TABLE OF CONTENTS

TABLE OF CONTENTS (Continued)

LIST OF TABLES

LIST OF TABLES (Continued)

LIST OF FIGURES

LIST OF MAPS

APPENDICES

#610A-6

CHAPTER I: EXECUTIVE SUMMARY

This Litchfield Community Economic Development Study produced by the Nashua Regional Planning Commission (NRPC) with assistance from the Greater Nashua Center for Economic Development (GNCED) and the Town of Litchfield examines how to facilitate economic planning in a small community within the Nashua region. The project is funded by a Seed Equity for Economic Development (SEED) Grant funded by the New Hampshire Community Development Finance Authority (CDFA). The study was primarily intended to improve NRPC's capacity for economic development planning, with the latest goals:

- Educate small town officials about economic development planning, including how to integrate economic policy with land use decision-making;
- Promote forward thinking on economic development and the relationships between land use and community development;
- Generate awareness of economic development initiatives in the region.
- Examine the fiscal impacts of business development on the tax base;
- Define key resources, opportunities and constraints concerning Litchfield and regional economic development; and
- Highlight methods to promote development and preserve unique community character.

The goal is to expand the local and regional capacity for economic development decision-making and build a model for small town economic planning within the context of the Nashua region.

The larger municipalities Nashua, Merrimack and Hudson have instituted active economic development programs and tied these to their planning and community development goals. The intent of this project is to equip Litchfield and smaller communities like it with tools to carry out local economic development functions within in the context of a regional economic development delivery and support system that is underutilized by most towns.

The SEED Project Committee was a subcommittee of the Planning Board, which became known as the Economic Development Working Group (EDWG). The group met eight times with a core group of 13 residents who routinely attended monthly meetings. Participants consisted of two Planning Board members; a Selectmen; a State Representative; the owner of one of the largest local businesses; three farmers; and five other Town residents with various interests and areas of expertise. Committee staffing was by the NRPC and the Executive Director of the GNCED.

Four times the group was joined by outside experts versed in special subjects pertinent to local economic development. Speakers discussed programs, issues and cases in economic development, presenting options on how to organize for economic development in Litchfield. Following is a list of these speakers and their topics:

- William E. Pillsbury, Jr., former Director of the Office of Business and Industrial Development at the New Hampshire Department of Resources and Economic Development, spoke on State resources for economic development and organizing for economic development.
- Margaret L. Murphy, an community and economic development consultant, previously the Director of Topsham (Maine) Development, Inc., and who is also affiliated with the Brooking Institution, talked about an economic development success story in Topsham. The focus was on how to organize for effective economic development and the various strategies employed.

- Michael H. Monks, SIOR, President of Monks & Co., Inc. Industrial/Commercial Real Estate, spoke on commercial real estate market potential in Litchfield and the region. The discussion also provided insight on commercial business site selection.
- Cynthia A. May, Regional Planner with the NRPC, and a certified landscape architect, spoke on community character preservation and the use of design standards to promote commercial development in harmony with community features that people seek to maintain.

In addition, group members attended the April 1999 NRPC Planning Board Training Seminar 'Community Character: How to Maintain It and How to Regain It'.

Chapter II presents in bullet form examples of opportunities and constraints to economic development in Litchfield and the region. It gives examples of issues discussed in the project meetings, such as:

- The potential for growth and key features of Litchfield's and the NRPC Region's economy, including unique human, institutional, social and physical resources.
- The design of economic policy based on the resources and strengths of the region.
- How to achieve cooperation between local and regional economic development stakeholders.
- Methods to manage physical change and promote economic opportunities.

The old town center is nestled along Route 3A and the Merrimack River. In the foreground is the Cutler Memorial Library.

The unique small town heritage of Litchfield was a common theme across meetings. The group seeks to preserve features of the community that they value, but to also accommodate new commerce since well-coordinated commercial development can provide fiscal balance and enhance community appearance. This study discusses how site design principles may be used to promote commercial development that is in character with rural New England community heritage. Excellence in community design can be promoted by using design standards to instruct people undertaking development on how to achieve high quality commercial projects that contribute to community character and which will help sustain the local economy.

Route 3A is characterized by sweeping vistas of farm fields.

The Need for Economic Development Strategy and Implementation

The Nashua region covers 12 communities in south central Hillsborough County, New Hampshire. With the exception of Nashua, population 80,000, the planning region consists of small towns with populations ranging from 1,500 to 23,000 persons. Since 1960 the NRPC region population doubled to 180,000 persons. Like the larger Nashua region, over the last 30 years Litchfield has experienced profound growth and change that is threatening the rural character of this historical farming center:

- Since 1970, Litchfield's population grew 371 percent and housing increased 418 percent.
- There has been extensive growth in the job and commercial business base in the region.
- The residential sector forms 90 percent of the property tax base in Litchfield.
- Litchfield's population is expected to grow 2.6 percent annually over the next 20 years.
- The Circumferential Highway and the Manchester Airport Access Road will impact the type, location and pace of Litchfield future development.
- Expansion of schools may make Litchfield more desirable for residential settlement.
- There are 674 acres of developable land area in commercial districts and significant redevelopment potential exists on another 300 acres within the commercial zones.
- In 1997 there were 1,100 acres of active agricultural land with more than 600 acres in commercial zones -- these farmlands are threatened by development.
- Adjusted for inflation, Litchfield median household incomes grew 28 percent from 1980 to 1990 while housing costs increased 91 percent.

Litchfield Economic Development Strategy

Litchfield 's traditional farm economy is threatened by growth. This development was constructed on fertile flood plain. While few would assert that there should be no new residential development, there are benefits of promoting smart growth that does not detract from the community character and farming.

There is consensus that well-managed development can help Litchfield determine its own economic destiny and create a sustainable economy. The SEED project participants examined the structure of economic development initiatives within other communities and developed the following recommendations on local economic policy in Litchfield.

- The Town should designate one person to serve as the local contact on economic development. The Seed project group recommends hiring a professional, at least part-time, who can ensure follow-through and consistency.
- Litchfield should collaborate and work with the Greater Nashua Center for Economic Development.
- The Route 3A corridor forms the spine and geographic center of the community – this area should be the focus of efforts to preserve community character.
- Existing businesses pay more in taxes than they consume in services.
- New commercial development will generate a surplus estimated at $4 million per year at buildout according to current public sector revenues and spending.
- More analysis is needed on the feasibility of instituting public wastewater management in commercial zones. Future commercial development will cover the cost of constructing such facilities, most likely generating a large revenue surplus in the process.

- With sewers and higher density development, future commercial development could provide surpluses of more than $8 million per year at buildout.
- Existing commercial development in Litchfield is concentrated near Town borders with Manchester and Hudson. These locations are the same areas where regional roadway expansions are planned. By directing business growth to these locations, the benefits of compact development can be realized.
- Farming in Litchfield is enabled by large tracts of prime agricultural soils and readily available supply of water for irrigation from the Merrimack River. Agriculture is a major economic activity and it should be a priority to enhance economic development within this sector.
- Discouraging strip development and managing site accessibility along Route 3A and Route 102 by limiting curb cuts and requiring parking lots behind structures will stimulate compact growth on Routes 3A and 102.
- Local business visitations should be performed to identify business needs, pinpoint opportunities for public-private collaboration, and establish lines of communication.
- It is recognized that retaining high quality natural resources and the natural character of Litchfield is important to a healthy economy in the future.

It is the conclusion of the Litchfield SEED Project Committee that sprawling, inefficient, poor quality commercial development will induce detrimental affects on the Litchfield and regional economy. Development that consumes large quantities of land is expensive to provide with public services and haphazard development along the Route 3A corridor will promote the loss of productive farmlands. At the same time, it is possible for concentrated development to occur while simultaneously preserving active farmland. This study identifies a foundation from which to pursue systematic local economic development planning in Litchfield. It articulates an approach to anticipate, capture, promote, channel and manage economic development for the maximum benefit of Litchfield and the region.

#610A-1

CHAPTER II: OVERVIEW OF PROS AND CONS OF THE ECONOMIC ENVIRONMENT IN NH, THE REGION, AND IN LITCHFIELD

NEW ENGLAND AND NEW HAMPSHIRE

Economic Growth and Income

PROS		CONS
• New Hampshire routinely has low poverty rates.		• The early 90s recession was deeper than that of the country (Federal Reserve of Boston, 1998).
• In periods of growth, New Hampshire's economy generally grew faster than that of New England (PSNH, 1993 & 98).	⇔	• Recently, Massachusetts was the only New England state economy to grow quicker than the nation (PSNH, 1998) – a possible sign of a slow down in New Hampshire.
• Economic recovery from the early 90s recession outpaced New England and matched that of the U.S. (Federal Reserve Bank of Boston, 1998).	⇔	• New Hampshire's growth rate slowed in 1997 and 1998 (Federal Reserve Bank of Boston, 1998).
• Real per capita income, adjusted for inflation, increased from 1982 to 1992 (PSNH, 1993).		
• In 1997 New Hampshire per capita income ranked eighth among all states (PSNH 1998).		
• The State had the lowest tax burden in the U.S. in 1995 (PSNH, 1998).		

Labor Force and Employment

• The State has more high tech jobs per capita than any other state at eight percent (NH Industrial Research Center, 1998).		• Labor shortages eased in the early 90s recession, but labor markets are again very tight (NHES, 1998).
• With 40 plus percent of students taking the Scholastic Aptitude Tests (SATs), the State ranked second in scoring (PSNH 1993).	⇔	• A 1997 slow down in the economic growth may be caused by labor shortages (Federal Reserve Bank of Boston, 1998).
• Since the early 90s recession there were board increases in private and total employment.		• Most employment growth from 1992 to 1998 occurred in the 1992 to 1994 period (NHES, 1998).
• Retail trade and services are core areas of NH job growth.	⇔	• Unemployment rates are so low that worker shortages may result in a barrier to new economic growth.
• There were fifty straight months of manufacturing job gains since November, 1993 (Federal Reserve Bank of Boston, 1998)		• While there was resilience from the 1990s recession, only in late 1997 did NH recover the peak number of manufacturing jobs established prior to the recession.
		• Anecdotal evidence shows gaps between supply and demand for workers with computer skills.
		• Labor force participation rates are increasing, but people rejoining the workforce may not have the skills in demand that receive high wages.

NEW ENGLAND AND NEW HAMPSHIRE (CONTINUED)

Active Economic Sectors and Active Private Industries

PROS		CONS
• Some NH industrial core competencies identified in 1993 were "…technological and organizational capabilities in manufacturing equipment, skills and technologies, especially in computers, semiconductors, electronics, communications, and materials".	⇔	• There are high rates of firms with addresses outside the State (Mt Auburn Assoc., 1993).
• Many emerging technologies fall into: manufacturing systems, new materials, electronic and information systems, and life science applications (Mt. Auburn Assocs., 1993).	⇔	• Downsizing and reorganization are common in firms that serve defense and electronics markets (Mt Auburn Assoc., 1993).
• Industrial machinery and electronics are prominent industries.		• International markets are very competitive; in 1998/1999 some export markets were weak.
• Software is a growing industry and electronic commerce appears to be growing (NH Industrial Research Center, 1998).		• Generally, there is not a strong financial services institutional base in NH or the Nashua region.
		• In the 2nd half of 1998 and the 1st half of 1999 there was a slow down in the economy with close to zero growth.
		• Electric power is costly in New Hampshire.

Real Estate and Transportation/Infrastructure

• New Hampshire commercial real estate availability is tight – investment and construction are up in 1997/early 1998	⇔	• A slowdown in economic growth may be due to tight real estate supplies (Boston Federal Res., 1998).
• Greater Boston has its tightest office market in a decade (Federal Reserve of Boston, 1998).		• Heated real estate markets may be showing signs of cooling down (Boston Business
• Interest rates are low.	⇔	Journal, Oct., 1998).
• Housing permits were up for all types in 1997/ early 1998 (Business NH Magazine, 1998).		• Real estate speculation and over building contributed to the 90s recession.
• The State has major international transportation and trade facilities at Manchester Airport and the Pease Free Trade Zone.		• Housing markets, while not as expensive as Massachusetts markets and relatively affordable, have demonstrated consistent price inflation.
		• Many highly ranked environmental risks in NH are the result of development, including degradation of surface water, loss of habitat, physical alteration of water and shoreline, and loss of water habitat by filling/draining wetlands.
		• Low housing inventories and high demand may trigger affordability and shelter poverty problems.

NEW ENGLAND AND NEW HAMPSHIRE (CONTINUED)

PROS		CONS
Health, Well-Being and Other		
• NH has good health rankings (PSNH, 1998). • Crime rates are low (third in 1998). • Five times from 1993 to 98 the State ranked 1st in child and family well-being. • Again in 1997 New Hampshire ranked second in the Morgan Quitnos Survey of Most Livable Places (Federal Reserve Bank of Boston, 1998). • Tourism has demonstrated consistent increases in NH. • The cultural heritage of New Hampshire is a major asset and resource. • The natural and scenic heritage of the State is an important legacy and is important to community character.	⇔	• Bankruptcies increased over 1,000 to 5,000 in 1997. The group consisted primarily of individuals and households, with credit debt cited as a prominent reason (American Bankruptcy Institute cited in Federal Reserve Bank of Boston, 1998).

NASHUA REGION ECONOMIC OVERVIEW

PROS	CONS
Economic Growth and Income	
• In 1987 and 1997 Greater Nashua ranked as "The number one place to live" nationally based on an index by Money Magazine. It emphasizes economic factors, such as jobs and housing affordability, as well as education and quality of life. (Mt. Auburn Associates, 1993; Greater Nashua Chamber of Commerce, 1998). • The wealthiest part of the State in terms of per capita and family income is Hillsborough and Rockingham Counties.	• The region may lead the State into recession if it is highly dependent on foreign markets that are in recession.

NASHUA REGION ECONOMIC OVERVIEW (CONTINUED)

Labor Force and Employment

PROS

- The region has a high-skilled labor base, including technical workers (Mt. Auburn Assoc., 1993).
- The proportion of regional manufacturing jobs are higher than the State and U.S. -- since 1980, on average, manufacturing jobs have grown or remained steady compared with relatively more decline in NH and the US.
- In 1997 average manufacturing wages in Nashua were $2.00 per hour higher than the U.S., New England or New Hampshire (Nashua Chamber of Commerce, 1998).

⇔

CONS

- A factor on the Money Magazine indexes that declined between 1987 and 97 was education
- Half of the manufacturing job growth from 1972 to 1985 was tied to two firms (Mt. Auburn Associates, 1993). There probably is more diversity in the firms demonstrating job growth since then.
- Like other regions, there are labor shortages in many economic sectors.
- Many of the abundant service sector jobs are characterized as being relatively low-wage.

Active Economic Sectors and Active Private Industries

- Durable goods production is one concentrated economic activity in the region.
- The service sector is strong in Manchester and greater Nashua.
- The region has an industry mix to take advantage of emerging technologies and a low cost of doing business (PSNH, 1993)
- Gross Product (output) of area businesses, typically increased on an annual basis since the 80s.
- It appears that the business base is more diversified than 10 to 20 years prior.

⇔

⇔

- Greater Nashua in the mid-90s was considered vulnerable to dependence on one or a few sectors of industry, such as defense.
- A resource deficiency in the early 90s was access to finance and institutions for economic development (Mt Auburn Associates, 1993)
- Traditionally the regional economy has been tied to manufacturing performance (Mt. Auburn Associates, 1993); current export markets are weak.
- Access to telecommunications infrastructure is an example of a new demand in business markets. Lack of access is an issue for some businesses.
- Most major employers in the region in 1993 were owned and headquartered outside the State (Mt. Auburn Associates, 1993).
- The largest high technology employer's in the State, Intel/Digital Equipment; and Sanders, do not have corporate headquarters.

Real Estate and Transportation/Infrastructure

- Major area transportation improvements include transit and highway expansion.
- There is a large supply of industrial property in Nashua and Manchester.
- A major part of the total real estate value in the State is in the Nashua region.
- Airport expansion provides a major gateway into and out of the region.

⇔

- Recent indicators point to high per foot office and industrial space sales and lease rates.
- Rental markets are tight.
- Traffic congestion is an issue of concern to the region.

NASHUA REGION ECONOMIC OVERVIEW (CONTINUED)

PROS		CONS
Health, Well-Being and Other		
• The region scores well in quality of life factors such as arts and access to outdoor leisure.	⇔	• Sprawl is a major threat to regional character.

LITCHFIELD ECONOMIC OVERVIEW

PROS		CONS
Economic Growth and Income		
• Per capita and family incomes are comparable with the high averages found around the region.	⇔	• Population increases are expected to influence demand for public sector services. That in turn could result in some residential tax increases because public services are primarily financed by residential property taxes.
• Like the region, Litchfield's population is projected to increase over the next ten years (OSP, 1998) which bodes well for goods and services demand.	⇔	• Litchfield has a high residential tax burden.
Labor Force and Employment		
• In terms of job training and education, Litchfield high school students are becoming more likely to pursue a post-secondary education (college or technical school training beyond high school).	⇔	• There are not local level job training or locating programs beyond the high school.
• The high school has a program emphasizing technical careers and school-to-work training that is innovative in its focus on building relationships between students determining career paths and regional employers.		
Active Economic Sectors and Active Private Industries		
• Litchfield has more than a hundred businesses, including services, professional practices, farm stands and nurseries, resource extraction (mining), very small light industry, and managerial firms.	⇔	• Public sector organizations constitute some of the largest employers in Town.
	⇔	• Litchfield's economy is very small and informal compared with abutting municipalities.
• There may be hard to identify economic activity, such as home-based businesses, self-employment, and informal or seasonal work on farms and recreational facilities.		• Many businesses are land use intensive such as farming, auto parts yards and golf courses.
		• Litchfield does not have a bank or a grocery store.

LITCHFIELD ECONOMIC OVERVIEW (CONTINUED)

Real Estate and Transportation/Infrastructure

PROS		CONS
• Residential development driven growth is a main characteristic of the Litchfield economy – the Town scenic character of the Town appears to contribute to this market.	⇔	• There are very small levels of identifiable recent commercial development • Historical resource-based industries, such as farming, experienced decline and may continue to do so with increased regional access and residential growth.
• Litchfield has a role in major infrastructure projects - the Manchester Airport expansion and the Circumferential Highway.	⇔	• Litchfield is not serviced by a fixed sewer system or fiber optic type telecommunications infrastructure.
• There has been continuous residential real estate development in the Town. • Litchfield is tied-into to the regional economy -- new transportation system infrastructure enhancements will increase the local ties to the regional and international economy. • Litchfield has a good quality water supply and limited public water service. • Level of Service on the major Town road NH# 3A, is between functional classes B and C – there is quite good circulation on that minor artery (NRPC, 97). • The historical town center buildings are Town assets.		• Transportation system changes may alter the activity patterns of residents, as well as the demographics of Town. • Level of service on NH Route 102 is between functional classes D – it has significant congestion. • Without transportation demand management of new development, local roadways have potential to become overcrowded. • Albuquerque Road is a minor collector that is not designed as a receiving zone for commercial traffic. • Residential growth may conflict with agricultural and natural resource-sectors of the local economy.

Health,Well-Being and Other

• Litchfield has significant physical character, including substantial natural and agricultural open space, scenic areas and the Merrimack River. • While growth has been constant, the Town has managed to retain much small Town character. • There are substantial efforts underway by local government and volunteers to improve the recreational and cultural offerings in the community.	⇔	• Most adjoining municipalities experienced rapid growth in the last decade. That may not have occurred in Litchfield due to its relative isolation. With the planned transportation enhancements, there is potential for growth that could alter community character, perhaps even causing displacement among of residents of low and moderate means.

#610A-2

CHAPTER III: ECONOMIC OVERVIEW
POPULATION AND ECONOMIC BASE OF LITCHFIELD AND NASHUA REGION

INTRODUCTION

The Litchfield economy is intertwined with that of the Nashua Region and New Hampshire. The regional economy is complex, advanced, and dynamic. It provides a high standard and quality of living for most area residents. Typically over the last quarter century the region demonstrated significant annual growth, posting large cumulative gains in population, employment, and productivity. Physical development in the region has been equally noticeable, whether it is expansion in the housing base or enlargement of the commercial and industrial sectors.

One recent notable exception to sustained regional economic growth was a period of recession, also reflected in the national economy in the early 1990's. While the economy has been strong since the mid-1990s, there is concern that the region could be impacted by another recession or international economic problems.

