TOWN OF HOLLIS COMPREHENSIVE PLAN UPDATE

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Prepared By:
Town of Hollis Comprehensive Planning Committee

With Assistance From:
Southern Maine Regional Planning Commission

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Chapter 1: Introduction

HOW DID WE GET HERE?

The Town of Hollis has a long and rich past. Until recently, though, the Town never attempted to envision what its future would look like. The *Comprehensive Plan for the Town of Hollis, Maine*, written in 1991, was the first comprehensive examination of Hollis and the first attempt to map out goals, policies and strategies to shape the future of the Town.

In 2003 the Town of Hollis set about updating the 1991 Comprehensive Plan. Over the past year, the Comprehensive Planning Committee, with guidance from the Southern Maine Regional Planning Commision (SMRPC) has worked on this plan update, keeping both the long-term and the recent past in mind. Using the existing plan as a guide, the Town now presents the *Town of Hollis Comprehensive Plan Update*.

The 1991 plan began with an examination of the historic context of growth and development in Hollis called "Looking Back": Hollis, Past and Present. This plan update begins with an adaptation of it.

"Looking Back": Hollis, Past and Present

(Adapted and updated from 1991 Comprehensive Plan)

Growth and change in the Town of Hollis can only be understood in the context of historical and geographical trends. Hollis has gone through many periods of evolution and change. The *Comprehensive Plan for the Town of Hollis, Maine*, completed in 1991, gave us for the first time a chance to speak with one voice, as a community to direct our destiny - not only with regard to land use, but in the areas of economic development, local government, resource protection and other areas as well. To update the previous plan, the Town had to take stock of where we have been, where we are, and where we are headed.

Our early records are scant, and give us little concrete evidence of settlement of the Hollis area. At least one early map, circa. 1700, indicates Indian settlements alongside the Saco River in what is now Hollis, and archaeological evidence supports this. The record has established that there were at least semi-permanent uses of sites by Native Americans in the Bonny Eagle and Salmon Falls vicinities.

In 1728, in what is now Dayton, a trading post and fort were established at the foot of the series of rapids and falls along the Saco. The generally accepted earliest date of colonial settlement in what is now Hollis is 1753.

The stepped falls along the Saco between present-day Bonny Eagle and Salmon Falls (Skelton) Dams was the inspiration for the name "Little Falls Plantation." The plantation included present Dayton, Hollis and the southern part of Limington. The earliest record of a plantation meeting is March 27, 1781, and the 1790 Census records a plantation population of 607. The area was growing rapidly in population, due to easy river access and relatively flat countryside.

In 1797, the northern portion of the plantation was annexed to the Town of Limington. The remainder was incorporated under the name "Phillipsburg" on January 27, 1798, becoming then the 117th town in the Province of Maine. On May 6, 1811, our present name of Hollis (after an English Earl) was adopted, Phillipsburg having been judged by its inhabitants too long to write and too hard for schoolchildren to learn to spell. Present-day Dayton separated out on April 7, 1854. Since then the name and boundaries of Hollis have remained unchanged.

Though largely gone now, the lush forests along the Saco River lured the first European settlers to Hollis. The river carried felled timber down to the burgeoning mills, docks and shipyards of the industrializing Biddeford-Saco area. The cleared land was rapidly converted to farm and permanent settlement. Timber harvesting moved back from the river's edge. Though close to 80 percent of the land area of Hollis is covered with trees today, virtually none is old growth. It is almost all the product of overgrown farms.

Enterprising individuals established lumber and grist mills at Bar Mills and Moderation (now West Buxton), taking advantage of the energy of the river much as the Central Maine Power Hydroelectric Facilities do now. Merchants followed, as the population and its needs grew. The 1850 Census recorded 2,683 persons living in the Town of Hollis.

As the American West opened up many Hollis residents deserted the relatively poor soil and harsh climate of New England for rosier prospects in the new lands. This phenomenon happened throughout rural Maine; nearly every town in Maine recorded a rapid population decline beginning about the time of the Civil War and running through the Depression. In Hollis, the population had dropped to 1,278 by 1890—a loss of more than 50 percent from its 1850 level.

For most of its more than 200 years of incorporation Hollis has been an agricultural, rural town. Those that did not join the exodus of the late 1800s had much of the best agricultural land in the first place. Some of that land is still being farmed today. Most of the abandoned farms and homesteads reverted to forest, and remained largely undisturbed for more than 150 years until the 1960s when Hollis began to experience residential growth from people employed in the Portland and Biddeford areas.

Since then, Hollis has undergone a transformation from a truly rural town with a localized economy based on agriculture and forestry to a bedroom community for employment centers in the larger region. Today Hollis has more than 4,000 residents and continues to face growth pressures.

The original "Looking Back" summary in 1991 concluded with the following statement: "Our heritage is bound up in farms and forest. It remains to be seen how much of that tradition that we so value will survive into the next century." Since that statement was written the Town has added more than 500 new residents and, more importantly, about 300 new housing units. With each new house built in Hollis, this concern about balancing tradition with progress only becomes more relevant.

Looking Back…to 1991

As visionary documents, comprehensive plans must be completed with many assumptions about the future in mind. Hollis' 1991 plan was no different; it presented a number of such assumptions regarding the supposed future of the Town. Since this document represents an update of the 1991 plan, it is therefore important to revisit some of these key assumptions.

The points that follow summarize the 1991 plan's assumptions and then evaluate to what extent they were correct.

- *"The people of Hollis are changing—in both quantity and character."* This statement is clearly true. Hollis added more than 500 residents between 1990 and 2000 and nearly the entire increment can be attributed to affluent residents over the age of 45 who earn their livings outside of the Town.

- *"The character of commerce will change…[and] patterns are emerging now. Home occupations are gradually growing into small businesses…and strip malls are growing on Route 202….Typical of suburban towns, the development is more likely to be retail and service operations than office or industrial."* There has actually not been a great deal of commercial development along Hollis' major roads. In fact, home occupations continue to dominate commerce in the Town. Also, the unforeseen addition of a major industrial facility—the Poland Spring bottling plant—provided a boost to the Town's economic base.

- *"By the end of the decade, traffic on 202 at the Saco River bridge will be more than the roadway capacity, and the same will be true at Hollis Center in two decades."* Despite increased volume on Route 202, the Saco River bridge at Salmon Falls is still functioning adequately. Traffic at Hollis Center has not proven to be the real issue there—safety has. However, the alterations of the stop signs at the intersections of Route 117 with Routes 35 and 4A have improved safety at those locations.

- *"As Hollis suburbanizes there will be demand for retail and service outlets. A town of 5,000 logically cannot subsist on three convenience stores."* This has not really been the case—yet. There are two reasons why. First, Hollis' population did not grow nearly as quickly as the 1991 plan expected. Second, there has been major retail expansion in surrounding communities, especially Waterboro and Biddeford.

- *"Resource-based industry—farming, forestry, mineral extraction—is weakening in the face of land intensive residential and commercial growth…Though perhaps 20 of Hollis' 36 square miles is still usable for farm or forestry, at least 1.5 square miles will be whittled away by development in this decade…"* This prediction was accurate—about 1.6 square miles were developed in Hollis between 1990 and 2000. However, new development did not really have meaningful impacts on existing resource based industries.

- *"New homes will change to meet the demands of the population. Hollis has experienced an increase in three and four-person households at the expense of larger ones. Any developer looking at these numbers will think of building smaller houses or apartments."* This statement was correct in discussing smaller household sizes but totally incorrect in

anticipating the real estate market. Despite shrinking household sizes, people are actually building ever larger homes and almost no multi-family housing units have been produced in York County in the past few years.

- *"In Hollis, housing will continue to be sited along existing roads as long as frontage lots are cheaper than the sum costs of back lot plus new road*." While there has been a lot of frontage lot development in Hollis, there have also been many new subdivision roads built as well. As predicted in 1991, though, a large part of the reason for new subdivision development has been the scarcity of available lots with frontage on existing public roads.

- *"The natural resources of Hollis are a constraint to economic activity of every kind in the town, as well as the reason for most of it…The more people that are attracted to Hollis for its environment and lifestyle, the more it puts those assets in jeopardy."* This statement is as true now as it was in 1991.

In summary, the 1991 plan was generally prescient in envisioning Hollis' future, although the fact that growth occurred at a much slower rate than anticipated kept many of the plan's most catastrophic predictions from coming true. However, a new wave of growth has been underway in earnest since the late 1990s, and many of these problems identified in 1991 were really just postponed, not avoided.

The underlying assumptions that were made in 1991 generally still apply in 2004. Hollis' population continues to rise and it is only a matter of time before it reaches 5,000. New pressures are emerging for commercial development. There is an even greater shortage of affordable housing in the region now than in 1991. Traffic volumes are multiplying at rates that exceed population growth.

In addition to these old assumptions, many new assumptions needed to be made to guide the formation of the 2004 plan update. The following section presents a summary of the concerns that are likely to face the Town of Hollis over the next decade and beyond.

LOOKING AHEAD: PROSPECTS AND TRENDS

Hollis has undoubtedly changed since 1990. The Town has added about 300 new housing units and has attracted many new households. Newer residents to the Town tend to be over 45, well educated, affluent and have no children living at home. Due to the changing population of Hollis the Town's school enrollment has begun to decline, but sharp rises in property values have resulted in rising taxes just the same. Also since 1990, Hollis has welcomed the Poland Spring bottling plant, the first major industry to come to the Town in modern times.

As Hollis has grown, its rural identity has been diminished. There are now few public roads in the Town that do not show signs of suburbanization. Some roads are lined with dozens of new houses, others are seeing commercial development, while others have simply become burdened with more and more traffic and have become less safe as a result. Thirty years ago Hollis was a rural farming and logging community of 1,500 people and most of the Town's residents earned their livings close to home. Today, Hollis is a bedroom community of more than 4,000 people

from which most working residents travel to Biddeford, Portland or other employment centers to earn their livings.

After 30 years of rapid development, the Town of Hollis finds itself at a crossroads in 2004. Though its visual character and community identity have eroded, the Town does still retain areas with strong rural character and excellent natural, cultural and historic resources. As Hollis considers its future, the Town needs to keep this fact in mind.

The points below summarize more specific predictions regarding Hollis' future. These points underpin the Comprehensive Plan as a whole.

Demographic Trends
- Though the population growth of Hollis will remain steady, the small average size of new households is expected to translate to increased housing growth.
- Hollis is expected to add about 700 new residents between 2000 and 2015. The Town's 2015 population would thus exceed 4,800.

Housing Trends
- Affordable housing will become increasingly scarce as housing prices continue to rise at a rapid pace.
- Demand for senior housing, multifamily housing, and special needs housing will be strong.
- Hollis should expect to add up to 450 housing units between 2000 and 2015, an average of 30 units per year.

Economic Trends
- Hollis will continue to transition into a commuter suburb to the Portland area, as housing prices along the coast remain unattainable for many working families.
- Hollis should be able to offer some economic opportunities, particularly for service businesses and home occupations.
- Demand may exist for additional industrial development, but the Town would likely need to invest in infrastructure.

Fiscal Capacity
- Although Hollis has kept its property tax rate in check, rising values have made tax bills increase. Unless its commercial tax base can be augmented, property taxes in Hollis will continue to increase in the future.
- Hollis has no active debt and thus has substantial capacity to take on new debt in the future.

Transportation
- Reconstruction projects on Routes 202 and 5 are in MDOT's 2004-2009 Six-Year Plan, and there may be opportunities for Hollis to coordinate local transportation projects with these efforts.
- Many of Hollis' secondary town roads will become even more congested and dangerous due to continued development both in Hollis and in neighboring towns.

Public Safety
- Fire and police facilities and protection in Hollis should remain satisfactory.

Education
- School enrollments will continue to decline in Hollis and other MSAD6 towns due to aging populations and declining birth rates. This could impact the functionality of the districts' school facilities.

Town Facilities and Services
- The Town Office is over its capacity; Hollis needs to develop both short and long-term solutions to this problem.
- Hollis' recycling program needs strengthening to raise the Town's recycling rate.
- Recreation programs are sufficient and have expanded to meet the needs to the changing population of the Town.

Natural Resources
- Hollis must work to protect its most valuable natural areas:
    - The area around Killick Pond
    - High-value wetlands located west of Route 117 and north of Upper Tarbox Road
    - Land with prime agricultural soils and critical habitat south of Route 202 and west of Bear Hill Road
- Growing areas of North Hollis do not have suitable soils for septic disposal. The Town may want to investigate other means of disposing of wastewater.

Historic and Cultural Resources
- Hollis must work to protect homes and structures in its historic settlements from the negative effects of development.
- Views in Hollis along rural roads are particularly threatened by continued growth.

Land Use Trends
- New residential development has been scattered throughout the Town with little organization and will continue to do so without stronger growth management.
- As frontage lots become increasingly scarce, more new development in Hollis will occur as part of subdivisions. This will allow the Town to plan its growth more effectively.
- About 9,500 of Hollis' roughly 15,000 undeveloped acres are registered in the state's Open Space or Tree Growth land conservation programs.

SUMMARY OF PUBLIC PROCESS

Public input was a critical component of the Hollis Comprehensive Plan Update at all stages of the process. Throughout the planning process, the Comprehensive Plan Committee held a series of public hearings and meetings to identify the concerns of citizens, flesh out specific issues, develop solutions and solicit feedback on the draft plan.

In all, five public hearings were held during the process of writing the plan:
1. September 17, 2003 – General Discussion on Key Issues

2. October 22, 2003 – Character of Development and Provision of Local and Regional Services
3. December 22, 2003 – Transportation Issues
4. October 18, 2004 – Goals of Plan Chapters
5. March 23, 2005 – Presentation of Draft Plan and Public Comments

Notes from each of these hearings are presented in Appendix A at the end of the plan. In particular, the first three hearings provided the Committee with an extensive amount of direction in setting its goals and policies.

Chapter 2: Housing and Economic Development

DEMOGRAPHIC PROFILE

The starting point for updating the Comprehensive Plan is to take stock of demographic and economic conditions. This section summarizes trends and profiles of Hollis' demographics and its economic situation.

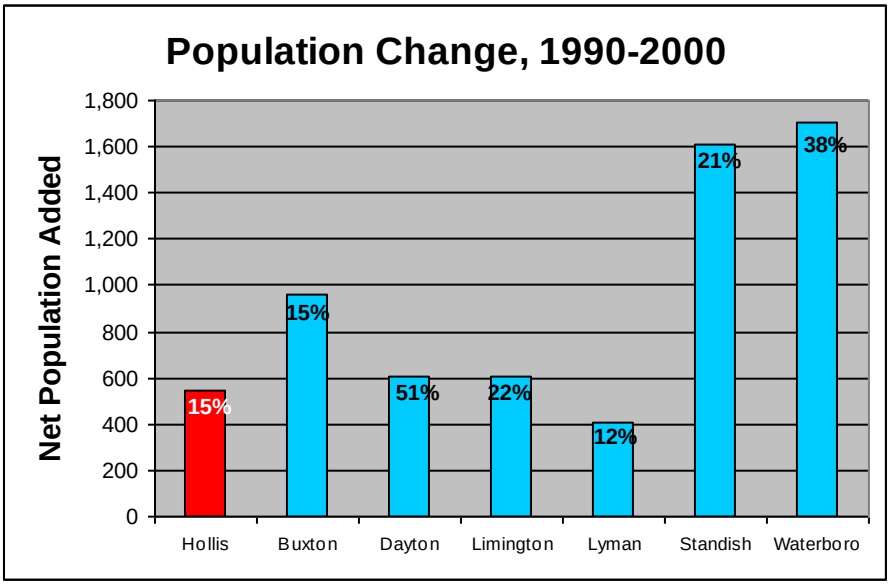
Population Growth

Continuing a trend begun in the 1960s, the Town of Hollis is still experiencing significant population growth. Although the rate of growth in Hollis slowed somewhat in the 1990s, the Town still experienced a 15% increase in population between 1990 and 2000, as it added 541 residents to its 1990 base of 3,573.

Despite this fairly rapid growth rate Hollis' population is actually growing at a slower rate than most of its neighbors. The chart and table below highlight Hollis' growth over the recent past.

Hollis Popuation, 1970-2000

	Population	Change	% Change
1970	1,560		
1980	2,892	1,332	85%
1990	3,573	681	24%
2000	4,114	541	15%



Of the six towns that border Hollis, only Lyman grew at a slower rate or added fewer people. Even Dayton, which only had a 1990 base of 1,197, added more people in the 1990s than did

Hollis. The towns of Standish and Waterboro each added more than 1,500 new residents between 1990 and 2000, and Buxton added nearly 1,000.

Population growth in Hollis was significantly slower than foreseen in earlier projections. Population estimates from the 1991 plan called for three possible growth scenarios for population in 2000:

- Scenario 1 projected 50 new homes per year = 4,695 people
- Scenario 2 projected a population gain of 114.5 people per year = 4,995 people
- Scenario 3 projected an annual growth rate of 3% = 5,120 people

In reality, these projections proved to be far too aggressive, as they exceeded the real 2000 population by between 500 and 1,000 people. A large part of this slowdown is attributable to the recession of the early nineties, which slowed down growth throughout Southern Maine. Based on recent development activity, however, it appears that growth rates are once again ramping up. This issue will be explored further in the section on building permits.

Hollis and its neighbors are, for the most part, bedroom communities whose residents commute to work in nearby service centers such as Portland, Biddeford and Sanford that are growing at much slower rates. Continued growth in all of these towns speaks to the issue of sprawl and the regional nature of population movement. This trend has profound implications for the use of land and fiscal issues, particularly related to public school enrollment and capacity.

Age Profile

The age composition of Hollis has also changed. The median age in 1990 was 31.2 and it is now 36.8. This represents a fairly dramatic increase in the median age of 18%. As the table to the right illustrates there has been an enormous shift in the Town's population to its older age brackets.

In 1990, there were 522 residents of Hollis aged between 45 and 64 (15% of total); by 2000, this age bracket had 1,031 people in it—25% of the Town's total population. The younger adult population (ages 18-44) actually shrunk in size, declining by 27 people.

Age Profile in Hollis, 1990-2000

	1990	2000	Change, 1990-2000 Number	Change, 1990-2000 Percent
Numeric Totals				
Under 5	329	257	-72	-21.9%
5-17	762	845	83	10.9%
18-44	1,693	1,666	-27	-1.6%
45-64	522	1,031	509	97.5%
65+	267	315	48	18.0%
Total	**3,573**	**4,114**	**541**	**15.1%**
Percentage Totals				
Under 5	9.2%	6.2%		-3.0%
5-17	21.3%	20.5%		-0.8%
18-44	47.4%	40.5%		-6.9%
45-64	14.6%	25.1%		10.5%
65+	7.5%	7.7%		0.2%

Source: U.S. Census of Population and Housing

Educational Attainment

The education level of Hollis residents improved considerably from 1990 to 2000. In 1990, 83.5% of the Town's adult population had a high school diploma and 15.3% had at least a bachelor's degree. By 2000, 87.0% were high school graduates and 19.5% were college graduates.

As of 2000 Hollis had a higher rate of high school graduates than either York County (86.5%) or the State of Maine (85.4%), but a lower rate of college graduates. Both the county and state had a college degree attainment rate of 22.9% in 2000.

Seasonal Population

Unlike many towns in Southern Maine, Hollis does not contain a large inventory of seasonal housing units. The 2000 Census reports that just 35 of the Town's 1,592 housing units were for seasonal use—2.2% of the total stock. This compares with 31% in Limington, 20% in Waterboro, 19% in Lyman, and 13% in Standish. This disparity is explained by the fact that these towns all have substantial amounts of shoreland on ponds or lakes. The two towns in the surrounding area without ponds or lakes, Buxton and Dayton, also have few seasonal housing units.

Future Population and Household Growth Scenarios

The State Planning Office (SPO) has developed a population forecast for use in Comprehensive Plans. Its projections are as follows for Hollis:

2000	2005	2010	2015
4,114	4,423	4,653	4,818

The projected change from 2000 to 2015 represents an increase about 700 residents; a 17% growth rate. Considering that even the most conservative projection in the 1991 plan foresaw Hollis having more people in 2000 than this projection envisions in 2010, SPO certainly expects slower growth rates in the future than it did a decade ago.

Another way to look at possible growth is to take the town's current building cap of 50 units per year into account. Assuming that on average the town distributes 50 residential building permits per year, we can multiply that by the 2000 average household size (2.73) and project an additional 1,365 people living in Hollis in ten years (an increase of 33%). This represents a much greater increase than SPO has projected.

A final consideration is that the birth rate in Maine is at its lowest point in more than 100 years. The decreasing birth rate has led to a decline in statewide school enrollments and an increasing tilt to the older parts of the population. If, as the saying goes, "demography is destiny" then three trends are likely to occur in Hollis as a result of the falling birth rate: the population will continue to age, the average household size will continue to diminish, and school enrollments will decline.

ECONOMIC PROFILE

Income Data

Income levels in 2000 for Hollis exceeded the state and county averages for both median household and median family incomes. Hollis' median household income level of $48,846 places it $5,000 above the county median and substantially above the neighboring towns of Limington, Lyman and Waterboro. These three towns are all located further away from Portland and the coast.

Income Levels, 2000 Census

	Per Capita Income	Median Household Income	Median Family Income
Buxton	$20,179	$48,958	$52,845
Dayton	$20,629	$53,056	$57,962
Hollis	**$19,065**	**$48,846**	**$53,621**
Limington	$17,097	$42,023	$46,571
Lyman	$20,203	$47,860	$53,140
Waterboro	$17,813	$43,234	$46,667
York County	$21,225	$43,630	$51,419
Maine	$19,533	$37,240	$45,179

Source: 2000 U.S. Census

Conversely, Hollis' median household income level trails the towns of Buxton and Dayton, both of which are closer to Portland and the coast. There is clearly a relationship between income levels and proximity to the region's major employment center and the ocean.

Hollis' per capita income level of $19,065 is not as strong, however, as it is actually below those of the county and the state. This is very likely due to Hollis' concentrations of both children and retirees, as both of these population segments earn little to no income, thus dragging down the per capita income level.

Looking at income levels by category, Hollis' households are very strongly concentrated in the middle-income ranges. As the table to the right shows, 67 percent of the town's households earn between $25,000 and $75,000 per year, compared with 54 percent of all households in York County and just 52 percent of all households in Maine.

Households by Income, 2000 Census

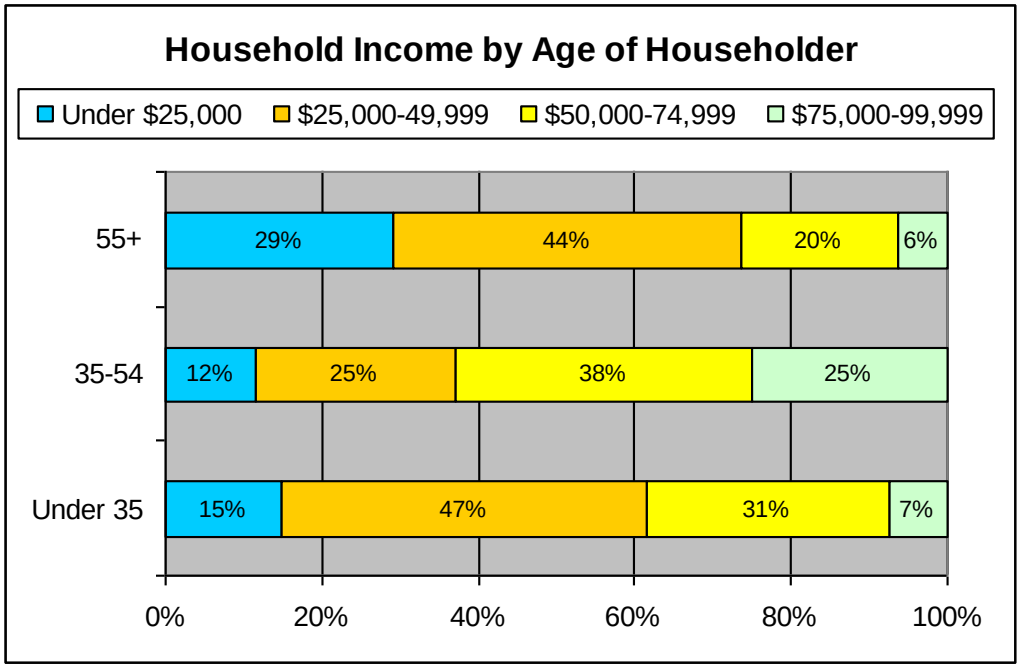
	Hollis	Buxton	Dayton	Limington	Lyman	Waterboro	York Co.	Maine
Under $15,000	9.5%	12.3%	6.3%	16.2%	9.8%	7.6%	13.5%	17.8%
$15,000-24,999	7.4%	8.0%	8.7%	10.8%	10.5%	15.5%	12.7%	14.8%
$25,000-34,999	12.3%	10.6%	9.2%	11.3%	9.0%	12.1%	12.9%	14.2%
$35,000-49,999	22.4%	20.3%	20.4%	23.5%	24.3%	25.2%	18.1%	18.3%
$50,000-74,999	31.9%	28.4%	32.8%	24.0%	29.4%	26.3%	23.3%	19.4%
$75,000-99,999	10.4%	11.7%	13.8%	8.9%	10.2%	7.0%	10.6%	8.4%
$100,000+	6.1%	8.8%	8.9%	5.3%	6.7%	6.4%	8.8%	7.1%

Source: U.S. Census of Population and Housing

Hollis has lower shares of both low-income (below $25,000) and high-income (above $75,000) households than does the county as a whole. For both categories, about 16% of households in Hollis meet the definitions. By comparison, 26% of all households in York County earn less than $25,000 per year while more than 19% earn over $75,000. The state is more heavily skewed toward the bottom of the income scale, as more than 32% of all Maine households earned less than $25,000 per year in 2000.

