



**CITY OF HAVERHILL, MASSACHUSETTS  
OPEN SPACE AND RECREATION PLAN**

**FOR THE  
MASSACHUSETTS EXECUTIVE OFFICE OF ENERGY AND  
ENVIRONMENTAL AFFAIRS - DIVISION OF  
CONSERVATION SERVICES**

**OCTOBER 2008 - OCTOBER 2015**

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## PREFACE

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City of Haverhill  
Open Space & Recreation Plan  
July 2008

Poet John Greenleaf Whittier, a Haverhill native, wrote a description of the gentle yet varied landscape of the town that remains as apt today as it was in the mid nineteenth century. “The scenery of the lower valley of the Merrimac is not bold or remarkably picturesque, but there is a great charm in the panoramas of its soft green intervals: its white steeples rising over thick clusters of elms and maples, its neat villages on the slopes of gracefully rounded hills, dark belts of woodland, and blossoming or fruited orchards...”

Currently, Haverhill is a community of communities, with many features and buildings that remain much as they were in Whittier’s day. A strong positive feature is Haverhill’s rural character and abundance of historic landscapes. At the same time, within the City’s boundaries exist neighborhoods that contain character elements from virtually every type of community to be found in New England. Thus it is possible to describe Haverhill as “New England’s Home Town”. New residents from anywhere in New England can find familiar surroundings in Haverhill and still be just a short train ride from Boston, a short car ride from the seashore, and in the center of a region that offers a wide range of work opportunities and recreation amenities.

## Section I

### Plan Summary

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This planning document serves as a guide to achieve various City-wide recreation and conservation related goals through specific recommended action. It draws upon a number of earlier reports including the 1984 Recreation/ Conservation Master Plan, the City of Haverhill's 2000-2005 Open Space and Recreation Plan, the Comprehensive Guide Plan draft of the year 2005, and the 2007 UrbanRiver Visions 2 "Downtown Haverhill Action Plan" for the Merrimack River.

The 2008-2015 Haverhill Open Space and Recreation Plan (the "Plan") analyzes the current status of the City's open space and recreation resources and outlines a 7-year plan to enhance these resources. The Plan promotes improved public property maintenance and facility management; increased public outreach and education; improved acquisition and protection of lands of open space and recreation interest; enhanced and increased open space and recreation opportunities available to the public; sustainable development; improved heritage preservation; and preservation of the City's agricultural resources.

Overall, this Plan seeks to promote several aspects that are of importance to the City of Haverhill. They are the protection of the City's potable water supply; the enhancement and expansion of recreational facilities; the protection of indigenous wildlife, including rare and endangered species; the planning and protection of greenbelt corridors for proper migration of wildlife; the protection of the rural character of the City including open spaces and farms; the protection of Haverhill's heritage through the preservation of historic and culturally significant resources; and the implementation of Smart Growth principles that foster sustainable land development techniques, enabling increased preservation of Haverhill's natural resources.

## Section II

### Introduction

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#### *A. Statement of Purpose*

The Haverhill Open Space and Recreation Committee (the “OSRC”) has prepared this updated Plan as a tool to carry the City forward, while preserving its past. The City has seen significant development over the last 25 years. Due to Haverhill's location with five exits on Rt. 495, and actively growing industrial and retail zones, it is a very desirable community to developers building new homes. The community has seen many farms and some historic areas turned into housing complexes. Although Haverhill is a City by governmental structure, many residents continue to feel it has the character of a town and that this character should be preserved. To preserve this character, the OSRC took a broad approach in its open space and recreation planning. Beyond conservation areas and parks, the OSRC considered historic and cultural resources, heritage preservation, scenic landscapes, alternative modes of transportation, and regulatory measures in its Plan preparations.

#### *B. Planning Process and Public Participation*

In 1990 the City undertook a Master Plan design process. An independent planning consultant was brought in to recommend an evolutionary path for the City from 1990-2005. Public hearings were held during this process and the result was our Master Plan document.