Litchfield has experienced tremendous growth in population and housing over the past thirty years. Since 1970, the Town's population increased 371 percent while the number of housing units increased 418 percent. Commercial development or business activity in the Town consists primarily of small businesses in the basic sectors, services, agriculture, natural resource extraction, and construction, with a limited manufacturing base.

This analysis examines the structure of the Litchfield and the regional economy. It describes key characteristics of the local economy as well as the changes that are occurring. Specifically, this is an attempt to identify aspects of economic development that may potentially be influenced by action at the regional or local level. Demographic characteristics of the population, such as income and employment, as well as the structure, groupings, and trends in commerce and development in Litchfield and the larger region are reviewed. The purpose in presenting and analyzing the data is to help identify key resources and constraints that potentially influence the selection of an economic program in Litchfield.

Litchfield is a bedroom community – rapid rates of new housing development have been occurring since the 1950s.

POPULATION

Litchfield population growth is enhanced by its proximity to the cities of Manchester and Nashua – the two largest cities according to the 1997 NH Office of State Planning estimates of 103,330 and 82,810 persons. Based on recent historical trends, it is reasonable to expect that growth will continue in southern New Hampshire. The tables that follow present historical population changes in Litchfield and the Nashua Region.

As depicted in Table III-1 and Figure III-1 dramatic increases in population occurred in Litchfield since the 1950s. The peak was in the 1970s, with 192 percent growth and the addition of 2,703 persons. Recent 1997 OSP population estimates place the current population at 6,692 persons.

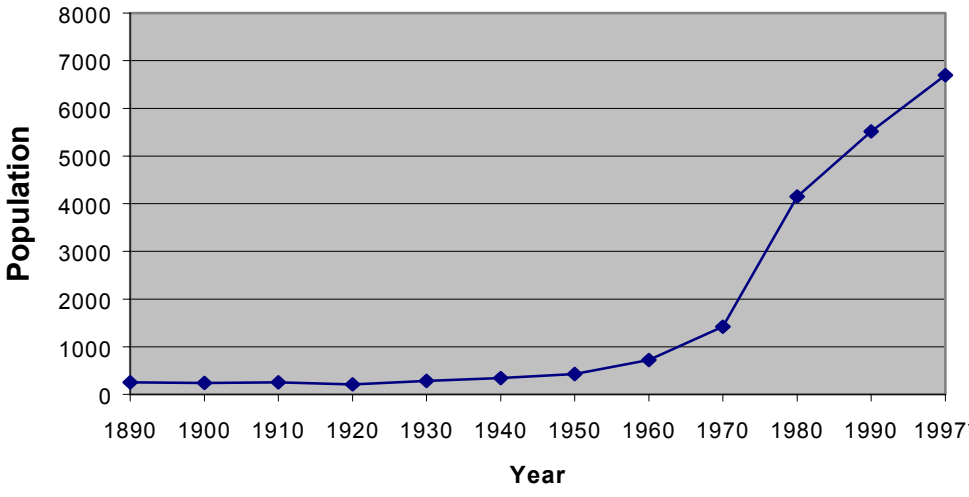
TABLE III-1

LITCHFIELD POPULATION CHANGE 1890-1997

Year	Population	% Change	Numerical Change	Avg. Annual % Change
1890	252	-13.4	-39	-
1900	243	-3.6	-9	-0.4
1910	255	4.9	12	**0.5**
1920	213	-16.5	-42	-1.6
1930	283	32.9	70	3.3
1940	341	20.5	58	2.0
1950	427	25.2	86	2.5
1960	721	68.8	294	6.9
1970	1,420	96.9	699	9.7
1980	4,150	192.2	2,730	19.2
1990	5,516	32.9	1,366	3.3
1997*	6,692	21.3	1,176	2.1

Source: US Census (18900-1990) and *1997 OSP Population Estimate.

FIGURE III-1
Historic Population Trends
Litchfield, NH 1890-1997



The regional population expansion during the last 25 years stems from two broad trends which continue today, the growth of the greater Nashua economy and in-migration from the Boston area. The Nashua PMSA is one of ten sub-units of the larger Boston-Worcester-Lawrence Consolidated Metropolitan Statistical Area (CMSA). Table III-2 shows the 1980, 1990 and 1996 population of the Boston area PMSAs, along with the corresponding percentage changes in population for these periods. As indicated, Nashua was the fastest growing sub-area during this time frame.

TABLE III-2

BOSTON AREA PMSAS POPULATION CHANGES 1980-1996

	Population (000s)				Estimated Population		
PMSA	1980	1990	% Change 1980 to 90	Annual % Chan	1996	% Change 1990 to 96	Ann'l % Change
Boston, MA-NH	3,149	3,228	2.5	0.3	3,263	2.0	0.4
Brockton, MA	225	236	5.1	0.5	246	1.1	0.3
Fitchburg-Leominster, MA	125	138	10.5	1.1	139	0.9	0.2
Lawrence, MA-NH	298	353	18.4	1.8	373	5.5	0.9
Lowell, MA-NH	249	281	12.5	1.3	291	3.6	0.6
Manchester, NH	146	174	**18.9**	1.9	182	4.8	0.8
Nashua, NH	**134**	**168**	**25.4**	**2.5**	**178**	**6.0**	**1.0**
New Bedford, MA	167	176	5.4	0.5	175	-0.3	0.0
Portsmouth-Rochester, NH-ME	189	223	18.0	1.8	231	-0.2	0.0
Worcester, MA-CT	439	478	8.9	0.9	485	0.4	0.0

Source: Statistical Abstract of the United States: 1997 (U.S. Bureau of the Census, October 1997).

Continuing trends started in the 1950s, the NRPC region continued to experience rapid population growth during the 1990s. The OSP estimated 1997 population for the region and State are 185,000 and 1,173,000 persons respectively. Litchfield's 1997 OSP population of 6,692 represents approximately 0.6 percent of State population. The NRPC region represents approximately 16 percent of New Hampshire population and Hillsborough County, with an estimated population of 359,147, represents approximately 31 percent of State population. Table III-3 shows recent population changes for Litchfield, the NRPC Region, Hillsborough County and the State.

TABLE III-3

NH, HILLSBOROUGH COUNTY, AND NASHUA POPULATION CHANGE 1960-1997

	Litchfield Populat.	% Change (Decade)	NRPC Region Populat.	% Change (Decade)	Hills. Co. Population	% Change (Decade)	NH Populat.	% Change (Decade)
1960	721	68.8	63,893	-	178,161	-	606,900	-
1970	1,420	96.9	100,862	57.9	223,941	25.7	737,579	21.5
1980	4,150	192.3	138,089	***36.9***	276,608	**23.5**	920,475	19.9
1990	5,516	32.9	171,478	24.2	335,838	21.4	1,109,252	20.5
1997	6,692	21.3	184,690	7.7	359,147	6.9	1,173,000	5.7

Source: US Decennial Censuses 1960 - 1990 and 1997 OSP Population Estimate.

Since 1990 regional growth moderated, due in part to the recession of the late 1980s and early 1990s. Although not reflected in this table, an economic resurgence in the later 1990s appears to be accompanied by higher growth rates. For example, preliminary data from NRPC's Housing Needs Assessment for the Nashua Region (June 1999) documents increases in building permits in the region and total home sales in the State and the NRPC region. This growth is driven by new in-migration to the Nashua region and natural increases in existing population.

What are the potential economic consequences of population growth? Consumer demands include residents' needs for housing, income, and different orders of consumer goods and services, such as food, professional care, or entertainment. Some goods and services are provided in varying degrees by the

public sector, including education, public works, and public safety, while others are provided by the private sector on a demand basis. The population growth in the NRPC region over recent decades has resulted in higher overall levels of demands for public and private goods and services. There are also more people seeking housing and adequate employment.

Population Projections

The OSP population projections for the NRPC region are presented in Table III-4. The forecasting methodology is based on a community's historical share of Hillsborough County growth. It assumes that a community's share of growth in 1970, 1980, and 1990 populations will remain roughly the same in the future. Litchfield population is expected to continue growing by approximately 2.6 percent annually over the next 20 years. If projections hold, the population would almost double by 2020.

TABLE III-4

POPULATION PROJECTIONS NRPC REGION

Town	Census 1990	Est. Pop. 1997	2000	Projections 2005	2010	2015	2020	% Change ('90-'20)	% Annual ('90-'20)
Litchfield	**5,516**	**6,692**	**7,612**	**8,856**	**9,674**	**10,749**	**11,785**	**114%**	**2.6%**
Amherst	9,068	10,059	10,300	11,295	12,113	13,547	14,686	62%	1.6%
Brookline	2,410	3,300	4,140	5,135	5,953	7,243	8,279	244%	4.2%
Hollis	5,705	6,643	7,374	8,535	9,299	10,696	11,940	109%	2.5%
Hudson	19,530	21,480	23,156	24,904	26,267	29,013	31,656	62%	1.6%
Lyndeborough	1,294	1,450	1,557	1,756	1,920	2,178	2,427	88%	2.1%
Merrimack	22,156	23,611	24,601	26,664	28,126	30,813	32,886	48%	1.3%
Milford	11,795	12,733	13,392	14,452	15,106	16,073	17,006	44%	1.2%
Mont Vernon	1,812	1,989	2,115	2,326	2,448	2,708	2,978	64%	1.7%
Nashua	79,662	82,810	84,667	86,906	87,997	89,072	91,145	14%	.4%
Pelham	9,408	10,635	11,506	13,082	14,118	15,730	17,285	84%	2.0%
Wilton	3,122	3,288	3,433	3,704	3,889	4,104	4,363	40%	1.1%
Regional Total	**171,478**	**182,020**	**195853**	**209620**	**216910**	**231926**	**248456**	**44%**	**1.2%**

Source: New Hampshire Population Projections, 1998, New Hampshire Office of State Planning.

Buildout population forecasts by the Litchfield Buildout Study Committee (October 1997) anticipate continued growth with a predicted maximum buildout population of 11,500 to 12,500 persons. The substantial residential population gains anticipated in Litchfield over the next 20 years could result in the community reaching buildout by 2020.

Educational Background of Residents

Educational attainment compiled as part of the 1990 Census shows that Litchfield is similar to the region and the State as illustrated in Table III-5**.** Residents with a bachelor's degree or higher account for 26 percent of the 18 and over population. The historical trend is for increasing levels of education, with Litchfield residents more likely to have a high school degree or some post-secondary education in 1990 than a decade earlier. It is reasonable to expect this trend to continue.

TABLE III-5
EDUCATIONAL ATTAINMENT OF RESIDENTS OVER 18 (1990)
LITCHFIELD, NRPC REGION, STATE OF NH

	Litchfield		Region		State of NH	
Education Level	Number	Percent	Number	Percent	Number	Percent
No High School Degree	388	10.6	19,672	15.6	150,381	18.1
High School graduate	1,215	33.1	35,543	28.2	265,731	32.0
Some College (No Degree)	813	22.2	25,776	20.4	166,385	20.0
Associates Degree	316	8.6	10,752	8.5	64,025	7.7
Bachelor's Degree	720	19.6	24,638	19.5	126,495	15.2
Graduate or Professional Degree	216	5.9	9,944	7.9	57,112	6.9
Total	**3,668**	**100.0**	**126,325**	**100.1**	**830,129**	**100.0**

Source: 1990 US Census.

Based on 1996 and 1997 data, New Hampshire ranked in the top quarter, or 12th overall among all states, according to percent of population graduating from college. According to the 1998 Public Service of New Hampshire document New Hampshire Economic Review, most of the rest of New England also ranks high in the proportion of college degrees.

INCOME & HOUSEHOLD INCOME

The standard of living in New Hampshire is high and Litchfield embodies the NRPC region with among the highest incomes in New Hampshire. Approximately 75 percent of the households in Litchfield earned more than $35,000 in 1990, which is 10 percent higher than the NRPC region and 23 percent higher than the State. The largest income category in Litchfield was households earning $50,000 to $74,999. There appear to be many moderate-income households in Litchfield.

TABLE III-6
HOUSEHOLD INCOME BY CATEGORY FOR 1990
LITCHFIELD, HILLSBOROUGH COUNTY, NRPC REGION, STATE OF NEW HAMPSHIRE

	Litchfield		Region		County		State	
Income	Number	Percent	Number	Percent	Number	Percent	Number	Percent
>5,000 – 14,999	75	4.3	6,785	11.1	17,907	14.4	68,829	13.3
15,000 – 24,999	154	8.9	6,851	11.3	15,943	12.8	61,818	15.0
25,000 – 34,999	187	10.8	7,648	12.6	17,547	14.1	65,472	15.9
35,000 – 49,999	452	26.1	14,134	23.3	28,210	22.6	89,834	21.8
50,000 – 74,999	525	30.3	14,372	23.7	27,845	22.3	81,270	19.8
75,000 – 99,999	261	15.1	6,531	10.8	10,261	8.2	25,773	6.3
100,000 +	79	4.5	4,291	7.1	6,979	5.6	18,391	4.5
Total	**1,733**	**100.0**	**60,615**	**100.0**	**124,692**	**100.0**	**411,387**	**100.0**

Source: 1990 US Census.

Table III-7 shows the most recent data available for median family, median household, and median per capita income for individual municipalities, Hillsborough County and the State. New Hampshire had the ninth highest per capita income at $28,047 and the NRPC region demonstrates higher incomes than the State overall. The median family income in Litchfield was sixth highest in the NRPC region and is $10,000 higher than the State.

TABLE III-7

LITCHFIELD, NRPC REGION, AND STATE OF NH

MUNICIPALITY	Median Family	Median Household	Per Capita
Litchfield	**$52,438**	**$49,946**	**$16,592**
Amherst	$66,491	$55,858	$25,778
Brookline	$57,372	$55,858	$19,564
Hollis	$68,096	$64,351	$26,005
Hudson	$50,714	$47,859	$17,678
Lyndeborough	$46,250	$42,208	$16,690
Merrimack	$55,844	$52,798	$19,129
Milford	$43,628	$38,792	$16,547
Mont Vernon	$52,740	$49,650	$19,273
Nashua	$46,614	$40,505	$18,010
Pelham	$51,147	$50,187	$17,715
Wilton	$39,402	$36,098	$16,935
Hillsborough County	$46,249	$40,404	$17,404
State of NH	$41,628	$36,329	$15,959

Source: 1990 US Census.

Table III-8 shows significant median household income growth for 1980 to 1990. There was a 119 percent increase from 1980, although 77 percent of income growth is attributable to inflation. The 28.3 percent real growth in income for the ten-year period does represent sizeable increases in resident income of 2.8 percent per annum. During this period Litchfield incomes grew slightly more than adjoining communities.

TABLE III-8

MEDIAN HOUSEHOLD INCOME GROWTH

NRPC REGION, 1979-89

	1980	1990	% Change	Inflation Adj. 1990	Inflation Adj. % Change
Litchfield	**$22,785**	**$49,946**	**119.2**	**$29,243**	**28.3**
Amherst	$30,575	$62,568	104.6	$36,633	19.8
Brookline	$22,545	$55,858	147.8	$32,704	45.1
Hollis	$25,463	$64,351	152.7	$37,676	48.0
Hudson	$22,511	$47,859	112.6	$28,021	24.5
Lyndeborough	$19,906	$42,208	112.0	$24,712	24.1
Merrimack	$24,756	$52,798	113.3	$30,912	24.9
Milford	$17,368	$38,792	123.4	$22,712	30.8
Mont Vernon	$21,607	$49,650	129.8	$29,069	34.5
Nashua	$19,285	$40,505	110.0	$23,715	23.0
Pelham	$22,875	$50,187	119.4	$29,384	28.5
Wilton	$15,793	$36,098	128.6	$21,135	33.8
NRPC Region	$22,122	$49,235	122.6	$28,826	30.3
State of NH	$17,013	$36,329	113.5	$21,270	25.0

Source: US Decennial Censuses.

POVERTY

New Hampshire consistently has among the lowest poverty rates in the nation. According to the U.S. Census in September 1998, the 1996-1997 poverty rate increased to 7.7 percent, although the State retains the lowest ranking for percentage of persons in poverty. The Nashua region has low poverty rates compared with the State. Table III-9 presents 1997 U.S. Department of Housing and Urban Development figures showing the dollar incomes in the Nashua PMSA classified as low and very low family incomes according to the number of persons per household. The 'very low' category represent 50 percent of median family incomes and 'low' family incomes represent 80 percent of the median family incomes in the Nashua PMSA. In 1990 in Litchfield about one quarter, or 420 households, earned less than $35,000 per year. Approximately 75 households, four percent, earned less than $15,000 per year.

TABLE III-9
VERY LOW & LOW MEDIAN INCOME THRESHOLDS BY FAMILY SIZE,
NASHUA PMSA, 1999

Nashua PMSA	1 Person	2 Person.	3 Person	4 Person	5 Person	6 Person	7 Person	8 Person
Very Low Income	$21,550	$24,650	$27,700	$30,800	$33,250	$35,750	$38,200	$40,650
Low Income	$33,450	$38,250	$43,000	$47,800	$51,600	$55,450	$59,250	$63,100

Source: HUD, March 1999.

HOUSING

Housing and associated infrastructure constitute a significant part of the economic base of Litchfield. In conjunction with the historical trend for population growth in southern New Hampshire, there were significant increases in the supply of housing in the NRPC region over the last 25 years. It is reasonable to expect that development of additional housing will continue. More uncertain is the extent to which changes or market inefficiencies are occurring in the regional economy due to housing supply shortfalls caused by population growth.

Owner-occupied housing also represents a major capital investment and housing markets have significant links and influences on other parts of the economy. According to the NH Housing Finance Authority in 1996, 68 percent of State residents own their own home, while the rate for Hillsborough County is a slightly lower 64 percent. In the absence of an adequate supply of affordable housing, people may not be able to remain within a community, they may be forced to pay extraordinary portions of income for housing, and potential migrants may experience difficulty relocating to or within the region.

State and Regional Housing Market

The Regional Housing Needs Assessment by the Nashua Regional Planning Commission in 1999 analyzed the need for housing for people of all income levels. The document shows that the NRPC region housing market is the most constricted in the State. For example, in 1990 while vacancy rates for owner and renter occupied housing were 18 percent statewide, Hillsborough County had rates of eight percent and greater Nashua showed vacancies of six percent. According to NH Housing Finance Authority 1998 data, since 1994 Nashua PMSA rental housing vacancy rates declined from four percent to less than one percent in 1998. Since vacancy rates in the owner-occupied market are probably more restricted in the NRPC region than statewide, home ownership opportunities would also appear less favorable. The NRPC Housing Needs Assessment concluded that many households with 44 to 76 percent of median income paid in excess of 30 percent of their annual incomes for housing -- this is an indicator

that people may be shelter poor, meaning that they are paying a disproportionate amount of income to secure housing.

Litchfield Housing Supply Growth

Housing growth experienced the greatest rates of expansion between 1970-79, peaking during the 80s. Over 65 percent of the housing stock in Litchfield was built between 1960-1980 with approximately 44 percent of units constructed during the 1970s.

With nearly 1.1 percent annual growth in housing since 1989, there was 8.6 percent growth in housing in the Nashua Region through 1998. The rate of growth in Litchfield was significantly higher than that for the NRPC region. Table III-10 shows housing growth in Litchfield based upon building permits issued. The 3.3 percent annual growth for this period is second in the NRPC region. Between 1990 and 1998, 488 building permits were issued according to Building Inspector records. The rate of growth averaged 54 permits issued annually from 1992 to 1997.

TABLE III-10
LITCHFIELD HOUSING GROWTH 1990-1997

Year	New Units	Total Housing Units
1990	56	1,845
1991	91	1,936
1992	58	1,994
1993	39	2,033
1994	65	2,098
1995	56	2,154
1996	40	2,194
1997	66	2,260
1998	73	2,333
Average	60	NA

Source: Annual Town Reports.

From 1990 to 1997 Litchfield had one of the largest proportional increases in residential building permits in the NRPC region. There is little reason to expect declines in demand for residential units in Litchfield in the future; rather, the community appears to face significant growth pressure. Construction of the Circumferential Highway in southern Litchfield, the Manchester Airport Access Road near the northern boundary with Manchester, development of new local school facilities, and a buoyant economy will likely result in increased pressure to develop new residential units.

EMPLOYMENT & ECONOMIC BASE OF THE NASHUA REGION & NEW HAMPSHIRE

The NRPC region economy is high tech and service sector based with relatively large numbers of persons employed in manufacturing. A recently robust economy has resulted in high rates of regional labor force participation and is exemplified by low unemployment and steady or increasing wage rates.