Household income levels in Hollis are very strongly related to the age of householders. Households headed by individuals under the age of 35 or over the age of 55 are far more likely to be in lower income brackets than are those headed by individuals between the ages of 35 and 54. Among households headed by those 55 or older, 73% earn less than $50,000 per year, compared with 62% of households headed by persons under 35 and just 37% of those headed by persons aged 35-54. At the other end of the scale, 25% of households headed by persons aged 35-54 earn more than $75,000 per year; fewer than 7% of households headed by individuals either over 55 or under 35 earn this much.

The chart below illustrates this point.



The implication of this income disparity by age is that new households moving to the Town tend to be headed by persons between the ages of 35 and 54 and typically earn far more than current residents. This divide is contributing to a shortage of affordable housing for households with both younger and older householders. This issue is discussed further in the Housing section.

Employment Base

Hollis is a primarily residential town with a small employment base. According to the Maine Department of Labor, 474 people were employed full-time in the town as of 2000. While this number is small, it has grown by 46% since 1990, when just 325 were employed in Hollis.

While much of this job growth can be attributed to the new Poland Spring bottling plant off of Plains Road in the western part of the town, a substantial amount of economic activity in Hollis is being driven by small businesses. As of 2003 there were 143 known businesses in the Town, the vast majority of which are home occupations that are geographically scattered throughout the town.

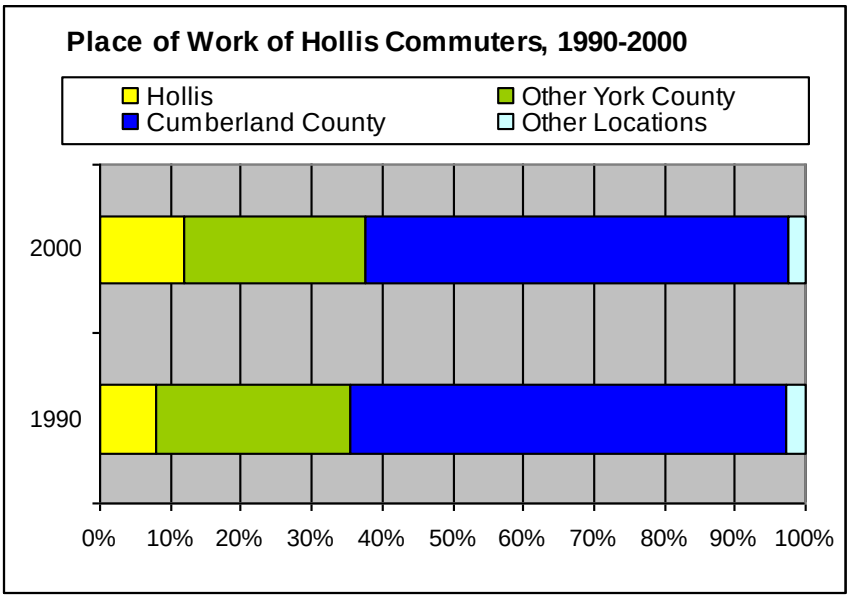
Hollis is part of the Biddeford Economic Summary Area (ESA), as defined by the Maine State Planning Office. Biddeford, along with the neighboring city of Saco, forms the largest employment center in York County, with nearly 17,000 jobs as of 2000. In all, the seven-town ESA had a 2000 employment base of 31,000 jobs. Employment growth in the ESA has been strong as well, with about 5,000 jobs added in the period from 1995 to 2000.

Despite its inclusion in the Biddeford ESA, the overwhelming majority of working residents of Hollis commute to the Portland area (see the commuting patterns section below). The Portland Metropolitan Statistical Area, Maine's largest employment center, has also experienced strong job growth, adding about 20,000 jobs from 1995 to 2000. Due to Hollis' proximity to Portland and its surrounding employment centers like South Portland, Westbrook, Scarborough and Gorham, growth in those cities and towns will continue to drive demand for residential development in Hollis.

Commuting Patterns

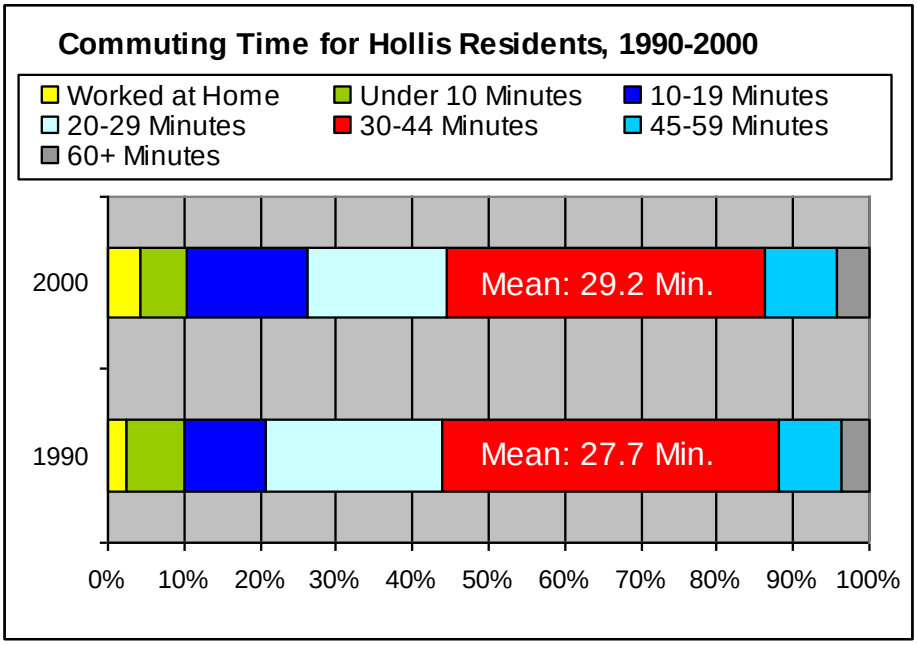
Despite its historic identity as a rural farming town Hollis is clearly becoming a bedroom suburb whose residents commute out of town, primarily to the Portland and Biddeford areas. From 1990 to 2000 the number of Hollis commuters actually grew by virtually the same number as did the Town's population as a whole—the change in commuters from 1,787 in 1990 to 2,327 in 2000 was 540, compared with the population growth level of 541. The commuter population's growth rate, was much greater though (30%, compared with a 15% overall population growth rate).

The chart below compares the places of work of Hollis commuters in 1990 and 2000.



Although the majority of Hollis commuters still travel to Cumberland County (primarily to Portland, South Portland, Scarborough and Westbrook), many more now work within the Town of Hollis. The share of commuters staying in Hollis for work rose from 8% in 1990 to more than 12% in 2000.

Despite this increase in the share of commuters staying in Hollis, commuting times of Hollis residents still increased during the 1990s. In 1990, the mean commuting time of Hollis residents was 27.7 minutes; by 2000, the mean time was 29.2 minutes. A much larger share of Hollis commuters (26% to 21%) had commutes of less than 20 minutes in 2000 than in 1990. But, counteracting those with shorter commutes, the share of those commuting more than 45 minutes to work grew from 12% to 14%.



HOUSEHOLDS AND HOUSING DATA

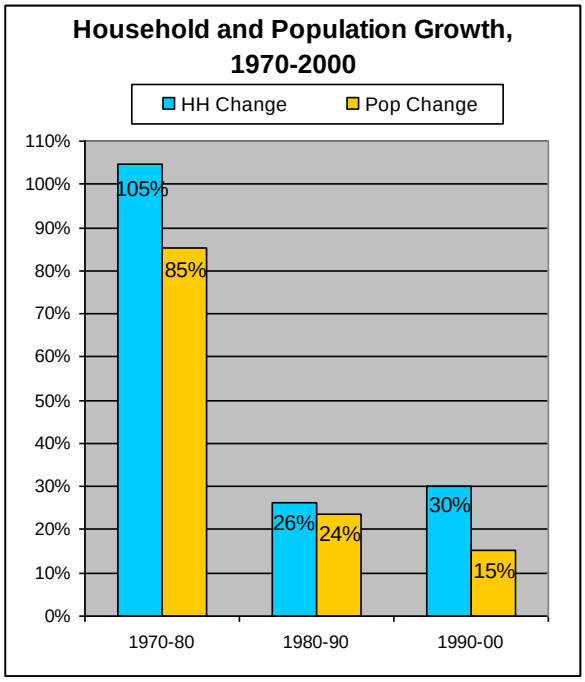
Household Trends

Accommodating the population increase of 541 persons from 1990 to 2000 in Hollis required a net change of 347 households, an average of just 1.56 persons per new household added. The result of this trend was a reduction in the average household size in Hollis from 3.08 persons in 1990 to just 2.73 in 2000. The number of households and the percentage changes from 1970 to 2000 were:

Household Data for Hollis

	1970	1980	1990	2000
Number	449	919	1,160	1,507
Change		470	241	347
% Change		104.7%	26.2%	29.9%

Source: U.S. Census of Population and Housing



The chart to the right compares Hollis' population and household growth from 1970 to 2000. Although population and households grew at similar rates from 1970 to 1990, from 1990 to 2000 the household growth rate greatly eclipsed the population growth rate. This trend clearly shows that recent newcomers to Hollis have tended to have fewer children than did those who moved in between 1970 and 1990.

As household sizes decline, the number of new housing units needed to accommodate population goes up. For example, at 3.08 people per household, housing 100 new people would require 32 housing units; at 2.73 people per household, the same number of people would require 37 units. The clear implication of the declining household size is that continued population growth in Hollis is only accelerating demand for housing development.

Going beneath the average household size issue, much has been made of the rise in single-person households nationally. In Maine, as of 2000, 27% of households statewide had just one resident, while only 20% had four or more people. Hollis has only begun to experience this phenomenon, though, as just 16% of its households have only one resident (up from 12% in 1990) while 27% have four or more people.

Housing Unit Trends

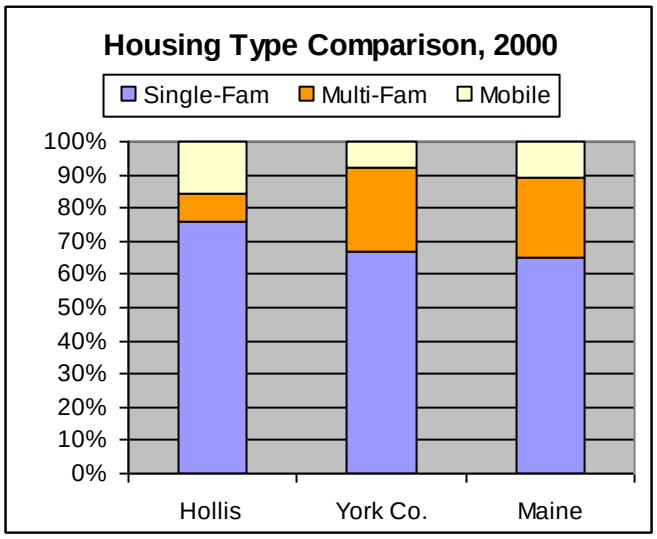
The net change in housing units in Hollis from 1990 to 2000 was nearly equal to the net change in households, as the town added 338 new units during the decade, a 27% increase from the 1990 base of 1,254. This mirrored the trend in the surrounding region, which saw its housing inventory grow by 28% during the decade, as shown below.

Housing Unit Change, 1990-2000

	1990	2000	Numeric Change	Percent Change
Buxton	2,362	2,930	568	24.0%
Dayton	425	663	238	56.0%
Hollis	**1,254**	**1,592**	**338**	**27.0%**
Limington	968	1,279	311	32.1%
Lyman	1,473	1,749	276	18.7%
Standish	1,058	1,354	296	28.0%
Waterboro	2,144	2,828	684	31.9%
Total	**9,684**	**12,395**	**2,711**	**28.0%**

Source: U.S. Census of Population and Housing

Hollis' housing stock is overwhelmingly comprised of single-family homes and mobile homes. These two housing types account for 92% of the units in Hollis, with single-family units representing 76% and mobile homes representing 16%. The remaining 8% of units are multi-family units. Hollis' housing profile is compared with York County's and Maine's in the chart to the right.



Housing tenure in Hollis varies greatly by the type of housing occupied. In general, most single-family units (93%) are occupied by their owners and most multi-family units (81%) are occupied by renters. Mobile homes are also mostly owner occupied—79% are owned by their occupants.

The housing vacancy rate in Hollis is extremely low. Data from the 2000 Census show that the homeowner vacancy rate in the town was just 0.7 percent and the rental vacancy rate was 1.3 percent. These low rates mean that continued demand for housing units in Hollis will mandate new construction.

The continued increase in smaller households outlined above will create demand for different types of housing units, particularly multi-family units for all ages of the population and specialized housing aimed at senior citizens. Senior housing can include units for people in all types of health conditions, ranging from active retirement communities to age-restricted rental units to assisted living to nursing homes.

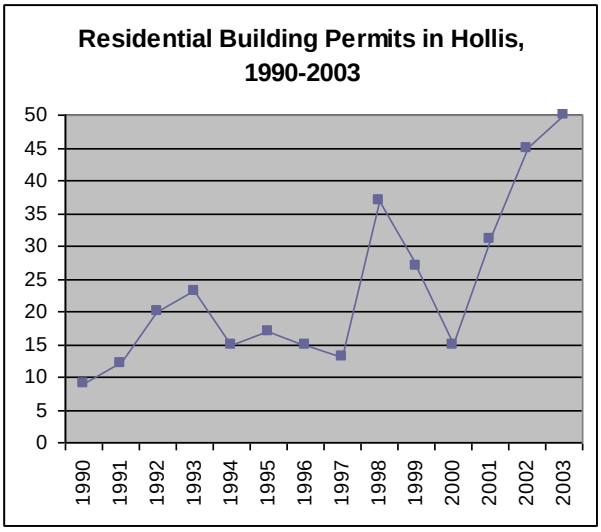
Residential Construction

The above data on housing unit change came from 1990 and 2000 Census surveys. A more accurate picture of residential construction in Hollis can be obtained by examining the number of residential building permits granted by the Town, as a building permit is required for each new unit.

According to Town of Hollis data, there were a total of 279 residential building permits issued in Hollis between 1990 and 2002, an average of 21 per year. More than 55% (155) of these permits were issued during the five-year period of 1998 and 2002, as there was an uptick in residential activity that began in 1998. This averages out to 31 units per year. In the eight preceding years of 1990 to 1997, there were only 15 permits issued per year.

Much has been made about the issue of residential building caps in Southern Maine, as this practice has been called inequitable and unfair by many landowners, homebuilders and affordable housing advocates. Hollis and three of its five neighbors (Dayton, Limington and Waterboro) have such caps. Between 1990 and 2002, the limit of 50 residential building permits was never reached in Hollis, as no more than 45 permits were issued in any single year. However, growth pressure finally caught up with the town, and the limit of 50 was reached in 2003.

The chart at the right shows building permit activity in Hollis from 1990 through 2003.



Projected Housing Growth

To translate population growth into housing growth for the 2000-2015 period, two different approaches may be used. The first applies the 2000 average household size of 2.73 to the expected population growth of 704 persons and results in a projection of 258 new units from 2000-2015. The second uses the average household size of new units in Hollis of 1.56 and results in a 2000-2015 projection of 451 units.

This would produce an annual average increase in the housing stock of between 16 and 30 units per year. This rate of growth is in line with Hollis' growth during the 1990s, but is less than its average annual growth from 2000 through 2003 of 35 units per year. The projection therefore assumes that housing development will begin to slow somewhat in Hollis in the next few years.

AFFORDABLE HOUSING NEEDS ANALYSIS

This section evaluates Hollis' current and future needs for affordable housing. The basic premise of the section is that the Town of Hollis intends to provide its fair share of the region's housing supply.

Definitions of Affordability

The starting point for this analysis is to define affordability and examine how affordable or unaffordable Hollis' housing stock currently is. Affordability will be defined by a combination of HUD's definitions of very low, low and moderate incomes and Maine State Housing Authority (MSHA) data for the Town of Hollis and York County.

HUD's affordability definitions are tied to regional median household income levels:

- Very Low income is defined as below 50% of the regional median;
- Low income is defined as 50-80% of the regional median; and
- Moderate income is defined as 80-120% of the regional median

As of 2003, York County's median household income level was $48,522, so the 50%, 80% and 120% thresholds are applied to that figure (see below)

The next step is to define the relationship between household income and housing affordability. MSHA calculates this information for each municipality in Maine each year by using a formula that includes all of the costs of housing—mortgage amount, interest rates, property taxes, utilities, etc. For 2003, the income to price ratio for York County was 33.75%, with a household earning the county median able to afford a home priced at $143,754.

Using the combination of HUD and MSHA data, the income and home price levels for households in Hollis are assumed to be:

- Very Low: Income below $25,000, home price below $74,000
- Low: Income from $25,000 to $40,000, home price from $74,000 to $118,000
- Moderate: Income from $40,000 to $60,000, home price from $118,000 to $178,000

Housing Affordability and Availability

The Maine State Housing Authority (MSHA) conducts regular reporting on housing affordability for each municipality and region of the state. MSHA data show that, on the whole, York County has one of the least affordable housing markets in the state in terms of relationships between income and housing prices. As of the end of 2003, MSHA's affordability factor for the county was 0.78, meaning that a household earning the county's median household income level ($48,522) could only afford 78% of the purchase price of a home selling for the county's median home sale price ($184,000). The county's housing market is getting much less affordable: its affordability index was 0.97 as recently as 2000.

As of the end of 2003, Hollis was actually the most affordable town in York County, in terms of the relationship between median household income and median home price. Hollis' affordability factor in 2003 was 1.02, compared with a level of 0.83 in 2002. According to MSHA the 2003 median household income in Hollis was $54,660, and a household earning this much could afford a home of $163,286. The median home sale price for the units sold in the Town in 2002 was $159,900, meaning that a household earning the town's median income could afford a home priced about $3,400 above the actual median level.. For the whole county, the median affordable price was $143,754 and the median sale price was $184,000—a gap of $40,000.

Despite this encouraging news, the reason for Hollis' rising affordability is that the median income level in the Town is rocketing upward. The median home sale price in Hollis actually increased by 10% from 2002 to 2003, from $146,000 to $159,900. The reason that affordability is good in Hollis is that household income levels are rising so quickly. For a household making the countywide median of $48,522, Hollis' affordability index would be 0.89, which is still far better than the county's index of 0.78.

Another statistic tracked by MSHA is the percentage of homes sold above the median affordable level in each town. For York County as a whole, about 74% of all units were sold above the median affordable level of $143,754 in 2003. The share in Hollis of homes sold above the median affordable level in 2003 was just 47%; again the best in the county.

As Hollis has so few rental units, MSHA does not report on rental affordability for the town. The only data available are for the Biddeford housing market as a whole. Compared with the whole region, rental affordability in Biddeford is on the decline, as the median rental rate for a two-bedroom unit in the area rose from $808 in 2002 to $862 in 2003—a jump of 6.6%. To afford this rent, though a household would only need to earn $34,482 per year—well within the range of most Hollis households.

Current Affordable Housing Need—Gap Analysis

The current affordable housing gap is measured by comparing Hollis' present population's income profile with that of York County. The central assumption in this analysis is that each community in the county should have an equal share of low to moderate income residents and thus bear its fair share of the region's affordable housing need.

The following table compares 2000 Census data on very low, low and moderate-income households for Hollis and York County to illustrate where the gaps exist.

VERY LOW, LOW AND MODERATE INCOME HOUSEHOLDS, 2000

	Hollis		York County	
	Number	**Percent**	**Number**	**Percent**
Very Low (<$25K)	254	16.9%	19,503	26.2%
Low ($25-40K)	298	19.8%	14,150	19.0%
Moderate ($40-60K)	418	27.8%	15,965	21.4%
Market (>$60K)	536	35.6%	24,910	33.4%
Total	**1,506**	**100%**	**74,527**	**100%**

Source: US Census; SMRPC

The "gap analysis" conducted to determine Hollis' present affordable housing shortage was a matter of determining how many more very low, low and moderate-income households would need to be housed in the Town in order for its income profile to match that of York County. The following table illustrates the gap analysis.

AFFORDABLE HOUSING GAP ANALYSIS

	Current Affordable Units	**Units Needed to Match County Ratios**	**Affordable Housing Gap (Units**
Very Low (<$74K)	254	394	140
Low ($74-118K)	298	286	-12
Moderate ($118-178K)	418	323	-95
Total	**970**	**1,003**	**33**

Source: US Census; SMRPC

Hollis' present affordable housing shortage is estimated to be 33 units overall. The Town is providing more than its fair share of housing for both low and moderate-income households, but falls short for very-low income households (units priced below $74,000).

Future Affordable Housing Needs

The calculations of expected future housing above projects the number of housing units needed in Hollis between 2000 and 2015 at 350 units. This figure represents the average of the two above growth projections. Maine's Comprehensive Planning statutes mandate that local Comprehensive Plans ensure that at least 10% of new housing units in each municipality are targeted for affordable housing. Applying that standard to the expected change of 350 units, this would translate to 35 affordable units over a 15-year period, or an average of 2.3 per year.

In addition, Hollis has an affordability gap of 33 units. To close this gap would require adding an average of 2.2 more affordable units per year through 2015. Thus, the total affordable housing need for Hollis through 2015 is 68 units, an average of 4.5 per year. If the Town

continues its pace set from 2000 through 2003 of 35 units per year, this would equal 12.9 percent of all new housing. If the pace of housing construction slows, the affordability target would need to be increased.

Planning Implications of Affordable Housing Needs

Hollis' attractiveness to increasingly affluent homebuyers is making the pursuit of housing more difficult for those who fall in the low to moderate-income range. Even many existing residents are, due to rising property tax bills brought on by soaring valuations, finding it increasingly difficult to remain in the town. Thus, the town needs to ensure that households of all income levels can live within its boundaries.

Adding together the current gap of affordable units and the expected future need, Hollis would need to add an estimated 82 affordable units by 2015. This translates to an average of about five units per year over a 15-year period. These units may cover many different types of housing, including single-family homes, accessory dwellings, assisted living apartments and mobile homes.

KEY FINDINGS: HOUSING AND ECONOMIC DEVELOPMENT

- Though population growth has slowed considerably in Hollis since the 1970s, household and housing growth are continuing at rapid paces, as household sizes become much smaller.
- The population of Hollis is becoming much older, and nearly all new recent growth has been due to the in-migration of persons between the ages of 45 and 64.
- New residents tend to be better educated and more affluent than the pre-existing base of residents.
- Employment in Hollis is modest, but the addition of the Poland Spring bottling plant has added substantially to the town's employment base.
- Hollis is primarily a commuter town for the Portland-Biddeford corridor, as most working residents work in that area. However, the share of residents who also work in town has increased, due partly to Poland Spring and partly to a growing number of home-based businesses.
- There is very limited rental housing stock in Hollis, as more than 90% of housing units are owner-occupied.
- Housing construction in Hollis has picked up substantially since 2000 and is expected to remain strong.
- Hollis is expected to add about 700 new residents between 2000 and 2015. This translates to somewhere between 250 and 450 new housing units, or between 16 and 30 new units per year.
- Though housing affordability remains relatively good in Hollis, this is due more to rising incomes than to stable housing costs. Housing prices continue to rise at a rapid pace.
- The need for affordable housing in Hollis through 2015 is 68 units, an average of 4.5 per year. This represents about 13 percent of future housing growth in the town, based on the recent development pace.

A. HOUSING GOALS, POLICIES AND STRATEGIES

State Goal:
Encourage and promote affordable housing: seek a minimum of 10% of new housing as affordable.

Town Goal:
Housing opportunities will be provided for people of all ages, needs and family structures, particularly in areas of the town that are best suited to accommodate growth.

Policies:
1. Encourage at least 13 percent of new housing starts in a price range affordable to average income residents, including affordable alternatives to mobile homes.
2. Enact flexible standards for accessory and multi-family dwellings.
3. Encourage development of senior housing and assisted living units.
4. Promote diverse housing development in growth areas.

Strategies:

Strategy 1: Define "affordable" by using Maine State Housing Authority's moderate income definitions for York County as a threshold

Comment: Affordability in housing is not only often hard to define—it is also a moving target that changes with each passing year. Each year, the Maine State Housing Authority issues new data on household income, home prices and affordability for York County. As defined in the inventory, moderate-income households are those earning below 120% of the county's median income level, which would be about $60,000 at the county's 2003 median household income level of $48,522. Using the income to home value ratio of 33.75%, the maximum home value for an affordable unit is defined as $178,000. This threshold figure needs to be updated annually as new data are released.