In 1996 the OSRC conducted community surveys to capture the desires and opinions of the public. The brief “Experience Haverhill” survey was conducted to garner student input. The more detailed “Haverhill Community Attitudes Survey” was used to target comments from the general public. The results of these surveys were included in the 2000-2005 Open Space and Recreation Plan and were used by the Committee in its development of a Five-Year Action Plan. These surveys are included in Appendix B.

During the spring of 2007 the OSRC used these two surveys to develop the updated “Community Vision Survey” included in Appendix C. This electronic survey was accessible to the public through the City’s internet website homepage. The survey was advertised using the local newspapers, the community access television channel, e-mail, as well as other conventional methods. The OSRC conducted public meetings on a weekly to bi-weekly schedule in City Hall to discuss plan revisions. Through this public process additional public comment was netted.

Using the results of the new survey, the 1996 surveys, the 2000-2005 Five-Year Action Plan, and the diverse areas of expertise that make them stakeholders in this planning effort, the members of the OSRC analyzed the City’s needs, developed goals and

objectives, and detailed the 2008-2013 Five-Year Action Plan provided in Section 9 of this Plan.

## Section III

### Community Setting

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#### *A. Regional Context*

The City of Haverhill, located in northeastern Massachusetts on the Merrimack River, is one of the oldest and most historic communities in the State. Situated in northern Essex County, Haverhill is bordered by the City of Methuen on the west, the towns of Groveland and Boxford on the south, West Newbury on the east, and the State of New Hampshire on the north. Haverhill contains almost 36 square miles of area and a wide variety of land uses, ranging from rural agricultural areas to urban areas such as the City's historic downtown center. The City has both industrial and retail centers continuing to grow along the Route 495 corridor.

With five exits directly off of Route 495, Haverhill has experienced explosive growth in the last 25 years. This growth has strained municipal services to the extent that Crystal Lake has been returned to consumptive use and the Merrimack River aquifer is being considered as a potential potable water supply. Haverhill is in close proximity to New Hampshire (on the border), yet close enough to the ocean to experience tidal activity in the Merrimack River.

Present day Haverhill represents a local business center for the region as it serves the more rural communities of Merrimac, West Newbury, Groveland, Georgetown, Methuen, North Andover, Boxford, and beyond. Several industrial areas exist in Haverhill, most with immediate access to Routes 495 and 125. Small businesses are located throughout the City, but many retail businesses have concentrated downtown in the business district. Due to its close proximity to New Hampshire, some retail businesses previously chose to locate their businesses in neighboring Salem and Plaistow, NH. This movement to New Hampshire was particularly true of strip malls and superstores, thus resulting in the perpetuation of Haverhill's "New England's Home Town" character. In recent years the City has seen a return of national retailers, with Starbucks, BJ's Wholesale Club, Target, and Lowe's Home Improvements all opening in 2007. Although this growth provides many benefits to Haverhill residents, it further highlights the need to preserve the charm of Haverhill's hometown character.

#### *B. History of the Community*

The City of Haverhill was established in 1640 as Pentucket and incorporated as a City in 1870. Neighboring Bradford was settled in 1649 and annexed to Haverhill in 1897. The City has a rich history of interaction between Native Americans and the early settlers. A large group of tribes of Native Americans lived in the Merrimack River Valley, with the principal tribes being the Pentucket, Pawtucket, and Agawam. These tribes depended on the Merrimack River or "Merroh Awke" meaning "Strong Place" as a

center of their economy, but established homes on the smaller streams and creeks along the river.

In 1640, Puritans settlers purchased the land from Chief Passaconway for several pounds and named the City “Pentucket”, Algonquian for “land of the winding river”. During these times Native American and Settler interaction was ever-changing from fierce battles to calm trading. During a difficult time Native Americans took Hannah Dustin, a young mother of 13 children, during a raid and held her captive with several children and adults. Hannah, in the company of a nurse named Mary Neff and Samuel, a young boy who was captured several months before, killed 10 Native Americans, took their scalps as evidence, and escaped by canoe on the Merrimack River to Haverhill.

The political and economic climate of the Merrimack Valley and Haverhill was as difficult as the Boston scene. In the 1680’s and 1690’s, charters drawn up to create local governments were dissolved by English rule and local resistance that plagued the citizens of the Merrimack Valley. The Merrimack Valley remained under Parliament rule until 1774 and the Continental Congress and War of Independence beginning.

