Percent of Statewide CWS	Total Acres CWS Protected	Percent CWS Protected
Belknap	24,593	5.4%	1,841	7.5%
Carroll	77,031	16.8%	11,813	15.3%
Cheshire	35,263	7.7%	2,470	7.0%
Coos	29,671	6.4%	5,227	17.6%
Grafton	44,103	9.6%	4,701	10.7%
Hillsborough	66,127	14.4%	8,275	12.5%
Merrimack	47,110	10.2%	6,979	14.8%
Rockingham	99,876	21.7%	9,050	9.1%
Strafford	24,612	5.4%	1,966	8.0%
Sullivan	11,292	2.5%	932	8.3%
Totals	459,682		53,257	11.6%

*CWS—Critical Water Supply

1b. Natural Resources: Farmland

With increased population growth over the last few decades, New Hampshire has lost many of its farms to suburban and other forms of development. This has been especially true in Rockingham County, which saw one third of its farmland lost in just five years. The following statistics examine some of these losses to the state's agricultural economic sector and traditional pastoral landscapes.⁸

- Between 1997 and 2002, the number of farms in New Hampshire declined by 14% to 3,363. This loss is equivalent to five square miles per year.
- Productive cropland equals approximately 2% of the state land base. Between 1997 to 2002, these croplands declined by 18,300 acres—a loss of 12.4%.
- Cropland losses have also been significant in Cheshire, Hillsborough and Sullivan Counties (all at 19%), totaling almost 11,000 acres in five years.

⁸Adapted from New Hampshire's Changing Landscape 2005: Society for the Protection of New Hampshire Forests—based on the National Agricultural Statistics Service, 2002 Census of Agriculture, NH State/County Data.

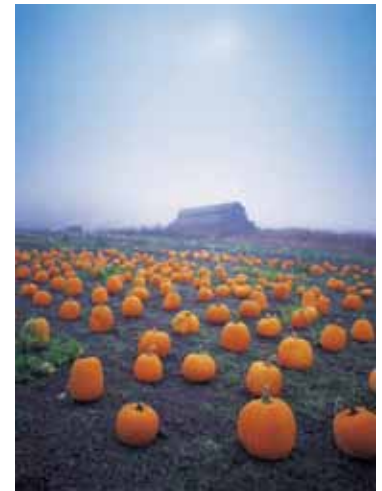
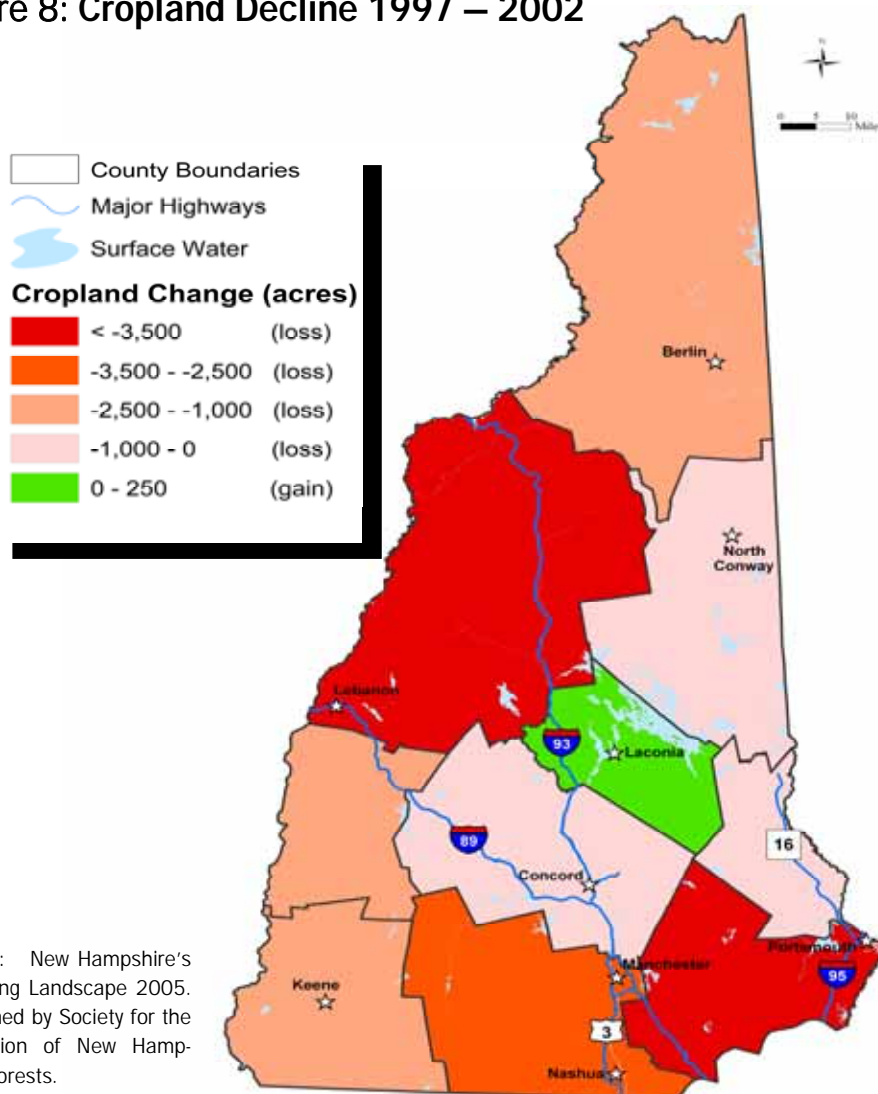


Figure 8: Cropland Decline 1997 – 2002



Source: New Hampshire's Changing Landscape 2005. Published by Society for the Protection of New Hampshire Forests.