- Responsibility: Planning Board, with assistance from Southern Maine Regional Planning Commission
- Time Frame: 2006, ongoing

Strategy 2: Coordinate with non-profit housing developers to acquire land in growth areas for affordable housing development

Comment: Affordable housing is often hard to achieve in southern Maine given the fact that rising land values in the area are contributing to rising housing costs. It is rarely feasible for for-profit developers to build units that are attainable by low or moderate-income buyers. Non-profit developers are often better equipped to build such units. Some non-profit developers that may be appropriate to contact are:

→ *Avesta Housing, Portland (formerly York-Cumberland Housing)*
→ *Caleb Affordable Housing Foundation, Saco*
→ *Residential Initiatives for Maine, Bath*
→ *The Housing Partnership, Portsmouth*
→ *York County Habitat for Humanity, Arundel*

- Responsibility: Board of Selectmen
- Time Frame: Ongoing

Strategy 3: Allow accessory dwellings for immediate family members in all parts of the Town and do not count them as part of the overall density

Comment: Enacting this strategy will require defining an "immediate family member." The suggested definition is the same as the definition of "person related to the donor" from state subdivision law, which reads: "a spouse, parent, grandparent, brother, sister, child or grandchild related by blood, marriage or adoption."

- Responsibility: Planning Board
- Time Frame: 2006

Strategy 4: Expand the definition of "accessory dwelling unit"

Comment: The Zoning Ordinance presently contains a definition for "accessory use or structure," but does not elaborate on what constitutes an accessory dwelling. The following standards are recommended for accessory dwellings:

→ *Maximum unit size of 1,000 square feet*
→ *Must be part of single-family structure or outbuilding such as a garage or barn*
→ *May only be occupied by immediate family member (see above definition)*
→ *May not be rented, leased or sold*
→ *Must have at least one dedicated parking space*
→ *Must not have both a kitchen and a bathroom (one or the other is acceptable)*

- Responsibility: Planning Board
- Time Frame: 2006

Strategy 5: Allow senior housing and assisted living in all parts of the Town

- Responsibility: Planning Board
- Time Frame: 2006

Strategy 6: Prohibit future use changes of senior and assisted units to other types of multi-family housing

- Responsibility: Planning Board
- Time Frame: 2006

Strategy 7: Revise cluster development provisions in Land Use ordinance

Comment: A strong cluster development program in Hollis will help the Town fulfill many of its needs: affordable housing, protection of natural resources, preservation of rural character, recreation and protection of property rights. Cluster development is an integral part of the Comprehensive Plan's recommendations, and many other recommendations throughout the plan follow on this strategy.

- Responsibility: Planning Board
- Time Frame: 2006

Strategy 8: Offer density bonuses for clustering in growth and rural areas to allow smaller lots and lower lot prices (see Land Use chapter for details)

Strategy 9: Ensure that preserved land from clustering will be interconnected with other preserved land

Comment: Cluster development is most effective at providing recreational opportunities and at protecting natural resources when the open spaces it creates are linked to other open spaces. It is therefore recommended that the cluster development ordinance contain a provision that states: "where possible, open spaces created by cluster development shall connect to other recreational land."

- Responsibility: Planning Board
- Time Frame: 2006

B. ECONOMIC DEVELOPMENT GOALS, POLICIES AND STRATEGIES

State Goal:
To promote an economic climate that increases job opportunities and overall economic well being.

Town Goal:
The Town of Hollis will encourage the development of businesses of all types that expand local tax base and employment opportunities while respecting the character of the town.

Policies:
1. Encourage all types of businesses but direct them to appropriate areas.
2. Explore ways to build tax base through regional cooperation.
3. Ensure that businesses in rural areas are respectful of the surrounding visual and historic character.

Overall Approach:
Promoting economic development in Hollis requires considering the diverse needs of four major categories of businesses:

- Home Occupations – Small scale and low impact businesses located either inside residential structures or in accessory structures in residential areas.
- General Business – Retail, personal and professional services, and other types of service businesses including lodging and repair services and small-scale light industry.
- Business/Industrial Park – Larger scale manufacturing, warehousing and office uses requiring large facilities and employing significant numbers of workers.
- Natural Resource-Based – Agriculture, forestry, gravel extraction, water extraction and other types of industries that make use of the natural resources of Hollis.

The economic development policies and strategies in this plan reflect these four different business categories. The Town of Hollis believes that all four types are important to the Town's economy and seeks to provide opportunities for each of them.

1. HOME OCCUPATION POLICIES AND STRATEGIES

Policies:

1. Home occupations respect residential character and surrounding uses.
2. Home occupations limit noises, odors, traffic and other negative impacts on abutting properties.

Strategies:

Strategy 1: Allow a broad range of home occupations in all parts of town.
- Responsibility: Planning Board
- Time Frame: 2006

Strategy 2: Ensure that dimensional, parking and other zoning standards in residential land use districts balance the needs of home occupations with the surrounding character.
- Responsibility: Planning Board
- Time Frame: 2006

Strategy 3: Ensure that home occupation standards provide for adequate buffering and other protection of abutting landowners.
- Responsibility: Planning Board
- Time Frame: 2006

2. GENERAL BUSINESS POLICIES AND STRATEGIES

Policies:

1. Retail and service businesses primarily serve a local clientele from Hollis and neighboring communities.
2. Larger scale general business uses are directed to appropriate locations.

Strategies:

Strategy 1: Allow higher densities for businesses in the Hollis Center/Route 202 area.
- Responsibility: Planning Board
- Time Frame: 2006

Strategy 2: Allow only smaller-scale commercial, agricultural-related and light industrial development in rural areas.
See Land Use chapter for details

Strategy 3: Limit the maximum size of retail and service businesses to ensure that development fits with the character and vision of the Hollis Center/Route 202 area.
- Responsibility: Planning Board
- Time Frame: 2006

3. BUSINESS/INDUSTRIAL PARK POLICIES AND STRATEGIES

Policies:

1. Business/Industrial Park development is directed to appropriate locations.
2. Business/Industrial Park development has limited visibility from existing road frontages.
3. Business/Industrial Park development promotes curb appeal.

Strategies:

Strategy 1: Restrict large-scale commercial and industrial development to appropriate areas
See Land Use chapter for details

Strategy 2: Pursue the development of a cooperative business/industrial park, either in Hollis or in another community

Comment: Hollis and many of its neighbors face increasing pressure to build their non-residential tax bases. Rather than seeking to develop its own small-scale business park, Hollis would be able to provide a more marketable product by cooperating with other communities in the region to develop a regional business/industrial park, in which many towns act as investors in a single development. This model is already being realized by the FirstPark project in central Maine, a project in which several municipalities pooled resources to develop the park in exchange for sharing the property tax revenues that it will generate. Other towns in the region have expressed interest in this idea and it is in Hollis' best interest to become an advocate for this concept.

- Responsibility: Board of Selectmen
- Time Frame: 2006-2007

Strategy 3: Develop zoning and design standards to limit impacts of business/industrial park development on surrounding land uses

Comment: While Hollis does need to promote business/industrial development, it is important that such development does not negatively impact the Town's visual character and that it is respectful of surrounding land uses. Zoning and design standards can ensure that these policies are achieved.

- Responsibility: Planning Board
- Time Frame: 2006

4. NATURAL RESOURCE-BASED USES POLICIES AND STRATEGIES

Policies:

1. The Town of Hollis protects the viability of sustainable agriculture and forestry activities.
2. The Town of Hollis encourages active management of forested lands and responsible harvesting practices.
3. The Town of Hollis maintains a balance between the needs of natural resource-based industries and residents of areas surrounding natural resources.

Strategies:

Strategy 1: Limit residential development in areas abutting existing natural resource-based industries
See Land Use chapter for details
- Responsibility: Planning Board
- Time Frame: 2006

Strategy 2: Ensure that cluster development standards account for proximity of new development to natural resource-based industry activities.
- Responsibility: Planning Board
- Time Frame: 2006

Strategy 3: Require a local forestry management plan for all new harvesting operations.
- Responsibility: Planning Board
- Time Frame: 2006

Strategy 4: Encourage local farmers to participate in farmers' markets in the region.
- Responsibility: Board of Selectmen
- Time Frame: 2006, ongoing

Chapter 3: Public Facilities and Services

One of the main reasons for conducting a comprehensive planning process is for a community to determine the best uses of its public resources. This section summarizes the inventory of public facilities and services of the Town of Hollis, as well as the Town's ability to take in and spend its revenues.

There are five sections within this chapter. The first, Fiscal Capacity, outlines the recent history of revenue and expenditure trends in Hollis, changes in assessment and tax rate, and the ability to take on debt for future capital investments. The remaining sections deal with the specifics of Hollis' existing situations regarding Transportation, Public Safety, Education, and Town Facilities and Services.

FISCAL CAPACITY

Introduction

Understanding the fiscal capacity of Hollis is critical to assessing its ability to accommodate and plan for future growth. This section examines recent trends and expected future changes in the Town's valuation, tax rate, public revenues and expenditures, and its ability to carry debt.

Real Property Valuation

Real property valuation is calculated each year by both the State of Maine and the Town of Hollis. Maine laws state that, if the total property value reported by a municipality drops below 70 percent of the state's valuation for that town, the town must conduct a revaluation. Typically, this only happens in towns experiencing very large increases in property value.

As the table to the right shows, Hollis has been experiencing rapid increases in valuation in recent years. From 2000 to 2003 alone, the municipal valuation increased by 133%, from $120.6 million to $280.1 million. This large increase was due to three factors: a townwide revaluation in 2001, the addition of the Poland Spring bottling plant to the tax rolls in 2002 and continued increases in housing values.

State vs. Local Valuation, Town of Hollis

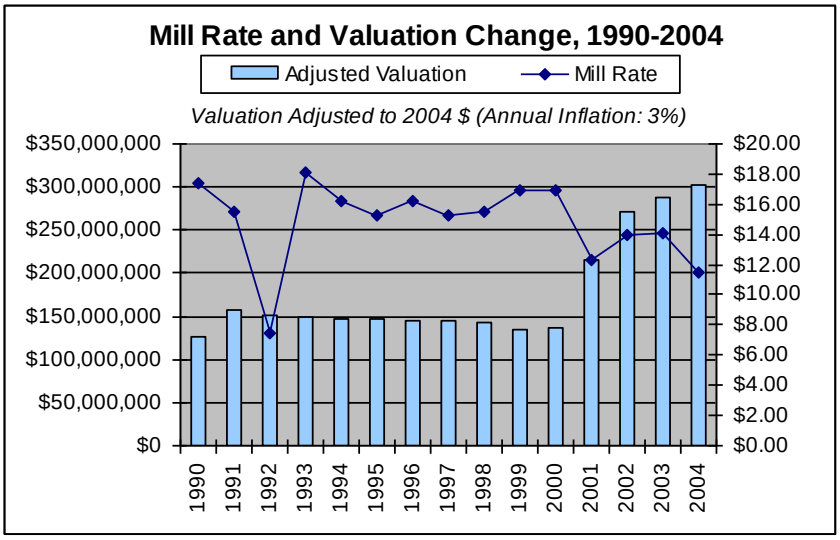
	State Valuation		Town Valuation			70% of
Year	Amount ($million)	Percent Change	Amount ($million)	Percent Change	% of ME Valuation	State Valuation
1991	$131.0		$107.0		81.7%	$91.7
1992	$133.5	1.9%	$106.6	-0.3%	79.9%	$93.5
1993	$131.6	-1.4%	$108.1	1.4%	82.1%	$92.1
1994	$126.1	-4.2%	$109.9	1.7%	87.2%	$88.3
1995	$128.6	2.0%	$112.7	2.5%	87.6%	$90.0
1996	$129.4	0.6%	$114.9	2.0%	88.9%	$90.5
1997	$130.6	0.9%	$117.1	1.9%	89.7%	$91.4
1998	$134.8	3.2%	$119.7	2.2%	88.9%	$94.3
1999	$137.1	1.7%	$116.0	-3.1%	84.7%	$95.9
2000	$145.2	5.9%	$120.6	3.9%	83.0%	$101.6
2001	$155.7	7.2%	$196.4	62.9%	126.2%	$109.0
2002	$178.8	14.8%	$255.5	30.1%	142.9%	$125.1
2003	$209.4	17.1%	$280.1	9.6%	133.8%	$146.6
Change	**$64.2**	**44.2%**	**$159.6**	**132.3%**		**$44.9**

Source: Maine Revenue Services; Town of Hollis; SMRPC

To its credit, the Town has been very responsible about increasing its valuations as property values have gone up. The end result is that, as of 2003, Hollis' municipal valuation

actually exceeded the state valuation by 34%. Hollis is therefore in very good shape in terms of needing to keep its local valuations in line with the real increases of the market.

The chart to the right shows the Town's real property valuation in 2004 dollars, adjusting the valuation by a 3% annual rate of inflation back to 1990.



The chart shows two very distinct trends over the past 15 years. From 1991 through 2000, the adjusted valuation diminished steadily, falling from about $157 million in 1991 to a lot of $135 million in 2000. Since 2000, though, the adjusted valuation has skyrocketed, reaching a peak of $302 million in 2004. These soaring valuations are having substantial impacts on Hollis' real property tax rate, as the next section discusses.

Real Property Tax Rate

The chart above also graphs the change in real property tax rate in Hollis from 1990 through 2004. With the exception of a one-year tax rate valley in 1992, the property tax rate followed a similar pattern as did the adjusted valuation. The rate remained relatively high throughout the 1990s as valuation languished, as was still at $16.90 per $1,000 of taxable value as recently as 2000. With the recent surge in property value, however, Hollis' property tax rate has taken a strong downturn, with the 2004 tax rate at $11.50 per $1,000 of taxable value.

Full Value Tax Rate

The municipal real property tax rate set by a town is a reflection of many factors, including property value change, spending priorities, inflation, policy decisions, state and federal aid, and public perception. Because the tax rate of a town is subject to outside influence, a more accurate measure of how the tax rate is truly affected is the equalized tax rate, also known as the "full value tax rate."

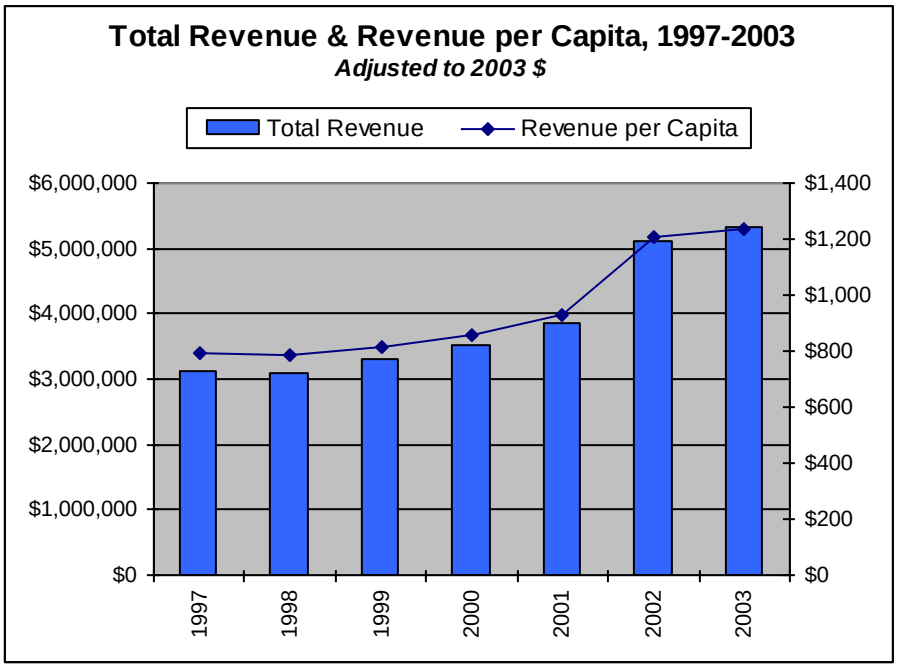
The full value tax rate is calculated by dividing a town's annual financial commitment from its budget into the state valuation of the town for that year. According to the Maine Municipal Association, Hollis' Full Value Tax Rate as of 2001 (the most recent year reported) was $17.56. This is far higher than the Town's actual 2001 property tax rate of $12.25.

Revenues

In Fiscal Year 2003, the Town of Hollis collected a total of $5.31 million in revenues for its General Fund. This averages out to about $1,238 per resident of the town. As shown in the chart below, the total revenue taken in by the Town's General Fund grew by about 9.3% annually in real dollars between 1997 and 2003, assuming an annual inflation rate of 3%. In 2003 dollars, Hollis' 1997 revenue figure was $3.12 million.

The amount of revenue taken in per capita has increased substantially since 1997. In 2003 dollars, the per capita revenue in Hollis rose from $796 in 1997 to $1,238 in 2003, representing an annual growth rate of 7.7%.

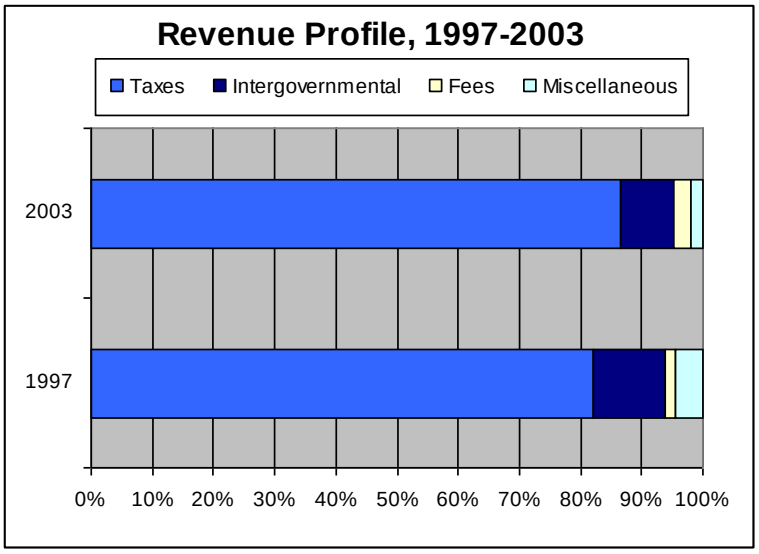
One major reason for this revenue increase is the creation of the Poland Spring TIF district. This district contributes about $1 million in revenues to the Town, which is then transferred to a Special Revenue Fund. Even without the Poland Spring TIF in the calculation, though, revenues raised by the Town of Hollis have still increased substantially—from about $3.1 million in 1997 to about $4.3 million in 2003 (both figures in 2003 dollars). This still represents an annual rate of increase of 5.5%.



The chart on the following page compares the breakdown of Hollis' General Fund revenue by major source in Fiscal Years 1997 and 2003. As is the case with most Maine municipalities, property taxes account for a major share of the town's revenue, and Hollis has a particularly high share for this item. As of 2003, nearly 87% of Hollis' revenues came from local taxes, both property and excise. This share is up from the 1997 figure of 82%.

Other than property taxes, the Town's largest revenue source is Intergovermental revenue, which is mainly from state education subsidies. This category accounted for 8.5% of Hollis' revenues

in 2003. This category's share was a bit higher in 1997 at 11.8%, but has declined as the property valuations in the towns of MSAD6 have risen in recent years.

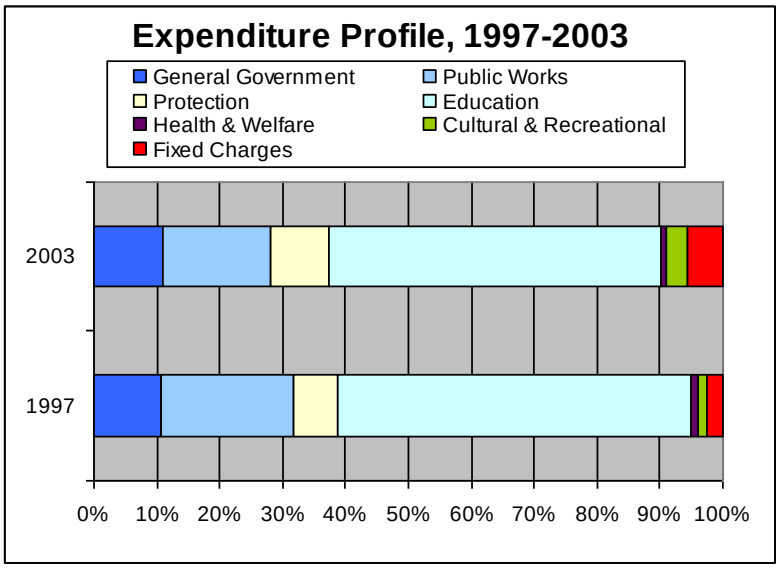


Expenditures

This section profiles General Fund expenditures in Hollis. *It does not include money transferred to the Poland Spring TIF, which is listed in the budget as "Unclassified."*

The volume of Town expenditures in Hollis increased from $2.40 million in 1997 to $4.08 million in 2003. This represents an annual rate of increase of 6.0%, adjusted for inflation. Expenditures per capita rose at an adjusted rate of 4.5% annually, rising from $732 in 1997 (adjusted to 2003 dollars) to $951 in 2003.

The chart to the right profiles expenditures in Hollis by category. The largest share goes to Education, though its share fell from 56% in 1997 to 53% in 2003. The next largest category is Public Works at 17%, though it too dropped from 21% in 1997. Offsetting these share losses were increases in Protection, Cultural & Recreational and Fixed Charges. The latter category is due mainly to an increase in York County's assessment to the Town.



Debt Load

As of Fiscal Year 2004, the Town of Hollis had no outstanding debt obligations of its own. However, the Town does have outstanding debt to Regional Waste Systems and to Maine School Administrative District #6. Current debt owed to RWS totals $1,492,085, plus another $458,189 in obligations for the landfill closure fund. Debt owed to MSAD6 totals $1,965,699. Thus the total current debt load for the Town of Hollis is $3,915,973.

By state law, a municipality must not allow its debt service obligations to exceed 7.5 percent of its total state valuation. Comparing this level with the Hollis' 2003 state valuation of $209.4 million, Hollis can take on up to $15.7 million in debt. At the present time, the Town's debt level is at about 25 percent of its legal limit. Hollis is thus legally able to take on as much as $11.8 million in additional debt.

Using an assumed interest rate of 4.75% on a 20-year municipal bond, reaching the debt limit would mean that Town would need to commit about $925,000 in additional annual debt service payments for principal and interest.

TRANSPORTATION

Transportation provides the connection between people and resources. In Hollis, transportation options are almost entirely limited to the automobile for moving people to and from places of employment, education, and enjoyment. Similarly, the movement of goods into, out of, and through town is heavily dependent upon trucks. As such, the condition, safety, and effectiveness of the town's road network is an important consideration for this Comprehensive Plan Update. This transportation inventory collects the information necessary to develop a plan of action for Hollis's future transportation system.

Population and Commute Trends

Nearly half of the entire state's growth in population between 1990 and 2000 occurred in York County, placing a tremendous burden on the regional transportation network. Hollis has been experiencing residential growth and increased commute times as outlined in Table 1.

Table 1: Regional Population and Commute Time Patterns

	1990 Population	1990 Commute Time	2000 Population	2000 Commute Time	Population Change 1990-2000	Commute Time Change 1990-2000
Hollis	*3,573*	*27.7*	*4,114*	*29.2*	*541*	*1.5*
Buxton	6,494	26.1	7,452	29.7	958	3.6
Dayton	1,197	25.1	1,805	30.3	608	5.2
Limington	2,796	32.7	3,403	34.0	607	1.3
Lyman	3,390	27.0	3,795	29.6	405	2.6
Standish	7,878	25.8	9,285	30.8	1,407	5.0
Waterboro	4,510	31.1	6,214	34.3	1,704	3.2
York County	164,587	21.8	186,742	25.8	22,155	4.0

Source: 1990 and 2000 U.S. Census

Table 2 shows the U.S. Census' Workflow estimates. Although the greatest percentage of Hollis workers commutes to Portland, almost 300 residents work in town.

Table 2: Workplaces of Hollis Residents in 2000 (20 or more Workers)

Workplace	Number of Commuters	Percentage of Commuters
Portland	554	23.8%
Hollis	278	11.9%
South Portland	229	9.8%
Scarborough	154	6.6%
Westbrook	140	6.0%
Biddeford	130	5.6%
Buxton	127	5.5%
Gorham	103	4.4%
Standish	87	3.7%
Saco	76	3.3%
Sanford	67	2.9%
Windham	66	2.8%
Waterboro	36	1.5%
Kittery	20	0.9%

Source: 2000 U.S. Census

As is the trend in most communities, most of the people that work in Hollis also live in town. Table 3 shows the residences of those employed in Hollis.

Table 3: Residence of People that Work in Hollis (10 or more Workers)

Residence	Number of Workers	Percentage of Commuters
Hollis	278	50.7%
Standish	37	6.8%
Saco	22	4.0%
Limington	20	3.6%
Gorham	16	2.9%
Biddeford	15	2.7%
Scarborough	13	2.4%
Buxton	13	2.4%
Waterboro	12	2.2%
Portland	10	1.8%
Limerick	10	1.8%
Portsmouth, NH	10	1.8%

Source: 2000 U.S. Census

The majority of Hollis workers commute by automobile, with less than 10% of the commuting population carpooling. The second largest group of workers in the town work at home.