From 1700-1800, Haverhill’s industries were farming, fishing and shipbuilding. The Merrimack River and the Middlesex Canal connected the capital cities of New Hampshire and Massachusetts allowing for interstate commerce through the waterway.

By 1800, Haverhill had become a center for the cattle market. Products from the cattle included beef, combs and leather goods. The leather goods industry developed into an historic and incredible shoe industry. Following the Depression and WWII, the shoe industry in Haverhill had disappeared, and many buildings were abandoned. The City is still recovering from the economic problems of the Depression era and the economic recession of the 1970s and 1980s.

The City of Haverhill has many famous people associated with it such as President George Washington, Cartoonist Bob Montana and Poet John Greenleaf Whittier. George Washington visited Haverhill and was quoted as saying “the pleasantest village had passed through, it had commercial advantages and beauty of location”. The City has kept that feeling of a “big City with a small town atmosphere”. Washington Square in downtown Haverhill is named after Mr. Washington. Mr. Bob Montana, created the “Archie Comic Strip” and the main characters are all based on his real life friends and adventures at Haverhill High School.

Although originally settled as farm land, the City evolved into a major industrial center through the establishment of saw and gist mills in the late 17th century, tanneries and boat yards in the early 18th century and shoe manufacturing, its leading industry of 180 years. The City remained a thriving industrial center until the severe depression of the 1930s. Currently, computer technology and research industries thrive within Haverhill’s industrial parks and business districts.

Haverhill's location has been a key factor in maintaining its reputation and use as a major employment center. The proximity of the Merrimack River historically attracted factory industries to this area. Currently, the City's placement between Interstates 93 and 95 and on Route 495 has attracted the growing technology industries. The City is also only 33 miles from Boston; and, Lowell, Lawrence, Cambridge, Nashua, NH, Manchester, NH and Portsmouth, NH are all within a 30-mile radius. Therefore, Haverhill also acts as a bedroom community for workers in those areas.

Today, the City's significant land uses are residential development (50%), commercial/industrial (5%), and agriculture (8%). Concurrent with Haverhill's recent economic surge has been a steady rise in residential development. The City's residential areas are comprised of older single-family homes, two-family houses, condominium developments, and single-family subdivisions. Several sections of the older historic areas of the City (e.g. Rocks Village) have been preserved through Historic District regulations. Although Haverhill exhibits high densities within its urbanized sections, much of the City still remains undeveloped (20.9%).

### **Historic Resources**

Haverhill has three historic districts, each with its own individual character. They show very clearly the development of the City from its earliest times to its industrial peak, and provide residents and visitors alike with an opportunity to discover the heritage and historical significance of the City and of Essex County.

### **Rocks Village Historical District**

The Rocks Village Historical District was established in 1974, and is indicative of the small farming villages which lined the Merrimack River in the 17th and 18th centuries. The main economy was handcrafts, farming and fishing, and until the late 18th century, remained quite independent of Haverhill. The District is located in the northeast corner of Haverhill where the Rocks Village Bridge crosses into West Newbury.

### **Bradford Common Historic District**

The Bradford Common Historic District was established in 1975, and includes the homes surrounding the Bradford Common and on South Main Street. The Common lies at the intersection of the two main roads, one going to Salem and the other to Andover. The area was first settled in 1649, and by 1690, Kimball's Tavern was built at the intersection. At this tavern in 1803, Bradford Academy was established, which evolved into Bradford College, adjacent to the Common. Bradford also was an agricultural village for over 100 years; but, with the building of a bridge over the Merrimack River in 1794, many small industries were established. The area around the Common became the site of many fine homes with styles ranging, with development, from Colonial to Victorian. The White Church, or First Church of Christ, Bradford, was built in 1848 and was the model for Henry Ford's church at Dearborn Village, Michigan.