Between 1997 and 2002, the number of farms in New Hampshire declined by 14%.





New Hampshire's forests and farmlands have been increasingly converted into developed infrastructure, such as buildings, houses, roads, and parking lots.

2. Land Conversion

New Hampshire's forests and farmlands have been increasingly converted into developed infrastructure, such as buildings, houses, roads, and parking lots. This trend has been particularly evident in the southeastern third of the state, where moderate to high rates of land conversions are now occurring. The following statistics and Figures 9 & 10 illustrate this impact.⁹

- Land conversion is now active along and between New Hampshire's major transportation corridors, such as I-93 (the lower Merrimack River Valley), I-95 and NH 101 (the seacoast), and 16 (the Mount Washington Valley). In addition, land conversions are beginning to extend along I-89.
- Throughout New Hampshire land values have increased by 60% since 1998.
- In the seven years between 1990 and 1997, 15 municipalities converted an estimated 60 acres per year to developed uses. Between 1998 and 2003 the number of municipalities increased to 31.

⁹Adapted from New Hampshire's Changing Landscape 2005: Society for the Protection of New Hampshire Forests. Land conversion estimates are based on a statistical relationship between developed lands and single-family home data. Developed lands data from the *Integrating Technologies to Monitor and Predict Patterns of Urban Growth* study of Rockingham and Strafford Counties was related to concurrent housing construction data from the NH Office of Energy and Planning.

Figure 9: Acres Converted to Developed Uses Per Year

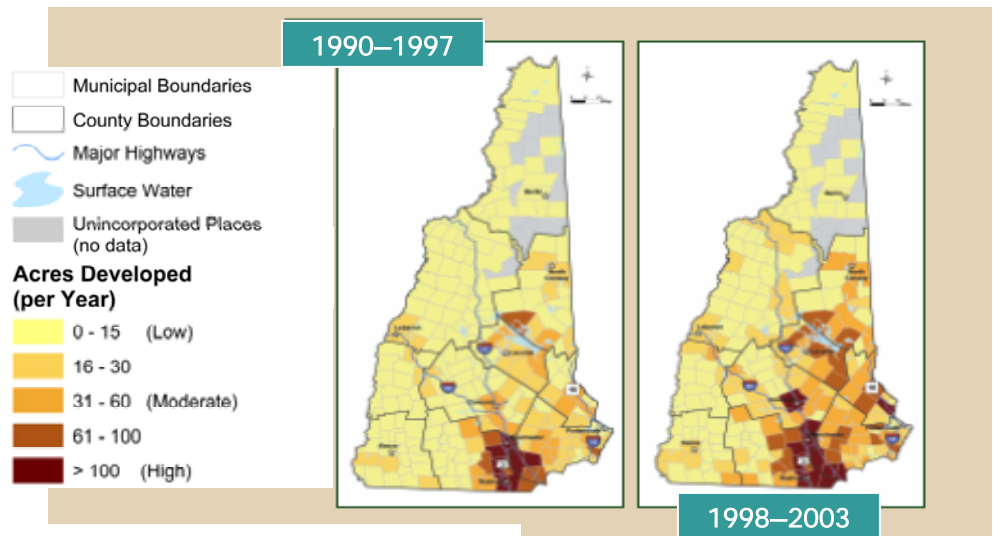
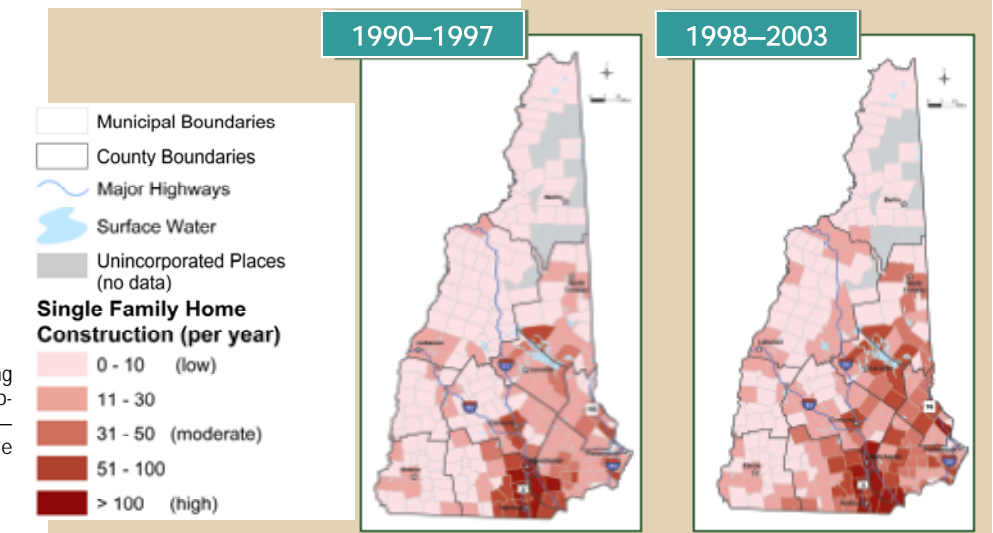