Over the last quarter century the region demonstrated job growth across all industries, particularly in the service sector and trade; however, the recession in the late 1980s resulted in job losses, particularly in manufacturing. The declines in regional manufacturing employment were less than what occurred at the State and national level.

Table III-11 shows the ten most common sub-areas that Litchfield residents traveled to for work in 1989, the most recent data available. The NRPC region and Manchester are major work destinations for Litchfield residents. There is potential for longer journeys to work based on nationwide increases in vehicle miles traveled, peoples' willingness to travel longer, and perceived advantages of living in New Hampshire. It may be assumed that distances residents commute will continue increasing unless there are changes in employment, travel and housing patterns.

TABLE III-11
JOURNEY TO WORK COMMUTING DESTINATIONS FROM LITCHFIELD
FOR THE LITCHFIELD RESIDENT WORKFORCE IN 1989

	Journey to Work Location Destination from Litchfield	In 1989	Percent of all work trips
1.	Nashua	762	25.2
2.	Manchester	549	18.2
3.	Hudson	462	15.3
4.	Lowell & Lowell Area	214	7.1
5.	Greater Boston	183	6.1
6.	**Litchfield**	**171**	**5.7**
7.	Derry/Londonderry	162	5.4
8.	Merrimack	116	3.8
9.	Goffstown	112	3.7
10.	Haverhill & Lawrence	88	2.9
	Sub-total for 10 most common journey to work destinations	2,819	93.4
	Percent of Journeys to Work to Adjoining Places or Nashua	2,421	73.4
	Total Trips	3,018	100.0

Source: US Census 1990.

Sectoral Distribution of the Area Workforce and Economic Productivity

A traditional method of tracking employment and productivity is according to industrial classifications, known as the Standard Industry Classification (SIC) codes defined by the U.S. Department of Labor. Two sources of employment and earnings information categorized by SIC for places are the NH Division of Employment Security, hereafter NHES, payroll tax statistics and the decennial U.S. Census data.

Table III-12 shows the jobs break down by economic sub-sector for the Nashua PMSA and the state for the 542,000 private industry and government jobs in 1996. The ten economic sectors identified in the table represent the most common way of classifying the main types of economic activity based on payrolls and the aggregate business activity characteristics. Most, 92 percent, of the 86,000 PMSA jobs were in private industries. The largest part of employment in the Nashua PMSA in 1996 was in

manufacturing sectors at 31 percent. This compares with 28 percent of State sectoral employment in the service sector. Manufacturing employment accounted for nearly 27,000, or 31 percent of jobs, retail trade accounted for just over 19,500 jobs, or 23 percent, and Services accounted for 17,500, or 20 percent of all Nashua PMSA jobs. Together these three sectors account for more than 75% of all employment in the region.

TABLE III-12
INDUSTRY EMPLOYMENT IN NEW HAMPSHIRE & THE NASHUA REGION
GROUPED BY MAIN SIC SECTORS – 1996

Two Digit SIC Sector	NH	NRPC Region
Agriculture, forestry, fisheries & mining (01-14)	4,923	667
Construction (15-17)	20,221	2,741
Manufacturing – nondurable goods (10-22)	32,743	20,788
Manufacturing -- durable goods (23-39)	71,539	6,200
Transportation, Commun. & Public Utilities (40-49)	19,127	2,159
Wholesale trade (50-51)	26,695	3,726
Retail trade (52-59)	116,258	18,166
Finance, insurance, and real estate (60-67)	27,961	3,300
Services (70-89).	150,405	20,919
Public administration (99).	71,281	7,469
Total	**541,153**	**86,135**

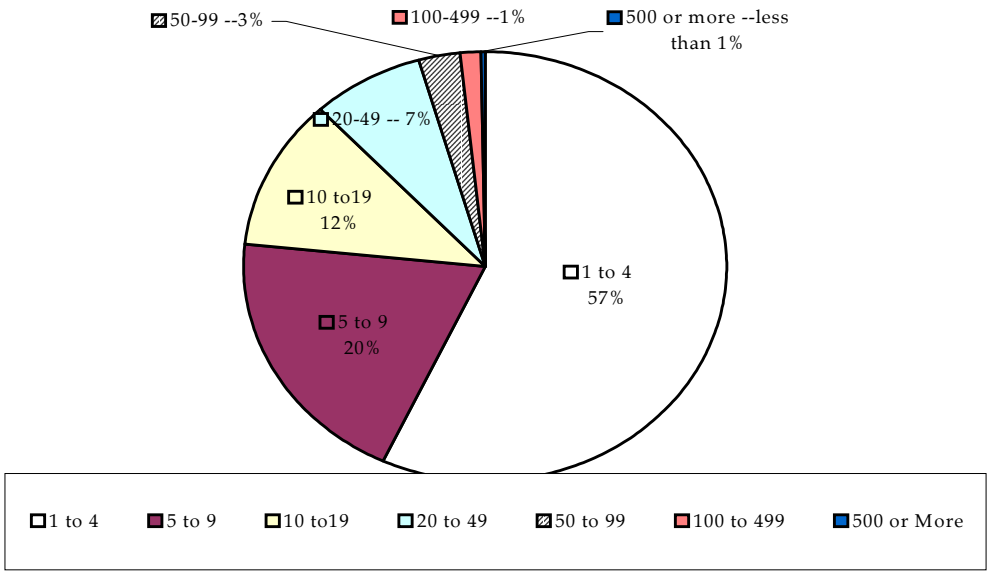
Source: NHES, 1998.

For comparison, five years earlier in 1991 there were 81,500 jobs in the Nashua PMSA. At that point, manufacturing employment accounted for 29,000 jobs (or 36 percent), trade accounted for 19,500 jobs, (24 percent), and services accounted for 17,500 jobs, (21 percent). Together these three sectors accounted for 80% of all employment. In the five years 1991 to 1996 there was five percent job growth despite residual effects of the early nineties recession, and some 2,000 jobs lost in manufacturing.

The NRPC region accounts for more than one fourth of all manufacturing jobs statewide. The NRPC regional manufacturing base represents more than one third of all industrial and commercial machinery and manufacturing jobs and half of statewide employment in instrument manufacturing. The largest part of all manufacturing jobs was in the durable goods sector, which produced goods with a useful life of three years or more.

Figure III-2 shows the distribution of different size firms in the State of New Hampshire in 1997. Ninety eight percent of firms have less than 50 employees. By far and away most firms, 77 percent, very small businesses. Figures on firm size are not available for the region; however, it is reasonable to assume that many regional jobs are associated with very small businesses since national statistics reflect this trend.

FIGURE III-2
Distribution of 1997 NH Firms -- by Number of Employees



Source: NHDES, 1998.

Largest Employers in the Region

Table III-13 shows the 15 largest employers in the Region in 1996. The more than 20,000 employees comprise a workforce employed in a variety of sectors concentrated around manufacturing of electronics such as computer parts and precision instruments. Together these 15 employers represent nearly a quarter of the total area employed workforce for the NRPC region.

TABLE III-13
NASHUA REGION LARGEST EMPLOYERS
PUBLIC & PRIVATE ORGANIZATIONS IN 1995

	Firm Name	Employs	Product or Service
1.	Digital Equipment (Compaq Corporation)	5,069	Computers and systems
2.	Sanders- A Lockeed Martin Co.	4,300	Electronic systems and components
3.	Nashua School District	1,500	Education
4.	Southern NH regional Med. Center	1,400	Health care
5.	Teradyne Connection Systems, Inc.	1,100	Circuit Bd test/connection sys.
6.	St. Joseph Healthcare	1,055	Health care
7.	Oxford Health Plans	900	Health plan provider
8.	City of Nashua	750	Municipality
9.	Hitchiner Manufacturing Corp.	715	Investment casting
10.	Fleet Bank – NH	697	Financial Services
11.	Nashua Corp.	677	Business materials manufacture
12.	Lockeed Martin Commercial Electronics	611	Elec.equip contract manufacture
13.	Merrimack School District	600	Education
14.	Kollsman, Inc.	540	Avionics electro-optical
15.	Anheuser-Busch	500	Beer brewing
	TOTAL	**20,414**	

Source: Greater Nashua Center for Economic Development.

A 1991 Mt. Auburn Associates study notes that much of the regional job growth in the early 1980s was attributed to two firms: 1) Sanders (now Lockheed-Martin), and 2) Digital Equipment Corp. (now Compaq Corporation). The study noted that the two firms do not have strong ties to the region, such as headquarters based in greater Nashua that may influence the permanence of jobs in the result of industry change or economic recession. A decade later these firms continue as the largest employers, although both were involved in mergers with multinational corporations.

The economic status of large employers is of concern because of the many links with other area businesses. The hiring and fiscal practices of these firms may have a noticeable impact on the regional economy, such as labor supply and demand. Similarly, clusters of other businesses may arise in activities that complement or are related to the industries in which these very large firms concentrate while other businesses may be sustained by providing goods and services to these employees of these firms.

INDICATORS OF ECONOMIC GROWTH AND CHANGE

Private Industry Development

Telecommunications, software, healthcare and computer technologies are typically referred to as growth industries in New Hampshire. Continued growth in these industries is expected because the growth and spread of new high technologies.

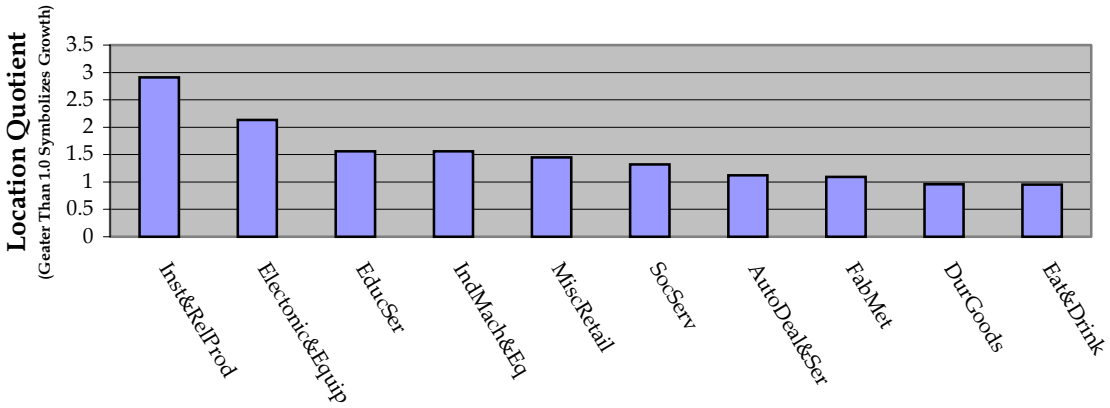
Location Quotient Analysis

Location quotients are a quantitative tool used to identify competitive advantages of geographic regions. Figure III-3 shows the leading industries in New Hampshire in 1995 as listed in the 1998 State Development Plan prepared for the Governor by the Office of State Planning and the Whittemore School of Business and Economics, University of New Hampshire. Larger numbers represent subsectors with very high levels of employment unique to New Hampshire when compared with employment in the U.S.

overall. Instruments and related products and electronic equipment have the two highest location quotients. In 1996 these two subsectors had $218 and $130 million of exports respectively, only surpassed by industrial machinery exports at $502 million.

FIGURE III-3

NH Leading Industries in 1995



Source: OSP, et al; 1995.

High technology firms represented four of the top five fastest growing New Hampshire-based private companies ranked according to gross sales revenues by Business NH Magazine in 1998. By comparison, the largest private firms in the State consist of medical centers, auto dealers, manufacturers, realtors and construction concerns. Fifty-nine of the 100 largest private firms are in what the magazine classifies as the Merrimack River Valley. This further confirms the growth and change over to high technology in southern New Hampshire. Similarly, in the 1998 State Development Plan above, in a ranking of leading industries based on factors including the number of establishments, the average annual pay, and employment, Hillsborough County led all Counties with ten leading industries, three ahead of the second highest, Strafford County.

Further evidence of economic growth and change in the NRPC region is the large number of firms expanding and locating around Litchfield. The 1998 New Hampshire Economic Review by Public Service of New Hampshire listed 27 new firms locating in New Hampshire and 29 firms undertaking major expansions in 1997. Combined the expansions represented over 5,000 jobs. Twenty-three occurred in municipalities adjacent to Litchfield or in the City of Nashua including:

- Fidelity Investment expansion in Merrimack (650) jobs;
- Insight Technology in Londonderry (100 jobs);
- Lockheed divisions in Hudson and Nashua (150 jobs); and
- Delta Education in Hudson (170 jobs).

Occupations and Labor Force

The current state and regional labor environment is one of high demand for skilled workers, very low unemployment and stable, but slightly increasing wages. Unemployment in the fall of 1998 was the lowest in nearly 30 years according to a lecture by an Economist from Fleet Bank at a State OSP

conference in Manchester in November, 1998. Labor force participation rates are also the highest in recent history. A lack of workers may actually be a factor contributing to near zero growth over the period fall 1997 to fall 1998 period

Table III-14 shows the average annual wage for all employees in the State and for the basic economic sectors in 1996. The average weekly wage of all employees was $624 in private industries and $623 in a combined category of private industries and government. On a per annum basis this equates to $32,400. The region's highest wages were in Manufacturing industries with an average of $869 for Durable and Nondurable sectors. Another notably high average wage was in Wholesale Trade sector at $848. The lower averages were Services at $545 and the Retail Trade sector at $312.

TABLE III-14
INDUSTRY WEEKLY WAGES IN NEW HAMPSHIRE AND THE NASHUA REGION
GROUPED BY MAIN SIC SECTORS – 1996

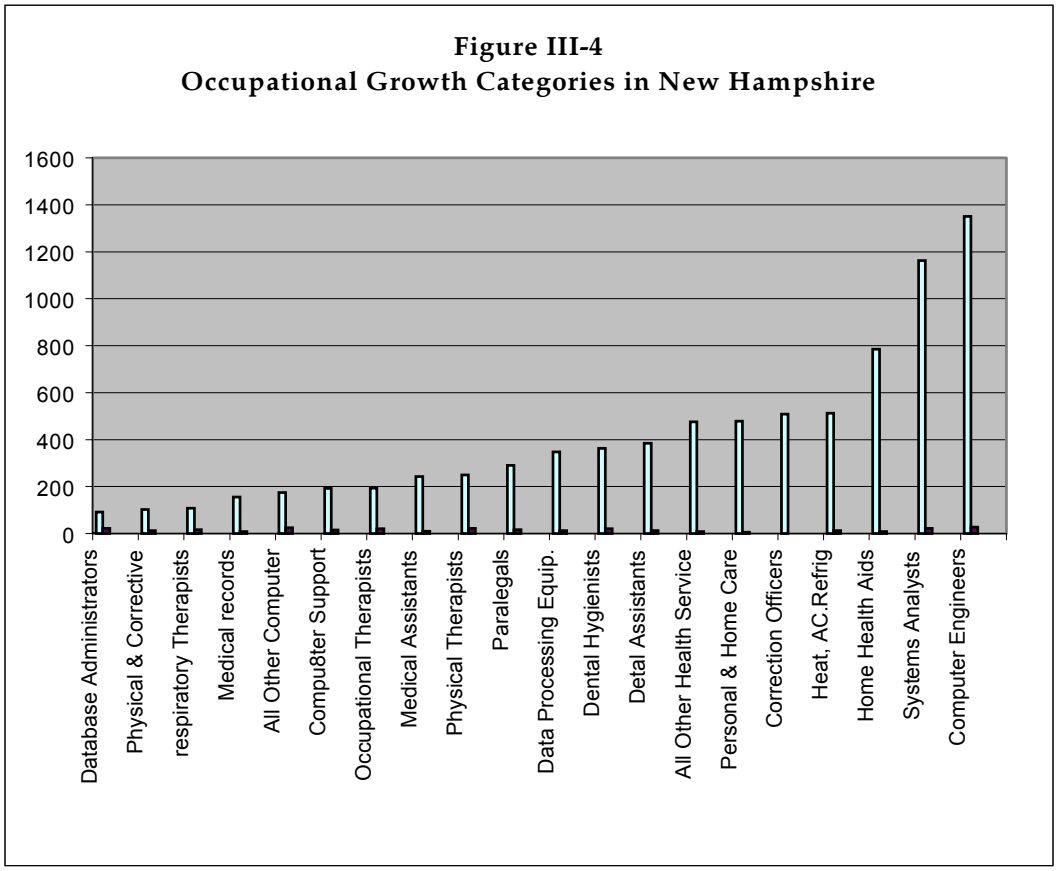
Two Digit SIC Sector	NH	Nashua Reg.
Agriculture, forestry, fisheries	352.24	367.50
& mining (01-14)	642.21	889.71
Construction (15-17)	577.86	637.32
Manufacturing -- nondurable goods (10-22)	626.89	770.94
Manufacturing -- durable goods (23-39)	733.29	898.74
Transportation, Commun. & Public Utilities (40-49)	660.66	548.23
Wholesale trade (50-51)	815.20	848.31
Retail trade (52-59)	298.87	312.26
Finance, insurance, and real estate (60-67)	676.95	658.49
Services (70-89).	498.53	544.79
Public administration (99).	538.15	617.76
Average	**532.15**	**623.37**

Source: NHES, 1998.

One reason for the attention to the manufacturing sector of regional employment is the high average weekly and hourly wages. The 1997 New Hampshire Economic Review by Public Service of New Hampshire listed the average manufacturing wages in Nashua of $14.79 per hour as $2.00 per hour higher than comparable wages at the State or National level.

Figure III-4 shows occupations projected to grow in the New Hampshire (NHDOL, 1996). Occupational growth appears grouped around trades in health care (for example home health aides, dental assistants and respiratory therapists) and computer science (such as computer engineers, systems analysts, and database administrators). The computer sciences tend to carry much higher wages on average. The wages for computer sciences are commonly more than $20 per hour ($41,600 per annum).

Figure III-4
Occupational Growth Categories in New Hampshire



Source: NH Department of Labor, 1996.

Unemployment

Unemployment in the region is at the lowest average rate in a quarter century. Due to high demands for workers by area employers, many people not previously participating in the labor force are reentering the workforce. Table III-15 shows Litchfield and regional unemployment in detail. Litchfield unemployment generally runs less than the State and U.S. There is concern that State and regional economic production can not grow without an adequate labor supply. Currently there are very low levels of unemployment claims. This probably means that people laid-off in the last six to nine months most likely had quick success in locating new jobs.

TABLE III-15
LABOR MARKET SUMMARY
LITCHFIELD, NASHUA PMSA, STATE OF NEW HAMPSHIRE, NEW ENGLAND, USA

					Unemployment Rates				
Year	Litchfield Town Labor Force	Number Unemp.	Nashua PMSA Labor Force	Number Unemp.	Litchfield	Nashua PMSA	NH	NE	US
1988	3,038	38	99,850	2,800	1.3	2.8	2.5	NA	NA
1989	3,067	82	98,980	3,690	2.2	3.7	3.4	NA	NA
1990	3,393	113	101,380	6,180	3.3	6.1	5.6	5.7	5.5
1991	3,356	172	100,730	7,360	5.1	7.3	7.2	8.0	6.7
1992	3,446	196	97,260	6,940	5.7	7.1	7.5	8.0	7.4
1993	3,598	193	97,510	6,580	5.4	6.7	6.6	6.8	6.8
1994	3,645	159	95,390	5,090	4.4	5.3	4.6	NA	6.1
1995	3,610	140	96,380	4,310	3.9	4.5	4.0	NA	5.6
1996	3,660	140	95,300	4,020	3.9	4.2	4.2	NA	5.4
1997	3,860	100	101,760	2,820	2.7	2.8	3.0	4.2	5.2

Source: Local Area Unemployment Statistics Report, NH Department of Employment Security.

Litchfield Employment and Economic Base

By any measure, be it total employment wages or estimated number of local private firms and employing organizations, Litchfield's economic base constitutes a small part of the regional economy. In 1996, 850 employees were listed by organizations making payroll tax contributions to the Social Security wage pool maintained by NH Employment Security. The set includes 61 private firms with Litchfield addresses employing 670 persons. There were also 185 government employees, all at the local level, in schools and Town government. Compared with the State and NRPC region, Litchfield has a higher percentage of jobs in the public sector. Not included in the counts are agricultural workers on small farms, commission paid realtors and church employees. Noteworthy is that the 850 employees in 1996 represented a near doubling of the prior year employment of 463 employees.