### **Washington Street Shoe District**

The Washington Street Shoe District represents the second industrial development at this site. The shoe industry became established in the area in the early 19th century and by the 1880s, it dominated the district. But the Great Fire of 1882 swept through this area, leveling every building. Within a year, new buildings lined the street, presenting an architecturally unique district of the Queen Anne style, mostly four stories in height. Until the 1950s, the area flourished, but the demise of the shoe industry left the area with many vacant buildings and in great disrepair. Since that time, continued interest in the area has brought alternative uses into the district, such as a 40R Zoning District that fosters the conversion of mills to residential apartments, market-rate condominiums, and retail space; senior housing; shops; offices; a variety of successful restaurants; and an arts district. The future is bright for continued appropriate redevelopment in this district.

### **Historic Preservation Plan**

The Haverhill Historical Commission and Community Development Department were jointly awarded a grant from the Massachusetts Historical Commission in July of 1989 for a Historic Preservation Plan. The Historic Preservation Plan inventoried historic and archeological resources in the City and developed preservation/protection strategies for the identified historic resources.

### **Resources Shared with other Communities**

The primary recreational, historical, and watershed resources shared with other communities in the region is the Merrimack River. The Merrimack River riverfront between Methuen and the mouth of the River in Newburyport contains 22 public areas and eleven historic attractions. The Merrimack provides estuary fishing at its mouth and tidal fishing as far inland as Haverhill, with communities sponsoring numerous annual events to celebrate and increase understanding of this great resource.

The “Merrimack River Initiative” began in 1998 as an agreement between the U.S. Environmental Protection Agency, the State of New Hampshire, the Commonwealth of Massachusetts, and the New England Interstate Water Pollution Control Commission to collaborate on water quality issues. This collaboration initiated a dialogue to examine issues and problems in the watershed, thereby resulting in a proposal for funding and further work toward expanding the watershed approach. The watershed approach is “resources based” using the watershed as the management unit allowing examination of the cumulative impact of all activity in the watershed, issues of surface and groundwater quality and quantity, human use and natural functions, and brings together public and private groups, states and federal agencies, industries and environmental groups.



**Table 1. Haverhill Architectural Heritage**

STYLE	YEARS	BUILDING
Georgian	1725 - 1800	Ayer House (c 1712)
Federal	1800 - 1830	Newcomb House
Greek Revival	1830 - 1850	Albert Lebosquet House
		Winter Street Baptist Church (1839)
		North Parish Church (1837)
Gothic Revival	1850 - 1860	Dr. Nicholas House (c 1850)
Italianate	1850 - 1870	Chase House (1867)
Second Empire	1860 - 1880	Dr. Ira Chase House (YWCA)
High Victorian Gothic	1870 - 1880	James A. Hale (1875)
Stick Style	1875 - 1885	Chase House (Dole and Childs)
Queen Anne	1880 - 1890	Griffin House (1889)
Shingle Style	1885 - 1900	Warren Emerson House
Georgian Revival	1890 - 1910	Webster House
Colonial Revival	1915 - Present	Theodore LeBosquet (1917)
Bungalow	1915 - 1935	Dr. Mysel House
Dutch Colonial	1915 - 1940	Desilets House

### *C. Population Characteristics*

The following analysis is based on U.S. Census data supplemented by other sources where noted. The City of Haverhill contains 34.38 square miles, including 32.04 square miles of land area, with a population density of 1,769 persons per square mile.

The 2000 U.S. Census counted 58,969 persons in the City of Haverhill, an increase of 15.4% over the 1990 count of 51,418. In 2005, the U.S. Census Bureau estimated Haverhill's population to be 60,242, a further increase of 1,273, or 2.2%. MISER population estimates and projections indicate that the populations of Haverhill will grow to 65,798 in the year 2010, or an additional 8.49%.