Table 4: Mode of Transportation for Hollis Commuters 16+

Mode of Transportation	Number of Commuters	Percentage of Commuters
Drove alone	1,943	83.5%
Carpooled	230	9.9%
Public transportation (incl. taxi)	12	0.5%
Bicycled or walked	13	0.6%
Motorcycle or Other means	28	1.2%
Worked at home	101	4.3%

Source: 2000 US Census

Passenger transportation in Hollis is limited to rides provided by appointment from the York County Community Action Corporation (YCCAC) for medical, shopping, and miscellaneous trips to the Biddeford/Saco area.

Roadway Inventory

The road system in Hollis consists of US Route 202, a State highway (Route 5), State-Aid highways (Route 4A, Route 35, Route 117, High Street, Plains Road, River Road, and Waterboro Road), Reservation roads, town roads, and private ways.

On the US Route 202 and State Route 5, the town has neither maintenance nor construction responsibility, while on the State-Aid highways (Route 4A, Route 35, Route 117, High Street, Plains Road, and Waterboro Road), the Town has winter plowing or sanding responsibility only. The Town conducts year-round maintenance on the remaining town roads. Figure 1 shows the jurisdiction of the Town's road network.

The cost for the repair, reconstruction, and maintenance of the road network is one of the town's largest expenses. Currently, Hollis utilizes a Road Committee to identify and prioritize roadway improvements on local roads. The Road Committee surveys the local road network annually. However, the Maine Department of Transportation (MaineDOT) continually collects pavement condition data on the state and state-aid highways. See Figure 2.

MaineDOT's 2004-2009 Six-Year Plan lists reconstruction of portions of US Route 202 (South of Bear Hill Road into Lyman) and Route 35 (South of Route 4A into Lyman) and all of Route 5. Additionally, Hollis is listed as part of the Rural Road Initiative (RRI), a program in which Hollis would provide 1/3 of the cost of reconstruction projects on Minor Collector highways (High Street, Plains Road, River Road, and Waterboro Road) as local match. Currently, the reconstruction of Plains Road is listed as an RRI project in the 2004-2005 Biennial Transportation Improvement Program (BTIP). The BTIP also includes maintenance paving on Route 4A from US Route 202 into Buxton and culvert replacement on River Road .37 miles east of Route 35.

Bridge Inventory

There are twelve (12) publicly owned bridges in Hollis. Responsibility is determined by the Maine Department of Transportation's (MaineDOT's) Local Bridge Program, which became law in July 2001. Bridges of at least 20 feet in length on town or state-aid roads are the responsibility of MaineDOT. Minor spans, which are bridges that are at least 10 feet but less than 20 feet in length, that are on town roads are the responsibility of the municipality. If a minor span is located on a state or state-aid road, maintenance responsibility falls with MaineDOT. As such, the Town of Hollis is responsible for the maintenance of two (2) bridges as indicated in Figure 1.

MaineDOT inspects all Bridges and Minor Spans on public ways every two years in accordance with the Federal Highway Administration (FHWA) and MaineDOT's Bridge Management Coding Guides. The inspections result in a Federal Sufficiency Rating (FSR) for each bridge, which is calculated by analyzing the condition of each of the bridge's components, such as the deck, the substructure, the superstructure, etc. Table 5 describes the FSR scale. The FSRs of all twelve (12) publicly-owned bridges in Hollis are indicated in Table 6 and Figure 2.

Table 5. Federal Sufficiency Ratings

FSR Range	Condition Description	FSR Range	Condition Description
90-100	Excellent	40-49	Poor
80-89	Very Good	30-39	Serious
70-79	Good	20-29	Critical
60-69	Satisfactory	1-19	Imminent Failure
50-59	Fair	0	Failed

Source: MaineDOT Bridge Management Division

Table 6. Publicly Owned Bridges in Hollis

Bridge #	FSR	Owner	Custodian	FSR Description
1201	65.5	Municipal	Municipal	Satisfactory
1525	42.1	MaineDOT	MaineDOT	Poor
2105	76.6	MaineDOT	MaineDOT	Good
2190	29.5	MaineDOT	MaineDOT	Critical
3058	75.5	MaineDOT	MaineDOT	Good
3136	71.6	MaineDOT	MaineDOT	Good
3333	58.3	MaineDOT	MaineDOT	Fair
3340	46.4	MaineDOT	MaineDOT	Poor
3708	61.2	MaineDOT	MaineDOT	Satisfactory
3763	62.8	MaineDOT	MaineDOT	Satisfactory
5259	45.2	Municipal	Municipal	Poor
5297	65	MaineDOT	MaineDOT	Satisfactory

Source: MaineDOT Bridge Management Division

Traffic Volumes

Traffic counts measure the number of vehicles traveling by a fixed spot in a given time period. Typically, a volume is recorded every 15 minutes and totaled for the day. The Maine Department of Transportation (MaineDOT) regularly counts traffic throughout the state. The most recently available counts from MaineDOT are shown in Table 7 along with the 1989 AADT estimates and 2000 projections included in the 1991 Hollis Comprehensive Plan. Traffic volumes at locations indicated in **bold** typeface exceeded projections developed as part of Hollis's 1991 Comprehensive Plan.

Table 7: Historical Traffic Volumes, Average Annual Daily Traffic (AADT)

	1989	1995	2000 (projected)	2000 (actual)
Waterboro Road West of Route 117	1,440	2,200	2,330	N/A
Route 117 @ Hollis Center	2,590	3,200	3,750	3,250
Route 202 West of Hollis Center	**3,730**	**N/A**	**5,200**	**6,390**
Route 202 East of Hollis Center	6,030	5,980	8,410	7,292
Route 4A East of Hollis Center	**1,330**	**2,360**	**1,500**	**2,320**
Route 35 South of Hollis Center	2,060	2,620	2,890	2,740
Route 35 North of Hollis Center	**970**	**1,210**	**1,370**	**1,580**
Route 35 South of W. Buxton	1,440	1,490	2,100	N/A

Source: 1991 Hollis Comprehensive Plan, Maine Department of Transportation

Vehicle classification counts are also available for US Route 202 East of State Route 117 as shown in Table 8. Note the significant increase in heavy vehicles since the opening of the Poland Spring bottling plant.

Table 8: Vehicle Classification Data (US 202 E of SR 117)

Description	2000 (AADT)	2000 (% of AADT)	2002 (AADT)	2002 (% of AADT)
Light Vehicles	6,861	94.1%	8,017	90.5%
Heavy Trucks	431	5.9%	843	9.5%
Total	7,292		8,860	

Source: Maine Department of Transportation

Functional Classification

The functional classification of a road reflects the balance between providing mobility versus providing access to abutting property. The Maine Department of Transportation (MaineDOT) uses Federal Functional Classifications to prioritize and assign funding as well as design road improvements. These classes are determined based on a statewide network of highways and include arterials, collectors, and local roads.

Design choices for highway projects typically depend upon the road's functional classification. For example, arterials, which serve primarily through traffic and often carry heavy vehicles, will typically have thicker pavement, wider lanes and shoulders, increased sight distance, minimal horizontal and vertical curves, and limited access points or curb cuts. Local roads tend to be

narrower, windier, and more accessible from abutting property. Figure 3 displays the current federal functional classification of Hollis's roads.

While the federal functional classification system is useful for understanding the regional function of road networks, the local municipality may also find it beneficial to assign functional classes to the local highway system for planning and design purposes. Often times, what is considered a collector road to the State may be considered an arterial road to the local community. Likewise, a state recognized local road might be considered a collector road to Hollis residents. Local modifications to federal functional classifications are typically based on historical increases in traffic volume and the need to accommodate anticipated future growth. Figure 3 identifies the federal and local functional classifications of Hollis's road network.

Pedestrian & Bicycle Facilities

A half-mile walk is typically considered walking distance, although many people feel comfortable walking up to one mile. There are not currently any sidewalks in Hollis. Figure 4 illustrates half-mile and one-mile radii around the ball fields, the Hollis Schools, Hollis Center Public Library, and the Salmon Falls Public Library. Sidewalks, bikeways, and/or off-road facilities may be appropriate within these circles. Figure 4 also depicts the Saco River Bike Tour, which was developed by MaineDOT, in conjunction with experienced Maine Cyclists and leading state cycling organizations. This scenic tour (and 20 others within the state) is identified on the Maine Department of Transportation's (MaineDOT's) Bike Map, although not signed on the road.

Any segment of road having a paved shoulder of at least 4 feet in width is generally considered appropriate for bicycle travel. Road segments in Hollis meeting this criteria are represented in Figure43. According to MaineDOT's policy for paving shoulders, any highway improvement, reconstruction, or pavement preservation project on US Route 202 and the portions of Route 5 as indicated in Figure 4 shall include paved shoulders because the Summer Average Daily Traffic exceeds 4000 vehicles.

Highway Safety

High Crash Locations (HCLs) are intersections or road segments where 8 or more crashes with a Critical Rate Factor greater than 1.0 occur in a three-year period. The Critical Rate Factor (CRF) is the ratio of the actual crash rate to the expected rate (called the Critical Rate). The expected crash rate depends upon road type, vehicle miles traveled, and statewide crash ratios.

The Maine Department of Transportation (MaineDOT) did not identify any locations as HCLs in Hollis for the most recent three-year period (2000-2002). However, there have been a number of locations in Hollis identified in the past as indicated in Figure 5 and Table 9. Improvements have been made to traffic control measures, such as stop signage and right-of-way designation, at many of these locations.

Table 9. Historical High Crash Location Designations

Intersections	1997-1999	1998-2000	1999-2001	2000-2002	Average Number of Crashes per 3-year period
Route 35/Route 117	Yes	No	No	No	8
Route 35/US Route 202	Yes	Yes	Yes	No	14
Route 117/US Route 202	Yes	No	No	No	8
Route 117/Plains Rd/Waterboro Rd	Yes	Yes	Yes	No	10
Road Segments					
Route 35: River Rd to Hansons Ln	Yes	No	No	No	13
Route 35: Decker Cr to Killick Pond Rd	Yes	Yes	No	No	9
US 202: Deerwander Rd to Muddy Brook Rd	No	No	Yes	No	8

Source: Maine Department of Transportation

Access Management

MaineDOT adopted a set of access management rules in 2002 in response to the enactment of An Act to Ensure Cost Effective and Safe Highways in the State by the Legislature in 2000, which addressed arterial capacity, poor drainage, and the high number of driveway-related crashes. Any new or changed driveway or entrance on state and state aid highways located outside of urban compact areas must meet specifications described in the rules in order to obtain a permit from MaineDOT. The rules regulate sight distance, corner clearance, spacing, width, setbacks, parking, drainage, and mitigation requirements.

The rules are organized into a four-tier system with increasing regulation of driveways and entrances for roads with poorer mobility and safety. The following designations for roads in Hollis are represented in Figure 6.

1. Basic Safety Standards apply to all state and state-aid roads. (US Route 202, Route 4A, Route 5, Route 35, Route 117, High Street, Plains Road, and Waterboro Road)
2. Major Collector and Arterial Standards provide more regulation for entrances only onto major collector and arterial roads. (US Route 202, Route 5, Route 35, and Route 117)
3. Mobility corridors are non-urban compact corridors that connect service centers and/or urban compact areas and carry at least 5000 vehicles per day along at least 50% of the corridor's length. (Route 202)
4. Retrograde arterials are mobility corridors where the number of crashes related to a driveway or entrance exceeds the statewide average for arterials with the same posted speed. (Route 202)

The Mobility Arterial designation of Route 202 places a limitation on the Location of Public Facilities as indicated in the following excerpt of the rules (17-229 Chapter 299, Highway Driveway and Entrance Rules: Part B, Entrance Rules):

"Limitation on Location of Public Facilities. Except as provided otherwise in this section and unless waived pursuant to Section 3.3 (D), a public facility will not be granted an

entrance onto a Mobility Arterial where the posted speed limit equals or exceeds 45 MPH. Public facility means all improvements owned or operated by the state, a municipality, school administrative district or other public educational entity, regulated public utility, or other public entity. Public facilities include, but are not limited to, municipal offices, public works garages, and schools."

The rule lists six cases where this limitation does not apply including official Visitor Information Centers and Rest Areas; State park-and-ride facilities; State or Federal recreation facilities; municipal recreation facilities where no other alternative exists; public facilities already underway; and public facilities whose access would generate less than 50 trips per day and thus be considered a driveway, not an entrance, under the rules.

Key Findings—Transportation

- Commute times in Hollis have increased less (1.5 minutes in ten years) than in most surrounding towns (1.3 – 5.2 minutes) and less than the York County average increase (4 minutes). Many of the workers residing in Hollis commute to Portland (23.8%) or South Portland (9.8%), although almost 12% work in town, (up from 8% in 1990), due partly to Poland Spring and partly to a growing number of home-based businesses. Also, half of the jobs in Hollis are held by Hollis residents. Those who do commute rely heavily on automobiles for transportation with 83.5% driving alone to work and 9.9% carpooling.
- The reconstruction of Route 5 and portions of US Route 202 and Route 35 is listed in MaineDOT's 2004-2009 Six-Year Plan. The Town may need to coordinate with MaineDOT on the design and scheduling of those projects. There may be opportunities to complement the reconstruction projects with local funding to provide additional amenities such as sidewalks, paved shoulders, and/or lighting should the Town wish to pursue those options. Additionally, the reconstruction of Plains Road is listed in MaineDOT's 2004-2005 Biennial Transportation Improvement Program (BTIP) as part of the Rural Road Initiative, in which the Town will provide 1/3 of the construction cost as local match.. High Street, River Road, and Waterboro Road are also eligible for funding through this program, and appropriate match money should be considered when developing a Town Capital Improvement Program.
- Bridge # 5259 (on Dyer Road at the Dayton Town Line) is in "poor" condition and is listed on the 2004 Town Warrant for improvements. The Town coordinated with the Town of Dayton to facilitate this project. The other bridge for which the Town has maintenance responsibility (#1201 on Chadbourne Ridge Road) is in "satisfactory" condition.
- Recent traffic counts are not available for Deerwander Road, Saco Road, Plains Road, or Waterboro Road. According to local knowledge, those roads are functioning at higher classifications than indicated by the current Federal Functional Classifications. Traffic volumes should be recorded, the federal functional classification reviewed, and higher design standards considered for those three roads in order to meet the demand that it being placed upon them.
- Sidewalks, bikeways, and/or off-road facilities may be appropriate within a half-mile to one-mile radius of the ball fields, the Hollis Schools, Hollis Center Public Library, and Salmon Falls Village Library. Coordination with MaineDOT will be needed for facilities on the state and state-aid highways. Similarly, discussions with Buxton and Lyman should take place to enhance pedestrian and bicycle safety where walking distances cross town borders.

- Although no locations in Hollis were identified as a High Crash Location (HCL) by MaineDOT for the 2000-2002 study period, there have been a number of locations in town that were designated as HCLs in the past as indicated in Table 9. Traffic operations and crash information should be continually monitored, especially at these locations, to enhance safety for the traveling public.
- MaineDOT's Access Management Rules apply to all state and state-aid highways in Hollis as indicated in Figure 6. The Mobility Arterial designation of Route 202 places a limitation on the construction or improvement of public facilities, such as schools and town offices.

PUBLIC SAFETY

Fire and Rescue

There are two fire stations in Hollis—one on Route 202 in Hollis Center and the other on Plains Road between North Hollis and West Buxton. The replacement values of the two structures are estimated at $100,000 and $350,000, respectively. Both stations are in good condition and are adequately serving the Town.

As of 2004, the Fire Department owned a total of 13 vehicles: six fire trucks, a rescue squad truck, four school buses, a Jeep and a Ford LN800 spreader vehicle. The following table lists all of these items and their purchase costs.

No.	Type	Model	Year	Purchase Price
1	Fire Truck	HME Ferrara	2001	$223,333
2	Fire Truck	International	1976	$30,000
3	Fire Truck	International	1978	$35,000
4	Fire Truck	International	1989	$120,000
5	Fire Truck	International	1992	$133,000
6	Fire Truck	Chevrolet	1984	$35,000
7	Squad Truck	Freightliner	1998	$135,000
8	School Bus	Chevrolet	1986	$10,000
9	School Bus	Chevrolet	1988	$10,000
10	School Bus	Chevrolet	1988	$10,000
11	School Bus	Chevrolet	1988	$10,000
12	Jeep	6x6 Jeep	1970	$5,000
13	LN800 Spreader	Ford	1979	$25,000

In 2003, the Fire Department responded to 214 calls, an increase of 19% over 2002. The most common reason for calls was for car accidents, which accounted for about one third of all calls.

Hollis Rescue is a non-profit corporation that provides rescue services to the Town. In 2003, Hollis Rescue answered 298 calls, about two-thirds of which were medical calls, with the other third being trauma calls. The service is available during the day on weekdays and 24 hours on weekends, with backup service offered by Buxton Rescue. As of 2004, Hollis Rescue has 10 trained members and one trainee.

Police

Police coverage for the Town of Hollis is provided primarily by the York County Sheriff's Department. The Maine State Police also provide coverage in Hollis.

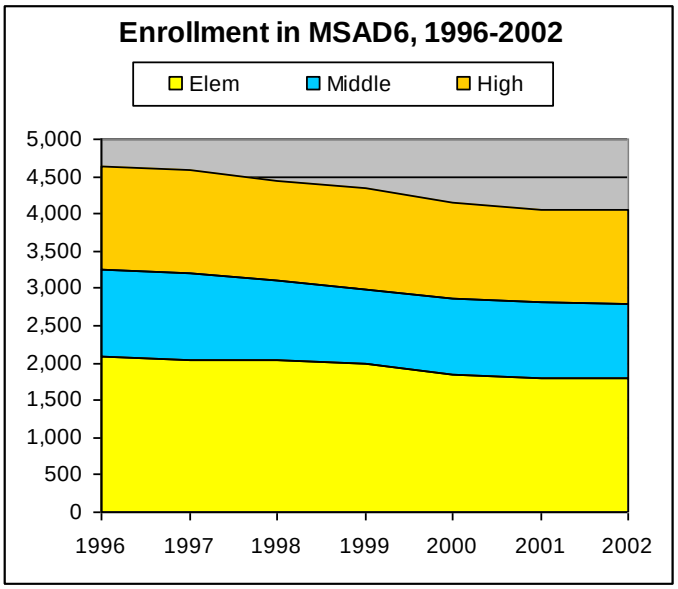
Since 2001, the Town has contracted the Sheriff's Department to dedicate one full-time officer to the Town of Hollis (40 hours per week). This officer conducts regular traffic patrols in Hollis and is the first responder when a Hollis resident requests police assistance. The Town has renewed this contract twice and intends to maintain this relationship with the Sheriff.

The York County Sheriff reports that there were 2,004 calls for service originating from Dayton in 2003. This represents 9.0% of the 22,089 calls placed to the Sheriff from the 14 towns in York County that do not have their own police departments. Among the 2,004 calls, about 52 percent were for traffic stops, accidents or vehicle complaints. This amount of traffic violations is due to Hollis having two major commuter routes (202 and 117) and an increasing level of cut-through traffic. Fewer than five percent of all calls in Hollis were for burglary, theft or violent crimes—there were less than 100 such incidents in the Town for the entirety of the year.

EDUCATION

Enrollment Trends

Hollis is one of five towns in Maine School Administrative District #6 (MSAD6), also known as the Bonny Eagle School District, along with Buxton, Limington, Standish and Frye Island. Students living in Hollis attend Hollis Elementary School for grades K-5, Bonny Eagle Middle School for grades 6-8 and Bonny Eagle High School for grades 9-12.



MSAD6 is the largest school district in Maine, with reported enrollment as of the Fall of 2002 of 4,060 students. Despite sustained population growth in its towns, enrollment in the district has been steadily declining since peaking at over 4,600 students in 1996, as shown in the chart to the right.

Enrollment has fallen across all categories, with the largest drop being in the Elementary (K-5) grades. K-5 enrollment in MSAD6 fell from about 2,100 students in 1996 to 1,800 in 2002, a decline of more than 15%.

Enrollment in MSAD6 schools from Hollis residents has declined as well, falling from 764 in 1996 to 653 in 2002, a 12.7% decrease. Enrollment losses from Hollis students have been entirely in grades K-5 as the numbers of both middle and high school students from Hollis increased slightly from 1996-2002. Elementary enrollment fell sharply, though, from 408 to 272—a 30% decrease. The table below compares public school enrollment by Hollis residents from 1995 to 2002 with statistics for all of MSAD6.

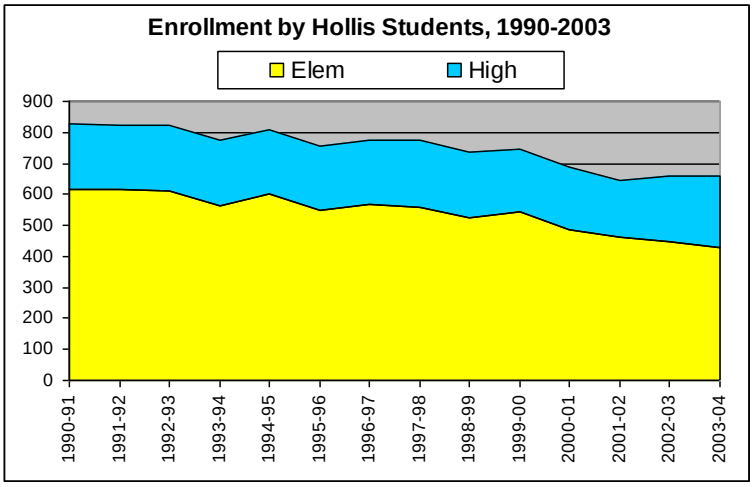
October Enrollment in SAD 6, 1995-2002
Excluding Special Education

	Hollis Residents				District Totals			
	K-5	**6-8**	**9-12**	**Total**	**K-5**	**6-8**	**9-12**	**Total**
2002	272	171	210	**653**	1,799	988	1,273	**4,060**
2001	273	185	184	**642**	1,801	1,024	1,229	**4,054**
2000	295	192	190	**677**	1,839	1,016	1,285	**4,140**
1999	342	194	196	**732**	1,988	1,006	1,352	**4,346**
1998	362	160	207	**729**	2,043	1,061	1,346	**4,450**
1997	363	189	212	**764**	2,030	1,162	1,407	**4,599**
1996	408	150	206	**764**	2,094	1,165	1,367	**4,626**
1995	390	154	204	**748**	2,129	1,131	1,299	**4,559**
No. Chg	(118)	17	6	**(95)**	(330)	(143)	(26)	**(499)**
% Chg	-30.3%	11.0%	2.9%	**-12.7%**	-15.5%	-12.6%	-2.0%	**-10.9%**

Source: Maine Department of Education

MSAD6's own enrollment records are similar to the state's figures. The chart below shows MSAD6 data on elementary (K-8) and high school (9-12) enrollment by students from Hollis covering the 14-year period from the 1990-91 school year through the 2003-04 school year.

Elementary enrollment over time from Hollis residents has been falling at a steady rate. From its high point of 616 students in 1991-92, elementary enrollment has dropped by more than 30 percent, to its present level of just 428 students.



After falling to a low of 186 students in 2001-02, high school enrollment by Hollis residents has rebounded very strongly, reaching its highest level of the period of 233 in the 2003-04 school year.

Overall enrollment by Hollis students has fallen from 828 in 1990 to just 661 in 2003-04. Looking at these numbers as percentages of total population, the 1990 school enrollees represented 23% of the town's total population. Using 2000 population data, the 2003-04 enrollees only accounted for 16% of all Hollis residents. These figures underscore the increasing shift of population in Hollis from families with children to older householders with no children at home.

Capacity Issues

The design capacities of the schools attended by Hollis students are as follows:

- Hollis Elementary School: 513 students
- Bonny Eagle Middle School: 900 students
- Bonny Eagle High School: 1,250 students

Hollis Elementary has sufficient capacity at this time, given its current enrollment of fewer than 300 students. According to enrollment projections completed for MSAD6 in May 2004, elementary enrollment in Hollis is expected to decline slightly over the next 10 years, with a projected 2014 enrollment of 265. The elementary school is therefore sufficient to meet future needs as well.

The middle school, despite seeing its enrollment drop sharply in recent years, is still over capacity. Current enrollment projections anticipate a continued drop in enrollment through 2010, but for a rebound between 2010 and 2015. By 2015, middle school enrollment in the district is pegged at 934, meaning that expansions may be needed several years down the line.

The high school, on the other hand, is expected to experience a continued downward trend in enrollment over the next 10 years, with enrollment falling below the capacity of 1,250 by 2005 and continuing to drop each year through 2015. The expected 2015 enrollment at Bonny Eagle

High School is 1,028. There will therefore be no expansion needs at that facility over the next 10 years, though there may be needs beyond 2015 as enrollment in lower grades grows.

TOWN FACILITIES AND SERVICES

Town Office

The Hollis town office complex is located on Route 35, 2.5 miles north of Hollis Center and two miles south of West Buxton. The complex consists of two buildings: Town Hall and the Hollis Community Building. Town Hall houses offices for the Board of Selectmen and other Town staff and the Community Building contains meeting and recreational space.

The complex was opened in 1974, at a time when the Town's population was around 2,000. As of 2004, the Town's population now exceeds 4,000 and continues to grow with each passing year. Office space in Town Hall is limited and the Town is in need of additional space for this purpose. The Community Building, which houses meetings of Town Boards and elections, is still serving its function to the Town, though.