Figure 10: Single Family Home Construction



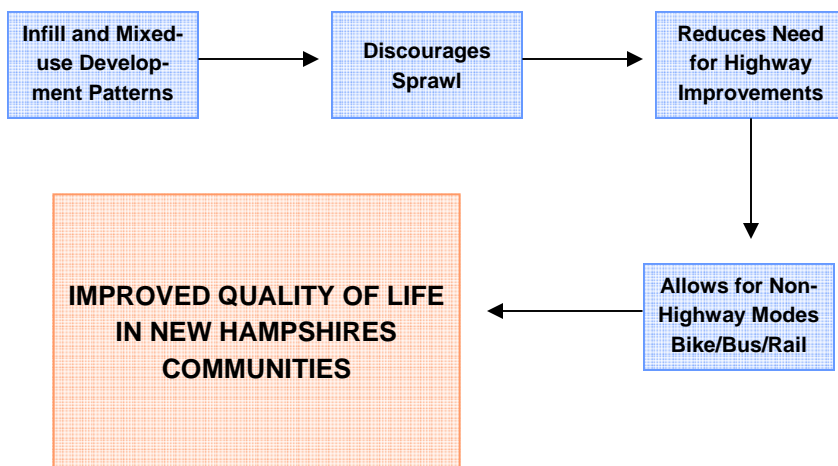
Source: New Hampshire's Changing Landscape 2005: Society for the Protection of New Hampshire Forests—based on construction data from the NH Office of Energy and Planning.

3. Transportation

The continued growth of New Hampshire's population, coupled with increasing automobile dependency and sprawling development patterns, are over burdening out transportation system and causing adverse impacts on New Hampshire's quality of life. The following statistics highlight such impacts and further substantiate the need for comprehensive, integrated land use and transportation planning:

- New Hampshire's state highway infrastructure has reached a point where demand for its expansion exceeds the ability to accommodate it.¹⁰
- New Hampshire's secondary road networks are underdeveloped.¹⁰
- Vehicle travel is increasing faster than population, partly due to sprawling patterns of development (sprawl increases the distance between activities and makes it less likely that a trip can be made on foot, by bicycle, or by public transportation)—most of the increase in vehicle travel is related to Longer Average Trip Distance (38%) and Increased Number of Trips (25%).¹¹
- New Hampshire has among the highest rates of automobile ownership in the U.S.
- Each additional 10 minutes in daily commuting time cuts involvement in community affairs by 10%.¹²
- Nonpoint source runoff, which is generated by impervious surfaces and other developed surfaces (e.g., lawns), is the number 1 water quality threat in the U.S.¹³
- Expanding development and associated roadways can fragment wildlife habitat and contribute to increased wildlife mortality.¹⁴

To move from the current planning paradigm—where transportation infrastructure is developed in reaction to demand—to one that harmoniously weaves and integrates such demand with land use planning, requires a comprehensive planning process founded on the following model:¹⁰



¹⁰ Presentation: I-93 CTAP: Purpose, Premise, Promise: Kick-off Meeting December 1, 2005. Cliff Sinnott, Executive Director, Rockingham Regional Planning Commission.

¹¹ 1990 Nationwide Personal Transportation Survey, Federal Highway Administration

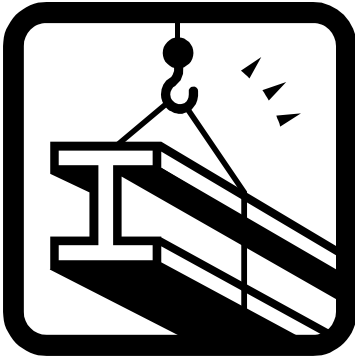
¹² Bowling Alone: The Collapse and Revival of American Community, by Robert D. Putnam, Journal of Democracy, 6:1, pp.65-78, Jan 1995.

¹³ Center for Watershed Protection, Stormwater Center Factsheet "Better Site Design: Narrower Streets.

¹⁴ Duerksen, C., Elliot, D., Hobbs, N., Johnson, E., and J. Miller. 1997. *Habitat Protection Planning: Where the*



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4. Municipal Services: Impact on Property Taxes

The influence of growing populations on municipal budgets is a topic of great interest and has been studied through a variety of means. In the 1990's, several New Hampshire towns investigated the relationship between land use and the cost of services for their communities.