Haverhill's 9.7% population increase between 1980 and 1990 was the most dramatic increase since 1920 and supports Haverhill's positive growth trend that began modestly in the 1960s and 1970s. This increase was nearly double that experienced by the state of Massachusetts as a whole. The 15.4% population increase between 1990 and 2000 continued the growth trend and nearly tripled the state's 5.5% average growth for the decade. The Median Age of all Haverhill residents in 2000 increased to 35.5, compared

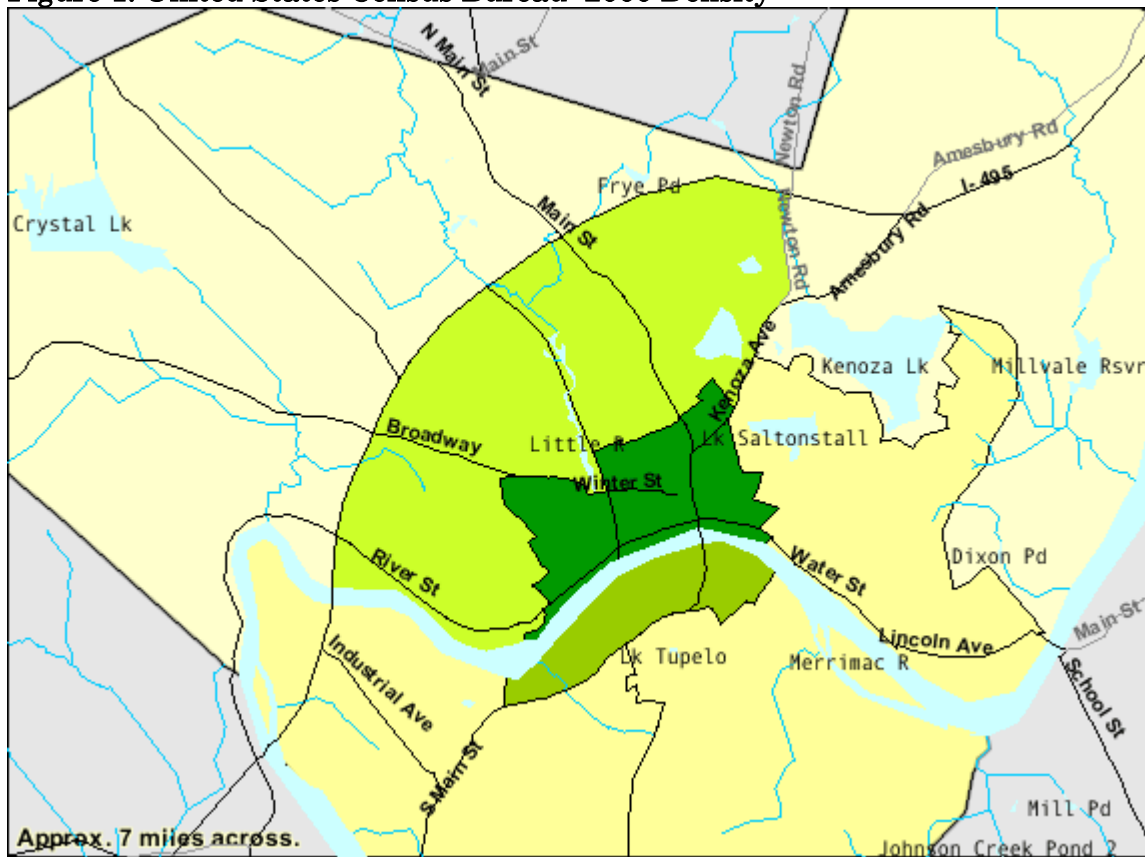
to 32.3 a decade earlier. Median age for Black residents was younger at 29, and for Hispanic residents, 23. Both the Under 5 and 5-9 age categories stood at 7.4% of the population while the number of elderly, over the age of 65, comprised 12.8 % of the population. Table 2 offers a more detailed breakdown of population by age.

Ethnic characteristics reveal that 89.7% of the populations is White, 2.4% is Black, 1.4% is Asian, and 8.8% is Hispanic, with 4.3% comprised by other races. The percentage of Blacks increased from 1.9% in 1990 to 2.4% in 2000, while the number of Hispanic individuals doubled from 2,564 in 1990 to 5,174 in 2000. Whereas in 1990 minorities comprised 5.3% of the total population, in 2000 this figure stood at 10.3%.

Haverhill's 2000 population was contained in 22,976 households, an increase of 3,348, or 14.6%, from 1990. The average household size shrank from 2.63 persons per household in 1990 to 2.51 in 2000. The 2000 average for persons per household matched the Massachusetts average.