Solid Waste

Hollis is part of Regional Waste Systems (RWS), a non-profit solid waste management corporation, along with 26 other municipalities in Cumberland, Oxford, and York counties. RWS conducts curbside pickup for Hollis residents and transports garbage and recyclables to its processing facility in Portland.

The table to the right summarizes historic solid waste disposal and recycling trends for Hollis.

From 1992 to 2003, the amount of waste produced by Hollis residents and businesses increased by 42%, from 1,597 tons to 2,268 tons. Of the 2,268 tons disposed in 2003, 141 were recycled—a recycling rate of 6.2%. This is a marked improvement over the 1992 recycling rate of 3.7%.

This rate as reported by RWS does not include bottle deposits nor does it include composting. The State Planning Office recycling program takes these factors into account when calculating a Town's overall recycling rate. For 2001, the most recent year

Solid Waste and Recycling Data
Town of Hollis, 1992-2003

	Tonnage Data			
Fiscal Yr Ending Jun. 30	Total Solid Waste	Total Recycled	Total Sol. Waste & Recy.	% Recy. Yearly
1992	1,536.8	59.7	1,596.5	3.74%
1993	1,619.0	65.7	1,684.7	3.90%
1994	1,678.7	74.5	1,753.1	4.25%
1995	1,742.6	83.2	1,825.8	4.56%
1996	1,731.0	84.0	1,815.0	4.63%
1997	1,801.8	93.4	1,895.2	4.93%
1998	1,859.3	110.0	1,969.3	5.59%
1999	1,907.9	109.8	2,017.7	5.44%
2000	1,984.2	121.6	2,105.7	5.77%
2001	1,934.9	129.3	2,064.2	6.26%
2002	2,023.6	142.4	2,166.0	6.57%
2003	2,127.0	141.0	2,268.1	6.22%
Change:				
Tonnage	590.3	81.3	671.6	
% Change	38.4%	136.3%	42.1%	

Source: Regional Waste Systems; Town of Hollis

reported, Hollis' reported recycling rate was 17.4%. This compares unfavorably with the State's recycling rate goal of 50%.

For items not picked up by RWS, Hollis residents must go to the Waterboro Town Dump. The Waterboro facility takes items from Hollis residents on a fee-per-item basis. These fees range from $1 for windows up to $15 for white goods. Disposal of wood and brush is $2 per cubic yard, concrete is $7.50 per cubic yard and asphalt shingles are $26 per cubic yard.

Recreation

Hollis Parks & Recreation operates a variety of recreational programs for residents of all ages at all times of the year. A substantial portion of the department's funding comes from activity fees charged to participants in programs.

Year-round programs include everything from exercise classes to open gym basketball to drawing and painting classes to play groups for pre-school children. Additionally, there are many different seasonal athletic, arts and social events aimed at all age groups. The department is also responsible for seasonal special events like Winterfest and the Halloween Party. The summer recreation program is the largest of the department's programs. There are about 150 children enrolled in it, with activities available for children in Kindergarten through ninth grade.

Recreation services are enjoyed by a broad segment of the population of Hollis and programs have grown as the Town's population base has grown. It is expected that the Recreation department will continue to add and expand programs into the future to serve the Town's changing needs.

Library

There are two libraries in Hollis: the Salmon Falls Library, which is part of Town government, and the privately run Hollis Center Library. The two libraries each offer a variety of resources and programs to residents of Hollis and surrounding communities. Both libraries obtained grants from the Narragansett Number One Foundation in 2003 to acquire new books. The Salmon Falls Library's grant was for non-fiction and reference volumes aimed at schoolchildren.

Together, the two libraries provide more than adequate library services to the citizens of Hollis.

Town Lands

According to assessment records, the Town of Hollis owns 18 separate properties on 25 parcels of land encompassing a total of 411 acres. The majority of these properties (12 of 18) are either surplus land or common land from cluster developments. Most of these properties are small, and they collectively only account for 57 of the 411 acres of land owned by the Town.

The remaining town lands (six parcels, 354 acres) house municipal or school facilities. These are as follows:

North Hollis Fire Station/Athletic Fields: 197 acres

Hollis Elementary School:	95 acres
Hollis Town Hall and Community Building:	29 acres
Hollis Equestrian Park	27 acres
Old Town Dump	4 acres
Salmon Falls Library	2 acres
Total:	**354 acres**

KEY FINDINGS: PUBLIC FACILITIES

Fiscal Capacity

- Hollis' real property valuation has risen dramatically in recent years, due to three factors: rising housing values, a recent town-wide revaluation and the addition of the Poland Spring complex. However, Poland Spring is in a Tax-Increment Financing district, so a large portion of its tax dollars will not go into the General Fund.
- Rising values have allowed the town to reduce its mill rate from a high of 16.90 in 2000 to 11.50 in 2004.
- Even taking away funds earmarked for the Poland Spring TIF, public expenditures in Hollis have been rising rapidly in recent years. While some of the increase can be attributed to external factors like losses in state school aid and increased county taxes, local spending has also risen considerably in the recent past.
- Hollis has no existing debt and therefore has ample capacity to take on debt in the future.

Transportation

- Reconstruction projects on Routes 5 and 202 are in MDOT's 2004-2009 Six-Year Plan, and there may be opportunities for Hollis to coordinate local transportation projects with these efforts.
- Several town roads are eligible for MDOT's Rural Road Initiative, under which the state provides two-thirds of the funding needed for improvements. Plains Road is scheduled for reconstruction by the end of 2005 as part of this program.
- The Dyer Road bridge over Cook's Brook is in poor condition. Hollis will need to coordinate with the Town of Dayton to upgrade this bridge.
- Traffic counts on many of Hollis' busiest town roads are outdated and need to be conducted to gain a full understanding of volume increases.
- Route 202 is a regional Mobility Arterial and is therefore subject to strict MDOT regulations on any public facilities in its corridor.

Public Safety

- Fire and police facilities and protection in Hollis appear to be satisfactory.
- Crime is rare in Hollis and most police actions in the Town are related to traffic and automobiles.

Education

- Enrollment at Hollis Elementary School is declining, as is enrollment throughout MSAD6.
- Bonny Eagle Middle and High Schools, despite enrollment losses, are still over their design capacities.

- Expansions may be needed at the middle school before 2015, but are unlikely to be needed at Hollis Elementary or the high school.

Town Facilities and Services
- The town office complex is over capacity and in need of additional office space. Meeting space should be adequate to meet future needs, though.
- Hollis is producing much more solid waste now than it did a decade ago and its recycling rate of 17% still lags far behind the state's goal of 50%.
- Recreation programs are comprehensive and well liked by the public and the department has been expanding its offerings as the population base of the town has grown and changed.
- Library services and facilities are adequate and are expected to remain so well into the future.

A. TRANSPORTATION GOALS, POLICIES AND STRATEGIES

State Goal:
To plan for, finance and develop an efficient system of public facilities and services to accommodate anticipated growth and economic development.

Town Goal:
Hollis' transportation system will provide safe and effective transportation access for all transportation users.

Policies:
1. In areas designated for growth, provide and maintain safe roads that retain their visual appeal.
2. Coordinate with MaineDOT on the design and scheduling of improvement projects on state and state-aid roads.
3. Implement a roadway management system for the locally maintained roadway network to plan for, prioritize, and finance improvement projects.
4. Monitor the condition of the two (2) bridges in Hollis for which the community has maintenance responsibility.
5. Discourage the construction of traditional sidewalks in an effort to preserve rural character. Instead, support the construction of paved shoulders and/or paved or crushed stone pathways for use by pedestrian and bicyclists.
6. Encourage use of public and private trails for walking, bicycling, horseback riding and motorized uses.

Strategies:

Strategy 1: Develop local road design standards to help direct growth to the locations identified in this Comprehensive Plan.

Comment: Street design standards and subdivision road standards should be uniform and compatible, and context sensitive to the surrounding land uses. Street design standards need to appropriately designed to meet the needs of the road's anticipated functionality and amount of average annual daily traffic.

- Responsibility: Planning Board and Road Commissioner
- Time Frame: 2006

Strategy 2: Develop a transportation impact fee system.

Comment: The impact fee is a local planning tool that is used to charge an assessed fee against new development in an attempt to cover the cost of providing capital facilities needed to serve the development. Transportation impact fees are needed to generate revenue for local roads designated for commercial and/or high density growth. The development of this system must coincide with the development of fire protection and education impact fees as well.

- Responsibility: Planning Board and Board of Selectmen
- Time Frame: 2006-2007

Strategy 3: Continue to assist Maine DOT in the agency's enforcement of its Access Management Rules for US Route 202, Route 5, Route 4A, Route 35, Route 117, High Street, Plains Road, River Road and Waterboro Road.

- Responsibility: Planning Board
- Time Frame: Ongoing

Strategy 4: Plan for the required 1/3 local match for High Street, Plains Road, River Road and/or Waterboro Road as needed.

- Responsibility: Board of Selectmen and Road Commissioner
- Time Frame: Ongoing

Strategy 5: Make a timely response to Maine DOT's Municipal Solicitation Packet for project ideas for its Biennial Transportation Improvement Program.

- Responsibility: Board of Selectmen and Road Commissioner
- Time Frame: Ongoing

Strategy 6: Create a roadway inventory and regularly update the condition of pavement and drainage structures.

- Responsibility: Road Commissioner
- Time Frame: 2006, Ongoing

Strategy 7: Assign higher priorities to roadway improvements in areas designated for commercial and/or higher density residential growth.

- Responsibility: Road Commissioner
- Time Frame: 2006-2007

Strategy 8: Investigate whether it is necessary to adopt rules to ensure proper use and prevent abuse of the town public ways by posting weight limit restrictions.

Comment: The Board of Selectmen may adopt a set of regulations or rules to enforce weight restrictions on local roads. Restricting access to heavy vehicles in the springtime can help preserve local road pavement conditions.

- Responsibility: Board of Selectmen and Road Commissioner
- Time Frame: 2006, Ongoing

Strategy 9: Continue to coordinate with the Town of Dayton on improvements to bridge number 5259 (on the Dyer Road at the Hollis town line) as necessary.

- Responsibility: Board of Selectmen and Road Commissioner
- Time Frame: 2006

Strategy 10: Communicate with MaineDOT's Bridge Management Division regarding the findings of their bi-annual bridge inspections and appropriate local funds for maintenance as necessary.

- Responsibility: Board of Selectmen and Road Commissioner
- Time Frame: Ongoing

Strategy 11: Require developers to provide pathways in subdivisions.

Comment: Pathways are important in rural areas to facilitate pedestrian accessibility and safety. These facilities can be off-road or adjacent to the roadway system, but should be accessible for both pedestrians and bicyclists, inaccessible to motorized vehicles, and connected to any nearby facilities. Such pathways are more compatible with a rural environment, unlike paved sidewalks which are more appropriate for urban areas.

- Responsibility: Planning Board
- Time Frame: 2006

Strategy 12: Consider constructing paved shoulders along town roads in built-up areas and areas designated for commercial and/or higher density residential growth.

- Responsibility: Board of Selectmen and Road Commissioner
- Time Frame: Ongoing

Strategy 13: Work with the York County Community Action Corporation to increase the visibility of demand-responsive transit opportunities available to the Hollis community.

Comment: York County Community Action Corporation offers Hollis residents weekly transportation to Portland and South Portland for medical appointments, shopping errands or other purposes. The town could play a greater role in advertising the service to residents needing transportation services.

- Responsibility: Board of Selectmen
- Time Frame: 2006, Ongoing

Strategy 14: Develop inventory of trails in Hollis (including location, listing of landowners, types of access, condition, etc,) investigate trail development opportunities, and seek funding opportunities for trail improvements as necessary.

- Responsibility: Parks & Recreation Committee
- Time Frame: 2007

Strategy 15: Pursue development of Park & Ride facility in U.S. Route 202 corridor

- Responsibility: Board of Selectmen
- Time Frame: 2006-2007

B. TOWN FACILITIES AND SERVICES GOALS, POLICIES AND STRATEGIES

State Goal:
To plan for, finance and develop an efficient system of public facilities and services to accommodate anticipated growth and economic development.

Town Goal:
Town government in Hollis strives to provide citizens with sufficient services and facilities in a professional, open and fiscally responsible manner.

Policies:
1. Match development with the need for public services so as to not strain existing roads, fire protection and other systems.
2. Require new development to pay a fair share of its costs for new facilities.
3. Provide for more efficient operation of town government and enforcement of codes.
4. Expand recreation programs and facilities.
5. Increase recreational access to the Saco River.
6. Ensure that regional cooperation results in cost savings for the Town of Hollis.

Strategies:

Strategy 1: Pursue development of new Central Emergency Services station

Comment: A new Fire/EMS facility in a more central location for the whole town would raise the level of service provided by these departments. It would also allow the existing Hollis Center Fire Station to be redeveloped as a potential park & ride location.

- Responsibility: Board of Selectmen, Fire Chief
- Time Frame: 2008

Strategy 2: Continue to explore Transfer Station options

Comment: The Town of Hollis needs to find a viable alternative to the Waterboro Transfer Station. The Board of Selectmen intends to continue to study this issue.

- Responsibility: Board of Selectmen
- Time Frame: 2006-2007

Strategy 3: Expand curbside rubbish and recyclables pickup through use of user fees

- Responsibility: Board of Selectmen
- Time Frame: 2006-2007

Strategy 4: Develop impact fee system to fund capital improvements for transportation, fire protection and education.

Comment: New development has brought about increasing pressure on the town's infrastructure. Impact fees would pay for costs such as road improvements, a better water storage system for fire protection and school improvements. School issues will need to be coordinated closely with MSAD 6.

- Responsibility: Board of Selectmen, Fire Chief, School Board
- Time Frame: 2006-2007

Strategy 5: Plan for renovation and expansion of Town Hall and Community Building

Comment: The existing town hall complex has not been updated in nearly 30 years. Accessibility issues and other modernization activities are needed. Also, additional office and meeting spaces will be needed to keep up with growing demand.

- Responsibility: Board of Selectmen
- Time Frame: 2008

Strategy 6: Expand Town office staffing and hours of operation

Comment: Staffing levels have remained stable for more than 10 years, despite growth and increased demand for services. Additional staff time is needed for several departments, including planning, code enforcement, treasurer, solid waste and Town Clerk functions.

- Responsibility: Board of Selectmen
- Time Frame: 2006-2009

Strategy 7: Continue to support development of Saco River YMCA

Comment: The Town of Hollis has voted to donate a parcel of land on the Plains Road for the construction of the Saco River YMCA. The new "Y" facility will greatly expand the availability of recreation and community education opportunities for Hollis residents.

- Responsibility: Board of Selectmen, Parks & Recreation Committee
- Time Frame: 2006, ongoing

Strategy 8: Consider increasing user fees for recreation programs

Comment: Growing demand for programs and facilities is causing costs to rise. User fees may need to be adjusted accordingly

- Responsibility: Parks & Recreation Committee
- Time Frame: 2006, ongoing

Strategy 9: Pursue development of a new public library

Comment: The existing Salmon Falls Library is small and not centrally located in the Town. A new facility would allow for a substantial expansion of library services for the town. The Buxton-Hollis Historical Society has expressed interest in using the existing library building as a research facility.

- Responsibility: Board of Selectmen, Buxton-Hollis Historical Society
- Time Frame: 2009

Strategy 10: Continue to pursue development of Town Green

Comment: The Town has already applied for funding to develop a "Town Green" on the Town Hall property.

- Responsibility: Board of Selectmen, Parks & Recreation Committee
- Time Frame: 2006-2007

Strategy 11: Develop Saco River boat launch and picnic area at rear of Town Hall parcel.

- Responsibility: Board of Selectmen, Parks & Recreation Committee
- Time Frame: 2009-2010

Strategy 12: Coordinate with Florida Power and Light to determine feasibility of adding boat launches at dam facilities.

- Responsibility: Board of Selectmen, Parks & Recreation Committee
- Time Frame: 2006, ongoing

Strategy 13: Continue to work with the Ten Town Group and SMRPC to explore appropriate opportunities for regional cooperation for law enforcement, solid waste, planning and code enforcement, assessing and road maintenance.

- Responsibility: Board of Selectmen
- Time Frame: Ongoing

Chapter 4: Natural, Historic and Cultural Resources

Hollis contains a number of critical natural resource features which all help to define the rural nature of the community and demonstrate its biodiversity. This information is now more comprehensive than the previous plan due to the work of the Beginning with Habitat Project sponsored by the Maine Department of Inland Fisheries and Wildlife (MDIFW) and the Maine Natural Areas Program (MNAP).

In addition to natural resources, Hollis also contains many sites, buildings and landscapes of historic and cultural importance. This chapter summarizes the inventory of natural, historic and cultural resources in the Town of Hollis.

WATER RESOURCES

Lakes and Ponds

Hollis contains two great ponds: Deer Pond and Killick Pond. Both of these water bodies are located in the northernmost part of the town, to the east of Route 117. In addition to these two ponds, portions of Hollis fall in the watersheds of Lily and Wales Ponds.

Deer Pond is a heavily used recreational site, and has fish populations of smallmouth bass, yellow perch, pickerel, brook trout and brown trout—the latter two stocked by IFW. There is a small town-owned access point/boat landing on the pond, but most of the use seems to come from shorefront owners and the campground.

The pond is unusually deep for its size, but exhibits oxygen depletion at 4 meters. The surface area of the pond is 27 acres, and the total watershed is only 122 acres. The area within the watershed is already heavily developed with primarily year-round dwellings and a few seasonal dwellings as well. There is preliminary evidence from monitoring that water quality is declining.

Killick Pond contains 45 acres of surface area and 2,145 acres of watershed. Much of the watershed is either State-owned land or undeveloped at this time. There is only one known house on the Pond. Killick Pond is shallow, and has little value for any recreational uses. It is, however, identified as prime waterfowl and game habitat.

Rivers and Streams

The Saco River is the predominant water feature in the Town of Hollis, forming the entirety of the Town's northeastern boundary. The River provides significant contributions to the Town's tax base through the various hydroelectric dams and to its recreational opportunities (fishing, boating, swimming, etc.). Development within 500 feet of the river is strongly regulated by the Saco River Corridor Commission (SRCC), so no additional local controls are necessary.

Many tributaries of the Saco River Hollis also contains several streams and brooks, many of which are tributaries of the river. The most prominent of these is Cook's Brook, which forms the

border between Hollis and Dayton. Cook's Brook is also a recreational area due to the pond created by the Skelton Dam.

Floodplains

Figure 7 shows the locations of all 100-year floodplains in Hollis as identified by the Federal Emergency Management Agency (FEMA). This map also illustrates how floodplains relate to the Saco River, the two ponds and the many streams in Hollis.

The entirety of the Saco River corridor through Hollis lies within the floodplain, although the distance of the floodplain from the banks of the river varies at different locations. Killick Pond, along with its inlet and outlet streams, is located in the 100-year floodplain as well. Deer Pond, however, is not located in the floodplain.

Water Quality Issues

Intense residential development, agricultural practices, and other activities seriously threaten the water quality of ponds. Every drainage basin in Maine has been affected by "non-point source pollution" that comes from a number of diffuse sources, including construction sites, farms, roads and parking lots, and lawns. When it rains, the run-off may contain nutrients (especially phosphorus), toxics, sediments, and microorganisms. The run-off eventually ends up in ponds and disturbs the natural balance of organisms in the water. For example, Maine is losing at least one lake per year to "algae blooms" and related water quality problems associated with overloading of phosphorous. The increased phosphorus in the lake acts as a fertilizer to algae, increasing its abundance dramatically and may turn them into green, smelly, murky lakes.

The chart below is based on a program developed by the Lakes Division of the Maine Department of Environmental Protection. The methodology used is adapted from the manual "Phosphorus Control in Lake Watersheds: A Technical Guide to Evaluating New Development," which is available from the DEP, or SMRPC. The program addresses the cumulative impact of development in lake watersheds and the resulting effect on lake water quality.

The key element of this program is the "per acre allocation of phosphorus" for the town's watersheds. Planning Boards can use this phosphorus allocation to review future development and prevent a loss of water quality for the next fifty years. It is suggested that these charts be reviewed every five years to determine if projections of growth are accurate.

Per-Acre Phosphorus Allocations for Ponds in Hollis

Name	Acreage in Hollis: Total	Acreage in Hollis: Avail. For Devel.	Phosphorus Allocation (Lbs./Acre)
Deer Pond	64	44	0.078
Killick Pond	2,646	2,146	0.030
Lily Pond	239	194	0.034
Wales Pond	407	387	0.035
Total	**3,356**	**2,771**	

Source: Maine Department of Environmental Protection

Groundwater Resources

While Hollis does not currently have a public drinking water supply, it is possible that one might be needed in the future. To that end an analysis of drinking water possibilities can be a valuable assessment as Hollis plans for future growth. The sand and gravel aquifer map (Figure 8) demonstrates the many opportunities for a public water source for Lyman. The areas mapped may provide up to 50 gallons per minute (gpm). In addition, the Saco River could also be a potential future source of drinking water for Hollis.

In all, nearly half of the land area of Hollis sits atop significant aquifers. Nearly the entirety of the town's land located to the north of Haley Road contains an aquifer with 10-50 gpm of water. This aquifer encompasses the intensively developed area in North Hollis around Deer Pond. The other area of town with substantial groundwater resources is in Hollis' southwestern corner, south of Route 202 and west of the Little Falls Road section of Route 35.

Given the continued pressure for development in Hollis, as well as the potential future need for a central water supply, it may be necessary to identify areas in town for aquifer protection. This suggestion was made in the 1991 Comprehensive Plan, but was never incorporated into the Zoning Ordinance.

CRITICAL NATURAL RESOURCES

Wetlands

Figure 9 shows the locations of wetlands in Hollis, as identified by the U.S. Fish and Wildlife Service and the Maine State Planning Office. The table to the right summarizes data from this map.

There are a total of 346 wetland properties in Hollis, of which 25 are high value, 41 are moderate value and

Profile of Wetlands in Hollis

	Number	Acres	Avg. Acres
High Value	25	2,127	85.1
Moderate Value	41	2,707	66.0
Low Value	280	741	2.6
Totals	**346**	**5,574**	**16.1**

Source: National Wetlands Inventory

280 are low value. Though there are fewer moderate and high value wetlands, they account for the bulk of the wetland area in the Town. In all, there are 2,127 acres of high value wetlands and another 2,707 acres of moderate value wetlands.

The largest high value wetlands in Hollis are:

- A 278-acre wetland located north of Killick Pond Road, just to the east of Killick Pond;
- A 195-acre parcel located southwest of Route 117, between Deer Pond and Upper Tarbox Road;
- A 106-acre wetland that follows Andy's Brook from just west of Route 35 past Wales Pond; and
- An 81-acre parcel encompassing the sources of several brooks just to the north of Hollis Center.

Critical Habitat

In addition to the above wetland data, the State of Maine recently produced data on the locations of critical habitat areas. This information shows the highest rated (top 25 percent) habitat areas for three different types of natural systems: forested, freshwater and grass/shrub/bare ground. The identified areas are the locations that are most important to the survival of indigenous plant and animal life in Maine. Figure 10 shows critical habitat in Hollis by these three types.

A related issue to critical habitat is that of vernal pools. Vernal pools are areas that, in the springtime, are "temporary" wetlands that serve as crucial breeding grounds for various amphibian and invertebrate species. Historically, land use planning in Maine has not taken vernal pools into consideration, but as their importance to animals has become understood, the need to examine their locations as part of the planning process grows.

Animal and Fisheries Habitat

Figure 11 displays IFW Beginning With Habitat data for Hollis, showing the locations of rare animal habitat, inland waterfowl and wading bird habitat, deer wintering areas, and rare animal locations. The inventory of animal and fisheries habitat is as follows:

- Rare Animal Habitat – The only rare animal habitat area in Hollis are two blocks of invertebrate habitat located around Killick Pond, north of Killick Pond Road and east of Route 117.
- Inland Waterfowl and Wading Bird Habitat – There are three small areas of waterfowl habitat, all in the far northern section of town. One of these is on the southern end of Killick Pond, with the other two centered on small wetlands.
- Deer Wintering Areas – Hollis contains four large blocks of deer wintering areas. The first is in the northeast corner of the town, spanning from Shy Beaver Road to Sand Pond Road.
- Rare Animal Locations – There are seven rare animal locations in Hollis. Five are located in the North Hollis/Killick Pond area. Two of these are turtle species, one is the ribbon snake, and two are rare invertebrates. Aside from these locations, there is a Blanding's turtle location along Route 117 and an Eastern cottontail location along Bear Hill Road.

Rare Plant Habitat

Rare Plant Habitat is also shown on Figure 11. The only rare plant habitat in Hollis is a pitch pine/scrub oak forest located between Killick Pond Road and the Limington town line. This forest encompasses about 1,340 acres and includes the aforementioned invertebrate habitat areas. There is also a specific rare plant location in this forest—the Northern Blazing Star. There are two other rare plant locations in Hollis: a white pine/mixed conifer forest north of Route 202, just east of Hollis Center, and hollow joe-pye weed in the Salmon Falls area.