In addition to the 850 jobs identified through payroll tax reporting, there are home based business and sole proprietorships, such as self-employed persons. According to a Winter 1998 list maintained by the Planning Board, approximately 12 home-based businesses have obtained Planning Board approval. It is also estimated that there are 25 to 50 firms or sole proprietorships, many located in residential dwellings, that employ upwards of 85 people, but which do not require Planning Board approval to operate. Finally, there are part-time seasonal workers employed at local farms.

Combining different data sources and windshield survey information, there are roughly 125 to 175 different entities that employ persons or conduct a business enterprise with a visible physical presence in Litchfield. Based on this information, a rough estimate of the Litchfield employment base is 950 to 1,050 persons. With 1,000 employed people in Litchfield, it is further estimated that a quarter to one fifth of residents who participate in the regional workforce are employed right within Town. Put more simply, one quarter of local jobs are held by residents of the community.

Business Base

Businesses in Litchfield are primarily very small, averaging perhaps ten employees based on the Employment Security figures above. A 1997 American Business Directory search performed by the GNCED of private employers reporting Litchfield addresses shows that of 94 businesses, 87 percent had sales less than $1 million dollars. Table III-16 shows the top 10 largest employers in Litchfield.

TABLE III-16

LARGEST EMPLOYERS -- LITCHFIELD, NH, 1997

Establishment	LINE OF BUSINESS
Klarmann Rulings, Inc. Charles Bancroft Highway	Reticles/Optics – Manufacturers 20-49 Employees
Litchfield Middle School McElwain Drive	School 20-49 Employees
New England Small Tube Corp. Charles Bancroft Highway	Tubing/Metal – Wholesale 20-49 Employees
Passaconaway Country Club Midway Avenue	Public Golf Course 20-49 Employees
Shorty's Mexican Roadhouse Charles Bancroft Highway	Restaurant 20-49 Employees
Kon-sult inc. Birch Street	Calibration Devices–Manufacturing 10-19 Employees
Dlb Paving Co. Pinecrest Road	Paving Contractors 10-19 Employees
New China Restaurant Charles Bancroft Highway	Restaurant 10-19 Employees
Litchfield Police Department Liberty Way	Police Department 10-19 Employees
Wilson Farms of NH, Inc. Charles Bancroft Highway	Agriculture/Farm 10-19 Employees

Source: American Business Directory, 1998.

Other Litchfield Employment, Wage, and Occupational Trends

Of the 3,072 persons in the Litchfield labor force according to 1990 Census, the top five of 14 occupations people were employed in were:

- Professional specialty occupations (550)
- Sales Occupations (504)
- Technical and related support (440);
- Executive, administrative and managerial occupations(405), and
- Precision production, craft and repair occupations (377)

REAL ESTATE AND INFRASTRUCTURE

Real property values, tax rates and commercial real estate show how commerce relates to the economy and public sector finance. While preliminary information is provided for background at this stage of the report, it is important to emphasize that another chapter is provides in-depth analysis of commercial development potential and the fiscal impacts and feasibility of different development strategies.

The 1997 Litchfield tax rate for all land uses was $25.84 per $1,000 assessed value. Eighty percent of tax assessments are allocated to the school system. Over the last few years tax rates demonstrated small increases in Litchfield. The figures are not indexed to inflation, and it is likely that a part of the tax increases can be attributed to inflation.

Taxes in Litchfield are comparable to those of bordering municipalities and other places in the region. Table III-17 shows the adjacent city and town tax rates.

TABLE III-17

1997 AREA PROPERTY TAX RATES

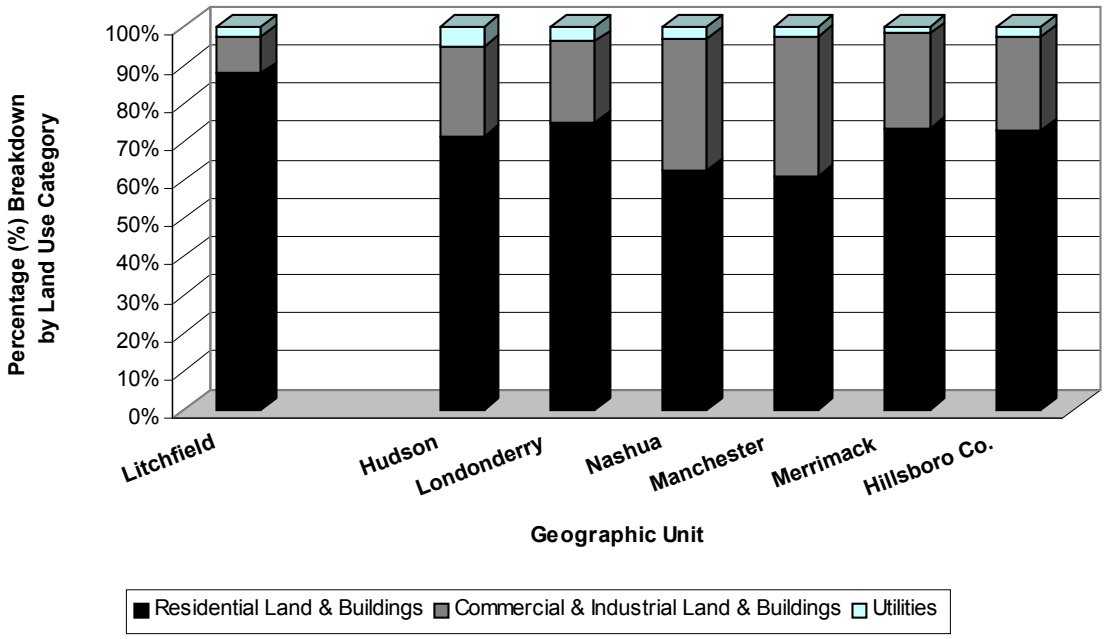
Place	Tax Rate (in Dollars)
Litchfield	**$25.84**
Hudson	$25.17
Londonderry	$38.18
Manchester	$31.16
Merrimack	$31.11
Nashua	$29.10
Hillsborough County	$28.27

Source: Annual Reports, 1998 and NHDOR, 1998.

Figure III-5 shows tax assessments from residential (land and buildings), versus commercial (land and building), and utilities in cities and towns adjacent to Litchfield for 1997. In Litchfield a large part, 84%, of tax revenues emanate from residential uses. This is 13 percent higher than Londonderry and 12 percent higher than Merrimack, municipalities with the next highest residential tax burdens.

FIGURE III-5

Gross Property Assessments Breakdown by Land Use Categories, 1997
Litchfield, Adjacent Communities & Hillsborough County

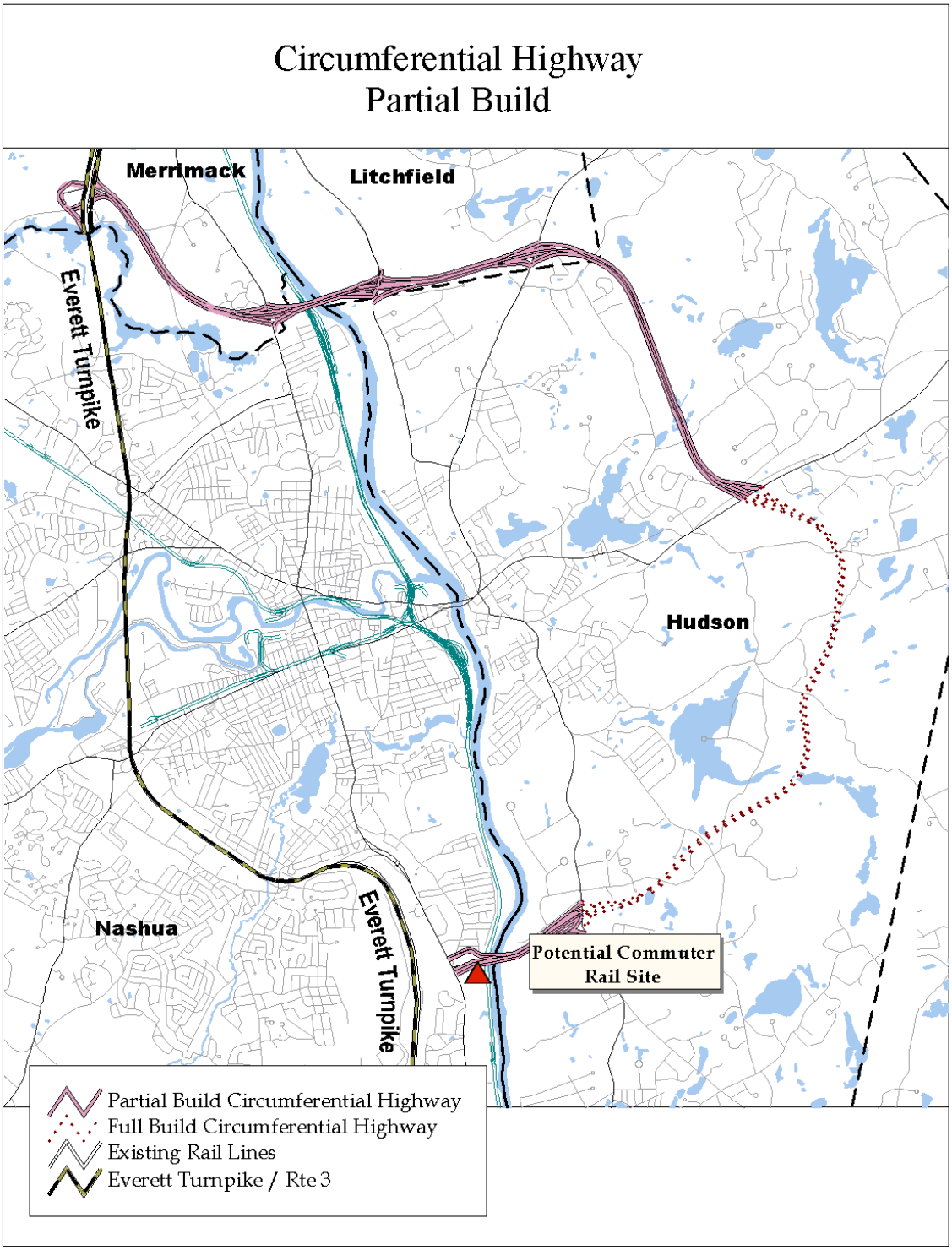


Source: 1997 Annual Town Reports

Notes:

1) Information is not equalized by NH DRA.
2) Residential Land and Buildings does not contain manufactured housing.
3) Current use data is not included in any category.

MAP III-1


Circumferential Highway
Partial Build
Merrimack
Litchfield
Everett Turnpike
Hudson
Nashua
Everett Turnpike
Potential Commuter Rail Site
Partial Build Circumferential Highway
Full Build Circumferential Highway
Existing Rail Lines
Everett Turnpike / Rte 3

Commercial Geography of Litchfield

Greenhouses at Rodonis Farm, just north of where the Circumferential Highway will join Route 3A.

The geographic centers of Litchfield commerce are NH Routes 3A and Route 102. Route 3A business consists of agriculture, such as nurseries, farm stands, and self-pick berries; recreation and amusements; restaurants; and convenience businesses. Route 102 consists of service, professional and convenience businesses with some light industrial uses.

The Regional Commercial/Industrial Real Estate Market

Descriptions of the commercial real estate markets in the Nashua region are available in the Greater Nashua Regional Chamber of Commerce annual reviews. The 1994 review characterized real estate markets in southern New Hampshire as volatile with booms and busts. One remnant of industrial development in the central cities of the region is a large supply of mill type industrial space. Population growth over the last 25 years also stimulated real estate development. A consequence of the late 70s and early 80s boom economy was over-investment in real estate. According to the Mt. Auburn Associates 1993 study, the 90s recession was actually influenced by extensive real estate speculation and overbuilding.

Today, commercial real estate markets are strong and a large part of the total real estate valuation for the State is in southern New Hampshire. Estimated 1996 commercial real estate sales values for the Nashua region totaled $281 million compared with $279 million residential. The 1997 Chamber review notes that sales volumes in the region are higher than would be expected for its 15 percent share of State population. The dollar volume of transactions also increased disproportionate to population. One area demonstrating the highest commercial real estate values is in south Nashua adjacent to Route 3 and the Massachusetts border. Low interest rates are another factor contributing to strong markets. In 1998 the Federal Reserve of Boston noted that an economic slow down from mid-1997 to mid-1998 in New Hampshire may be attributable to a tight commercial real estate supply accompanied by high demand for such space.

Earlier in the 1990s regional real estate markets had more abundant supplies of vacant commercial facilities. From 1991 to 1993 prices for Class A office space hovered at $13.00. From 1990 to 1995 the vacant office space inventory was approximately 1,000,000 square feet and vacancy rates were typically close to 15 percent. Office of Business and Industrial Development figures on the sale price of industrial parks ranged from $35 to 85,000 per acre. By 1996, markets were more constricted and prices were inflated, especially Class A offices. Even with the higher prices localities such as Nashua provide cheap alternatives to higher priced markets. In 1996 Class A office space was half of that along Route 128.

By most accounts, regional commercial real estate markets are now quite active. Commercial occupancy rates are 90 to 95% depending on the type. According to the 1998 Chamber review, office/warehouse space is leasing at $4.25 per foot and Class A office space is leasing at $12.00 to $16.50 per square foot. Average commercial property costs appear to have increased into the range of $65,000 to $100,000 plus per acre. Assertions that the regional real estate market is entering another boom are countered with the point that real estate finance and investment patterns are fundamentally different than a decade earlier, with less risk taking by lending institutions, and fewer real estate development concerns investing in speculative building.

Litchfield Commercial/Industrial Real Estate Market

The largest organic farm in New Hampshire is in Litchfield.

The commercial real estate market in Litchfield is not highly developed; however, urbanization is expected to continue. Development of vacant land and conversion of farmland in the community has been a consistent trend. The result is primarily residential development; with a few commercial developments such as a golf course on Route 3A and businesses/offices on Route 102. In 1996 the 168 local sales of all property types, valued at nearly $18 million, represented approximately three percent of NRPC region sales according to a 1997 report by the Greater Nashua Chamber of Commerce. With a seemingly low average price of $107,000 per sale, it appears that most transactions were home purchases, sales of vacant land, or low-grade commercial space.

It is difficult to characterize future commercial real estate development potential in Litchfield with accuracy; however, observation is useful. One node of commercial development is centered on Colby Road in the Northern Commercial district. Another is the Commercial 102 district in the south. Agriculture is predominantly located along the NH Route 3A. The main development in the Northern Commercial Industrial Service District is an earth excavation operation. All of the commercial, industrial and transitional zones contain large parcels that are undeveloped or which have quite low densities of existing development.

The majority of new development has been in the residential sector over the last 50 years.

There appears to be no Class A office space building stock and smaller amounts of lower class office/retail space in Litchfield. Therefore, developed sites in Litchfield could be expected to command lower rents than other subregions. Excluding farm buildings, most commercial uses in Litchfield consist of buildings built or retrofitted within the last 25 years. Usually the office and retail properties occur on small footprints, typically less than 5,000 square feet. More recent examples of commercial building development and redevelopment are: new and retrofitted retail and professional offices along 102 and upgrades to retail and service establishments on Route 3A. According to the Greater Nashua Chamber of Commerce in 1997, office space is commanding somewhat higher prices, $1-4 per square foot, in suburban locations. Evidence of somewhat strong demand for commercial real estate comes from a case involving commercial property in north Litchfield. The site became vacant when a bakery moved, but it was quickly reoccupied.

Local Infrastructure Development

One major factor that will present wider access to all areas of Town is new highway development in the north and south ends. Coupled with the robust regional real estate markets described above, highway development should enhance commercial and residential real estate potential.

The Manchester Airport and the Airport Access Road

A major regional public facility close to the northern border of Litchfield is the Manchester Airport. The airport is one of the largest general aviation facilities in New England. Manchester Airport Authority data presented in Figure III-6 shows that there have been consistent annual increases in the number of passengers that pass through the airport. There have also been large increases in the volume of cargo passing through the facility.

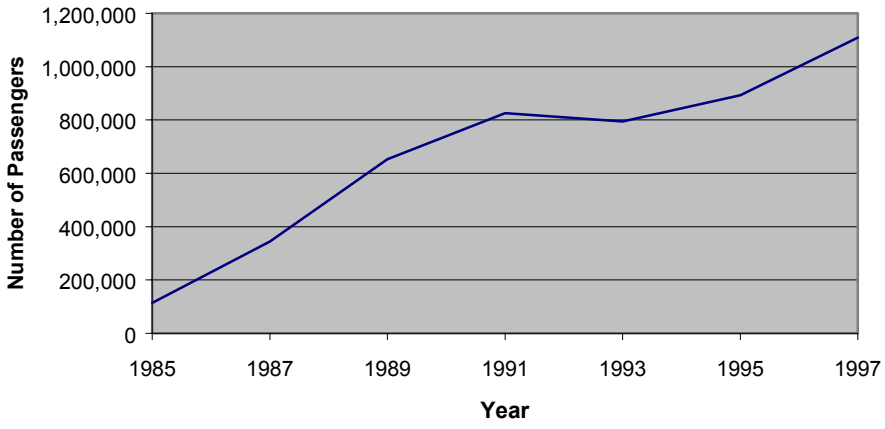
The Manchester Airport is the center of a high-technology industry concentration. The airport is in the process of receiving a major expansion.

Just over two miles from the northern commercial zoning districts, the Manchester Airport is a major regional resource.

The infrastructure at the airport will be enhanced with development of the planned Airport Access Road limited access highway. According to a 1997 New Hampshire Department of Transportation report, the highway will promote economic growth. There exists a unique concentration of business and industry around the airport and the highway will also open up a large area south of the airport to industrial development. According to Southern New Hampshire Planning Commission transportation planning staff, the estimated construction start for the road expansion is 2001 with tentative completion in 2005.

The airport expansion and the highway will present a potential impact and an economic opportunity for Litchfield. Currently, there is significant traffic congestion in the area around the airport. Development of the access road is expected to positively influence the market for industrial properties directly south of the Airport. While Litchfield lies beyond the industrial area that is expected to be most directly impacted south of the airport, aviation facility development and the highway expansion appear to provide significant increased commercial market potential in Litchfield. The Northern Commercial, Commercial/Industrial Service and Transitional zoning districts are within three to six miles of the airport. The existing development around the airport and the increased market potential establish growth pressure for the northern parts of Litchfield.

FIGURE III-6
Total Passengers at the Manchester, NH Airport 1985 to 1997



Conversely, there may be substantial change in the built-form and the visual appearance of the sub-area near the airport as a result of this development. For example, there is valuable wildlife habitat in north Litchfield along the Merrimack River. The river provides a remarkable ecological, scenic and recreational asset. With a lag time before development, this may provide an opportunity to institute appropriate growth controls to manage the visual appearance of the corridor between the airport and the commercial zones in Litchfield.

The Circumferential Highway

This major highway infrastructure project is scheduled in the State Ten-Year Transportation Improvement Program to break ground in 2001 with completion in approximately 2008. The project will provide a bridge over the Merrimack River and will connect Litchfield to Merrimack. Parts of Litchfield that will be most directly impacted are the Route 102 corridor, the southern part of 3A, and the Commercial/Industrial Service zoned land immediately to the west of the planned interchange and the Albuquerque Avenue extension.

The Route 102 corridor is congested with a mix of low-density residential and commercial uses. Its physical layout, such as many curb cuts, contributes to congestion. The Circumferential Highway should upgrade the commercial potential of the area.

Similarly, a ramp to the limited access highway connecting with Route 3A and southern Albuquerque Road should also enhance the regional access and commercial viability of this part of Town. A major issue to consider for this area is what adverse impacts may occur if farms go out of business and prime agricultural soils are converted to other uses.

CONCLUSION

In summary, there has been consistent long-term commercial real estate development in the region. Development of two new highways close to Litchfield will raise the local real estate market potential. In addition, residential growth in southern New Hampshire is expected to continue. This may be compounded by an increased incidence of people willing to locate in the region who then commute to

Massachusetts jobs. In 1989 this was the case for more than 6 percent of Litchfield's resident labor force. Finally, the Manchester Airport is a unique major commercial infrastructure resource located close to Litchfield that should stimulate increased local market demand.