In 2000, 47.5% of the population was male and 52.5% was female.

**Figure 1. United States Census Bureau: 2000 Density**



**LEGEND/**

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**Population Growth Trends**

Large increases in population in the early 1900s coincided with a strong industrial economy during that time. By this time, Haverhill had become a leader in the wool, textiles, and footwear industries. The effects of a severe economic depression are reflected by a great decline in population from 1930-1940. Continuing declines in population through 1955 (except for a slight increase in population between 1940-1950) are related to a 17% decrease in total employment in the entire Lawrence-Haverhill region. The influx of high technology industries resulted in a slow but steady increase in population beginning in the early 1960s.

Between 1970 and 1985, the population growth rate in Haverhill was substantially lower than that in the Lawrence-Haverhill SMSA (4% vs. 10%).

**Table 2. Haverhill Population/Changes**

Year	Population	Net Change	Percent Change
1900	37,175	--	--
1910	44,115	6,940	18.7%
1920	53,884	9,769	22.1%
1930	48,710	(5,174)	(9.6%)

Year	Population	Net Change	Percent Change
1940	46,752	(1,958)	(4.0%)
1950	47,280	528	1.1%
1955	45,436	(1,844)	(3.9%)
1960	46,346	910	2.0%
1970	46,120	(226)	(0.4%)
1980	46,865	745	1.6%
1985	48,054	1,789	3.8%
1990	51,418	3,364	7.0%
2000	58,969	7,551	15.4%
2005*	60,242	1,273	2.2%
2010**	65,798	5,556	9.22%
2020**	74,385	8587	13.0%

\*U.S. Census Bureau Estimate

\*\*Massachusetts Division of Employment and Training Projection

**Table 3. Population by Age**

Age	1980		1990		2000	
	Number	Percent	Number	Percent	Number	Percent
Under 5	3,112	6.6%	5,051	9.8%	4,338	7.4%
5-19	11,243	24.0%	8,579	16.7%	12,136	20.6%
20-34	11,426	24.4%	15,064	29.3%	12,446	21.1%
35-54	8,856	18.9%	11,783	22.9%	18,048	30.6%
55-64	4,922	10.5%	3,674	7.2%	4,454	7.5%
65+	7,306	15.6%	7,267	14.1%	7,547	12.8%
<b>TOTAL</b>	<b>46,865</b>	<b>100%</b>	<b>51,418</b>	<b>100%</b>	<b>58,969</b>	<b>100%</b>

Source: 1980, 1990, 2000 U.S. Census

### Employment and Economy

The diversity in Haverhill's population is revealed in Census measures of economic well-being. Per capita income for Massachusetts residents in 1999 was 20.2% above the national average, while Haverhill's 1999 average per capita income, at \$23,280, was 7.8% above the national average, and 10.3% below the State of Massachusetts. Per capita income was less for Blacks at \$17,690, and significantly less for Hispanics at \$11,825. In 1990, 4,418 persons had incomes below the poverty level, or 8.8% of the population, while in 2000, 9.1% of Haverhill's individuals lived below the poverty level. The number of families below the poverty level stood at 7.0% in 2000.

Although ,economic conditions in the Merrimack Valley have fluctuated over the last decade,(most recent information is from Year 2000) ,the region had shown improvement in the decade between 1980 and 1990 with growth in the industrial sector, however, unemployment persisted among low income and minority groups. The overall unemployment rate declined through the mid-eighties to a low of 4.0% in 1988, compared to a state average of 3.3% and a national average of 5.h%. This trend was reversed between 1989 and 1995, steadily decreasing to 11.6% in 1991, and to 8.1% in 1994. Unemployment rates in the City of Haverhill have mirrored that of the region, with a 1999 rate of 3.9%. The employed labor force counted by the Division of

Employment Security counted 29,200 workers in 1999. The median household income in Haverhill had increased to \$58,772 in 2007.