According to the study cited below, for every dollar earned in tax revenue from residential development in these towns, a higher amount was spent on community services, ranging from \$1.04 in Fremont to \$1.15 in Deerfield, Dover, and Stratham. In contrast, the tax revenue from commercial/industrial and open space land uses exceeded the direct cost of services to those towns.^{15,16}

Table 2: Cost of Services by Development Type in Selected New Hampshire Towns

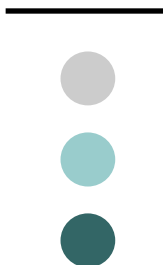
N.H. COMMUNITY	LAND USE CATEGORY	REVENUE	EXPENDITURE	\$ RATIO
Peterborough 1995	Residential	9,107,925	9,874,851	1 : 1.08
	Commercial/Industrial	2,706,479	835,360	1 : 0.31
	Open Space	80,482	43,649	1 : 0.54
Exeter 1996	Residential	18,381,935	19,613,525	1 : 1.07
	Commercial/Industrial	4,108,028	1,654,775	1 : .40
	Open Space	109,588	89,803	1 : .82
Fremont 1994	Residential	3,317,928	3,457,376	1 : 1.04
	Commercial/Industrial	69,798	65,325	1 : .94
	Open Space	19,188	6,835	1 : .36
Deerfield 1994	Residential	4,878,823	5,630,510	1 : 1.15
	Commercial/Industrial	531,547	119,209	1 : .22
	Open Space	57,679	20,155	1 : .35
Dover 1992	Residential	19,317,362	22,124,828	1 : 1.15
	Commercial/Industrial	6,178,059	3,905,609	1 : .63
	Open Space	488,628	457,661	1 : .94
Stratham 1994	Residential	6,939,002	7,957,296	1 : 1.15
	Commercial/Industrial	1,339,275	256,696	1 : .19
	Open Space	20,498	8,132	1 : .40

Source: From Cost of Community Services Study Town of Peterborough, New Hampshire. Sponsored by the Peterborough Conservation Commission & Does Open Space Pay? Auger, Philip. University of New Hampshire Cooperative Extension

¹⁵ Cost of Community Services Study Town of Peterborough, New Hampshire. Sponsored by the Peterborough Conservation Commission and SPACE (State-wide Program of Action to Conserve the Environment). Winter, 1996-97

¹⁶ Does Open Space Pay? Auger, Philip. University of New Hampshire Cooperative Extension.

Each of the six towns found that residential land use cost more money in services than it provided in tax revenue.



However, these studies consider only the direct fiscal impacts of existing development within the community. The full effect of new development depends on both the direct and the indirect effects of new development and the current level and available capacity of existing community services.¹⁷

Other studies in New England have discovered higher tax rates and bills in towns with the most commercial/industrial development.¹⁸ These findings seem to contradict the previous New Hampshire cost-of-community-services study that indicated new commercial and industrial development revenues exceeded expenditures.

Several indirect factors may be at play, including the following possibilities cited in a 1999 Trust for Public Lands study:

Commercial/industrial development and residential development go together. In general, communities with larger tax bases offer more services. Further, commercial and industrial developments do not appreciate as rapidly as residential property or open land. A commercial development that represented ten percent of the tax base initially may, over time, represent only five percent of the tax base--due only to differences in rates of appreciation.¹⁸

In 2001, the Nashua Regional Planning Commission examined the growth of its region's municipal service budgets by category, and found that changes in expense didn't line up uniformly with population or housing growth:

Fire, Police, and School budgets have traditionally grown at rates that exceed the rates of housing growth, which may mean that they are increasing for reasons other than growth, i.e. changing standards. Since 1990, school budgets have grown at disproportionately high rates compared to housing unit growth. Highway budgets, on the other hand, have grown at a slower rate of growth.¹⁹

These studies illustrate some of the complexities inherent in planning for the best municipal and regional benefits of growth, particularly as societal expectations of services change over time. Cost of Services studies have been somewhat controversial, but they do offer one important lens to examine growth issues in a community.

The conclusions from the Peterborough study provide some guidance when considering factors such as cost of services when planning for a town's future:

Enlightened decisions are not based on tax impact alone. Certain commercial/industrial projects might not be tax-favorable in the long run, but they will be of greater benefit to a town if they provide good jobs, if they are locally-owned, if they fit into the local landscape with sensitivity to architecture, and if they preserve open space. Similarly, considering open space only in terms of tax impact ignores the associated values of open space in terms of drinking water protection, wildlife habitat, flood control, air quality, recreation, and maintaining the rural character of a community.²⁰

As growth and development pressures increase in the region, towns will best be served by informed and engaged citizens, town boards, town officials and local newspapers -- all willing to ask important questions that reach beyond the old assumptions. What are the real costs of growth and development, and how will those costs be met? What is the best land use mix of development and conservation for the town, and how can that mix be achieved or maintained?²⁰