A broad review of economic trends shows a high-order regional economy with generally good standards of living if judged by levels of crime, median per capita and family income. Litchfield is tied-into the larger regional economy around Nashua and Manchester. The NRPC region and the area adjacent to Litchfield have a substantial part of New Hampshire employment and development, particularly in high-technology business sectors. Plans to expand the Circumferential Highway, the airport, and the airport access road should increase the links between Litchfield and surrounding areas.

#610A-3

CHAPTER IV: LITCHFIELD COMMERCIAL BUILDOUT AND FISCAL IMPACT ANALYSIS

INTRODUCTION

The physical and economic landscape of Litchfield and the Nashua Region has changed dramatically over the last 50 years, as evidenced by large population gains and consistent regional economic expansion. Growth is expected to continue in Litchfield in the form of new development, although probably at a slower rate than in the late 1970s through the 1980s. If the past is a guide, most new development will be in the residential sector.

Build-out analysis and fiscal impact analysis are two tools available to forecast the future impacts of physical and economic development. Buildout analysis highlights natural physical constraints to development, combining these with existing land uses and policies to show how these factors promote certain land use patterns. The buildout analysis characterizes the future non-residential development potential in retail, commercial and industrial land use sectors. Fiscal impact analysis quantifies the public expenditures and revenues generated if all possible new commercial construction occurs according to the tax and development policies in effect today. The main question examined is whether tax revenues generated from new commercial development in Litchfield is adequate to pay for the services that such uses stimulate in demand. This analysis is preliminary and can be refined, as further data becomes available.

Understanding future fiscal conditions in the public sector is important to aiding the development of a sustainable and well-managed local economy. The main component of Town revenues in New Hampshire municipalities is property taxes. Litchfield's economic base is primarily residential -- 90 percent of the local property taxes generated in 1997 emanated from the housing sector. Residential development often creates more demand for public services than is generated in tax revenues. Non-residential development does not demand school services, but rather consumes other municipal services, particularly safety and public works.

One common response by municipal governments attempting to balance budgets is to stimulate non-residential development. Yet, a classic study in Duparge, Illinois in 1992 showed that the relationship between the impacts of land development and property taxes is unclear and incomplete. The study notes that contrary to conventional wisdom, in promoting non-residential development it is not clear that the result will be property tax benefits. Land use policy does not directly translate into land development, and the relationship between land development, property taxation, and fiscal equilibrium is uncertain.

EARLIER STUDIES

1988 Town Industrial-Commercial Development Committee Report

A 1988 study by the Town of Litchfield Industrial-Commercial Development Committee examined development potential in relation to the planned Circumferential Highway, the limitations of commercial and industrial zoned lands at the time, and the feasibility of extending sewer utilities into commercial zones. The study showed that 1980's real property base expansions, primarily in the residential sector, were not enabling the public sector to keep-up with the cost of providing services. One policy response was a series of tax increases to pay for public service provision. At that point, 80 percent of the property tax base was low-density single family homes. The new residential development was expensive to serve. Furthermore, in the 1980s Litchfield had among the lowest taxable valuations in the region. An outcome of the 1988 study was expansion of the commercial/industrial zones to the current zoning district boundaries.

In the decade since 1988 the trends continued, with the residential sector coming to represent 90 percent of the tax base. As Table IV-1 shows, Litchfield now has the eighth lowest total tax valuation in the NRPC region. The Planning Board 1999 Population and Housing Chapter of the Litchfield Master Plan and the 1999 Nashua Region Housing Needs Assessment by NRPC each provide evidence that the value of housing on a per unit basis has increased in Litchfield from the 1980s. It also appears that average housing prices increased at a higher rate than the region as a whole, and higher than the rate of inflation for the corresponding period.

TABLE IV-1

MUNICIPAL TAX VALUATIONS IN THE NRPC REGION

NRPC Municipality	Total Equalized Taxable Valuation	Percent	Rank
Litchfield	**$270,989,324**	**3.0**	**8**
Amherst	$695,709,021	7.7	4
Brookline	$184,666,153	2.1	9
Hollis	$514,585,128	5.7	6
Hudson	$1,086,149,509	12.1	3
Lyndeborough	$71,943,896	0.8	12
Merrimack	$1,241,190,280	13.8	2
Milford	$549,228,751	6.1	5
Mont Vernon	$98,456,360	1.1	10
Nashua	$3,702,147,763	41.2	1
Pelham	$507,314,387	5.6	7
Wilton	$72,515,774	0.8	11
Total	$8,994,896,346	100	-

Source: NH Dept. of Revenue Administration, June 1998.

1997 Residential Buildout Analysis

The Town of Litchfield Buildout Analysis (Litchfield Buildout Committee assisted by the NRPC, October 1997) examines the future potential for demographic, spatial and fiscal development. It determined the amount of available, developable, residential zoned land in Litchfield by examining physical constraints to development. Using geographic information system (GIS) analysis, two forms of development restrictions were quantified for residential zoned lands in Litchfield:

- Lands that are already developed; and
- Lands with physical constraints;
- Wetlands;
- 100-year floodplain.

Restricted lands were subtracted from the total land area in residential zones to determine the future developable land area. Findings were then used to project future potential population growth and housing development in Litchfield. The predicted future development patterns were also used to estimate the annual fiscal impact of new residential development at full-buildout.

The 1997 buildout analysis findings are useful for comparison with the analysis presented herein. The residential buildout was developed with the assumption that residences would carry all costs for new public services. In actuality, there are a limited number of commercial properties that provide tax revenues as well as consume public services.

The 1997 Buildout Study calculated a Developable Land Area (DLA) for all residential zones of 2,258 acres. With 2,253 residential units in 1996, it was extrapolated that at full buildout there was potential for an additional 1,550 to 1,806 residential units. The Town population in 1995 was estimated as 5,516 persons. It was projected that the population at buildout could range from 11,675 to 12,461 persons.

School spending in 1996 represented 80 percent of all municipal spending according to the Town of Litchfield, 1997 Annual Reports. The school tax appropriation in 1996 was $3,049 per residence. Depending on the future number of school pupils per residence, estimated between 0.575 to 0.840, school expenses were calculated to range between $3,049 to $4,453 per residence.

The 1997 Buildout Study calculated that all other local non-school expenditures for municipal and county government averaged $715 per household. The total local non-school spending in 1996 of $1,615,835 consisted of approximately 12 percent, or $1,029,032, for Town spending and seven percent, or $586,803, collected for County spending.

A main finding was that depending on the number of students per household and the number of new residential structures built, there is potential for deficit spending. Revenue shortfalls were predicted especially if more residential units are built and the higher-end of the range for number of new pupils per household is realized. The study also showed that preserving farmland from future residential development is likely to have a beneficial influence on fiscal conditions.

COMMERCIAL BUILDOUT ANALYSIS

Map IV-1 shows the Town zoning districts. In Litchfield, 2,100 acres, or 21 percent, of all lands are in existing commercial zoning districts. There are three main non-residential zoning districts in Litchfield that cover eight locations:

- Commercial/Industrial Service District, approximately 675 acres;
- Commercial Districts, approximately 850 aces, in three distinct zoning districts:
  - Highway Commercial District (Route 102),
  - Northern Commercial District;
  - Southwestern Commercial (Route 3A) District; and
- Transitional District, approximately 575 acres.

MAP IV-1

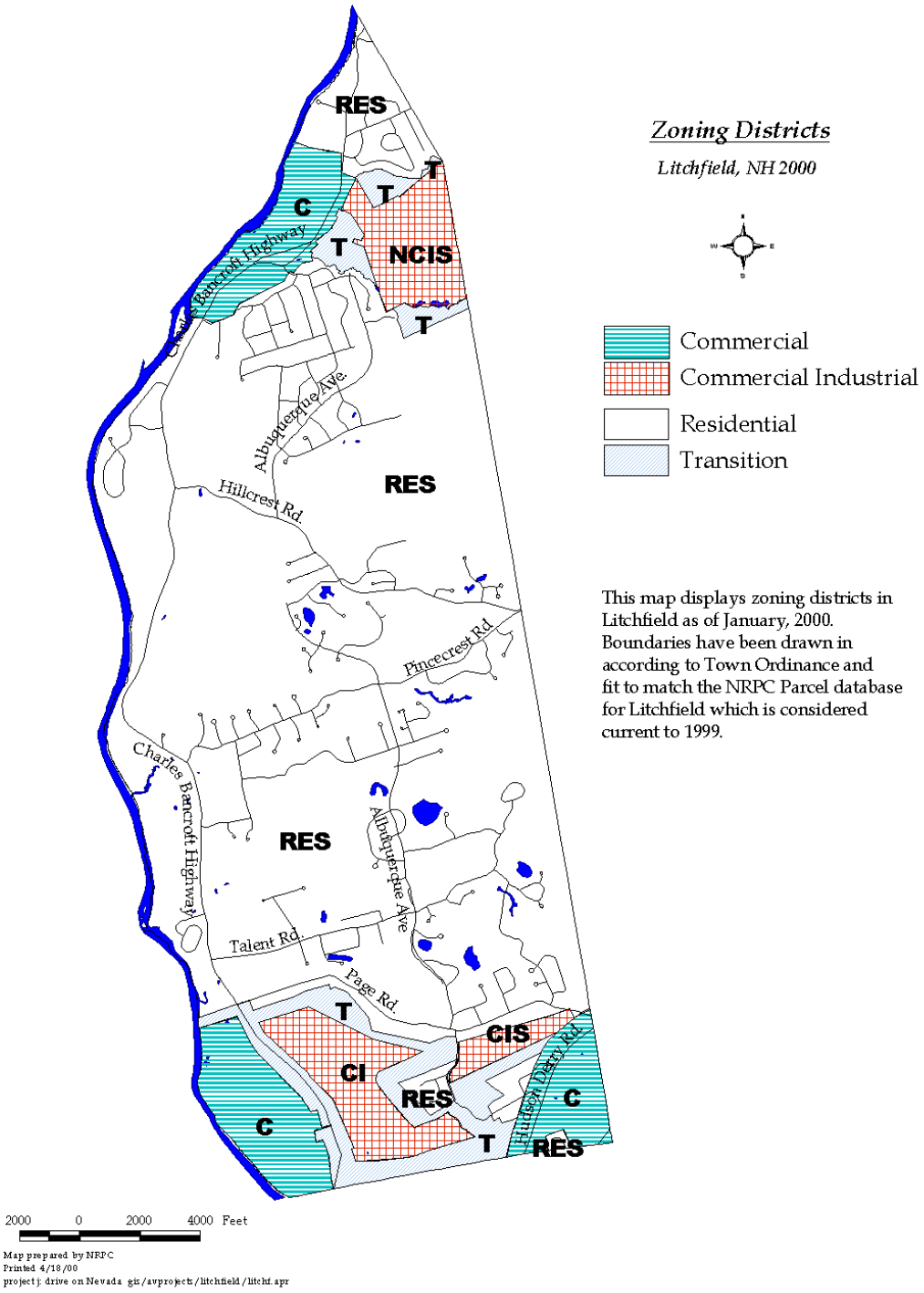

RES
T
T
C
T
NCIS
T
Charles Bancroft Highway
Albuquerque Ave.
Hillcrest Rd.
RES
Pinecrest Rd.
Charles Bancroft Highway
RES
Albuquerque Ave
Talent Rd.
Page Rd.
T
CIS
CI
RES
C
C
T
RES
Hudson Depot Rd.
2000 0 2000 4000 Feet
Map prepared by NRPC
Printed 4/18/00
project j: drive on Nevada gis/avprojects/litchfield/litchf.apr
Zoning Districts
Litchfield, NH 2000
Commercial
Commercial Industrial
Residential
Transition
This map displays zoning districts in Litchfield as of January, 2000. Boundaries have been drawn in according to Town Ordinance and fit to match the NRPC Parcel database for Litchfield which is considered current to 1999.

Table IV-2 provides an overview of permitted and special exception uses allowed within the commercial zones. Appendix 2 provides the actual text of the Zoning Ordinance for the Town of Litchfield (Amended March 1999) for the non-residential zoning districts.

TABLE IV-2
PERMITTED & SPECIAL EXCEPTION COMMERCIAL USES
LITCHFIELD ZONING ORDINANCE, MARCH, 1999

	Zoning Districts		
Type of Land Use	**Commercial**	**Transitional**	**Comm/Indus Service**
Bank & branch of financial service institutions	X		
Establishments offering goods for sale (retail)	X		
Restaurants (excluding drive-in)	X		X
Professional Office	X	X	X
Health care	X		
Personal services	X		
Hotels/motels	X		
Indoor theatres	X		
Recreational facilities and membership clubs	X	X	
Schools, nurseries and day care	X	X	
Funeral homes	X		
Research and testing labs	X		X
Agriculture	X	X	X
Gasoline sales	X		By Special Exception
Auto service and repair	By Special Exception		By Special Exception
Take-out/drive-in food	By Special Exception		By Special Exception
Retail sales of motor vehicles, supplies equipment	By Special Exception		By Special Exception
Warehousing	X		X
Pre-manufactured equip. assembly, test, & repair			X
Wholesale			X
Computer services			X
Transportation Terminals			X
Excavation, mining and processing			X

Source: Town of Litchfield Zoning Ordinance, March 1999.

LITCHFIELD COMMERCIAL ZONES BUILDOUT POTENTIAL

In Litchfield, 989 acres, or 47 percent, of commercial lands are constrained due to existing development, including active agricultural lands. An additional 362 acres, or 17 percent, of commercial lands are constrained from development due to natural physical restrictions. Places containing natural features 'constraints' have the following physical restrictions that probably render these locations difficult to develop:

- 100-year flood plains; and
- Wetlands (very poorly and poorly drained soils).

Map IV-2 -depicts the water based natural constraints to development within the commercial zoning districts. Water-based natural constraints to development within commercial zoning districts are wetland soils, particularly poorly drained soils, and relatively small areas of 100-year floodplain confined mostly

to areas along stream corridors. In addition to natural constraints, a standard 10 percent has been subtracted from the DLA in each zone for streets and roads.
In addition to natural constraints and developed area, an area of approximately 600 acres within the commercial zoning districts are classified as prime agricultural soils. Prime agricultural soils are not a constraint to development per se, but this project has identified preservation of prime agricultural soils in an open state suitable for farming as a major goal of future economic development initiatives. The prime agricultural soils are a unique and valuable natural resource deserving special attention in order to preserve them for future generations. Therefore, these prime agricultural soils are classified as developed.

Combining 989.2 acres of existing development in commercial zones, with 362 acres of natural constraints and 75 acres of land allocated for future infrastructure means that 1,426 acres, or 68 percent, of all areas zoned non-residential lands are constrained from future development.

Table IV-3 shows future development potential in Litchfield commercial zoning districts along with land use characteristics. Lands 'constrained' from development are either already developed or constrained from development due to natural physical restrictions. The Developable Land Area, or DLA, represents places likely to be developed in the future. As depicted in Table IV-4, the future DLA in Litchfield commercial zones is approximately 674 acres, or 32 percent of all land within the commercial zones. Of approximately 2,500 acres in Litchfield that are vacant and unconstrained, 27 percent are within the commercial zoning districts.

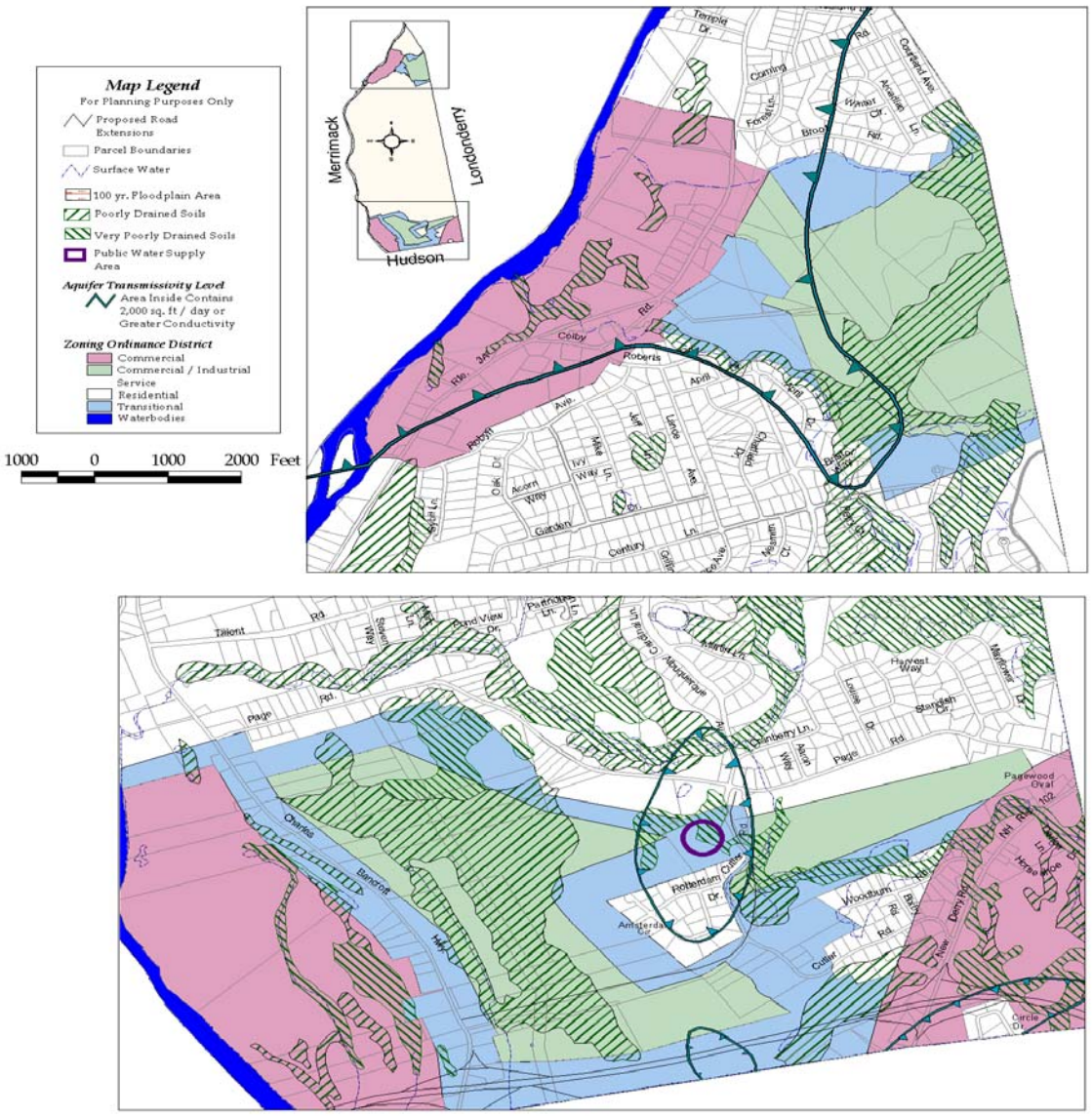
TABLE IV-3
DEVELOPABLE LAND AREA (DLA) IN LITCHFIELD COMMERCIAL ZONING DISTRICTS

Zone	#1. Total Area	#2. Developed Area[1]	#3. Naturally Constrained Undeveloped Area	#4. Streets and Roads (Minus 10%) (#1 - (#2 + #3)) x 10%	#5. DLA #1 - (#2 + #3 +4)
	(Acres)	(Acres)	(Acres)	(Acres)	(Acres)
North Comm	297.1	282.8	0.0	1.4	12.9
Route 102 Comm	225.6	193.9	8.6	2.3	20.8
SouthRte3Acomm	329.5	289.0	5.8	3.5	31.2
North C/I Service	278.3	12.8	97.2	16.8	151.5
South C/I Service	394.9	92.1	125.8	17.7	159.3
North Trans	127.3	17.9	19.5	9.0	80.9
South Trans	447.2	100.7	105.4	24.1	217.0
Total	2099.9	989.2	362.3	74.8	673.6

Source: NRPC 1996 Land Use and Parcel Database; Updated 1999.
Note: 1) Developed areas include agricultural fields being actively used for agricultural production.