Large and Critical Blocks

According to Beginning With Habitat data, there are portions of two large unfragmented blocks of habitat in Hollis. These blocks of land are not necessarily protected, but they do provide a picture of how many animals need contiguous land for their habitat. Of additional note is that the both of these blocks contain either plant or animal habitat, as discussed above.

These blocks, which are also shown in Figure 11, are as follows:

1. A 4,400-acre block that encompasses most of the land area of Hollis that lies north of Plains Road, east of Route 117 and west of Route 35. This block contains a variety of plant and animal habitat, including a sizable deer wintering area, a pitch pine/scrub oak forest, and two sites of rare invertebrate habitat.

2. A small portion of a 3,400-acre block that is mostly located in Waterboro and Limington. This block, which lies west of Route 117 and north of Waterboro Road, contains a wetland that is identified as inland waterfowl/wading bird habitat.

Scenic Areas and Views

The most notable scenic corridor in Hollis is along the Saco River. Protection of this area by the SRCC includes review of permit applications to ensure that they meet the "scenic, rural and open space character" of the corridor.

Hollis' other scenic resources involve the aesthetic mixture of open land and forest—what may be referred to as the "pastoral landscape." While about 75% of the land in Hollis is still in its natural state, views of it are rapidly being eliminated by roadside development. Even if back land remains undeveloped, the ability of people to view the pastoral landscape is harmed if the road frontages are developed.

Agricultural Soils Resources

The 1991 Comprehensive Plan warned that many of Hollis' areas with prime agricultural soils were located in areas that were poised to attract future development. Although Hollis does not have any active commercial farms remaining, it does still have substantial open spaces that are left over from farms. Many of these properties are used for hay production or other agriculturally related uses. Though no commercial farms remain in Hollis, ensuring that agricultural uses remain possible has been identified as something that is very important to the citizens of the town.

Figure 13 shows the locations of prime agricultural soils in Hollis, as defined by the York County Soil and Water Conservation District. The two largest areas with prime agricultural soils in Hollis are the Plains Road corridor in North Hollis and the southernmost portion of the Town west of Bear Hill Road.

Figure 13 also compares these soils with the locations of new housing development in Hollis since 1992 (see Chapter 5 for more details about this issue). In all, 131 of the 291 new units permitted in Hollis between 1992 and 2003 were built on properties that have prime agricultural soils. This represents 45 percent of all new development in the Town.

Hydric Soils

Figure 12 displays hydric soils in Hollis. These areas are poorly drained and are therefore generally not suitable for future development. It is of note that much of Hollis Center and its immediate surroundings have hydric soils.

Soils Suitable for Septic Systems

In considering future locations of development, the suitability of soil to accommodate subsurface wastewater disposal needs to be considered. The York County Soil and Water Conservation District has created guidelines for what soil types are, in fact, suitable for septic systems. These soil locations in Hollis are displayed in Figure 14.

Most of the land in Hollis that is suitable for septic systems is in its western portion, to the north of Route 202 and to the west of Route 117. There are smaller areas of suitable soil to the east of Route 117, particularly the area to the east of Hollis Center.

Forestry Resources

The State of Maine Tree Growth program reports that, as of 2003, there were 161 parcels in Hollis registered as Forest Land. These properties, in total, comprise 5,924 acres, or about 28% of the Town's total land area. Of this acreage, 1,466 acres (25%) are Softwood, 1,765 (30%) are Hardwood and 2,694 (45%) are Mixed Wood.

HISTORIC AND CULTURAL RESOURCES

As part of the planning process, the Hollis Comprehensive Planning Committee asked the Buxton-Hollis Historical Society to assemble an inventory of historic and cultural resources in the Town of Hollis. This section contains the information collected by the Historical Society.

Historic Sites and Buildings

The National Register of Historic Places is a federal designation to identify properties for consideration in federal or federally assisted projects and to provide financial assistance for historic preservation. The National Register's website lists the following criteria for inclusion on the register:

> "the quality of significance in American history, architecture, archeology, engineering and culture that is present in districts, sites, buildings, structures and objects that possess integrity of location, design, setting, materials, workmanship, feeling and association and: A. that are associated with events that have made a significant contribution to the broad patterns of our history; or B. that are associated with the lives of persons significant in our past; or C. that embody the distinctive characteristics of a type, period or method of construction…; or D. that have yielded or may be likely to yield information important in prehistory or history."

Source: National Register for Historic Places website: http://www.nationalregisterofhistoricplaces.com/faq.htm

The only area in Hollis listed on the National Register is the Salmon Falls Historic District. It includes eleven buildings on the Buxton side (East District) of the river and eight buildings on the Hollis side (West District). The buildings date from 1790 to 1868.

The Buxton-Hollis Historical Society with funding and support by the Maine Historic Preservation Commission and the Town of Buxton is completing a comprehensive survey of historic Buxton buildings and archaeological sites. The purpose of the survey is to well identify historic resources as the first step of preserving them (a presentation on the survey is currently airing on cable TV channel 2, 7 PM, Mon., Wed. and Friday, 5:30 PM on Saturday and Sunday).

All the fieldwork has been done and just the database and mapping remains. An experienced local professional consultant was hired for consistency and expert advice. This roadside survey with 700 hours of volunteer effort has photographed and cataloged over 650 structures greater than fifty years old. The information will be available on hardcopy and in a sortable database, which will tie with Southern Maine Regional Planning Commission's mapping system. The Buxton-Hollis Historical Society proposes to build on its experience and do such a survey of Hollis with Hollis volunteers and similar support from the Maine Historic Preservation Commission and the Town of Hollis.

Cemeteries and Other Cultural Resources

Cemeteries are a uniquely local source of historical and genealogical information. Hollis has many well-maintained cemeteries. However, some are small and largely unknown. In all there are six cemeteries and 52 identified family burial plots in the Town. Many other family plots are likely undiscovered and need to be better documented and preserved as historic resources.

Archaeological or Prehistoric Sites

The most significant archaeological resources for preservation are the Native American campsites along the Saco River. These have been partially identified by Dr. Rick Will and others in the Federal licensing process for the dams along the river. The Native American sites date as far back as 9,000 years ago. Although the sites are buried and there is little for the general public

to see at these very old sites, ongoing protection of the sites is needed to allow future study of Maine's earliest human period.

More recent sites include the early grist and sawmills along the Saco River and its smaller tributaries. To the best of our knowledge today, little remains except some scattered foundations.

Recognition and Education Efforts

Due to both the wildfires of 1947, which wiped out many historic homes in Hollis, and to recent residential growth, only about 20% of all housing units in Hollis are more than 50 years old. These older homes are largely located on the older main roads, while newer housing units are often located out of sight, either on subdivision streets or on frontage lots set far back from roads. The historic buildings and structures therefore represent an important part of how Hollis is viewed by residents and visitors alike.

As such, the existence of strong recognition and education programs concerning historic and cultural resources is nearly as important as the resources themselves. Recognizing historic buildings and sites raises public awareness which, in turn building public and financial support for preservation. Presently, the Buxton-Hollis Historical Society provides these services for the Town, but its resources are limited, so there may be greater needs for recognition and education programs.

KEY FINDINGS: NATURAL, HISTORIC AND CULTURAL RESOURCES

- Land uses around Hollis' two great ponds are not likely to change much, as Deer Pond's shoreline is largely developed and Killick Pond is mostly surrounded by conservation land.
- Land use regulation near the Saco River is conducted by the Saco River Corridor Commission, so the Town does not have a need for further regulation.
- Hollis has ample groundwater resources for potential future public water supply.
- The northernmost part of Hollis, in the vicinity of Killick Pond, contains a variety of plant and animal habitat. There are smaller concentrations in other parts of Town as well.
- A great deal of recent residential development has occurred on prime agricultural land.
- Most of the land in Hollis that is suitable for septic systems is located in the western portion of the Town, west of Route 117 and North of Route 202.
- The only nationally listed historic sites in Hollis are in Salmon Falls. Hollis' portion of this historic district, which is shared with Buxton, contains 8 historic buildings.
- The Buxton-Hollis Historical Society recently completed a full historic properties inventory of Buxton and has expressed a willingness to do the same in Hollis. The Historical Society also runs community educational programs.

A. NATURAL RESOURCES GOALS, POLICIES AND STRATEGIES

State Goal:

To protect wetlands, wildlife habitat, scenic vistas, shorelands and natural areas by:

A. Developing policies and ordinances consistent with state law protecting critical natural resources

B. Creating greenbelts, public parks and conservation easements
C. Protecting undeveloped shorelines.

Town Goal:
Hollis seeks to protect its valuable natural resources and improve public access to its water bodies and open space.

Policies:
1. Discourage growth in high value natural resource areas.
2. Protect the high quality of groundwater resources for both residential and commercial uses.
3. Protect surface water bodies from pollution and sedimentation threats.
4. Provide special protection to the wetlands, endangered species and pitch pine barrens in the vicinity of Killick Pond.
5. Discourage development within and adjacent to wetlands, in high-value wildlife areas and on the Saco River islands.

Strategies:

Strategy 1: Encourage landowners in resource protection areas to register and maintain properties as open space in state Current Use Taxation program.
- Responsibility: Board of Selectmen
- Time Frame: 2006, Ongoing

Strategy 2: Continue to limit uses in resource protection areas to pre-existing conditions and work to eliminate undesirable uses.
- Responsibility: Planning Board.
- Time Frame: 2006, Ongoing

Strategy 3: Prohibit all commercial and industrial uses in areas with critical natural resources.
- Responsibility: Planning Board
- Time Frame: 2006, Ongoing

Strategy 4: Limit residential uses in areas with critical natural resources to single-family only.
- Responsibility: Planning Board
- Time Frame: 2006, Ongoing

Strategy 5: Encourage higher density development in designated growth areas.
See Land Use chapter for details

Strategy 6: Create strong incentives for cluster development in rural areas.
See Land Use chapter for details

Strategy 7: Develop clustering standards that ensure appropriate locations of development and conservation land in cluster subdivisions.

Comment: For areas with open fields or other areas with view resources, development that is clustered and arranged to preserve views is preferable. In forested areas, access to backland

for recreation is extremely important in wooded areas. In these areas, clustering development closer to existing road frontages is therefore a priority, so that contiguous backland can be maintained for recreational purposes.

- Responsibility: Planning Board
- Time Frame: 2006

Strategy 8: Appoint a Land Preservation Committee to oversee the identification and protection of potential conservation parcels.

- Responsibility: Board of Selectmen
- Time Frame: 2006

Strategy 9: Identify key conservation parcels.

Comment: Working with landowners, the Land Conservation Committee needs to identify parcels that are of value to the town as conservation parcels for the purpose of recreation and/or the preservation of its rural character. These parcels will become the focus for efforts in Strategy 10 below.

- Responsibility: Land Preservation Committee
- Time Frame: 2006-2007

Strategy 10: Coordinate with existing land trusts and conservancy organizations to protect key parcels through acquisition of either land or conservation easements.

There are a number of regional and statewide land trusts that have the resources at their disposal and the willingness to acquire land or conservation easements for preservation. Once Hollis has completed the process of identifying key parcels, the Town then needs to contact these organizations to work on preserving these parcels. An example of such an arrangement in Hollis is the "Killick Pond-Gannett Project," which conserved over 2,700 acres around Killick Pond.

- Responsibility: Land Preservation Committee
- Time Frame: 2008-2010

B. HISTORIC AND CULTURAL RESOURCES GOALS, POLICIES AND STRATEGIES

State Goal:
To preserve the state's historic and archaeological resources.

Town Goal:
Hollis will honor its historic and cultural resources by raising public awareness of and providing access to them.

Policies:

1. Expand inventories of historic and archaeological resources
2. Preserve and enhance historic and archaeological sites, particularly along the Saco River.
3. Encourage and improve the traditional nature of villages and historic collections of buildings.

Strategies:

Strategy 1: Identify additional historical sites through use of Town records
- Responsibility: Board of Selectmen, in cooperation with Buxton-Hollis Historical Society
- Time Frame: 2006

Strategy 2: Pursue Maine Historic Preservation Commission grant to conduct comprehensive townwide inventory of historic resources
- Responsibility: Board of Selectmen, in cooperation with Buxton-Hollis Historical Society
- Time Frame: 2006

Strategy 3: Provide financial assistance to Buxton-Hollis Historical Society for preservation activities
- Responsibility: Board of Selectmen
- Time Frame: 2006, ongoing

Strategy 4: Educate property owners about availability of state and federal tax credits for historic preservation
- Responsibility: Board of Selectmen, in cooperation with Buxton-Hollis Historical Society
- Time Frame: 2006, ongoing

Strategy 5: Encourage maintenance of privately owned cemeteries and other historic resources
- Responsibility: Board of Selectmen, in cooperation with Buxton-Hollis Historical Society
- Time Frame: 2006, ongoing

Strategy 6: Strengthen land use standards to protect structures in historic districts
- Responsibility: Planning Board, in cooperation with Buxton-Hollis Historical Society
- Time Frame: 2006

Strategy 7: Work with Buxton to develop map and brochure of historic sites and make available to public
- Responsibility: Board of Selectmen, in cooperation with Buxton-Hollis Historical Society and Town of Buxton
- Time Frame: 2006

Strategy 8: Install signage and/or markers at key historic sites
- Responsibility: Board of Selectmen, in cooperation with Buxton-Hollis Historical Society
- Time Frame: 2007-2008

Strategy 9: Work with Saco Museum and other towns to develop historic tours of the Saco Valley
- Responsibility: Board of Selectmen, in cooperation with Buxton-Hollis Historical Society
- Time Frame: 2007-2008

Chapter 5: Land Use

This chapter profiles current land use patterns and recent trends in changes in land use patterns in the Town of Hollis. The purpose of this chapter is to characterize how the Town looks "on the ground" and to lay the foundation for the creation of the Future Land Use Plan in Chapter 7 of this document.

GENERAL LAND USE PROFILE

Hollis is a town of 32.6 square miles located in the northern portion of York County, along the southern bank of the Saco River. It is situated about 10 miles to the northwest of Saco and Biddeford and roughly 20 miles to the west of Portland. It is primarily a bedroom community, with most of its residents commuting to jobs outside the Town's borders. Hollis has been part of the Portland Metropolitan Statistical Area (MSA) since the early 1980s.

The 2000 Census reported Hollis' population as 4,114, translating to an overall population density of about 126 people per square mile. Hollis has a number of historic village areas, including Hollis Center, Clark's Mills and parts of West Buxton, Bar Mills and Salmon Falls—villages shared with the neighboring town of Buxton. Most of the Town's commercial development is located along the U.S. Route 202 corridor in Hollis Center.

The 1991 Comprehensive Plan estimated that 18% of the land in Hollis was developed. This figure was determined by applying an average lot size of three acres to the 1,254 housing units that existed in the Town as of the 1990 Census. The resulting estimate was that developed parcels accounted for 3,762 acres, or 5.88 square miles. The remaining land in the Town was estimated to be about 70 percent forested and 10 percent agricultural and two percent commercial or industrial.

Using this same methodology with 2000 Census data, the 1,592 housing units in the Town would occupy 4,776 acres, or 7.46 square miles. This represents 23% of the town's total land area. The table below compares residential land consumption in Hollis from 1990 to 2000.

Residential Land Consumption, 1980-2000
Town of Hollis

Year	No. of Units	Acres/Unit	Acres Used	Sq. Mi. Used	% of Town
1980	961	3.0	2,883	4.50	13.8%
1990	1,254	3.0	3,762	5.88	18.0%
2000	1,592	3.0	4,776	7.46	22.9%
Change	**631**		**1,893**	**2.96**	**9.1%**

Source: U.S. Bureau of the Census; SMRPC

As this table shows, nearly 1,900 acres, or about nine percent of the town's total land area, were converted to residential uses between 1980 and 2000. More than 1,000 acres underwent

conversion between 1990 and 2000 alone, representing an additional 4.9% of the town's land area.

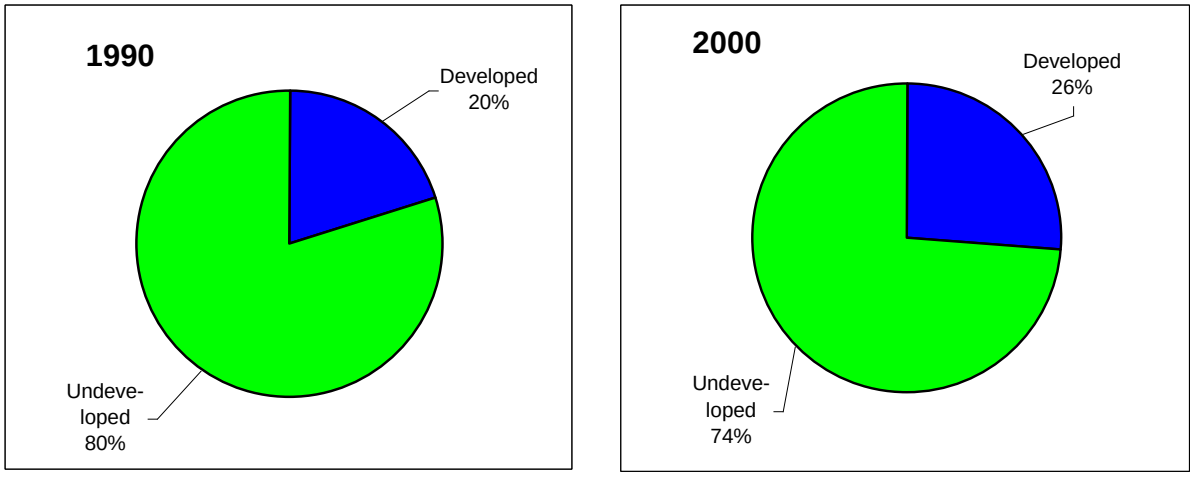
The 1991 Comprehensive Plan predicted that between 4.5 and 6.5% of the town's land would be converted between 1990 and 2000, and this turned out to be the case. However, it is very important to note that the amount of housing development and land development fell within the range projected in 1991 despite the fact that the Town's overall population grew at a much slower rate than was expected.

The reason that land consumption in Hollis greatly exceeded population growth goes back to the discussion in Chapter 2 regarding the characteristics of new households. Newcomers to Hollis since 1990 have tended to be older, with no children at home, and with small household sizes. Thus, the number of housing units and, in turn, land, needed to accommodate these new residents was greater on a per capita basis than was envisioned in 1991.

In addition to the increase in residential development, the addition of the Poland Spring bottling plant greatly added to the Town's inventory of commercial and industrial land. The Poland Spring property encompasses about 250 acres of developed land or land set to be developed, or 0.4 square miles. Its addition raises the share of commercial land in Hollis from the earlier estimate of two percent to about three percent of the Town's total land area.

The pie charts below compare developed land in Hollis in 1990 and 2000. These charts only compare developed and undeveloped land and do not differentiate between residential and commercial land, nor do they separate forestland from agricultural land.

Change in Share of Developed Land, 1990-2000



RESIDENTIAL DEVELOPMENT TRENDS

Housing Development Patterns

There were a total of 291 permits issued for new residential construction in Hollis between 1992 and 2003, an average of 22 per year. Figure 15 shows the locations of these new units. Units shown with red dots are single-family units and units with blue dots are mobile homes. In all, there were 229 single-family units built and 62 mobile homes sited during this 12-year period.

Figure 15 also shows the locations of areas identified in the 1991 Hollis Comprehensive Plan as growth areas. There were six growth areas identified in the Town. Four of these (Hollis Center, the Bar Mills/Salmon Falls area, West Buxton, and North Hollis) are either existing or planned village areas. The other two were residential growth areas. The first was called the "Developing Residential" area, and is located in the southwestern corner of Hollis, along Route 202, Route 5 and Deerwander Road. The other was called the "Rural Residential" area, and it spans the northern section of Hollis from West Buxton to North Hollis.

All other sections of the town were envisioned in 1991 as rural areas. The southern section of the Town was labeled the "Farm and Forest District," and the far northern section was called the "Resource Conservation District."

As the table to the right shows, growth in Hollis was relatively concentrated in the six prescribed growth areas. About 48% of all new units were added in one of the six growth areas, with most of the development concentrated in the two residential growth areas. In the non-growth areas, most of the new development occurred in the Farm & Forest area in the southern part of the Town.

Areas experiencing particularly rapid growth included the Deer Pond/North Hollis area, the Deerwander Road corridor, and the Clark's Mills area.

Location of Housing Development in Hollis, 1992-2003

1991 Comp. Plan Districts	Mobile Homes	Single-Family	Total Units
Village Areas			
Hollis Center Commercial Village	4	8	12
North Hollis Commercial Village	7	2	9
W. Buxton Historic Village	1	1	2
Bar Mills/Salmon Falls Historic Village	0	6	6
Subtotal	**12**	**17**	**29**
Residential Growth Areas			
Developing Residential Area	1	31	32
Rural Residential Area	23	56	79
Subtotal	**24**	**87**	**111**
Non-Growth Areas			
Farm & Forest Area	20	106	126
Resource Conservation Area	6	19	25
Subtotal	**26**	**125**	**151**
TOTAL--ALL DEVELOPMENT	**62**	**229**	**291**

Source: Town of Hollis Code Enforcement Officer; SMRPC

Subdivision and New Lot Creation

New residential construction in Hollis occurred both on individual frontage lots and in a number of residential subdivisions. In all, there were 30 new subdivisions approved by the Hollis Planning Board between 1990 and 2003, containing a total of 190 lots. This averages out to 6.3 lots per subdivision, and no single new subdivision in the Town contained more than 14 lots.

The following table lists subdivisions created in Hollis since 1990.

New Subdivisions in Hollis, 1990-2003

Year	Subdivision Name	Map	Lot	# of Lots	Location
1990	Equestrian Estates	4	75	3	Off New County Rd - rt 5
	Clarks Mills Homesites	4	71	3	Clarks Mills Rd
1991	Hemlock Hills	2	77	5	Diamond Ln
1992	Deerwander	6	7	9	Deerwander Rd
1993	Lower Tarbox Rd	12	3	8	Lower Tarbox Rd
	River View 1	13	11	3	Sand Pond Rd
1995	Louis	6	43	6	Birchledge Ln
1996	Brookside	9	36	7	Brookside Ln
	Eagle Ridge	3	14	7	Hollis Rd (rt 202)
	By-A-Brook 1	14	22	5	Swanton Dr
	Meadow Brook	16	19	3	Nathan Smith Rd
1997	Strawberry Hill	5	55	10	Lisa Ln
	Smith Brook	12	47	4	River Rd & Bean Rd
	T & B	6	8	8	Dean Dr
1998	Clarks Mill Acres	4	71	14	Clarks Mills Rd
	D & K (Angle Dr)	5	51	3	Deerwander Rd
	Pheasant Ridge	2	82	8	Bar Mills Rd (rt 4A)
1999	By-A-Brook 2	14	22	3	Swanton Dr
	Diagle	3	12	3	Hollis Rd (rt 202)
	D & K (Star Ln)	5	9B	3	Hollis Rd (rt 202)
2000	Fox Ridge 1	7	31	6	Deerwander Rd
2001	River View 2	13	11	1	Sand Pond Rd
	Fox Ridge 2	7	31	7	Deerwander Rd
2002	Quail Ridge	12	68,69,70	10	Saco Rd, Lower Tarbox Rd
	Easy Living Homes	12	52,53	11	Heather Ln, Saco Rd
2003	Boulder Ridge	5	51	14	Boulder Ridge
	Kaylan Brook	10	10	7	Logans Run
	River's Edge	10	18	6	Rivers Edge
	Hollis Heights	2	88	6	Cynthia's Ln, Hollis Rd
	Meadow Woods	4	19	7	Winterberry Ln, Hollis Rd
			Total Lots:	**190**	

Source: Town of Hollis Code Enforcement Office

From 1992 through 2003 there were 179 new lots created in Hollis in subdivisions. This compares with the total number of new units built of 291. Although not all newly created lots have been built upon, the ratio of subdivision lots to total new units was 0.61. So, about 60% of new construction between 1992 and 2003 was in new subdivisions and about 40% was on single lots or in pre-existing subdivisions.

COMMERCIAL DEVELOPMENT TRENDS

Hollis contains several village areas, where the bulk of business activity and commercial development has historically been contained. The largest of these villages is Hollis Center, located at the crossroads of Routes 202, 117 and 35 in the southern part of the Town. Hollis Center accounts for much of the town's commercial development, as it contains restaurants, gasoline stations, a food market and a few other service businesses.

There is a small historic village at Clark's Mills, on Route 35 near the Dayton town line, but this settlement contains little commercial development today. Hollis also contains parts of three historic villages along the Saco River—West Buxton, Bar Mills and Salmon Falls—each of which spans the river into Buxton. These three villages all contain modest amounts of commercial development. In addition to these historic village areas, a small commercial concentration has developed around the intersection of Route 117 and Waterboro/Killock Roads in North Hollis.

The largest employer in Hollis, the Poland Spring bottling plant opened on Plains Road in the late 1990s. This facility is located about halfway between West Buxton and the Route 117/Killock Road area. It represents the only substantial industrial use in Hollis as of 2004.

LAND CONSERVATION

According to Town assessment records, there are 320 parcels containing 9,583 acres of land in Hollis that are registered as part of Maine Current Use Taxation programs. Of this amount, 161 parcels containing 5,924 acres of land are in the Tree Growth program and 159 parcels containing 3,659 acres are in the Open Space program. There are no parcels registered in the Farm Land category in Hollis. It should be noted that these programs are voluntary and land owners are able to opt out of them if they choose, though doing so usually requires paying back taxes.