¹⁷ Irwin, Elana and D. Kraybill, "Costs and Benefits of New Residential Development," presented at the "Better Ways to Develop Ohio" conference, sponsored by the Ohio State University Extension, Columbus, OH. June 24-25, 1999. <http://www.agecon.ag.ohio-state.edu/programs/ComRegEcon/costdev.htm>

¹⁸ Long-term Relationship Between Development and Property Tax Bills. TPL New England Region Report. 1999. The Trust for Public Lands. Retrieved from http://www.tpl.org/tier3_cdl.cfm?content_item_id=1137&folder_id=827

¹⁹ 50 Years of Growth: Analysis of the Impacts on the Nashua Region. 2001. Nashua Regional Planning Commission.

²⁰ Cost of Community Services Study Town of Peterborough, New Hampshire. 1996-7. Sponsored by the Peterborough Conservation Commission and SPACE (State-wide Program of Action to Conserve the Environment).



Towns are best served by informed and engaged citizens, town boards, town officials, and local newspapers.



IV. Proactive Growth Management

A. Proactive Growth Management Defined

There are many terms to describe the comprehensive planning and management strategies employed to address growth challenges. For example, the New Hampshire Legislature defines it as “Smart Growth,”²¹ while others use the term “Sustainable Growth.” CTAP will use the phrase “Proactive Growth Management” to frame this ever-growing body of work.

The New Hampshire Office of Energy and Planning defines this approach as:

Smart growth does not mean no growth. It’s about increasing choices— opportunities to meet community and regional needs for housing, employment, goods and services, and the quality of life through more efficient, creative development. Smart growth is about conserving and making the best use of our vital natural and cultural resources. It is about enhancing the choices and opportunities for present and future generations of Granite State residents. Smart growth does not demand a particular solution, but rather an approach that considers and appreciates the essential qualities and features of a community as it moves forward.²²

The Southern New Hampshire Planning Commission described this field in the following way:

Sustainable or ‘Smart Growth,’ allows communities to grow at their own rate, while consuming less land and providing for open spaces that all residents may enjoy. Smart Growth encourages more mixed-use and compact development, allowing a person to actually *walk* to work or *walk* to buy a gallon of milk.²³

Examples of factors often listed as quality of life benefits that proactive growth management attempts to address are:

- Affordable housing
- Walkable communities
- Access to employment
- Public transportation options
- Safety
- Downtown feel
- Clean Environment
- Good schools and educational opportunities
- Recreation options
- Open space and parkland

²¹ State of New Hampshire Revised Statutes—Title I, Chapter 9-B, Section 3

²² From: Achieving Smart Growth in New Hampshire. 2003. New Hampshire Office of Energy and Planning

²³ A Handbook on Sprawl and Smart Growth Choices for Southern New Hampshire Communities. 2002. Southern New Hampshire Planning Commission.



B. Planning Principles and Guidelines

The New Hampshire Office of Energy and Planning, in its publication “Achieving Smart Growth in New Hampshire,” offered the following principles for Proactive Growth Management (the principles and New Hampshire case studies exhibiting these principles will be explored in greater detail in the next two CTAP resource books):²⁴

- Maintain traditional compact settlement patterns to efficiently use land, resources, and investments in infrastructure.
- Foster the traditional character of New Hampshire downtowns, villages, and neighborhoods by encouraging a human scale of development that is comfortable for pedestrians and conducive to community life.
- Incorporate a mix of uses to provide a variety of housing, employment, shopping, services, and social opportunities for all members of the community.
- Provide choices and safety in transportation to create livable, walkable communities that increase accessibility for people of all ages, whether on foot, bicycle, or in motor vehicles.
- Preserve New Hampshire’s working landscape by sustaining farm and forest land and other rural resource lands to maintain contiguous tracts of open land and to minimize land use conflicts.
- Protect environmental quality by minimizing impacts from human activities and planning for and maintaining natural areas that contribute to the health and quality of life of communities and people in New Hampshire.
- Involve the community in planning and implementation to ensure that development retains and enhances the sense of place, traditions, and values of the local community.
- Manage growth locally in the New Hampshire tradition, but work with neighboring towns to achieve common goals and address common problems more effectively.

Many New Hampshire towns, including those in the I-93 corridor, have been working for a long time on integrating the above principles into their community planning efforts. These towns and those from other regions can serve as ideal models of the benefits, and challenges associated with addressing growth management.

The following section will present the initial growth planning processes of three New Hampshire towns—Pembroke, Derry, and Chester. Resource Books Two and Three will provide specific examples of how New Hampshire and other states have successfully completed Proactive Growth Management projects.



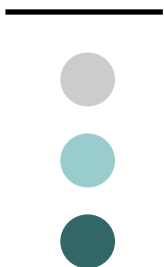
Manage growth locally in the New Hampshire tradition, but work with neighboring towns to achieve common goals and address common problems more effectively.



²⁴ From: Achieving Smart Growth in New Hampshire. 2003. New Hampshire Office of State Planning.