MAP IV-2

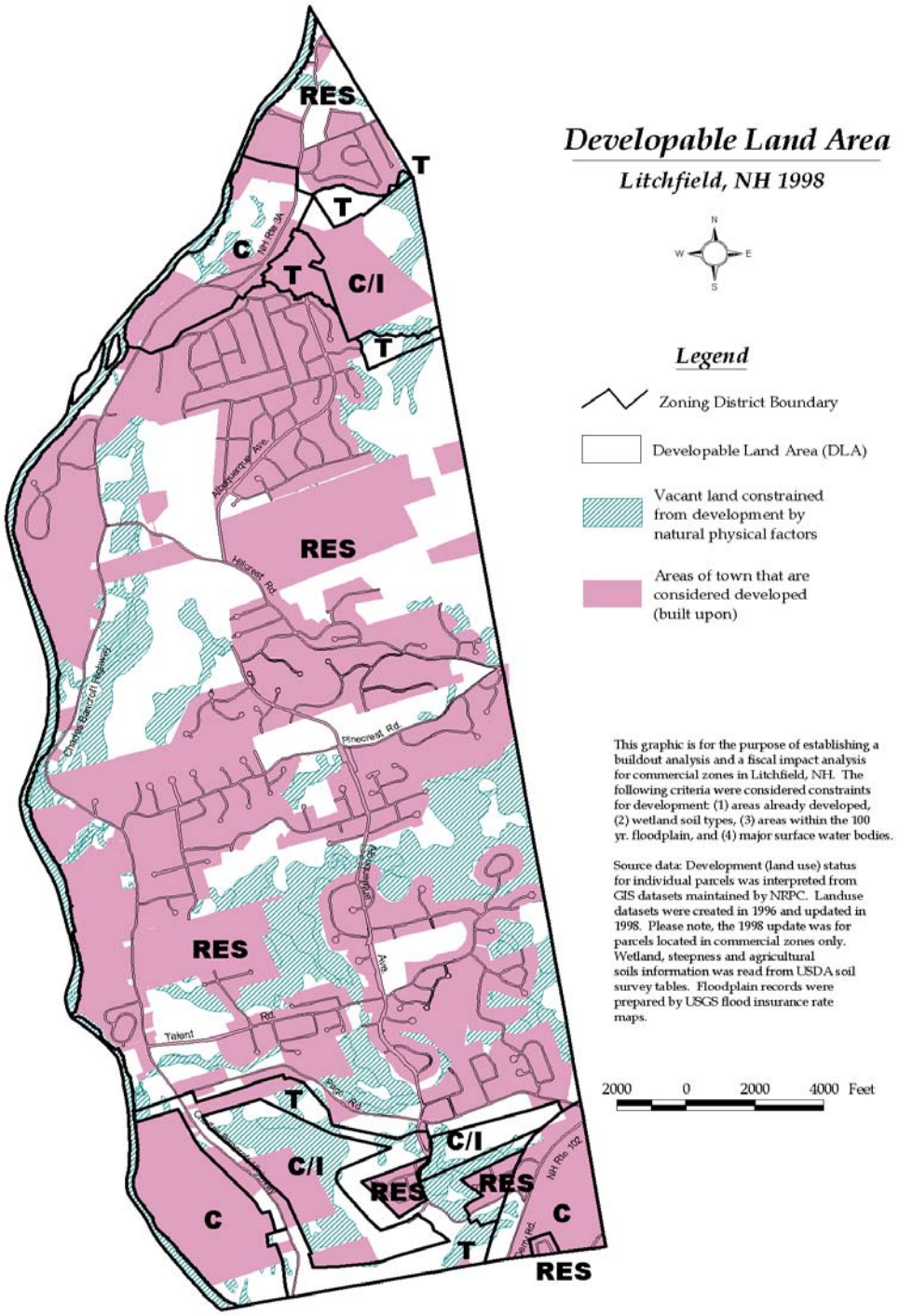
Litchfield SEED Project
Water-Based Land Use Constraints Map



Source information: USDA Soil Survey Maps digitized by UNH Granit. Parcel data compiled by NRPC, 1997 using original taxmaps supplied by Town of Litchfield. Source map revision date: February, 1997. Zoning lines current to 1997. This map is for planning purposes only.

Map prepared by NRPC.
Re-printed 4/2000
project: j drive on Nevada gis\ avprojects\litchfie\seed.apr

MAP IV-3


Developable Land Area
Litchfield, NH 1998
N
W
E
S
Legend
Zoning District Boundary
Developable Land Area (DLA)
Vacant land constrained from development by natural physical factors
Areas of town that are considered developed (built upon)
This graphic is for the purpose of establishing a buildout analysis and a fiscal impact analysis for commercial zones in Litchfield, NH. The following criteria were considered constraints for development: (1) areas already developed, (2) wetland soil types, (3) areas within the 100 yr. floodplain, and (4) major surface water bodies.
Source data: Development (land use) status for individual parcels was interpreted from GIS datasets maintained by NRPC. Landuse datasets were created in 1996 and updated in 1998. Please note, the 1998 update was for parcels located in commercial zones only. Wetland, steepness and agricultural soils information was read from USDA soil survey tables. Floodplain records were prepared by USGS flood insurance rate maps.
2000 0 2000 4000 Feet
RES
T
C
C/I
Albuquerque Ave.
Hillcrest Rd.
Pinecrest Rd.
Talent Rd.
NH Rte. 3A
NH Rte. 102
Map prepared by NPRC, 7/26/99.
Reprinted 4/2000
project j drive on Nevada gis/avprojects/litchfie/seed.apr

There probably is more commercial development potential than is presented in DLA Table IV-3. For this study, all lands within the commercial zoning districts along Route 102 and Route 3A are classified as commercial. Many existing residential uses predate the establishment of these zoning districts; therefore, the area of real property that actually constitutes commercial uses is smaller than depicted. Single family residential dwellings in commercial districts could eventually be converted to commercial uses. The effect is that the commercial development potential for these zoning districts is higher than presented in this analysis. A rough estimate of the area covered by single family residential uses within the commercial zones is approximately 105 acres, or five percent of all land in these zones. There are also many larger commercial parcels, that collectively contain approximately 150 acres that are currently classified as developed which could probably be subdivided or developed further.

The New Hampshire Route 102 corridor is the most developed area in Town and is closest to commercial buildout. Conversely, large areas in the Commercial/Industrial Service Districts and the Transitional Districts are absent of significant physical commercial development. While the majority of the available DLA is in southern Litchfield, another significant area of undeveloped commercial land is located east of Route 3A by Colby Road in the Northern Transitional and Commercial/Industrial Service Zoning Districts. Based on the DLA figures, two main areas of Litchfield likely to receive commercial development are:

1) Southern Litchfield, around the base of the future planned alignment of Albuquerque Avenue and in the Southern Commercial Industrial Service and Transitional zoning districts; and
2) Northern Litchfield, by the Northern Commercial Industrial Service, Commercial and Transitional zoning districts.

Major regional infrastructure projects near both areas provide potential for increased commercial development. It is the consensus of the SEED project participants that if there is an attempt to direct future commercial development in the next five years, it should focus on northern Litchfield where increased land development activity is already underway. Also, there is an initiative underway by the Selectmen to complete Albuquerque Avenue in the north. In addition, the Manchester airport expansion is underway just a few miles to the north. Likewise, construction of the Circumferential Highway in the south part of Town has experienced numerous delays.

Currently there is not municipal sewer service within Litchfield; however, there have been discussions by the SEED committee on the potential for sewer connections to surrounding communities. Therefore, the buildout analysis is conducted two scenarios:

1. No sewer infrastructure provided to commercial zones; and
2. With sewer infrastructure providing service to commercial zones.

Since there is not currently sewer service in any part of Litchfield, this alternative is analyzed first. The second alternative future scenario analyzed postulates the potential development with sewer service provided to all commercial zones.

Buildout Without Sewers

If public sewers are not developed in the future, the average commercial development density in Litchfield is estimated as 5,000 ft^2 of buildings per acre. The basis for this assumption is that new commercial parcels have a minimum lot size of one acre under current zoning, with a maximum impervious site coverage of 65 percent that can be represent buildings, structures, parking areas, driveways roads and other site improvements excluding landscaping. A one-acre parcel could reasonably accommodate 3,333 to 6,666 ft^2 of building mass plus parking and a septic system. A density

figure of 5,000 ft² of buildings per acre was selected because moderate soil constraints, such as wetlands, are common throughout Litchfield which could probably cause lower building densities. This figure of 5,000 ft² of building per acre is applied in the first set of fiscal impact calculations performed below.

What is a feasible rate of new commercial development for Litchfield? One opinion on the near term local development potential was provided by Michael H. Monks, of Monks and Co., Inc., Industrial/Commercial Real Estate, who spoke to the SEED project group in January 1999. Mr. Monks indicated that it is probably feasible to assume that 10,000 to 20,000 square feet of new commercial development could occur on an annual basis, assuming existing infrastructure.

Developed on minimum lot size parcels of one acre, with a building density of 5,000 ft² of building per acre, 10,000 to 20,000 ft² of new development translates into 2.0 to 4.0 acres of new commercial development per year. With a DLA of 674 acres, and 20,000 ft² of new commercial development per year, it would take more than 150 years to reach commercial buildout. The community would reach residential buildout long before it reached commercial buildout.

Buildout With Sewers

If municipal sewer service is provided in Litchfield, higher building densities would be possible. With sewers, the future development density used is 10,000 ft² per acre. The DLA would not change but there would be potential for more building development.

The development of municipal sewer service would probably also increase the rate of commercial development. All of the economic development experts who spoke with the Litchfield SEED project committee indicated that the availability of sewers influences business' siting decisions. The fiscal advantages of well laid out sewers are higher property values per unit of land and potential for more efficient infrastructure.

FISCAL IMPACT ANALYSIS OF FUTURE COMMERCIAL DEVELOPMENT

Below are two fiscal impact analyses of the municipal public services costs and revenues generated from future commercial development. The first case is an extension of current conditions, without sewers. In a second case, sewer infrastructure is provided to all commercial zones.

FISCAL IMPACT ANALYSIS ALTERNATIVE - NON-SEWERED

As described by Burchell and Listokin in The Fiscal Impact Handbook, 1978, the Proportional Valuation Method is an average costing approach used to project the direct fiscal impacts of commercial development on municipal operating costs and revenues. This method estimates the public sector financial implications of nonresidential growth.

The proportional valuation method assigns municipal costs attributable to the share of real property value that new commercial uses would add to the Litchfield real property tax base. The method involves three main steps.

> Defining the total cost to provide public service to all existing commercial uses;
> Using ratios, or proportions, to project the cost to service one new commercial facility; and
> Multiplying the cost to service one unit by the DLA.

The method estimates the fiscal consequences of development based on current municipal spending patterns and current property tax assessments with the application of a correction factor to ensure that the relationship is not over or understated.

Characteristics of Recent New Commercial Development

Table IV-4 shows the value of new commercial development in Litchfield from 1991 to 1997. In seven years there were six new commercial developments. For 1997 the data is poor quality because it includes the cost of a school addition. Using the other five years of data, the average new private sector commercial development in Litchfield is valued at $275,000 per unit. For comparison, a survey of every fifth home sale performed in the Regional Housing Needs Assessment for the Nashua Region by the NRPC in June 1999 indicates that the 1998 mean residential unit sales price in Litchfield was $146,000.

TABLE IV-4

NEW COMMERCIAL UNITS DEVELOPMENT -- 1991 TO 1997[1]

Year	1991	1992	1993	1994	1995	1996	1997	Total	Average
# of New Commercial Units[1]	1	2	0	0	1	1	2	7	1
Estimated Valuation ($000's)	$300	$225	-	-	$350	$500	$2,300[2]	$3,675	$275

Source: Annual Reports of the Town of Litchfield, NH. 1991-1997.

Notes:

1) The category 'Commercial Structures' was reported in 1991 and 1992. From 1993 to 1996 two classes were reported 'Commercial Structures' which excludes 'Commercial alterations/renovations'. Reported in 1997 were 'Business & Education Buildings' and 'Commercial alterations/renovations'.
2) A school building addition costing approximately $1.4 Million was included within the new commercial category in 1997. At the point the initial calculations were performed the school cost was not known; therefor, the figure for 1997 was not used in compiling the average value of new commercial construction.

Factors Used to Calculate Public Service Costs and Revenues for the Commercial Sector

Table IV-5 presents the following public sector cost and revenue figures, many of which were obtained from the Town Annual Report for 1997:

- Total property tax commitment in Litchfield in 1997 (Step 1);
- Total real property value for all parcels (Step 2);
- Total number of tax parcels (Step 3);
- Total property value of all commercial parcels (Step 4); and
- Total number of commercial parcels (Step 5).

The data in Table IV-5 is used to define property value relationships for the residential versus the commercial sectors in steps six through eleven. The data in the table are used to derive the cost to deliver public services to existing commercial uses

The table shows that for existing properties, the commercial values are low compared with the average for existing residential properties. This is probably because a majority of commercial property value is represented by the value of the land itself rather than buildings. The density of development on existing parcels also appears low and when there are commercial buildings, they often appear of low to moderate value. For example, many commercial sites have high proportions of accessory type buildings such as garages and workshops that do not have high property assessments. This is the opposite of many communities where retail uses, offices, and industrial properties exhibit high property tax assessments on a square foot basis.

TABLE IV-5
FACTORS FOR ESTIMATING FISCAL IMPACTS OF NEW COMMERICAL DEVELOPMENT
PROPORTIONAL VALUE ALLOCATION METHOD
LITCHFIELD, NH – 1997

FIA Steps	Factor and Ratios	1997
Step 1	Net municipal property tax commitments[1]	$9,010,436
Step 2	Total local real property value[1]	$349,879,803
Step 3	Total number of land parcels in Litchfield[2]	2,135
Step 4	Total commercial real property value[3]	$34,402,096
Step 5	Total number of commercial parcels[4]	262
Step 6	Average real property value per parcel for all parcels (Step 2 divided by Step 3)	$163,878
Step 7	Average commercial real property value per parcel (Step 4 divided by Step 5)	$131,306
Step 8	Total existing commercial property value in a ratio compared to total local real property value (Step 2 divided by Step 4)	0.098
Step 9	Estimated Real Property Value of a New Commercial Parcel (The average derived in Table IV-4 above)	$275,000
Step 10	Value of Average Commercial Property to Average Property (Step 7 divided by Step 6) This is the figure used on the upper cost curve in Figure A-1 in Appendix I to determine Refinement Coefficient #1	0.80
Step 11	Refinement Coefficient #1 Derived by reading Figure A-1 up from the x-axis at 0.80, to the upper cost curve, and then across to the y-axis.	0.85
Step 12	Ratio of real property value of one new commercial parcel versus all commercial parcels real property value. (Step 9 divided by Step 4).	0.008
Step 13	Real property value of one new facility compared to the average nonresidential property real property value. (Step 9 divided by Step 7)	2.09
Step 14	Refinement Coefficient #2 Derived by reading Step 12 value up from x-axis in Figure A-1 to the lower cost curve, and then across to the y-axis.	0.84

Source for Steps 1, 3, 4, and 9 is 1997 Annual Town Reports.
Source for Steps 2 is Town of Litchfield Board of Selectmen Office (February 1999).
Source for Step 5 is NRPC GIS a count of Land Use Parcel Maps (1996).

Notes:

1) The tax value of $686,574 of current use value is subtracted from the total 1997 property value of $350,566,377 and the assessment is adjusted downward from $9,028,177.
2) The Total number of parcels in Litchfield includes 129 residential uses classified as exempt and properties in the 'current use' classification'
3) Current use values excluded from commercial total.
4) Properties estimated to be in the 'Current use' category are included within the parcel counts for commercial zones.

Public service cost relationships in communities are dynamic. Businesses consume different types and different levels of public services according to relationships between different municipal factors. There are numerous variables that influence the cost curves, and the relative efficiencies, of public service offerings in different municipalities, including the mix of capital equipment, associated operating costs, and the mix of land uses. A refinement coefficient represents the synthesis of findings from case studies of other communities compiled by Burchell and Listokin. Applying the coefficient provides for a more accurate estimate of the likely scenario in Litchfield regarding the cost to provide public services to commercial properties. For the Litchfield cases presented herein, the coefficients provide adjustments to ensure that the cost to provide public service to a new business is not overstated.

Non-residential properties in Litchfield consist of business properties, utilities, some farmland and undeveloped land. Excluding the Current Use values from the total commercial property value, the

$34,402,096 of total commercial real property value represents 9.8 percent of the $349,879,803 total real property value in Litchfield.

In 1997 the part of the total $9,010,436 municipal property tax revenues attributed to providing existing commercial business with public services is estimated as $187,642. This represents 2.1 percent of all local expenditures derived from property tax revenues. Derivation of this figure is shown in Table IV-6. The $187,642 of total current municipal property tax expenditures attributable to servicing businesses is derived figuring that 9.8 percent of property value emanates from the non-residential sector -- this is to say that businesses represent about 10 percent of land uses based on property value. Most local tax revenues are allocated to pay for providing education, but businesses do generate students or consume school services. Therefore, using a conservative estimate, it can be assumed that three-quarters of all tax local revenues go toward providing school services, so a liberal figure of 25 percent could be assigned to represent the proportion of local tax revenues allocated to provide public services other than schools. Multiplying the proportion of tax revenues coming from non-residential sectors (9.8 percent) by this figure (25% of local tax revenue finance programs other than schools) and then multiplying the result by a refinement coefficient (0.85) derives the cost to provide public service to all existing businesses. The result, divided by the 262 existing commercial parcels, provides a rough approximation of the cost to provide each individual business with local public services, such as fire and police protection, road service, library service, recreation and general government. This means that each individual business is estimated to consume approximately $716 worth of public services on an annual basis.

TABLE IV-6
ANNUAL COST OF PUBLIC SERVICE PROVISION
FOR ALL EXISTING COMMERCIAL BUSINESSES

Total Current Municipal Expenditures Attributable to Existing Businesses	=	Total Municipal Expenditures in 1998	Proportion = Commercial Properties Value to Total Local Real Property Value	Proportion = conservative figure that adjusts the equation to account for the part of all local tax revenue that *is* attributable to providing public services to businesses.	Refinement Coefficient #1 (Burchell & Listokin)
		(Step 1 above)	(Step 8 above)		(Step 11 above)
$187,642	=	{($9,010,436 x	0.098) x	0.25} x	0.85

The next calculation defines the cost to provide public service to each new commercial unit of one-acre size with $275,000 value. Generally, it is assumed that the average future business development in the community will have a slightly larger building footprint and a higher property value than the average existing business.

TABLE IV-7
ADDITIONAL COST TO PROVIDE PUBLIC SERVICE TO
EACH ADDITIONAL COMMERCIAL BUSINESSES

Estimated Municipal Costs to Supply Public Service to One Future Business Facility	=	Estimated Cost of Providing Public Service to All Current Businesses	Proportional Value of One New Commercial Development to the Total Value of all Existing Commercial Development	Refinement Coefficient #2 (Burchell & Listokin)
		(Table IV-6 above)	(Step 12: $275,000 versus $34,402,096)	(Step 14)
$1,260.95	=	($187,642 x	0.008) x	0.84

With an estimated buildout potential for 674 new commercial units based on the Non-residential DLA, the estimated total cost to provide public service to all new commercial units at buildout would be 674 times $1260.95 which is $849,880. On the other hand, the property tax collected on one new development worth $275,000 would be $7,106. If there were 674 new commercial developments worth $275,000 at buildout, the total real property value of all new development would be $185,350,000. The property tax on the 674 new units of development valued at $185,350,000 and taxed at a rate of $25.84 per $1,000 would be $4,789,444.

Subtracting the $849,880 cost to provide public services to all of the anticipated new additional commercial uses at buildout from an assessed property tax of $4,789,444 would provide a significant surplus equating to $3,939,564. This represents a revenue surplus of $6,155.57 per facility per year. A tax revenue surplus of $3,939,564 per year would represent a significant source of surplus revenue for the Town of Litchfield.

The analysis above looked at the property tax revenues and expenditures likely for all new commercial development at buildout. In fact, the revenue side of the equation may be conservative, since Litchfield assesses impact fees against new development. The impact fees provide one-time revenues to offset costs incurred by the community to provide additional infrastructure capacity to supply public services to new uses. The revenue forecast is also conservative because many commercial businesses pay mandatory licensing and registration fees each year.

Potential for Commercial Development without Sewers

It is difficult to define what commercial development may occur without sewers. Most economic development experts who talked with the Litchfield SEED group indicated that the availability of public sewers is an important site selection criterion used by firms seeking locations to expand operations. One set of businesses that may locate in Litchfield in the future are those that will benefit from a location close to the airport.