**Table 4. Unemployment Data**

<b>Year</b>	<b>Massachusetts</b>	<b>Haverhill</b>
1995	5.5%	6.0%
1996	4.3%	4.7%
1997	4.0%	6.0%
1998	3.3%	4.3%
1999	3.2%	3.9%
2000	2.6%	2.7%
2001	3.6%	4.2%
2002	5.3%	6.5%
2003	5.6%	6.6%
2004	5.2%	5.9%
2005	4.8%	5.4%
2006	4.9%	5.2%
2007	4.5%	4.7%

The mean travel time to work for all workers was 26.7 minutes, which indicates that many find employment within the general Lower Merrimack Valley area. In 1999 the Service industry employed largest number of workers at 27.78%. Followed by 23.79 in Trades, 20.06% in Manufacturing, and 17.72% in Government. Transportation, Communications and Utilities employed 3.17% of workers, with Finance, Insurance, and Real Estate and 3.42% in Construction.

The 2000 Census shows Occupation distribution of employed civilian population of 16 years and older as follows:

Management, professional and related occupations.....	10,170
Service	4,149
Sales and office	7,892
Farming Fishing and Forestry	9
Construction, extraction and maintenance	2,414
Production , transportation and material moving	5,042

Locally, the following tables from the Preliminary Official Statement dated March 15, 2008 and sourced from the Massachusetts Department of Education and Training show products manufactured in Haverhill which include high tech, leather goods, including shoes, paperboard, canvas, plastic film and sheeting and carpet insulation.

**Table 5. Employment Data**

Industry	Calendar Year Average		
	2004	2005	2006
Construction	1,085	1,178	1,160
Manufacturing	2,604	2,392	2,336
Trade, Transportation, & Utilities	3,181	3,202	3,241
Information	185	185	184
Financial Activities	894	934	962
Professional and Business Services	1,250	1,428	1,614
Education and Health	5,379	5,384	5,228
Leisure and Hospitality	2,092	2,109	2,089
Other Services	649	641	690
<b>TOTAL EMPLOYMENT</b>	<b>17,319</b>	<b>17,453</b>	<b>17,504</b>
<b>TOTAL NUMBER OF ESTABLISHMENTS</b>	<b>1,300</b>	<b>1,297</b>	<b>1,336</b>
<b>AVERAGE WEEKLY WAGE</b>	<b>\$693</b>	<b>\$705</b>	<b>\$740</b>
<b>TOTAL WAGES</b>	<b>\$642,705,084</b>	<b>\$659,446,690</b>	<b>\$694,497,009</b>

**Table 6. Largest Employers, exclusive of the City itself**

NAME	PRODUCT/FUNCTION	EMPLOYEES
Demoulas	Retail Food Chain	1,000
Northern Essex Community College	College	950
Dunkin Donuts / Skrivanos Group	Retail Food	750
Merrimack Valley Hospital	Health Care	645
Corporate Chefs	Food Service	530
Whittier Rehabilitation Hospital	Health Care	380
Pentucket Medical Associates	Health Care	297
Dyna Wave	Connectors	250
Victory Plastics	Plastic Film and Sheeting	250
Harbor Schools and Family Services	Social Services	200

Source: Data from City and reported in Preliminary Official Statement ("POS") 3/15/2008.

#### *D. Growth and Development Patterns*

The City of Haverhill is contained within approximately 35 square miles, or approximately 22,005 acres. Areas of individual land uses are shown in Table 5. As can be seen from this table, the principal land use is residential (41.74%). Single family development accounts for 27.7% (6,085 acres) and two or more family residential amounting to only 3.3% of total land area (although accounting for 13 % of the total number of parcels). The next highest category is vacant or undeveloped land, which accounted for approximately 10.7% (2370 acres). There are also 4,710 residential condominium units in the City of Haverhill representing 21.4% of the total parcel

count. In 1988, residential uses accounted for 49.7% of Haverhill's total land use, whereas vacant land accounted for 20.9% (4,792 acres) of the total land. In 1969, residential uses accounted for only 12.5% of Haverhill's total land use, whereas vacant land accounted for more than half the City's total area, or 54% (12,407 acres) of the total land. The reduction in vacant land is indicative of the growth experienced in Haverhill's residential sector over the last three decades.