Located south and east of Concord, Pembroke through the 1980s experienced population growth of 35 percent, with a 40 percent increase in housing stock.



V. Case Studies of Proactive Growth Management

A. NH Communities ²⁵

The process of planning for growth begins with understanding the values, vision, and goals of a community. The New Hampshire Office of Energy and Planning (NHOEP) developed a process to assist communities in an evaluation of their development policies and regulations and to create a community Smart Growth planning process. NHOEP created the process to be adaptable to all corridor communities, and they have information available for interested towns. What follows is an adapted summary of the process and its initial results:²⁵

Three towns within the I-93 corridor—Pembroke, Derry, and Chester—were initially invited to take part because they were already involved in community-engaged planning efforts and because they represented a cross-section of corridor communities.

Residents were invited by the local planning boards to participate in two public meetings to explore what they value about their communities, their visions for the future, and how to implement such visions and goals for preserving their quality of life in light of future development.

Planning Decisions, Inc. facilitated the meetings and analyzed each pilot community's master plan, zoning ordinance, subdivision regulations, and site plan review regulations for their congruence with Smart Growth principles. The resulting reports were presented to the NH Office of Energy and Planning in September of 2002.

Pembroke

The Issue:

Located south and east of Concord, Pembroke through the 1980s experienced population growth of 35 percent, with a 40 percent increase in housing stock. Through the 1990s Pembroke grew at a slower rate, adding 5 percent or 6,897 residents to the population by 2000. Pembroke's population is predicted to grow another 25 percent to 8,870 by 2020. The I-93 Expansion 2020 study panel predicted the widening of I-93 could result in an additional 7.5 percent population growth to about 9,600 people. The combined effects would also result in housing stock growth of 50 percent to over 4,200 units and more than doubled in-town employment to over 3,000 people.

Findings:

Pembroke citizens were remarkably unified on what they value most about their town. Residents take great pride in Pembroke's small-town community spirit and friendliness. They also hold dear the character of its small town/historic built environment and its undeveloped lands, especially its three rivers, ponds, and agricultural lands.

Strategies for Achieving Pembroke's Proactive Growth Management Vision:

- Revitalize Suncook Village.
- Enhance the village character of Pembroke Street.
- Create a new "suburban residential" zone with a mix of housing types and costs.
- Establish a "traditional New England" village in a rural area.
- Establish an open space preservation overlay zone.
- Zoning amendments that allow for implementation of Smart Growth planning tools.

²⁵ Adapted from "Achieving Smart Growth in New Hampshire: Three Pilot Communities Consider Smart Growth Options." Presented to the New Hampshire Office of Energy and Planning, September 2002—as part of the GrowSmart Tool-kit Project. By Planning Designs, Inc.

Derry

The Issue:

Derry's population nearly quintupled from under 7,000 residents and a rank as 17th largest community in the state in 1960, to more than 34,000 people and fourth-largest community in 2000. From the 1970s through the early 1990s, Derry experienced high rates of growth and development (as shown in Figures 11 & 12). Population and housing stocks tripled, and the town's tax rates increased. Derry's population is predicted to grow another 30 percent to 44,700 by 2020.

The widening of I-93 and construction of the new Exit 4A will likely increase demand for housing to 5,000-7,000 additional units. The I-93 Expansion 2020 study panel predicted that with the widening of I-93, Derry's population could grow an additional 6 percent to 47,672 by 2020.

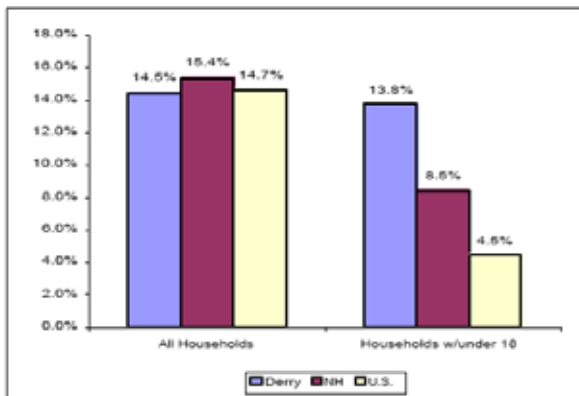
Findings:

Residents want to protect the farms and contiguous open lands that are left. They value Old Derry Village near Pinkerton Academy, and have invested in the downtown areas.

Strategies for Achieving Derry's Proactive Growth Management Vision:

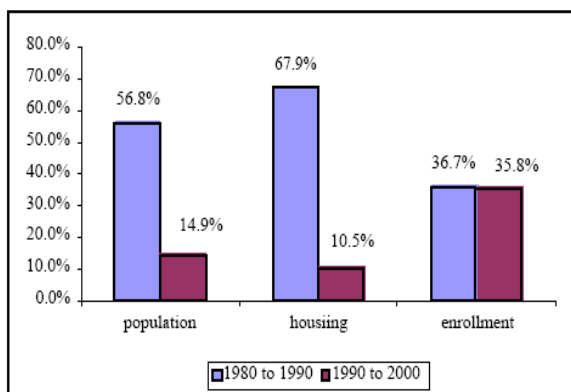
- Continue the revitalization of the Downtown.
- Establish a mixed-use development near Exit 4A.
- Establish a "traditional New England" village in a rural area.
- Establish an open space preservation overlay zone.
- Zoning amendments that allow for implementation of Smart Growth planning tools.