Beyond these privately held lands, there is also a substantial amount of land owned by the State of Maine in the northern section of Hollis around Killick Pond. The Maine Department of Inland Fisheries and Wildlife controls 417 acres of land in this area and the Maine Air National Guard controls another 425 acres. In all, the state owns 842 acres in the town.

Adding up state lands and private lands in state conservation programs, a total of 10,425 acres of land in Hollis is under some sort of conservation protection. This represents about two-thirds of the estimated 15,000 acres of undeveloped land in Hollis, leaving about 5,000 acres of undeveloped and unprotected land.

DEVELOPMENT OPPORTUNITIES AND CONSTRAINTS

Figure 16 depicts current land uses as of 2004 in the Town of Hollis. Of the portions of the town that are developed (i.e., no longer in a rural state), almost all is developed for residential uses. The only exceptions are the Poland Spring bottling facility in the North Hollis area and the commercial areas around Hollis Center and North Hollis Village.

Residential development is scattered throughout the town, but there are several areas that are more intensively developed than others. The historic village areas of Hollis Center, Bar Mills, Salmon Falls and West Buxton have fairly dense concentrations of housing. Beyond those areas, most housing units in Hollis are built on large lots either on or in close proximity to existing public roads.

Most of the undeveloped land in Hollis is the backland located away from existing public roads. As the amount of developable road frontage continues to diminish, pressure will mount in the future to develop residential subdivisions in backland areas.

Since Hollis does not have public water or sewer utilities and does not plan to establish such utilities in the future, a primary consideration in planning for future residential growth is the suitability of soil for septic disposal. This information is presented on its own in Figure 14 and superimposed with current land uses and environmental constraints in Figure 17.

Figure 17 clearly shows that the only undeveloped area of Hollis with a large concentration of suitable soils for septic disposal is located in the area to the north of Route 202 and the west of Route 117. This area encompasses much of the land of the existing Residential Two-Acre (R-2) zone. It also includes a substantial portion of the Residential Three-Acre (R-3) zone along the southern end of Deerwander Road.

Also displayed on Figure 17 are critical natural resources such as rare animal and plant habitat, inland waterfowl and wading bird habitat and aquifer recharge areas. These resources are mainly concentrated in the North Hollis area, to the east of Route 117 and to the north of Lower Tarbox Road and Plains Road. Though a large portion of this land (around Killick Pond) is publicly owned, there has been substantial residential development in this area in recent years, mainly in the Deer Pond area. The juxtaposition of valuable resources and continued development pressure warrants a closer look at how to better manage development in this section of Hollis.

DISCUSSION: CONTROLLING THE PACE OF GROWTH

The Town of Hollis has had a Residential Growth Ordinance (growth cap) in place since 1993. The ordinance states four reasons for needing to limit the pace of growth:

1. To protect the town against indiscriminate, uncontrolled and/or poorly planned development by establishing the constant, predictable rate of growth needed for effective capital improvement programming.
2. To provide for the current and future housing needs of existing Hollis residents and their families while accommodating Hollis' fair share of population growth in York County

and the immediate sub-region. (Which has a current annual growth rate of approximately 4.9%)

3. To ensure fairness in the allocation of Residential Growth permits.
4. To ensure the continued Residential Growth of Hollis at a rate compatible with the orderly and gradual expansion of community services (including education, fire and police protection, road maintenance, waste disposal, health services, water quality and availability, etc.). And to maintain a "growth policy which will not require any further expenditures for municipal sewerage and water systems." (Planning Policy Statement, Hollis, Maine, adopted March 1979.)

As of 2005, the maximum number of growth permits that may be issued in any one year is 50, with 36 allocated to non-speculative property owners and 14 to speculative developers. The limit of 50 units has been reached for both 2003 and 2004 and is expected to be reached for 2005 as well.

With the limit being reached on a regular basis, the growth cap is indeed limiting the pace of growth in town to 50 units per year. However, as outlined above, the locations and types of development remain haphazard. While the rate of growth is being effectively controlled, it is clear that the location, scale and character of growth presently have little to do with the planning priorities of the Town of Hollis as laid out in this chapter.

For this reason, the Comprehensive Planning Committee finds that the Residential Growth Ordinance no longer serves the Town of Hollis effectively and that there are better means of managing growth. **The Committee therefore recommends phasing out the Growth Ordinance within three years of the date of adoption of this Comprehensive Plan Update and replacing it with alternative growth management strategies**. The goals, policies and strategies in this chapter outline specific recommendations on this issue.

KEY FINDINGS: LAND USE

- The amount of Hollis' land that is developed increased from 20% in 1990 to an estimated 26% in 2000. The 1991 Comprehensive Plan anticipated this much land development, but expected more housing units.
- About half of new housing units built in Hollis since 1992 have been in the growth areas identified in the 1991 Comprehensive Plan. A large share of this growth occurred in the "Rural Residential" area located between North Hollis and West Buxton.
- About 20% of new housing units since 1992 are mobile homes. There has been a high concentration of new mobile homes in the North Hollis area.
- Three areas of Hollis have experienced particularly rapid growth: the North Hollis/Deer Pond area, the Deerwander Road corridor, and the Clark's Mills area.
- There have been 30 new subdivisions in Hollis since 1990 that have resulted in the creation of 190 new lots.
- About 60% of housing growth since 1992 is estimated to have occurred in subdivisions, with the remaining 40% occurring on single lots.
- The Poland Spring complex is the only major industrial facility in Hollis. Aside from the Hollis Center area, there is very little commercial development in the Town.

- Though a substantial share of the Town's undeveloped land is registered in state conservation programs, these programs are voluntary and property owners are legally able to pull out of them. Only a small amount of undeveloped land in Hollis, mostly around Killick Pond, is fully protected from future development.
- The area north of Route 202 and west of Route 117 has the largest area of soils suitable for septic disposal of any undeveloped portion of Hollis.
- The North Hollis area has many valuable natural resources that are threatened by continued development pressure.
- While the Town's Residential Growth Ordinance has slowed growth, it has not been effective at controlling the location, scale or character in Hollis and therefore must be replaced with a more effective system of managing growth.

FUTURE LAND USE PLAN

The Future Land Use Plan (Figure 18) was created by the Comprehensive Planning Committee with input from the public. The Land Use policies and strategies for the Town of Hollis that follow are linked to the plan.

The Future Land Use Plan is designed to achieve the following objectives:

- Controlling growth while respecting private property rights.
- Encouraging intensive commercial, industrial and residential development in growth corridors that is appropriate to the surrounding character.
- Appropriately managing the pace and magnitude of development in areas with valuable natural resources and areas with soils that are least suitable for septic disposal
- Enacting stronger incentives for cluster development in rural areas.
- Ensuring strong protection of critical groundwater, wetlands and habitat resources.
- Minimizing the exposure of structures to flooding, wildfire and other hazards.
- Maintaining back land in forested areas for recreational uses such as snowmobiling and horseback riding.
- Continuing to protect shoreland areas from the negative effects of development

The five different future land use zones in Hollis were created with these objectives in mind. Figure 18 illustrates the locations of these zones and the following narratives describe their purposes, locations and proposed dimensional and use provisions.

1. Hollis Center Growth Area

Purpose: To promote intensive commercial, industrial and residential development in areas located in proximity to Hollis Center that respects the area's historic and scenic character.

Description: The existing Hollis Center Village (HCV) district around the intersections of Routes 202, 117, 35 and 4A plus properties fronting on Routes 202 and 117 located within one mile of the existing village area.

Use Provisions: It is intended that commercial and industrial uses be allowed and promoted in this district, but that higher intensity residential development be allowed as well. This may include single-family housing, multi-family housing, mobile home parks, senior/assisted housing and other diverse housing types. Clustering will be encouraged for residential development in this district.

Standards:

- Minimum lot size of 1 acre (40,000 SF) for all types of uses.
- With clustering and community water and septic systems, residential lots may be as small as 10,000 SF
- Frontage, setback and coverage standards:
    - 100 foot minimum street frontage
    - 50 foot front setback
    - 35 foot side and rear setbacks
    - 50% maximum lot coverage
- Enact design standards that ensure protection of scenic and historic resources

2. Residential Growth Area *(Amended June 2008 by Town Meeting vote)*

Purpose: To promote medium density residential development and limited commercial development in areas of town with good transportation access and soils suitable for septic disposal.

Description: The area is located to the northwest of the Hollis Center Growth Area and contains a substantial inventory of soils suitable for septic disposal, as depicted on Figures 14 and 17. As of July 2007 there are about 800 acres of undeveloped land in this district. The Residential Growth District can therefore accommodate up to 400 additional housing units at the proposed two-acre zoning. The projected housing growth in all of Hollis during the planning period through 2015 is between 258 and 451 new housing units, depending on whether high or low projection methods are utilized (see discussion on page 18). It is assumed in section 1 above, that about 200 units of this new housing will be accommodated in the Hollis Center Growth Area. Therefore the Residential Growth Area would only need to be able to accommodate about 250 more homes. Therefore the Residential Growth Area is appropriately sized to accommodate projected growth.

Use Provisions: This area is located along the west side of Route 117 and has soils that can handle a moderate level of future residential development. It is recommended that all types of residential uses be permitted in this district, including single-family housing, multi-family housing, mobile home parks, senior/assisted housing and other diverse housing types. Clustering will be encouraged for residential development in this district. General Business and industrial uses will be limited in this district.

Standards:

- Minimum lot size of 2 acres (80,000 SF) for all types of uses.
- With clustering and community water and septic systems, residential lots may be as small as 20,000 SF

- Frontage, setback and coverage standards:
    - 200 foot minimum street frontage
    - 50 foot front setback
    - 35 foot side and rear setbacks
    - 20% maximum lot coverage
- Enact design standards that ensure protection of scenic and historic resources

3. Rural Residential

Purpose: To allow for low-intensity residential uses and limited commercial development in areas that are either sparsely developed or have soils that are not ideal for septic disposal.

Description: All areas of Hollis not included in the other four future land use districts. This includes a number of distinct parts of Town:

- The Clark's Mills area south of Route 202. *This area contains a substantial aquifer but no other significant natural resources. Existing subdivision regulations already limit the export of nitrates from residential septic systems, so no additional protection is necessary.*
- The Route 35 corridor between Salmon Falls and West Buxton
- The east side of Route 117 between Hollis Center and North Hollis
- The Route 117 corridor north of the North Hollis area
- The Sand Pond Road corridor

Use Provisions: The primary type of development in this area will be single-family housing. Other types of housing will be discouraged. Strong incentives for clustering will be offered in this district (see Standards below). General Business and industrial uses will be limited in this district.

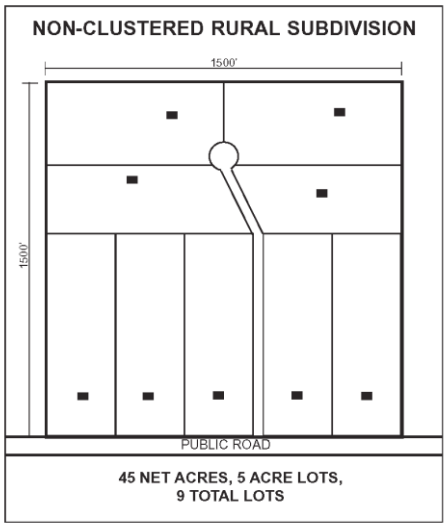
Standards:

- Frontage, setback and coverage standards for non-cluster development (single-lot and subdivision):
    - 250 foot minimum street frontage
    - 50 foot front setback
    - 35 foot side and rear setbacks
    - 15% maximum lot coverage
- Frontage, setback and coverage standards for cluster development:
    - 100 foot minimum street frontage
    - 25 foot front setback
    - 15 foot side and rear setbacks
    - 25% maximum lot coverage

- Maximum density of development is divided into three categories: single-lot (non-subdivision) development, non-clustered subdivision development and clustered subdivision development. See diagrams and text below for standards.

    - For single-lot, non-subdivision development: 3 acres (120,000 SF)

    - For non-clustered subdivision development: 5 acres (200,000 square feet). *On a hypothetical 45-acre site, a maximum of nine lots would be permitted, as shown in the diagram to the right.*

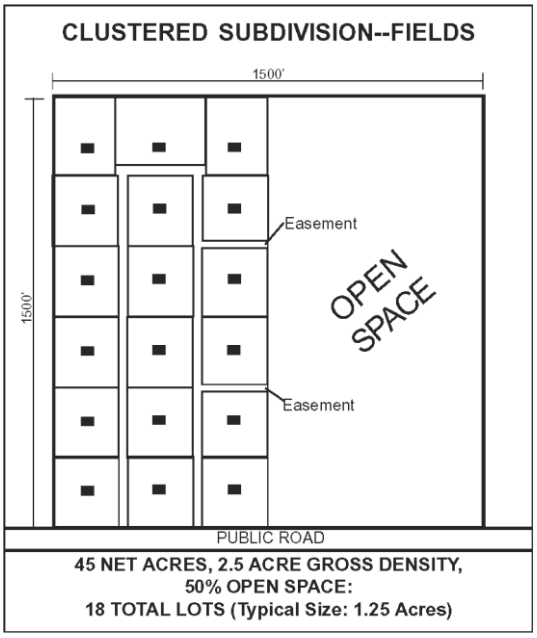


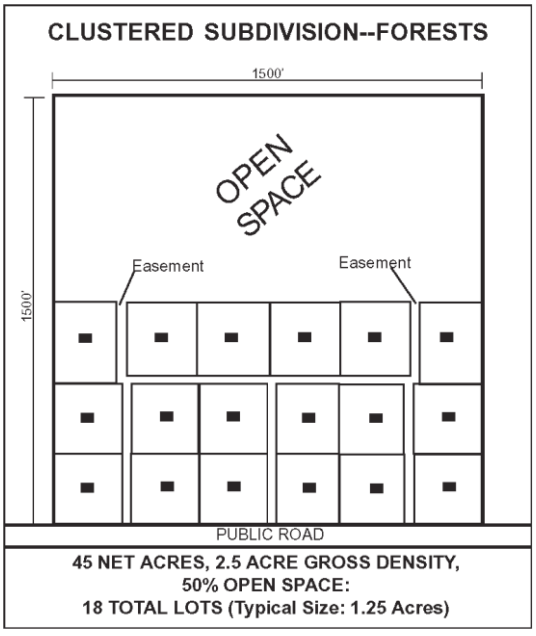
    - For cluster development:
        - 1 acre (40,000) individual lot size
        - Overall density not to exceed one lot or dwelling unit per 2.5 acres (100,000 square feet) of net land area.
        - Preservation of at least 50% of the gross land area as open space.
        - All lots must have either direct access or deeded rights-of-way to open space
        - *On a hypothetical 45-acre site, a maximum of eighteen lots would be permitted, as shown in the diagrams below*

    - For cluster developments, Planning Board will be given discretion in the preapplication phase to direct the location of developed areas and open space based on the following criteria:

        - In areas with open fields, development should be clustered away from existing public road frontages so as to preserve views of fields. The diagram to the right illustrates the preferred arrangement for cluster developments in these areas.

- In forested areas development should be clustered along existing public road frontages so as to preserve backland for the continuation of recreational and forestry uses. The diagram to the right illustrates the preferred arrangement for cluster developments in these areas.





4. Saco River and Historic Villages

Purpose: To protect Shoreland areas as specified in the state's Mandatory Shoreland Zoning Act (38 MRSA §435) and to limit future development in the historic village areas of Bar Mills, Salmon Falls and West Buxton.

Description: All areas located within 500 feet linear distance of the high water mark of the Saco River (the 500-foot distance corresponds with the jurisdiction area of the Saco River Corridor Commission and includes the state's mandatory Shoreland Zoning district for areas along rivers). Additionally, this district includes the historic river villages of Bar Mills, Salmon Falls and West Buxton.

Use Provisions: For new construction, only single-family residential uses will be allowed. For renovations of existing buildings, low-intensity residential and commercial uses will be allowed as conditional uses with Planning Board review.

Standards:

- Minimum lot size of 3 acres (120,000 square feet)
- Clustering will not be allowed
- Frontage, setback and coverage standards:
    - 200 foot minimum street frontage
    - 50 foot front setback
    - 35 foot side and rear setbacks
    - 25% maximum lot coverage

5. Resource Protection

Purpose: To limit development in the area surrounding the Town's two great ponds, the recharge areas of the North Hollis aquifer and significant wildlife and plant habitat in the vicinity of Killick Pond.

Description: The area of North Hollis that includes Killick Pond, Deer Pond and the Aquifer Recharge areas as shown on Figure 17. This area also includes large concentrations of wetlands, animal habitat and other critical natural resources. It includes much of the North Hollis area, which has seen substantial residential development in recent years.

Use Provisions: Only single-family residential development and home occupation businesses will be allowed in this district. No intensive development of any type will be permitted.

Standards:

- Minimum lot size of 5 acres (200,000 square feet)
- Clustering will not be allowed in order to limit the spacing of housing units in this area
- Frontage, setback and coverage standards:
    - 400 foot minimum street frontage
    - 50 foot front setback
    - 35 foot side and rear setbacks
    - 10% maximum lot coverage

LAND USE POLICIES AND STRATEGIES

State Goal: Orderly growth and development while protecting rural character and preventing sprawl.

Town Goal:
Hollis seeks to control the location, character and pace of new development through a combination of regulatory and non-regulatory means that offer flexibility and respect individual property rights.

The Land Use policies and strategies for the Town of Hollis follow on the Future Land Use Plan outlined above and illustrated in Figure 18. The following policies and strategies make frequent reference to the Future Land Use Plan and the recommendations made here are intended to support it.

Policies:
1. Encourage intensive commercial, industrial and residential development in growth corridors that is appropriate to the surrounding character.
2. Appropriately manage the pace and magnitude of development in rural areas.
3. Enact stronger incentives for cluster development in rural areas.
4. Ensure strong protection of critical groundwater, wetlands and habitat resources.
5. Discourage residential and recreational development in locations that would be adversely affected by natural resource-based industries.
6. Minimize the exposure of structures to flooding, wildfire and other hazards.

Strategies:

Strategies 1-6 are outlined in greater detail as part of the Future Land Use Plan section above.

Strategy 1: Designate Hollis Center Village Area as the Town's targeted growth area and establish minimum lot size of one (1) acre.
- Responsibility: Planning Board
- Time Frame: 2006

Strategy 2: Designate the Transitional Residential district as a transitional area and establish minimum lot size of two (2) acres.
- Responsibility: Planning Board
- Time Frame: 2006

Strategy 3: Designate Rural Residential district as a rural area and limit the impact and magnitude of development through zoning and clustering provisions
- Responsibility: Planning Board
- Time Frame: 2006

Strategy 4: Designate Saco River & Historic Villages district as a limited growth area by limiting the scale of new construction and encouraging renovations of existing buildings.

- Responsibility: Planning Board
- Time Frame: 2006

Strategy 5: Designate the Resource Protection district as a critical rural area and establish a minimum lot size of five (5) acres for all types of development.

- Responsibility: Planning Board
- Time Frame: 2006

Strategy 6: Amend cluster development standards to ensure that standards provide a strong incentive for clustering give Planning Board greater discretion on the location of development and open space.

Comment: At present, wetlands and other non-buildable areas are deducted from the Net Residential Area calculation for cluster developments but not for standard developments. It is recommended that wetland areas are no longer deducted from Net Residential Area for cluster developments to ensure that there is a strong incentive to cluster. Regarding the arrangement of open space, see description and diagrams for field and forests areas in Land Use Plan above.

- Responsibility: Planning Board
- Time Frame: 2006

Strategies 7-9 are local actions recommended in the York County Hazard Mitigation Plan that reinforce the goals and objectives of Hollis' Future Land Use Plan

Strategy 7: Identify roads and structures that are at risk for repetitive flood damage and estimate their total dollar value

Comment: One of the key actions of the York County Hazard Mitigation Plan is to identify locations that are most susceptible to repetitive flooding damage. The York County Emergency Management Agency intends to work with the EMA director in each town to put together a comprehensive inventory of hazard-prone locations, and Dayton needs to participate in this effort.

- Responsibility: Emergency Management Director
- Time Frame: 2006

Strategy 8: Seek FEMA pre-disaster funding to enact hazard mitigation measures to protect any key roads or structures from future damage

Comment: Once at-risk locations have been identified, the Town then may seek federal funding to enact physical mitigation measures to lessen the risk of hazard damage.

- Responsibility: Emergency Management Director, Board of Selectmen
- Time Frame: 2007, ongoing

Strategy 9: Require 15 foot minimum vertical clearance on private roads to allow safe passage of emergency vehicles.

- Responsibility: Planning Board
- Time Frame: 2006

Strategies 10-12 outline the plan's recommendations regarding the Town's Residential Growth Ordinance (growth cap).

Strategy 10: Maintain the existing Residential Growth Ordinance as a temporary measure for no more than three (3) years during which time the Town will enact alternative mechanisms for controlling the pace and character of development.

- Responsibility: Planning Board
- Time Frame: 2006-2008

Strategy 11: Implement an Impact Fee Ordinance to fund capital improvements for transportation, fire protection and education. (see also Town Facilities Strategy 4)

Comment: New development has brought about increasing pressure on the town's infrastructure. Impact fees would pay for costs such as road improvements, a better water storage system for fire protection and school improvements. School issues will need to be coordinated closely with MSAD 6.

- Responsibility: Board of Selectmen, Fire Chief, School Board
- Time Frame: 2006-2007

Strategy 12: Consider the establishment of a differential growth cap that limits the rate of residential development in the Town's rural and critical rural areas.

Comment: In addition to the zoning and clustering provisions outlined in the Future Land Use Plan above a differential growth cap that limits growth in rural and critical rural areas would further reinforce the Town's goals and policies regarding land use. This issue requires further study to determine how such a system would function.

- Responsibility: Planning Board
- Time Frame: 2006-2007

Strategies 13-15 concern the necessary amendments to existing town ordinances and regulations that govern land use and growth management.

Strategy 13: Amend Zoning Ordinance to reflect recommendations of the Comprehensive Plan

Comment: The Implementation Plan organizes all recommendations made by the Comprehensive Plan for amending the Zoning Ordinance for the Town of Hollis. *Amending the Zoning Ordinance to incorporate the recommendations of this plan is a high priority.*

- Responsibility: Planning Board
- Time Frame: 2006

Strategy 14: Amend Subdivision Regulations to reflect recommendations of the Comprehensive Plan

- Responsibility: Planning Board
- Time Frame: 2006

Strategy 15: Review and update all Land Use Ordinances at least once every three years

- Responsibility: Planning Board
- Time Frame: 2009, ongoing

Chapter 6: Implementation Plan

The Implementation Plan takes the Strategies from Chapters 2 through 5 and arranges them into five different categories based on who or what is the responsible person or entity for each. The five different implementation categories are:

1. Planning Board Actions
2. Board of Selectmen Actions
3. Land Preservation Committee Actions
4. Parks & Recreation Committee Actions
5. Emergency Management Director Actions

The Implementation Matrix follows on the next several pages. It is intended to represent the "road map" for implementing this Plan for the individuals, boards and committees to which Strategies are assigned.

Planning Board Actions

The Planning Board will be the entity primarily tasked with amendments to the Zoning Ordinance, Subdivision Regulations and other items related to the regulation of land use. The matrix of strategies for the Planning Board includes all such recommended actions.

No. Initiative	Plan Reference (Chapter, Section, Strategy)	Time Frame
1. Define "affordable" by using MSHA moderate-income definition for York County	II.A.1	2006
2. Allow accessory dwellings for immediate family members in all parts of the Town and do not count them as part of the overall density	II.A.3	2006
3. Expand the definition of "accessory dwelling unit"	II.A.4	2006
4. Allow senior housing and assisted living in all parts of the Town	II.A.5	2006
5. Prohibit future changes of senior and assisted units to other types of multi-family housing	II.A.6	2006
6. Revise cluster development provisions in Land Use ordinance	II.A.7	2006
7. Offer density bonuses for clustering in growth and rural areas to allow smaller lots and lower lot prices	II.A.8	2006
8. Ensure that preserved land from clustering will be interconnected with other preserved land	II.A.9	2006
9. Allow broad range of home occupations in all parts of town	II.B.1.1	2006
10. Ensure that dimensional standards in land use districts do not restrict home occupations	II.B.1.2	2006
11. Ensure that home occupation standards provide for adequate buffering and other protection of abutting landowners	II.B.1.3	2006
12. Allow higher densities for businesses in Hollis Center/Route 202 area	II.B.2.1	2006
13. Limit the maximum sizes of retail and service businesses to ensure that development fits with the character and vision of the Hollis Center/Route 202 area.	II.B.2.3	2006
14. Develop zoning and design standards to limit impacts of business/ industrial park development on surrounding land uses	II.B.3.3	2006
15. Ensure that cluster development standards account for proximity of new development to natural resource-based industry activities.	II.B.4.2	2006
16. Require a local forestry management plan for all new harvesting operations.	II.B.4.3	2006
17. Develop local road design standards to help direct growth to the locations identified in this Comprehensive Plan	III.A.1	2006
18. Develop a transportation impact fee system	III.A.2	2006-2007
19. Continue to assist Maine DOT in the agency's enforcement of its Access Management Rules for US Route 202, Route 5, Route 4A, Route 35, Route 117, High Street, Plains Road, River Road and Waterboro Road	III.A.3	Ongoing
20. Require developers to provide pathways in subdivisions	III.A.11	2006
21. Continue to limit uses in resource protection areas to pre-existing conditions and work to eliminate undesirable uses	IV.A.2	2006, ongoing
22. Prohibit all commercial and industrial uses in areas with critical natural resources	IV.A.3	2006, ongoing

Planning Board Actions (cont.)