An interview with the Milton, Vermont Town Planner on July 15, 1999 provides information on the feasibility of developing industrial parks without sewers. Milton has three unsewered industrial parks. The largest, the Catamount Industrial Park, has 16 of 23 parcels developed. Lot sizes range from two to nine acres, with most parcels under five acres. Two smaller industrial parks have incubator style buildings where firms lease compartments. The building densities in these two cases are up to 10,000 ft^2 per acre. In the Catamount Park there are some much larger buildings, although the densities do not appear higher than 10,000 ft^2 per acre because these buildings are situated on larger lots. The cases confirm instances where higher densities of commercial development have been achieved without sewers.

There are many types of small to medium scale business uses that do not necessarily depend on sewers to operate. One fairly large land use siting that occurred in Litchfield in 1999 is a combined church and elementary school with a 350-person occupancy. The facility will provide sanitary sewage treatment utilizing an individual septic system. Similarly, the new Litchfield Campbell High School will provide sewage treatment through a large-scale on-site septic system. These cases confirm that it may be feasible to site large-scale septic systems for medium to large size individual businesses that do not use excessive amount of water and that employ up to 400 persons. It may also be feasible to develop community wastewater treatment systems, also known as on-site, shared, or cluster treatment systems, for groups of smaller and medium scale businesses that collectively use such systems. When large septic systems are sited in Litchfield that serve 300 or more people, a rough estimate of the footprint required for such systems is one to two acres.

Businesses least likely to locate in Litchfield if community wastewater treatment is not available are large business operations that process or dispose large volumes of water or that have effluent that is difficult to treat. The advantage of traditional sewer systems to these businesses is that they provide equalization of wastestreams and specialized treatment that septic systems may not provide. Businesses that use large volumes of water for industrial processes might depend on publicly owned treatment works for disposal in situations where an individual septic system could not adequately handle large water volumes. Litchfield has large stratified drift aquifers that form a significant part of the regional water supply. Without sewers, businesses that seek to use water for industrial processing may not be able to locate in Litchfield.

Types of businesses that could use septic systems or on-site/cluster wastewater treatment systems are:

- Warehouse facilities that use small volumes of water;
- Offices;
- High-tech businesses that do not use water, such as electronics assembly or electronics test firms; or
- Many types of retail and commercial uses.

A limiting factor for many on-site community treatment systems is that these are often designed to handle benign wastestreams and low to moderate flows. Businesses that discharge contaminants, such as soaps or other industrial by-products in most cases could not use community septic systems. Businesses that discharge very large volumes of water, such as food processing or plastics manufacturing also would not be able to utilize community treatment systems. Advances in water treatment technology over the last decade are enabling the cost-effective application of innovative technology in community wastewater treatment style systems that were not feasible compared with sewers only a short time ago.

FISCAL IMPACT ANALYSIS ALTERNATIVE – IMPLEMENTING SEWERS

Many factors could alter the build-out and fiscal impact scenarios presented herein. The main economic development policy that participants identified as requiring further examination is the potential to introduce public sewers into Litchfield's commercial areas. Provision of fixed-line sewer infrastructure will alter the rate and density of development in the sub-areas that receive such service. Constructing a sewer system to serve industrial users would establish a different public service cost-revenue situation for the commercial sector. Fiscal impact analysis can evaluate the alternative revenue and expenditure scenarios under the changed conditions influenced by sewer development on commercial lands. A second set of fiscal impact calculations are performed to analyze the impact of implementing sewers which stimulates an increase in commercial development to 10,000 ft^2 per acre and increases the value of each new commercial unit to $550,000.

An option that project participants advocate exploring is the potential to collaborate with an adjacent municipality to form a regional sewer compact. One proposal under discussion is a connection with the Merrimack wastewater treatment facility during construction of the Circumferential Highway Bridge. An advantage of working with an existing sewer facility is that it may be cost-effective to tap into existing capacity, or incrementally enlarge an existing sewage facility, rather than construct a new system from scratch.

As already discussed above, it appears feasible to establish decentralized community wastewater treatment systems that support dense development. Onsite/decentralized wastewater systems include individual onsite septic systems, grouped (cluster) systems, and alternative wastewater technologies such as trickling filters, low-pressure pipe systems, and evapotranspiration systems. These technologies provide a cost-effective, viable and long-term alternative to centralized systems which may be costly to construct and finance all at once. Decentralized systems are particularly beneficial in low-density

communities, such as on the urban outskirts, where there is a significant economic burden to develop a large-scale system due to large distances between users and a limited supply of users who could finance a system. The design and construction of decentralized systems is often more flexible than for central systems. Decentralized system could be developed in incremental pieces, or in limited geographic areas, thereby presenting more financing and investment options over time. The State of New Hampshire has lagged behind other states in permitting such disposal systems. Changes in state rules would be necessary to implement such systems in Litchfield.

Cost of Infrastructure

Public service construction costs depend on the design of the facility, its scale, and how it is financed and built. Impact fees could finance the proportion of facilities that are developed for use by future commercial development. If impact fees and betterments are not able to cover all of the costs to construct the treatment facilities, then property taxes would be a source of revenue used to repay loans obtained to finance the cost of construction.

Shirley, Massachusetts, a town along the rapidly developing Interstate 495 belt, is implementing sewer infrastructure. The Shirley case is a source of descriptive information useful for modeling the potential to institute public wastewater treatment in Litchfield. The main area examined to provide wastewater management in Shirley was a village sub-area of residential, commercial, and mixed-use properties encompassing 1,200 acres. The cost to provide sewer service to the 1,200-acre area is approximately $11.2 Million. This cost includes engineering, installing pipe to transport the sewage to an existing treatment plant in an adjacent community, installing pumping stations and part of the cost to upgrade and expand the existing treatment facility.

What is the potential fiscal impact of developing a similar system in Litchfield? Using figures from Shirley as a baseline, one could assume that the portion of the cost to implement a similar 1,200 acre service area wastewater treatment system financed through property taxes will be $11,200,000 Million over 15 years. A portion of funds to pay for the infrastructure development could be paid through impact fees from future development or betterments assessed on existing parcels, but a loan would have to be secured, with the assumption the fees collection would enable the Town to repay the loan. The Town would take on debt to finance this $11,200,000. Assuming that the interest charge is 7.2 percent, the total cost for a 15 year loan would be $18,352,480 with an annual loan payoff of $743,000.

The next three tables show the public expenditures and revenues assuming that the sewer infrastructure serves only the commercial zoning districts and an additional $743,000 is collected along with the current $9,010,436 net municipal property tax commitment. Some figures in the table change. Assuming that the density of development with sewers would increase from 5,000 ft^2 to 10,000 ft^2 per acre, the average new commercial facility would be 2.0 times greater than the estimated average cost of $275,000, or $550,000. Ratios that are calculated using this property value change as does the second refinement coefficient.

TABLE IV-8
FACTORS FOR ESTIMATING FISCAL IMPACTS OF NEW COMMERICAL DEVELOPMENT
CASE STUDY INCLUDING ANNUAL COST TO DEVELOP WASTEWATER TREATMENT
PROPORTIONAL VALUE ALLOCATION METHOD
LITCHFIELD, NH – 1997

FIA Steps	Factor and Ratios	1997
Step 1	Net municipal property tax commitments[1]	$9,753,4326
Step 2	Total local real property value[1]	$349,879,803
Step 3	Total number of land parcels in Litchfield[2]	2,135
Step 4	Total commercial real property value[3]	$34,402,096
Step 5	Total number of commercial parcels[4]	262
Step 6	Average real property value per parcel for all parcels (Step 2 divided by Step 3)	$163,878
Step 7	Average commercial real property value per parcel (Step 4 divided by Step 5)	$131,306
Step 8	Total existing commercial property value in a ratio compared to total local real property value. (Step 2 divided by Step 4)	0.098
Step 9	Estimated Real Property Value of a New Commercial Parcel (The average derived in Table IV-4 above)	$550,000
Step 10	Value of Average Commercial Property to Average Property (Step 7 divided by Step 6) This is the figure used on the upper cost curve to determine Refinement Coefficient #1	0.80
Step 11	Refinement Coefficient #1	0.85
Step 12	Ratio of real property value of one new commercial parcel versus all commercial parcels real property value. (Step 9 divided by Step 4).	0.02
Step 13	Real property value of one new facility compared to the average nonresidential property real property value. (Step 9 divided by Step 6)	4.2
Step 14	Refinement Coefficient #2 Derived by reading Step 12 value up from x-axis in Figure IV-1 to the lower cost curve, and then across to the y-axis.	0.60

Source for Steps 3, 4, and 9 is 1997 Annual Town Reports.
Source for Steps 2 is Town of Litchfield Board of Selectmen Office (February 1999).
Source for Step 5 is NRPC GIS a count of Land Use Parcel Maps (1996).

Notes:

Step 1 is Table IV-5, #1 plus a $743,000 estimate of the tax burden associated with the annual financing for a new wastewater treatment facility.

TABLE IV-9
ANNUAL COST OF PUBLIC SERVICE PROVISION
FOR ALL EXISTING COMMERCIAL BUSINESSES
UNDER ALTERNATIVE SCENARIO WHERE PUBLIC SEWERS ARE DEVELOPED

Total Current Municipal Expenditures Attributable to Existing Businesses	=	Total Municipal Tax Expenditures in 1998	Proportion = Commercial Properties Value to Total Local Real Property Value	Proportion = conservative figure that adjusts the equation to account for the part of all local tax revenue that *is* attributable to providing public services to businesses.	Refinement Coefficient #1 (Burchell & Listokin)
		(Step 1 above)	(Step 8 above)		(Step 11 above)

$203,115	=	{($9,753,436 X	0.098) X	0.25} x	0.85

Employing the same methods as were used in the proportional value calculations performed earlier in the case without sewers, under the alternative scenario where sewer infrastructure development for commercial areas is financed through property taxes, the cost to provide public services to existing businesses would be $203,115. The extra cost is based on the addition of $743,000 per year to municipal expenditures associated with the cost to finance sewer system development..

TABLE IV-10
ADDITIONAL COST TO PROVIDE PUBLIC SERVICE TO
ONE ADDITIONAL 10,000 FT² COMMERCIAL BUSINESSES AT BUILDOUT
UNDER ALTERNATIVE SCENARIO WHERE PUBLIC SEWERS ARE DEVELOPED

Estimated Municipal Costs to Supply Public Service to One Future Business Facility	=	Estimated Cost of Public Service to Current Businesses	Proportional Value of One New Commercial Development Versus to Total Value of all Existing Commercial Development	Refinement Coefficient #2 (Burchell & Listokin)
		(Table IV-6 above	(Step 12: $550,000 versus $34,402,096)	(Step 14)
$2,437.38	=	{($203,115 X	0.02) X	0.60}

The estimated cost to provide public services with development of sewers would be ***$2,437.38*** for each additional business at buildout. At this rate, the total cost to provide public service to all 674 new businesses at buildout is $1,642,794. The tax revenue from each new commercial development worth $550,000 would be $14,212. With 674 new commercial developments worth $550,000, the total tax revenue from all additional commercial units at buildout would be $9,578,888.

The net surplus tax revenues from this alternative scenario where sewers are constructed would be $7,936,094, or $11,775 per facility. The revenue surplus under the case where sewers are provided is double the $3,939,564 surplus predicted under the first case. Under this scenario where taxes are used to finance the construction of new sewer infrastructure, businesses would continue to pay their own way through property taxes.

This analysis shows that higher per unit property values provide more revenues than development with lower property values. Instituting wastewater treatment alternatives in Litchfield could enable a higher density of development because soils constraints would become less influential on whether or not a parcel is potentially developable. It may be possible to achieve higher densities of development without instituting some form of centralized wastewater management; however, it is clear that markets do not typically respond favorably to this scenario.

Should Litchfield seek to further explore the design and installation of centralized sewers or decentralized/on-site wastewater treatment systems for commercial areas, the federal Environmental Protection Agency (EPA) State Revolving Fund (SRF) could possibly serve as a source of financing for facilities development. The SRF can provide financing for traditional sewer systems or onsite/decentralized wastewater management systems that protect or enhance water quality. Set up under the Clean Water Act, the program provides low or no-interest loans for important water quality projects. In New Hampshire, the SRF is operated by the NH Department of Environmental Services (DES). To explore this option, local economic development officials should contact the New Hampshire SRF representative to determine the priorities and policies established in the state-level SRF. These type of funds could be used for design as well as for establishing a centralized management entity for public wastewater treatment systems.

It is recommended that the Town perform a more detailed case-study fiscal impact analysis and benefit-cost analysis to obtain more accurate and precise information on the potential direct costs and benefits of investing in sewers or another alternative wastewater treatment technology. This probably is a requirement to qualify for SRF funding. It is also recommended that such research be performed in conjunction with a more general environmental impact analysis and technical analysis on the potential to layout and adopt specific technologies.

Potential for Tax Increment Financing (TIF) District

One policy alternative to evaluate in the event that sewers are constructed in Litchfield is the development of a Tax Increment Finance (TIF) district. TIF is a development finance tool that enables municipalities to pay for new infrastructure development through the assessment of a special 'incremental' tax that is added to the base tax rate in an area designated to receive new infrastructure development. The additional (or incremental) special taxes that are collected are used specifically to pay for new infrastructure constructed within the TIF district.

One benefit of adopting TIFs is that undertaking a major capital project does not adversely impact the provision of other essential public services. Rather than divert tax revenues from essential services to finance the development new infrastructure, the TIF district users alone finance the development of new infrastructure. TIF implementation is being explored widely around the State, including in the City of Nashua. The key to adopting a TIF is studying the real estate market in detail and carefully defining potential district boundaries. A problem is that a major anchor tenant may need to be lined up ahead of time to make TIF adoption and implementation feasible.

CONCLUSIONS

Although a buildout analysis provides a theoretical view of future conditions, the results are quite telling. The 1996 residential buildout study predicted that residential development at buildout could result in more demand for public services than would be financed through residential property tax collections. The 1996 cost to provide education was $3,049 per household and future school expenses were calculated to range up to $4,453 per residence, depending on the number of children per household. There was an estimated potential for 1,550 to 1,806 new residences at buildout. Using these four figures, the added costs for the community to provide school services at buildout could range from $4,725,950 to $8,042,118. Depending on the number of pupils per residence at buildout, the deficit from new residential development could reach up to $2,719,836 per year.

The fiscal impact data derived for the commercial sector at buildout shows that under current conditions, commercial businesses provide a revenue source to offset residential sector deficits. At commercial buildout without sewers the predicted public revenue surplus of $3,939,564 would be a significant source of funds to help offset deficits that could occur in the residential sector.

Noteworthy is that under both fiscal impact analysis, a scenario without sewers and one with sewer infrastructure provided through taxation, there is adequate potential for commercial development to help offset the forecast public sector deficits, even though prime agricultural lands are considered already developed. It does appear possible to promote commercial development and attempt to preserve the farmlands in the Route 3A corridor.

With full implementation of sewers in all undeveloped areas within commercial zones, the public sector revenue surplus would be $7,936,094. This latter figure would more than cover the largest deficit that is predicted to occur in the residential sector. The information also shows that assuming current patterns hold, future commercial development would cover the cost of the public services that these uses consume.

Commercial development appears to provide a significant source of supplemental tax revenue for the community. Most beneficial for the community in fiscal terms would be high quality commercial development with high property values. High quality development would probably also represent building character that would not detract from the community appearance. Understanding of the impacts of land development on municipal finance are incomplete; therefore, while it is important to try to forecast future municipal budget situations, it is also important to consider the wide range of quality of life influences that future commercial development may impact.

Based on historical development patterns, it would take much longer to realize commercial buildout than the full-residential buildout. In fact, it may be the case that the projected buildout is not realistic without sewers. It is reasonable to assume that future development will be more rapid and different than was experienced over the last decade due to planned regional highway improvements and the close location of the Manchester Airport to Litchfield northern borders. It will be difficult to predict the full range of fiscal impact of new development, but according to current revenue collection and spending patterns, it is generally appears that new future commercial development will pay its own way.

#610A-4

CHAPTER V: LITCHFIELD ECONOMIC DEVELOPMENT ACTION STRATEGY

This chapter outlines the goals and objectives of Litchfield's economic development program. The economic Development Working Group identified an overall strategy to promote commercial development in Litchfield within the regional economic delivery system. The discussion covers the content of a comprehensive five-year program that would represent a broad, overall economic development agenda for that period. The overall program provides direction and a reference through which to monitor progress during the period involved with instituting economic development at the community level. At the conclusion of the chapter, a detailed action strategy is presented for the committee to pursue over the next year.

Careful attention is provided to work program objectives, the relationships between the different economic development stakeholders, the formal structures adopted, and selection of leadership. These factors are key to developing an effective and responsive local economic planning system. The action strategy is a formal position statement that the Planning Board could adopt for the next year and the overall strategy could be presented for incorporation in the Master Plan.

LITCHFIELD'S PRODUCT

Litchfield is a remarkable place. This community of nearly 7,000 persons in the Nashua region retains small town character and a very high quality environment even though there has been quite rapid growth. Situated along the Merrimack River, the town has an agrarian history that grew up along fertile river floodplains. Local natural resources that are the foundation for agriculture include the significant prime agricultural soils and abundant surface and groundwater supplies. Litchfield's physical beauty emanates from the sweeping vistas of farmlands, its forested roads, and undeveloped open space. Correspondingly, many local and regional efforts are underway to help preserve the diverse and interdependent systems that sustain life in the community.

An expansive farm field situated between Route 3A and the River.

The good quality of life in Litchfield also emanates from high levels of regional employment, a diverse and substantial regional economic base and quality local housing stock. Institutions and civic involvement such as in schools, churches, recreation leagues, Litchfield government and other groups also help promote a sense of community. Many residents also shop local farmstands and patronize other local businesses, such as contractors, restaurants, or convenience markets.

The local road system provides easy access to Manchester, Nashua and the regional airport in Manchester. Although the region demonstrated consistent growth over the last 30 years, housing remains somewhat affordable in Litchfield. Furthermore, in anticipation of growth, the community invested in developing the road and school system, including educational buildings and the boulevard style Albuquerque Avenue. Finally, the local public sector, bolstered by volunteerism, manages town affairs and promotes public health and well being.

The need for economic development stems from a desire to promote growth that is in character with the rural-agrarian heritage. There are significant areas of undeveloped unconstrained land in the community situated within commercial zoning districts. It is reasonable to expect that there will be continued growth and development in Litchfield over the next 25 years. Ensuring that high quality commercial

development occurs would provide jobs for the growing number of residents who will join the labor force in the future. Commercial sector expansion, if managed well, should also help realize municipal fiscal balance. In summary, the consistent expansion of the regional economy and the development of the new Circumferential Highway and the new Manchester Airport Access Road will provide opportunities and constraints for the community in terms of maintaining fiscal equilibrium and community character. Future economic development initiatives should be designed in light of these factors. As such:

The mission of the SEED Project Committee is to achieve the orderly and beneficial economic development of Litchfield.

The main goals of an economic development program in Litchfield are to:

- **Provide a planned and coordinated approach to economic development that benefits all area residents;**
- **Broaden and increase the job and tax base; and**
- **Preserve rural-agricultural community character.**

Adopting formal arrangements for economic development between businesses, community, and elected and appointed governmental leaders helps to generate the political and monetary resources necessary to shape economic policy. Economic development is a complex subject consisting of many interrelated issues and subjects. Based on an examination of the assets, opportunities, and constraints to economic development in Litchfield, four main categories have been selected to provide an organizing context. The four overlapping components of the Litchfield economic development strategy are:

1. **Organization;**
2. **Promotion;**
3. **Economic Restructuring; and**
4. **Litchfield Involvement In and Relationship to the Regional Economic Planning Process.**

These subject areas are discussed below along with specific strategies that the committee recommends the Town adopt. Then to culminate the chapter, there is a presentation of the recommended one-year action strategy.

ORGANIZATION

The organizational component of the economic development strategy refers to institutional structures used to coordinate and stimulate local economic development. Development activities are conducted by a variety of institutions at the local, regional, state and federal level. Assuming that the community supports economic development, such an initiative requires leadership and execution. Strong management will keep the effort for economic development focused on the most important goals and will promote consistency. Analyzing economic development in a systematic way will also provide continuous feedback and help identify ongoing improvements. Policy-making and programming should be instituted with the intent to establish a strong, viable and on-going organization that benefits all future and current residents.