Figure 11: Growth of Households by Type and Area, Derry, 1990-2000



Sources: Planning Decisions Inc. report cites: Population and Housing from U.S. Bureau of the Census of Population, 1990 and 2000.

Figure 12: Growth rates, Derry, 1980 to 1990 vs. 1990-2000



Sources: Planning Decisions Inc. report cites: Population and Housing from U.S. Bureau of the Census of Population, 1990 and 2000. Enrollment from NH Office of State Planning and Town of Derry Annual Report Fiscal Year Ending June 30, 2001, p. 131..



Derry's population nearly quintupled from under 7,000 residents and a rank as 17th largest community in the state in 1960, to more than 34,000 people and fourth-largest community in 2000.



In the last 30 years, Chester's population has grown from 1,382 in 1970 to 3,792 in 2000. Over the same period, Chester's housing stock, and the land it has consumed, has increased at a greater pace.

Chester

The Issue:

In the last 30 years, Chester's population has grown from 1,382 in 1970 to 3,792 in 2000. Over the same period, Chester's housing stock, and the land it has consumed, has increased at a greater pace. Families with young children seeking single-family homes have led growth in Chester. As a result, households with children under 18 constituted nearly 48 percent of all households.

In addition, between 1990 and 2000, Chester's population growth differed from the state and national patterns in two important ways: (1) The number of households in Chester increased at a much greater rate than either New Hampshire or the U.S. rate (nearly 41% vs. approximately 15% for NH and the US; and (2) The number of households with children under 18 increased to 51.5%—an increase of more than five times the NH and US average (Figure 13).

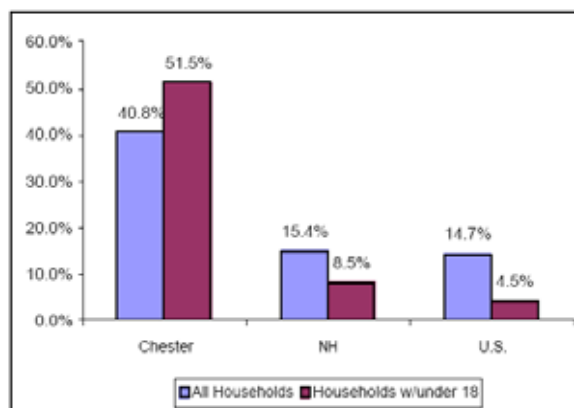
Findings:

Residents of Chester value the rural charm of their town and define it in terms of both the historic character and the design of the buildings, cemeteries, and stone walls along Chester Street and the open fields and woods that surround this and other roads through town.

Strategies for Achieving Chester's Proactive Growth Management Vision:

- Establish a "traditional" village in one or two rural areas
- Establish an open space preservation overlay zone
- Establish a historic preservation overlay zone to maintain the low density, historic nature of the buildings along Chester Street
- Zoning Changes that allow for implementation of Smart Growth planning tools

Figure 13: Growth of Households by Type and Area, Chester, 1990-2000



Source: Planning Decisions Inc. report cites: U.S. Bureau of the Census of Population 1990 and 2000.

B. Communities in Other States

Regions across the country are facing growth pressures similar to those in New Hampshire. Some towns have developed innovative ways to plan for growth that seek to retain and enhance what is great about their communities. Some of the methods they have used may be applicable in towns within the I-93 corridor.

In 2004, the EPA announced the winners of its National Award for Smart Growth Achievement. The following excerpts highlight some of the innovations towns undertook to proactively plan for growth:

Town of Davidson, North Carolina, Planning Department ²⁶

A small community, Davidson is setting the standard for creating healthy and vibrant neighborhoods in a historic setting. The town is revitalizing its existing buildings, and its new neighborhoods incorporate a variety of lot sizes and housing types, including affordable housing, and neighborhood parks within a five-minute walk.

To the residents of Davidson, North Carolina, located just 20 miles from Charlotte, the essence of their small town is great neighbors and great neighborhoods. The town's high quality of life is attracting development. To preserve and enhance Davidson's character, the town adopted the Davidson Land Plan in 1995 and an innovative Planning Ordinance in 2001.



These three-unit bungalows demonstrate that affordable housing can be attractive.



When a national drug store chain built a new store on Main Street, the developer was required to have two stories to take advantage of the prime location. Although the new store is only two blocks from its previous location in a conventional strip center, weekly revenues have nearly doubled.

The ordinance seeks significant public involvement, a critical component for any community that wants to plan where and how it will grow. For example, the Planning Ordinance provides charrettes [planning events] for every new development project. These charrettes allow the developer and the community to understand each other's goals. One developer says, 'the [charrette]...forced me to come up with a new plan that was better than the original.'