No. Initiative	Plan Reference (Chapter, Section, Strategy)	Time Frame
23. Limit residential uses in areas with critical natural resources to single-family only	IV.A.4	2006, ongoing
24. Develop clustering standards that ensure appropriate locations of development and conservation land in cluster subdivisions	IV.A.7	2006
25. Strengthen land use standards to protect structures in historic districts	IV.B.6	2006
26. Designate Hollis Center Growth Area as the Town's targeted growth area and establish minimum lot size of one (1) acre	V.1	2006
27. Designate the Transitional Residential district as a transitional area and establish minimum lot size of two (2) acres	V.2	2006
28. Designate Rural Residential district as a rural area and limit the impact and magnitude of new development through zoning and clustering provisions	V.3	2006
29. Designate Saco River & Historic Villages district as a limited growth area by limiting the scale of new construction and encouraging renovations of existing buildings	V.4	2006
30. Designate the Resource Protection district as a critical rural area and establish a minimum lot size of five (5) acres for all types of development	V.5	2006
31. Require 15 foot minimum vertical clearance on private roads to allow safe passage of emergency vehicles.	V.9	2006
32. Maintain the existing Residential Growth Ordinance as a temporary measure for no more than three (3) years during which time the Town will enact alternative mechanisms for controlling the pace and character of development	V.10	2006-2008
33. Consider the establishment of a differential growth cap that limits the rate of residential development in the Town's rural and critical rural areas	V.12	2006-2007
34. Amend Zoning Ordinance to reflect recommendations of the Comprehensive Plan	V.13	2006
35. Amend Subdivision Regulations to reflect recommendations of the Comprehensive Plan	V.14	2006
36. Review and update all Land Use ordinances at least once every three years	V.15	2009, ongoing

Board of Selectmen Actions

No. Initiative	Plan Reference (Chapter, Section, Strategy)	Time Frame
1. Coordinate with non-profit housing developers to acquire land in growth areas for affordable housing development	II.A.2	Ongoing
2. Pursue the development of a cooperation business/industrial park, either in Hollis or another community	II.B.3.1	2006-2007
3. Encourage local farmers to participate in farmers' markets in the region.	II.B.4.4	2006, ongoing
4. Plan for the required 1/3 local match for High Street, Plains Road, River Road and/or Waterboro Road as needed	III.A.4	Ongoing
5. Make a timely response to Maine DOT's Municipal Solicitation Packet for project ideas for its Biennial Transportation Improvement Program	III.A.5	Ongoing
6. Create a roadway inventory and regularly update the condition of pavement and drainage structures	III.A.6	2006, Ongoing
7. Assign higher priorities to roadway improvements in areas designated for commercial and/or higher-density residential growth	III.A.7	2006-2007, Ongoing
8. Investigate whether it is necessary to adopt rules to ensure proper use of prevent abuse of the town public ways by posting weight limit restrictions.	III.A.8	2006, ongoing
9. Continue to coordinate with the Town of Dayton on improvements to bridge number 5259 (Dyer Road) as necessary	III.A.9	2006
10. Communicate with MDOT's Bridge Management Division regarding the findings of their bi-annual bridge inspections and appropriate local funds for maintenance as necessary	III.A.10	Ongoing
11. Consider constructing paved shoulders along town roads in built-up areas and areas designated for commercial and/or higher density residential growth	III.A.12	Ongoing
12. Work with the York County Community Action Corporation to increase the visibility of demand-responsive transit opportunities available to the Hollis Community	III.A.13	2006, ongoing
13. Pursue development Park & Ride facility in US Route 202 corridor	III.A.15	2006-2007
14. Pursue development of new Central Emergency Services station	III.B.1	2008
15. Continue to explore Transfer Station options	III.B.2	2006-2007
16. Expand curbside rubbish and recyclables pickup through the use of user fees	III.B.3	2006-2007
17. Develop impact fee system to fund capital improvements for transportation, fire protection and education	III.B.4, V.11	2006-2007
18. Plan for renovation and expansion of Town Hall and Community Building	III.B.5	2008
19. Expand Town office staffing and hours of operation	III.B.6	2006-2009
20. Continue to support development of Saco River YMCA	III.B.7	2006, ongoing
21. Pursue development of a new public library	III.B.9	2009
22. Continue to pursue development of a Town Green	III.B.10	2006-2007

Board of Selectmen Actions (cont.)

No. Initiative	Plan Reference (Chapter, Section, Strategy)	Time Frame
23. Develop Saco River boat launch and picnic area at rear of Town Hall parcel	III.B.11	2009-2010
24. Coordinate with Florida Power & Light to determine feasibility of adding boat launches at dam facilities	III.B.12	2006, ongoing
25. Continue to work with the Ten Town Group and SMRPC to explore appropriate opportunities for regional cooperation for law enforcement, solid waste, planning and code enforcement, assessing and road maintenance	II.B.13	Ongoing
26. Encourage landowners in resource protection areas to register and maintain properties as open space in state Current Use Taxation program	IV.A.1	2006, ongoing
27. Appoint a Land Preservation Committee to oversee the identification and protection of potential conservation parcels	IV.A.8	2006
28. Identify additional historic sites through use of Town records	IV.B.1	2006
29. Pursue Maine Historic Preservation Commission grant to conduct comprehensive townwide inventory of historic resources	IV.B.2	2006
30. Provide financial assistance to Buxton-Hollis Historical Society	IV.B.3	2006, ongoing
31. Educate property owners about availability of state and federal tax credits for historic preservation	IV.B.4	2006, ongoing
32. Encourage maintenance of privately owned cemeteries and other historic resources	IV.B.5	2006, ongoing
33. Work with Buxton to develop map and brochure of historic sites and make available to public	IV.B.7	2006
34. Install signage and/or markers at key historic sites	IV.B.8	2007-2008
35. Work with Saco Museum and other towns to develop historic tours of the Saco Valley	IV.B.9	2007-2008

Land Preservation Committee Actions

No. Initiative	Plan Reference (Chapter, Section, Strategy)	Time Frame
1. Identify key conservation parcels	IV.A.9	2006-2007
2. Coordinate with existing land trusts and conservancy organizations to protect key parcels through acquisition of either land or conservation easements	IV.A.10	2008-2010

Parks and Recreation Committee Actions

No. Initiative	Plan Reference (Chapter, Section, Strategy)	Time Frame
1. Develop inventory of trails in Hollis (including location, listing of landowners, types of access, condition, etc.), investigate trail development opportunities and seek funding opportunities for trail improvements as necessary	III.A.14	2007
2. Consider increasing user fees for recreation programs	III.B.8	2006, ongoing

Emergency Management Director Actions

No. Initiative	Plan Reference (Chapter, Section, Strategy)	Time Frame
1. Identify roads and structures that are at risk for repetitive flood damage and estimate their total dollar value	V.7	2006
2. Seek FEMA pre-disaster funding to enact hazard mitigation measures to protect any key roads or structures from future damage	V.8	2007, ongoing

Chapter 7: Capital Investment Strategy

This chapter outlines capital investments identified during the Comprehensive Planning process as potentially being needed to serve both current and future needs of the Town of Hollis. The Capital Investment Strategy includes the estimated magnitudes of potential investments and their proposed time frames.

The basis of the Capital Investment Strategy is the Implementation Plan. This chapter simply takes all capital-related items identified in the Implementation Matrix in Chapter 6 and presents more detail for each item. The items listed in this section are displayed in priority order—items needed immediately are shown at the beginning and items needed in the longer-term future are shown at the end.

The Capital Investment Strategy follows on the next page.

Town of Hollis Capital Investment Strategy

No.	Item	Assessment of Need	Time Frame	Estimated Cost	Potential Funding Sources
1.	New Fire Station at Route 117/Haley Road	Definite	2006-2007	$400,000	TIF funds, grants, bond
2.	New Public Library	Definite	2006-2007	$250,000	TIF funds, grants, bond
3.	Fire Storage Tanks (5 tanks, 30,000 gallons each)	Definite	2006-2007	$400,000	Impact fees
4.	New Ambulance for Rescue Service	Definite	2006-2007	$180,000	TIF funds
5.	Paving and improvement of Killick Pond Road	Definite	2006-2007	$450,000-500,000	TIF funds, grants
6.	Town Hall annex or expansion, including renovation of Community Building	Definite, but exact details need further study	2008-2009	$250,000	Bond, grants, state aid
7.	Riverfront park and public boat landing on Saco River	Probable	2008-2009	$125,000	Appropriation
8.	Expansion of ???? park facilities in Hollis Center	Probable	2008-2009	$75,000	Appropriation
9.	Local share of potential regional business park development	Needs further study	2008-2009	Unknown	TIF funds, federal/state grants
10.	Town share of Dyer Road bridge reconstruction	Definite	2008-2009	$125,000	Appropriation
11.	Construct paved shoulders along key Town roads	Needs further study	2010 or later	Unknown	Impact fees
12.	Provide local match for ??? Road improvement projects	Needs further study	2010 or later	Unknown	Bond, appropriation, impact fees
13.	Hollis Transfer Station	Possible	2010 or later	Unknown	Bond
14.	Hollis Recycling Center	Possible	2010 or later	Unknown	Bond
15.	Replacement of Fire Department Tanker	Possible	2010 or later	$280,000	TIF funds
16.	New Plow Truck	Possible	2010 or later	$80,000	Appropriation
17.	New Sand Truck	Possible	2010 or later	$100,000	Appropriation
18.	Development of trails and bicycle paths	Needs further study	2010 or later	Unknown	Bond, impact fees, in-kind by developers

Appendices

Appendix A – Notes from Public Hearings

Appendix B – List of Figures

Appendix C – Memorandum from Woodard & Curran regarding aquifer protection in Poland Spring area

APPENDIX A - NOTES FROM PUBLIC HEARINGS

Public Hearing #1 – September 17, 2003

The first public hearing was held at the Hollis Community Building on September 17, 2003 and was moderated by Jonathan Lockman, SMRPC's Planning Director. This hearing was aimed at identifying key issues of concern to the residents of the Town. Over 50 Hollis residents attended this hearing.

Attendees were asked to list key issues of concern to them in three different topic areas: Land Use, Public Facilities & Services, and Transportation. The moderator recorded all of these on easel pad sheets. After all issues were listed, attendees were then asked to vote on which issues in each category were of utmost concern to them by placing sticky-backed dots on the easel pad sheets. This "dot voting" exercise resulted in the prioritization of key issues by category. The results are shown below, grouped by the amount of votes that each received.

<u>Land Use</u>

- Most Popular
  - Community Lacks a Diverse set of Businesses and Services
  - Mandate Cluster Development
  - Make sure cluster development ordinances have proper incentives to achieve desired results that serve the majority
- Moderately Popular
  - Encourage participation in Tree Growth Taxation Program
  - Conduct an Inventory of Historic Properties
  - Purchase Town Land for Open Space
  - Create/Support a Land Trust for Open Space
  - Create Commercial Zoning along 117 to 202, since traffic has increased from Poland Spring
- Least Popular
  - Increase Minimum Lot Size in Rural
  - Purchase Development Rights to Preserve Open Space

<u>Public Facilities & Services</u>

- Most Popular
  - Consider whether or not Hollis should remain in SAD 6 or create a separate school system.
  - Present Form of Town Government should be changed/modernized.
  - Location for a YMCA should be considered in Hollis
- Moderately Popular
  - Need Recreation Facilities for Adults
  - Recycle Facility
  - Pay per bag system
- Least Popular
  - Should Hollis have its own Rescue Service?
  - Examine Solid Waste System

- Comp Plan should provide clarification and guidance for future Planning Board Articles on Town Warrant
- Should municipal facilities be expanded?

Transportation

- Most Popular
  - Speed Limits are not adequately enforced and there are too many accidents because of excessive speed. Speed Limits may need to be lowered. Worst areas are Clark's Mills, Rt. 35, and Rt. 117
  - The Buxton-Hollis area is dangerous for pedestrians and this needs to be addressed.
  - Road Maintenance, and funding
- Moderately Popular
  - Poland Spring truck traffic needs to be kept to agreed upon routes.
- Least Popular
  - More Directional Signs are needed to Poland Spring plant - truckers are confused.

Public Hearing #2 – October 22, 2003

The second public hearing was held at the Hollis Community Building on October 22, 2004 and was moderated by David Versel, a Senior Planner at SMRPC. This hearing was aimed at identifying key issues of concern to the residents of the Town. About 25 Hollis residents attended this hearing.

The agenda for this hearing was based on the findings of the first public hearing. It was structured as a two-part discussion, with the first part focusing on the character of development in Hollis and the second part concentrating on the provision of public services. Transportation issues were deliberately left out of this hearing, as they were set aside for the third public hearing (see below).

The outcomes of the two discussions follow.

Discussion #1: Character of Development

- Location and Type of Businesses
  - Need to promote business development in and around Hollis Center.
  - Character of commercial development should be lower-scale. Hollis doesn't want to look like Scarborough
  - Businesses should serve the town's population primarily, and not be aimed at regional market. They could also serve surrounding towns as well (Buxton, Limington, Waterboro, Dayton), as there is a concern that the base of 4,000 residents is not enough for any sort of business growth.
  - Smaller scale and local ownership are important to people. There is no need nor desire for Wal-Mart, Hannaford, et cetera.
  - There are already 155 businesses in Hollis, many of which are home occupations.

- Types of retail businesses desired include a Farmstand, a craft co-op, a drycleaner/ laundromat, a bakery/coffee shop, and a pharmacy.
- Professional services in Hollis are mostly home occupations, and there is no perceived need to develop office space for these types of businesses.

- Village Centers
  - Hollis Center is identifiable as the primary village for the Town, and has room at the edges to expand. A suggestion has been made to define ¾ mile radius around the Post Office as the Village growth area.
  - Other historic villages (Salmon Falls, West Buxton, Bar Mills) have little room for expansion and should not be recommended as growth areas.
  - Developing a new village center, similar to what Arundel is seeking to do, is not widely embraced. A great deal of public opposition would be expected from this sort of development.
  - Village-scale housing is not why people move to Hollis—if that's what they wanted, they would go to other towns.

- Business/Industrial Park Development
  - Smaller-scale park aimed at growing small businesses is preferred model—similar to Cornish's business park.
  - Medical practitioners are needed in Hollis. Business park should encourage doctors and other medical businesses.
  - Retail/housing can be mixed into the development—more like a village center than an industrial park.

- Residential/Rural Areas
  - The old comp plan lacked specifics on defining and enforcing residential growth areas—this time it needs to be more exact.
  - Cluster development ordinance, as currently written, does not provide enough of an incentive to developers, nor does it do much for the Town. It needs to be beefed up.
  - Use of Land Trusts and Current Use Taxation is generally endorsed. However, there could be concerns about loss of taxable land if too much land goes to trusts or public ownership.

- General Comments on Planning
  - Planning in Hollis has been done with the intention of fighting sprawl, but the effect has really been to encourage more sprawl.
  - Getting the plan update to pass will require a substantial marketing effort to the citizens of Hollis. People need to be sold on some of the ideas being developed if they are going to vote for adopting the plan. Right now, public has very little knowledge of comprehensive planning process and there need to be regular updates at selectmen's meetings, as well as maybe a newsletter?

<u>Discussion #2: Local and Regional Public Services</u>

- Schools
  - Hollis is being unfairly taxed by SAD 6, as it has recently gone through a reevaluation of its property, but other towns have not done so.
  - SAD 6 is not likely to be broken up, as its size has already made it a model for regional school districts by the Governor's office. There is some sentiment in Hollis that having its own middle and high schools would be preferable, but many like being part of Bonny Eagle schools.
  - SAD 6 is looking into doing joint purchasing with its member towns, an arrangement that would allow its towns to realize volume discounts on certain items. This program would be welcomed by Hollis.
  - Population of SAD 6 towns is growing but enrollment is shrinking—it's not clear why. Some thoughts: retirees replacing families, fewer children per family.
  - Schools are performing well—all have met new state testing standards.

- Solid Waste
  - Recycling doesn't pay—town spends a lot on transporting empty plastic items that take up space but don't weigh much. Possibility for establishing local shredding facility to reduce items prior to transportation?
  - Hollis has a small voice in RWS, but it is looking to get together with other smaller towns to form organized lobby for discussions of waste issues.
  - Hollis contracts with Waterboro to dispose of white goods and household hazardous waste. This program costs $30,000 per year, and only 47 people used it last year—a new program is needed.
  - Extra costs of recycling may be worthwhile for environmental and societal reasons. This needs to be part of the decision.
  - Cost of waste disposal will be an important factor for potential businesses. This needs to be considered in developing and marketing business park.

- Public Safety
  - Arrangement with York County Sheriff is generally a good investment for the Town.
  - There is a concern that persistent speeding still occurs, despite added presence of dedicated deputy. Maybe there is a need for local public safety officers in addition to regular sheriff service and contracted deputy.

- Maintaining Local Control vs. Cost Savings
  - Regionalizing rescue services would slow response times and raise fire insurance rates—would cancel out cost savings.
  - Purchasing agreements are most desirable form of regionalizing—allows for cost savings without sacrificing local control.

<u>Final Discussion: Other Issues to Consider</u>

- Zoning classifications are nearly 20 years old and need to be re-examined. Planning Board has tried to spend its meetings doing this, but has been criticized for spending time on it. Comp Plan may be a better setting for this discussion.

- Housing senior citizens is major priority. Town needs to take steps to provide new types of dwelling units for seniors, as well as keeping seniors in their own homes.

Public Hearing #3 – December 22, 2003

The third public hearing was a discussion on transportation issues affecting Hollis, and was led by Joshua Mack, a Transportation Planner at SMRPC. This hearing was structured as a presentation to the Comprehensive Planning Committee with the public invited to sit in and participate.

The following issues were identified as being of particular importance in regard to transportation in Hollis:

- Address excessive speed on Saco Road and other rural corridors;
- Examine right of way issues where Route 35 connects with Moderation Street;
- With tractor trailers on Route 117, shoulders don't seem adequate for bicyclists;
- Potential need for Park and Ride Lot—perhaps in Deer Pond area;
- Potential need for sidewalks in Hollis Center;
- Attracting future residents by looking for smart transportation connections to job markets, as Amtrak has done for communities on the rail lines.

Public Hearing #4 – October 18, 2004

The fourth public hearing focused on discussing the draft goals and policies for each section of the plan and was led by David Versel. Public reaction to the goals and policies was generally positive and only a few minor comments were made to the Committee.

Public Hearing #5 – March 23, 2005

The fifth public hearing was a presentation of the draft Comprehensive Plan and was led by David Versel. [need to add notes]

APPENDIX B – LIST OF FIGURES

Figure 1 – Transportation: Jurisdiction
Figure 2 – Transportation: Road and Bridge Condition
Figure 3 – Transportation: Functional Class
Figure 4 – Transportation: Bicycle/Pedestrian
Figure 5 – Transportation: Safety
Figure 6 – Transportation: Access Management Road Designation
Figure 7 – Floodplain
Figure 8 – Aquifers
Figure 9 – Wetlands
Figure 10 – Critical Habitat
Figure 11 – Rare Plant and Animal Habitat (Beginning With Habitat Data)
Figure 12 – Hydric Soils
Figure 13 – Prime Agricultural Soils
Figure 14 – Soils Suitable for Septic Disposal
Figure 15 – Housing Growth, 1992-2003
Figure 16 – Current Land Uses
Figure 17 – Existing Land Uses and Development Opportunities and Constraints
Figure 18 – Future Land Use Plan

APPENDIX C – MEMORANDUM FROM WOODARD & CURRAN REGARDING AQUIFER PROTECTION IN POLAND SPRING AREA

Attached on following pages.

MEMORANDUM

TO: David Versel, Southern Maine Regional Planning Commission

FROM: Jason House, Senior Hydrogeologist, Woodard & Curran

SUBJECT: HOLLIS REZONING SUPPORT

DATE: February 28, 2005

This memorandum provides you with information pertaining to the protection of Hollis aquifers from potential contaminant sources. The paragraphs and graph that follows provide a summary of measures that can be taken to protect the North Hollis Aquifer as a resource for the future. Methods of protection include the determination of a minimum lot size to protect the aquifer from nitrate contamination, and the recognition of specific land-use practices that prove a threat to the Hollis recharge area, if not required to initially obtain permission from the zoning board.

Septic Nitrate Dilution Based on Property Lot Size

In accord with a continuing effort to protect Poland Spring's future water quality in Hollis, a research study was conducted to determine the minimum lot size required to sufficiently dilute septic effluent nitrate concentrations. The research was based on an existing study provided by the *New Jersey Geological Survey* used for land-use planning in the New Jersey Pinelands (April 2004). This study is applicable to North Hollis because of the similar sandy geology to that of the New Jersey Pinelands. In the majority of household septic systems, nitrate is the main groundwater contaminant of concern, and tends to be mobile in shallow aquifers, such as Hollis. Properly diluting these nitrate concentrations requires a functioning septic system on an adequately sized lot.

To protect Poland Spring's Hollis water quality, and to ensure that the aquifer is protected for future use, nitrate concentrations should be conservatively diluted to approximately 2.5 mg/L. It is typical for septic effluent leaving a functioning leaching field to have nitrate concentrations averaging 45 mg/L. The *New Jersey Geological Survey* has developed a model that can be used to calculate the minimum lot size required to dilute nitrate concentrations down to a chosen level.

Septic nitrate concentrations can vary depending on the number of members in the family. Therefore, an average of 3 family members was assumed for the model. The results of the nitrate dilution model, using an annual Hollis precipitation recharge of 21 inches/year, yields a minimum property size of *2.50* acres required for an adequate nitrate

dilution. The attached graph displays approximate property sizes required to dilute varying concentrations of nitrate, per number of family members. Therefore, the town should consider restricting development in areas where the density of development would begin to exceed the one house per 2.5 acre guideline suggested above.

Restricted Operations near Recharge Areas

In addition to household septic leaching field risks, there exists a number of land-use practices that provide additional threats to the Hollis aquifer. Future land-use involving the kinds of practices listed below should be strictly controlled through the planning board application process. The following list provides a basic summary of land uses and the potential threat to the Poland Spring recharge area:

Land-Use / Business – Potential Threat to the North Hollis Aquifer

Gas Stations – Leaking underground storage tanks, or precipitation run-off from gas filling stations

Landfills – Infiltrating precipitation resulting in a leachate of high dissolved solids

Farming - Can lead to groundwater contamination with the use of pesticides, herbicides, fertilizer, irrigation, or animal waste.

Dry Cleaning Facilities – Potential risk for groundwater contamination from drycleaning chemicals.

Automobile Body/Repair Shop – Presence of solvents for paint, paint-stripper, degreasing solvent, oils, and gas

Industrial Composting – May contain herbicide contaminated compost (clopyralid).

Metal Fabrication/Manufacturing Facilities – Use of chemical agents in degreasing and painting operations.

Sludge Land Spreading – Increased concentrations of metals and nitrates that could potentially infiltrate to groundwater by leaching.

Heavy Salting of Roads – The town may wish to consider the use of environmentally friendly de-icing agents on roads in the vicinity of the recharge areas as mapped.
It should be noted that this list is by no means comprehensive, and is meant only as a primer on the types of uses and potential threats posed by the use. A good reference for activities leading to contamination in ground water can be found in Chapter 1 of Contaminant Hydrogeology by C.W. Fetter (see complete reference below).

Proposed Actions

In order to protect the aquifer used by the people of Hollis and as a source for Poland Spring, and to ensure the future water quality of the area, it would require a rezoning effort to help eliminate threats from both household and business activities. A minimum lot size of 2.50 acres would ensure the dilution of household nitrate effluent, thereby eliminating the release of elevated levels of nitrate outside of the landowner's acreage.

Finally, to minimize the potential for contamination within the Hollis recharge zone, business and landowner activities such as gas stations, auto body / repair shops, dry cleaning facilities, industrial composting, farming, and landfills, would require permission from the zoning board to build in or near the North Hollis recharge zones identified in the mapping provided to the SMRPC.

REFERENCES

Montgomery Township Environmental Commission: http://twp.montgomery.nj.us/depts/landuse/NRIAPPENDIX_nitrate_report.pdf (January 12, 2005). *Nitrate Dilution Modeling of Montgomery Township, Somerset County, NJ*. April 8, 2004.

Trela, J.J., and L.A. Douglas. 1978. *Soils, Septic Systems and Carrying Capacity in the New Jersey Pine Barrens*: Paper presented at the first annual Pine Barrens Research Conference, Atlantic City, NJ., May 22, 1978, 34 p.

Fetter, C.W. 1993. *Contaminant Hydrogeology.* Macmillan Publishing Company, New York, New York.