Organizational Objective:

> **Establish a local economic development entity that will provide strong and sustained leadership and consultation on Litchfield community economic development.**

Recommendations:

- Formally organize a subcommittee of the Planning Board to oversee economic development initiatives. The committee should include representation from the Budget Committee, Conservation Commission, local business and citizens. It is important to specify within this structure the role of the committee chair.
- It has been emphasized that a formal local system is needed to respond to issues and opportunities as they arise. A person (or persons) needs to be selected who will serve as local contacts on matters of economic development. The committee recommendation is to hire an economic development specialist, at least part-time, to serve as a local contact.
- Promote a community-based approach to economic development that actively maintains consensus on the work program goals and implementation.
- Empower the economic development committee with responsibility and provide some autonomy from day-to-day oversight by the Planning Board.
- Lobby for limited Town funds to partially underwrite instituting an economic development program. The recommendation for the next fiscal year is to obtain funds to buy supplies, conduct mailings, public notices, and possibly perform special studies.
- Investigate and apply for outside public and private funds to assist local development, such as to underwrite cooperative marketing/publicity campaigns or assist wastewater treatment system development.
- On a yearly basis formulate a new work program strategy for the next year and update/revise the overall five-year program.
- Evaluate the need and potential to organize an independent non-profit economic development agency that would spearhead Litchfield economic development. If this option is pursued, include frequent consultation with the Selectmen and Planning Board.
- Continuously monitor and evaluate progress towards economic development objectives. Determine annual progress in meeting specific action objectives. Quantify targeted performance standards, such as budget goals, number of home-based businesses identified, the acres of open space development or acres of new commercial development achieved annually.

PROMOTION

Economic development requires clear and consistent communication with a variety of audiences. The community must be aware of the need for economic development and the policies selected to achieve it. Stakeholders must be aware of and informed about specific initiatives, both within the community and outside of it. For example, the business community requires awareness of special policies or targeted opportunities in Litchfield. The marketing or promotional element represents the formal and comprehensive approach to publicizing the Litchfield economic development program and conducting public relations.

Communication is an important part of the collaborative process of synthesizing different perspectives and options into workable policies that are feasible to implement. While it may seem cumbersome to continually publicize programs and educate the public, the community can help identify the most practical solutions to unique problems that arise in Litchfield. The community is also a constituency that must be informed of current activities; otherwise, adequate public support may not be generated over the long-run.

Promotional Objective:

> **Develop a public relations and marketing function to educate the public and promote Litchfield for business.**

Recommendations:

- Adopt a marketing strategy for economic development.
- Communicate with all local businesses, including home-based businesses, to understand their needs and define economic initiatives to promote their development and expansion.
- Provide public relations to promote economic development goals and objectives to the general public. Explain the benefits of pursuing a coordinated and sustained local economic development initiative.
- Publicize and advocate for infrastructure priorities at the local and regional level.
- Develop concise promotional brochures – such as a one-page color handout to attract firms that may have an interest in locating in Litchfield. Cultivate the business mix to include light industry, offices, agriculture, warehouses, and specialized commercial development.
- Attempt to attract one or more businesses (15 to 25,000 square feet of building per year) that match the characteristics identified in the 'Economic Restructuring' section.
- Promote agriculture as viable and important to community character and the local economy.
- Tie into regional economic marketing efforts and investigate grants to assist marketing.
- Promote open space development as an option to conventional development patters.
- Actively promote the use of community character guidelines to improve the physical lay out of commercial areas.
- Develop strategies, in partnership with local businesses, to bolster tourism and attract more visitors to existing and future Litchfield businesses.
- Explore the potential to use geographic information systems in education and marketing.
- Identify how a commercial property inventory and database would be utilized for marketing and promotions.
- Once economic development goals are ratified, actively market available opportunities in Litchfield.
- Promote and maintain the development of a business climate.
- After a strategy is developed, promote the opportunity for farmers from outside the community to rent or purchase prime agricultural lands for continued use as farm operations.

- Pursue a grant available from the NH Department of Resources and Economic Development (DRED) for undertaking publicity and promotions.
- Promote the development of a community Web site, and if successful, help establish a Litchfield economic section of the site.
- Evaluate how a potential economic development client is handled in Litchfield. Assessing the process will show if the is consistency, clear communication and follow-through.

ECONOMIC RESTRUCTURING

The process of nurturing the local economy and directing/managing future growth is complex. Developing high degrees of public-private sector collaboration requires that potential policies fit the needs of all parties involved. Programming should be effective and efficient so that precious resources are not wasted. Careful analysis must occur to gain understanding of the range of direct and indirect impacts of different policies. Analyzing the risks to the community and private sector actors in different options ensures that the methods of action selected are the most mutually beneficial to all involved.

The economic restructuring element involves defining and implementing specific policies to achieve intended economic affects within the public and private sector. It represents the attempt to influence markets for the public good and the benefit of private sector actors willing to share in the risk. It is assumed that by analyzing the local and regional economy and providing continuous monitoring of the economic environment that the risks become more manageable.

Economic Restructuring Objective:

> **Cultivate the local capacity to provide high-quality economic planning and decision-making. Strive to optimize community benefits and private sector opportunities.**

Recommendations:

- Inventory parcels in the commercial zoning districts and identify the most feasible and likely development opportunities. The database should contain a comprehensive set of information and attributes that can be integrated into computerized mapping programs. Examples of characteristics to define: ownership status and parcel attributes such as acreage, zoning, uses, site features, soils, types of structures, site infrastructure, utilities availability, etc. etc.
- Designate and promote Litchfield economic growth center(s), such as by highway interchanges or in developing areas. Nodes discussed in this study were:
    1. A broad area east of Colby Road, where Albuquerque Avenue will join Route 3A (high priority);
    2. Southeast of Route 3A, focused near the intersections of Albuquerque Avenue and the Circumferential Highway access ramps.
    3. The Route 102 corridor;
    4. A new town center designed around the municipal building by Albuquerque Avenue, possibly linked down to the historic town center near the Merrimack River on 3A.
- Examine instituting tax increment finance (TIF) districts.
- The economic development committee should monitor the adoption of community character guidelines by the Planning Board and evaluate the outcomes and impacts. Provide continuous feedback to the Planning Board on the application and effectiveness of the guidelines. The committee should focus on identifying whether it is appropriate to couple incentives, such as density bonuses, with the community character guidelines to promote participation in the voluntary guidelines.
- Assist existing businesses to link with resources to remain viable and expand – this is often termed business incubation. The GNCED can provide technical assistance to local small businesses that seek to make contact with financial institutions, the Small Business Administration, or others. The NRPC could provide a special study to more fully identify the very small home-based business in the community, evaluate their needs, and help tailor policies to promote home-based business maturation and moves from homes to commercial locations.

A service business in Tahoe, Nevada that probably applied design standards to configure the site. Photo by Richard Tango-Lowy, Economic Development Working Group volunteer, spring 1999.

High quality landscaping and complementary architecture contribute to the way this restaurant blends into the environment in Tahoe, Nevada. Photo by Richard Tango-Lowy, Economic Development Working Group volunteer, spring 1999.

- This committee should monitor detailed engineering, fiscal and environmental analysis relating to alternative wastewater treatment system impacts, potential designs, and funding opportunities. For example, monitor potential to join an inter-municipal public sewer system compact (such as by extending a line over the Circumferential Highway Bridge to Merrimack). The group should also further analyze potential for community/cluster septic systems.
- Attract and cultivate the following types of businesses in Litchfield:
  - warehouses
  - light industry, such as assembly and light manufacturing,
  - offices and office parks,
  - agriculture and specialized agriculture,
  - specialized commercial development (tied to the community character such as antique shops, dining, recreation, agriculture, or tourism)
  - institutional uses, such as hospitals, campuses, assisted living facilities or other elderly housing.
- The economic development committee should link with the Litchfield agricultural preservation project to identify joint initiatives. Targeted commercial development that does not detract from farming should be endorsed by the EDWG. Agriculture is the major component of the local economy. There are numerous programs funded by the U.S. Department of Agriculture, local affiliates, and nonprofits that can provide specialized resources to support and enhance agriculture. For example, there are established programs to recruit farmers to communities
- The committee should examine the potential to sponsor or help establish a planned business/industrial park in Litchfield. Such a park could incorporate high quality site design, including conservation design and higher density development. The committee should be prepared to support private developers with grant applications and other resources that could help achieve this objective.
- Develop an initiative to cultivate home-based businesses and move them into commercial zones as these businesses expand.
- Explore the use of special zoning and fiscal policies intended to stimulate selected business development.
- Provide feedback to the Planning Board on the effectiveness of existing land use laws and regulations. Work proactively with the Board to appropriately tailor zoning tools such as: performance standards, community character guidelines, site planning, environmental controls, the sign ordinance and enforcement.

- Provide detailed analysis on potential policies and programs that are likely to assist with the coordinated economic development within Town.
- Promote affordable housing to ensure that economic restructuring will benefit all community residents.
- Educate children about commerce and the workforce and forge school-to-work links between business and schools.

LOCAL INVOLVEMENT IN A REGIONAL PROCESS

Recognizing that contemporary economic systems extend beyond the borders of one municipality, this part of the plan represents the active process of forging links with economic development stakeholders outside Litchfield. Economic initiatives in New Hampshire typically occur within a regional delivery system. Many organizations provide unique services that aid development. The actors offer specialized services to address specific problems, or they are a source of funds to implement economic change in defined geographic areas. Thus, there are numerous partners who can provide resources to address problems at the local and regional level.

Collaborating with outside organizations ensures that the methods selected are feasible to implement, not redundant, and will not adversely affect other communities. Strengthening the competitive position of the region, promoting indigenous growth, and improving the physical environment of the whole region will benefit Litchfield. Forging regional level economic cooperation acknowledges that the ability of one community to act without cooperation from the larger region is limited. There are complex relationships between economic development, infrastructure, state and regional trends, and land use planning. The regional approach acknowledges that laissez-faire approaches to economic development are outdated. By working with stakeholders around the state, it is possible to tie into the already established regional economic response system.

Local Involvement in a Regional Process Objective:

> **Develop strong ties with regional economic development officials and the numerous economic development initiatives underway at the state and regional level.**

Local Involvement in a Regional Process Objectives:

- Forge continuing relationships with stakeholders in the private and non-profit sectors and with public officials at all levels of government. Some visible and active stakeholders are: the NRPC; Greater Nashua Center for Economic Development; U.S. Department of Housing and Urban Development; NH Office of State Planning; NH Department of Resources and Economic Development; New Hampshire-based banks; local and regional chambers of commerce; and the NH Community Development Finance Authority.
- Collaborate with the Greater Nashua Center for Economic Development to take advantage of its services. Prime objectives that GNCED can help Litchfield achieve are:
  1. Development of the commercial property database;
  2. Designing effective promotional materials;
  3. Promoting Litchfield as a site for economic development; and
  4. Providing business leads to the committee.
- Investigate public and private funds available to assist economic development and apply for funding support for the priority projects. Identifying grant opportunities requires monitoring the public and financial sectors for the availability of funds. Based on this study, the most pressing financial needs are:

1. Farmland preservation;
2. Sewer infrastructure planning and development;
3. Transportation system enhancement; and
4. Operating reserves for publicity and committee staffing.

- An Economic Development Working Group should serve as a resource during Town investigations with other communities and actors regarding the feasibility to develop a local wastewater treatment system. The NRPC is prepared to provide more detailed studies on the spatial, fiscal and environmental impacts of wastewater treatment alternatives in Litchfield. This detailed information is necessary to perform facilities engineering and to formulate grant and loan applications at later stages of project development.
- Improve the business image of Litchfield. As noted in the 'promotions' section, there has to be active interaction with outside actors to promote awareness of Litchfield goals, objectives and economic development initiatives. NH Cooperative Extension can assist business visitation surveys to define local business leaders' needs and opinions. The GNCED can help publicize Litchfield opportunities and initiatives to the region and beyond.
- Continue monitoring Litchfield's role in the regional economy. The NRPC, OSP, and others should be consulted routinely to obtain up to date demographic and economic statistics. NRPC assistance developing a geographic information databases for Litchfield will ensure that advanced methods of data development and analysis are available to the town.
- Coordinate local marketing with state and regional economic development efforts. In addition to the GNCED, there are numerous Webb pages and programs should be tied-into, such as at DRED. Private sector realtors, bankers, and public utilities, such as Public Service of New Hampshire also have marketing and economic development programs.
- Contact local chambers of commerce, such as in Hudson, Nashua, and Manchester to gain understanding of their programming and to determine which groups are most important to join or partner with.
- Communicate with adjoining communities and investigate the potential for joint economic development efforts. The wastewater treatment planning process is an issue to explore how to advance inter-municipal cooperation. Expansion of the Manchester Airport is another.
- Actively participate in regional initiatives. Any time there are meetings on regional economic development, a representative of the SEED Project Committee should attend. One example is the annual conference sponsored by the NH DRED and another is the Fall OSP conference.

CONCLUSION

Table IV-1 presents a 'Recommended One-Year Litchfield Economic Development Action Strategy'. It consists of ten steps to take over the next 12 months to establish a local economic development program. Achieving these objectives should help establish the economic development response system in Litchfield. Developing an economic development planning structure is intended to promote orderly commercial development, promote fiscal balance, generate public awareness of the benefits of economic planning and formulate ties with the regional economic response system.

TABLE V-1
RECOMMENDED ONE YEAR LITCHFIELD ECONOMIC DEVELOPMENT ACTION STRATEGY

Objective	Rationale	Target Date
Request Planning Board and Selectmen support for this one-year action strategy and obtain approval to extend the tenure of the economic development working group subcommittee under Planing Board supervision.	Shows widespread official support for pursing commercial development that does not adversely impact the community.	Fall 2000
Define a small, limited operating budget in order to operate under the supervision of the Planning Board, with Budget Committee support.	Provides for continued operations and communication with the public. Could include supplies, mailing, legal ads, memberships, special studies, etc.	Winter 2000
Advocate for Planning Board adoption of a Master Plan chapter on Economic Development.	Provides for consistency between economic development and other town policies and programs, such as preservation of open space, maintenance of community character and retention of the farming economy. Educates residents why town leaders seek to pursue coordinated economic development.	Winter 2000
Advocate for the community to work with the Greater Nashua Center for Economic Development.	This regional organization is a resource that provides professional assistance on economic development and is a connection with the regional, State and Federal economic planning system.	Spring 2001
Construct a commercial property inventory database.	Provides information on land use characteristics that can help define commercial growth potential. Provides information to help direct and optimize potential commercial development.	Spring 2001
Pursue further analysis of wastewater treatment programming options.	Analyze alternatives, including the feasibility of adopting small-scale community wastewater treatment facilities, financing options and the courses other communities have followed.	Summer 2001
Provide publicity on the need for local non-residential development and potential policies. Recommend developing a Web page or printing promotional brochures.	Cultivates awareness and public support for this long-range planning program.	Summer 2001
Recommend that the Town designate a person to serve as a Litchfield contact for economic development. Emphasize the importance of hiring someone at least part-time. Also analyze (audit) the process as to how the Town handles development prospects.	Provides a point person who can ensure consistency and follow-through. It focuses responsibility for the many objectives that must be achieved to institute an effective and efficient economic development system. The assessment will define how the Town handles a prospect and identifies the potential for problems, miscommunication or missed opportunities.	Summer 2001
Perform business visitations to understand local business needs and attempt to identify all Litchfield home-based businesses	Identifies pressing business needs and opportunities for public-private collaboration. This is a group that may be in favor of economic development. Home businesses may expand to commercial zones in the future.	Summer 2001
Research and apply for economic development grants. Some potential sources of funds are: the NH Dept. of Resources & Economic Development for promotions and publicity; the NH CDBG program for job creation; and the NH DES SRF program for infrastructure development.	Promotes partnering with regional organization and attempts to secure resources to help the process succeed.	Summer 2001

#610A-5

SELECTED BIBLIOGRAPHY: SMALL COMMUNITY ECONOMIC DEVELOPMENT

Community Based Small Business Start- Up Funds, Western Rural Development Center, Oregon State University, Ballard Extension Hall 307, Corvallis, OR 97331-3607, 1989.

Dilemma of Urban Economic Development: Issues in Theory and Practice, Urban Affairs Annual Reviews. Sage Publications, Inc. 2455 Teller Road. Thousand Oaks, CA 91320. 1997.

Economic Development for Small Communities and Rural Areas, Phillips, Phillip D., CIES Local Government Series, University of Illinois at Urbana-Champaign, Community Information and Education Service, Office of Continuing Education and Public Service, 302 East John Street, Suite 202, Champaign, IL. 61820. 1991.

Economic Development: What Works at the Local Level, Kane, Matt and Peggy Sand. Published by the National League of Cities, 1301 Pennsylvania Avenue, NW., Washington, DC 20004, 1988, 228pp. $20.00 (Paper).

Local Economic Development - Strategies for a Changing Economy, Fosler, Scott R., ed. 199 1. Washington: ICMA

Local Economic Development: A Strategic Approach, 2nd. Edition, Farr, Cheryl A. and Philip Favero, International City Management Association (ICMA) 1120 G. Street, NW. Washington, DC. 20005, 1984.

Managing Economic Development, Luke, Jeffrey S., Curtis Ventriss, B.J. Reed, and Christine M. Reed. 1988. San Francisco: Jossey-Bass.

Nature Based Tourism Enhances Coastal Economies, NCRI News, National Coastal Resources Research and Development Institute, 2030 South Marine Science Drive, Newport, OR 97365, Vol. 6, **No.** 2, June 1991.

Planning Local Economic Development.- Theory and Practice, Blakely, Edward J. 1994. Newbury Park, CA: Sage Publications.

Small Town Economic Development, Alquire, Frank, et. al. PAS MEMO, Planning Advisory Service, The American Planning Association, 1313 East 60th Street, Chicago, IL 60637, 1987.

Theories of Local Economic Development: Perspectives From Across The Disciplines. Binham, Richard D. and Robert Mier, ed. Newbury Park, CA: Sage Publications. 1993.

REFERENCES

Burchell, Robert W. and Listokin, David. The Fiscal Impact Handbook. The Center for Urban Policy Research. East Brunswick, New Jersey. 1978.

Interview by David Gilmour, AICP, NRPC. Interview of Milton, Vermont Town Planner on the Characteristics and Economic Development in Local Industrial Parks. July 16, 1999.

Mount Auburn Associates. Nashua at the Crossroad: A Strategic Plan for the Future. Somerville, MA. June 12, 1991.

Nashua Regional Planning Commission and The Town of Merrimack, NH. "Town of Merrimack Buildout Study. April 1999.

Nashua Regional Planning Commission. Draft NRPC Regional Housing Needs Assessment. June 1999.

New Hampshire Employment Security. 1996 County Profile. Concord. May 1998.

New Hampshire Employment Security. Litchfield Local Area Unemployment Statistics 1989 –1997. Concord. September 9, 1998.

New Hampshire Employment Security. 1995 County Profile: Employment and Wage Data. Concord. May 1997.

New Hampshire Employment Security. 1996 Profile of New Hampshire and Its Eighteen Labor market Areas: Employment and Wage Data. Concord. May 1998.

New Hampshire Employment Security. Litchfield Local Area Unemployment Statistics 1989 –1997. Concord. September 9, 1998.

New Hampshire Office of State Planning, and The Whittemore School of Business Economic, University New Hampshire. New Hampshire 1998 State Development Plan. Concord. July 1, 1998.

New Hampshire Office of State Planning. "1997 Population Estimates of Cities and Towns. Concord. August 1998.

Phelps, Janet. "1998 New Hampshire Economic Report". Manchester.

Prolman, Mark D. Commercial Real Estate. Greater Nashua Chamber of Commerce. Nashua. 1998.

Public Service of New Hampshire. "1998 New Hampshire Economic Review". Business NH Magazine. Manchester: November 1998.

State of New Hampshire Department of Revenue Administration. "1997 Equalization Survey". Concord. June 9, 1998.

Strafford Regional Planning Commission. SRPC Research Report: "The Land Development Property Tax Issue". September 17, 1998.

Thibeault, Russ. "Economic Forecast 1999. New Hampshire Editions. Nashua.

Town of Litchfield Buildout Study Committee and Nashua Regional Planning Commission. "Town of Litchfield Buildout Analysis". October 1997.

Town of Litchfield Industrial-Commercial Development Committee. "Industrial-Commercial Development Committee Report" 1988.

Town of Litchfield Planning Board and Nashua Regional Planning Commission. "Draft Master Plan Chapter – Population and Housing". June 1999.

Town of Shirley, Larry Koff and Associates, Thomas Planning Services, Inc. Draft Town of Shirley Wastewater Impact Study". November 5, 1997.

#610-18