The town requires pedestrian, bicycle, and street circulation plans for all new development. Streets are designed to discourage cars from speeding, making it easier for Davidson's 7,800 residents to walk and bicycle around the town. To further encourage walking, the town requires narrow, tree-lined streets with on-street parking and sidewalks on both sides of the street.

Recognizing that housing prices can sometimes increase when a community creates great places to live, the town requires that 12.5 percent of all new housing be affordable to families making less than the county's median family income.

Davidson's plan and ordinance have allowed the town to build on its strengths while accommodating new growth. For example, the old Davidson Cotton Mill complex has been revitalized and transformed into offices, condominiums, and a restaurant. The plan and ordinance also clearly articulate the town's vision for its growth. This, in turn, makes developers active partners in implementing the community's vision of connected, walkable neighborhoods that maintain Davidson's legacy as a traditional small town. ²⁶



Davidson is setting the standard for creating healthy and vibrant neighborhoods in a historic setting.



²⁶ National Award for Smart Growth Achievement, 2004. US EPA



Accessory Dwelling Unit Program City of Santa Cruz, CA, Department of Housing and Community Development ²⁶

Santa Cruz is increasing and diversifying housing choices by making accessory units easier to build. This program gives homeowners an additional source of income and creates more affordable housing.

Like many communities in northern California, Santa Cruz has seen its housing costs increase dramatically. These rising costs mean the city is struggling to retain teachers, police officers, and service workers. To address these challenges, Santa Cruz created an Accessory Dwelling Unit (ADU) Development Program. Accessory units create separate residences by converting all or part of a garage or by building new structures on a homeowner's property.

The city's program aims to create more housing opportunities by making it easier for homeowners to build accessory units. For example, the city revised its zoning ordinance to eliminate a covered parking requirement for single-family homes, which freed up space for accessory units. In addition, the revision included design elements that ensure the accessory units complement the surrounding homes.



Storage spaces become homes thanks to the ADU program.

The city's program aims to create more housing opportunities by making it easier for homeowners to build accessory units.



Accessory units are ideal for students and seniors.

Seven architects designed compact building prototypes (500 square feet) that address a variety of site needs. These plans have been pre-reviewed by city departments, which helps homeowners by reducing processing time, planning fees, and design costs. The city also released an ADU "How To" manual to help residents navigate the development process. The manual packages all the information homeowners need to develop an accessory unit, including guidance on making an accessory unit "neighbor-friendly," managing a construction project, and being a good landlord. Over 175 manuals and prototype plan sets have been sold. To encourage affordable housing, homeowners get financial assistance through accessory unit loan and fee waiver programs if the unit will be rented at an affordable level.

The program has broadened the range of available housing opportunities. In 2003, the program's first full year, 35 accessory units were built, which is a significant increase over the eight units built in 2001. Over the next five years, the city estimates that between 40 and 50 new accessory units will be built per year. The program has been so successful that more than 80 cities throughout California have requested copies of the ADU manual and ordinance.

²⁶ From: National Award for Smart Growth Achievement, 2004. US EPA



City of Greensboro, North Carolina, Department of Housing and Community Development²⁶

The redevelopment of the Southside neighborhood, just one-and-a-half blocks from Greensboro's historic main street, transformed a blighted area into a thriving, attractive district. The community capitalized on a rich stock of historic buildings and public spaces to restore this downtown neighborhood.



Live/work units are new to Greensboro and enhance the existing businesses in the neighborhood.

Southside incorporates a square as the civic center of the neighborhood and features a rotating schedule of public art. The neighborhood common, used as a community park, retains a canopy of mature trees. Greensboro contributed to the revitalization effort by installing new side walks, historic streetlights, decorative brickwork, and landscaping.

The neighborhood is a market success. Not only did all the rehabilitated and new homes sell out, but the neighborhood generates significantly more tax revenue for the city. Before redevelopment in 1995, Southside produced \$400,000 in tax revenues. When the redevelopment is complete, the total tax revenue generated from the neighborhood will be over \$10 million.



Before redevelopment.



After redevelopment.

The Southside neighborhood, a 10-acre revitalization project, is one of Greensboro, North Carolina's first significant mixed-use, infill projects. The city's Department of Housing and Community Development developed a Traditional Neighborhood District Ordinance to assist Southside's redevelopment.

A five to ten minute walk from the central business district, the development includes 30 single-family homes, 10 two-family homes, 50 townhouses, 10 restored historic homes, and 20 live/work units where business owners live upstairs from their shop or office. Some residences include studio apartments above rear-detached garages, providing another housing choice.



Although the middle house is new, it blends seamlessly with the older surrounding houses.



**The
redevelopment of
the Southside
neighborhood...
transformed a
blighted area into
a thriving,
attractive district.
The neighborhood
is a market
success.**

²⁶ From: National Award for Smart Growth Achievement, 2004. US EPA



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