Public (City and state owned property) and quasi-public uses including schools, public buildings, churches and institutions accounts for the next highest land use, totaling 15.2% of the City's overall land area.

Agriculture, Chapters 61, 61A and 61B, which accounts for 7.6% of the City's land area includes land currently assessed as "agriculture", "recreational" or "forest" for tax purposes.

**Table 7. Tabulation of Existing Land Use, 2008**

	<b>Acreage</b>	<b>% of Total Land</b>
<b>Residential</b>		
1-Family	6,085	27.7
2- & 3-Family	589	2.6
Multi-Family	226	1.0
Mixed-Use	1,864	8.5
<b>Sub-Total</b>	<b>8,764</b>	<b>39.9</b>
<b>Commercial/Industrial</b>		
Commercial	920	4.2
Industrial/Warehouse/R&D	1,053	4.8
<b>Sub-Total</b>	<b>1,973</b>	<b>9.0</b>
<b>Public/ Quasi-Public</b>		
State Owned (All)	238	1.1
Municipal-Public (Schools, churches, cemeteries, etc.)	3,110	14.1
<b>Sub-Total</b>	<b>3,348</b>	<b>15.2</b>
<b>Agriculture</b>	<b>1,665</b>	<b>7.6</b>
<b>Vacant(Residential Land)</b>	<b>2,370</b>	<b>10.8</b>
<b>Other(Condos, Roads, Etc.)</b>	<b>3,885</b>	<b>17.6</b>
<b>Total Area (acres)</b>	<b>22,005</b>	<b>100</b>
<b>Total Square Miles</b>	<b>34.38</b>	<b>100</b>

### Land Use Pattern

Table 7 shows the distribution and arrangement of the various land use categories throughout Haverhill. The land use pattern consists of a downtown and central urban area that centers on the Merrimack River, and area of equal intensity on both the north and south back sides of the river although somewhat heavier on the north bank. There are still major farm and agricultural areas within the City limits. The completion of I-495 has affected land use pattern extensively, with new commercial uses along the highway, particularly at the interchanges. Industrial development is concentrated in

the City's three major business parks. These parks are located in the Ward Hill area and off Route 97, both in close proximity to Route I-495, and in the upper-Hilldale Avenue area, in close proximity to Route 125. The existing residential development and projects under construction are scattered throughout the City.

### **Landscape Character**

Haverhill has a unique and valuable landscape that gives it its unique character. As the name implies Haverhill contains the Merrimack River in close proximity to rather substantial hills. Rolling hills, large as well as small farms, streams, thick forests, and its lakes and wetland areas all combine to establish Haverhill's landscape. Haverhill still contains nearly 60 active farms and along with the weekly farmer's market serves to retain a strong farming heritage.

The close proximity of the river to thick forest teeming with wildlife is still rather unusual for eastern Massachusetts and whole sections of the City outskirts remain untouched. To date the City has done a good job of limiting most development toward the center of town.

Outsiders sometimes characterized Haverhill as an urban factory town and it is sometimes confused with neighboring “corporate” mill cities such as Lawrence and Lowell. Yet, in reality, almost two-thirds of Haverhill is a mix of rural and suburban development with large pockets of pristine rural landscape, presenting a much more diverse totality than is typically found in such communities. In the eastern, western, and southern portions of the City are open farmsteads surrounded by fields and rural vistas. A number of roads can be characterized as “scenic” because of their open spaces, stone walls, and rows of old trees. Within the more urban developed areas there are intact streetscapes lined with trees as well as inner-City parks and boulevards. Patterns of development centered around meetinghouses, evidence of the parish as a political and settlement unit, are still readily visible in many places, as are original field systems. Haverhill is also fortunate in possessing a number of historic trees.

### **Infrastructure**

#### ***Transportation systems***

The development of transportation resources serving the Merrimack Valley has placed Haverhill at its center. The City has good highway and rail facilities that link major cities and towns to each other, in addition to the port, airport, and inter-modal facilities in Boston, Portsmouth, and Manchester. The City has five (5) exits on Interstate 495.

The Merrimack Valley Regional Transit Authority (MVRTA) serves the northeast corner of Massachusetts with over one million miles of City, suburban and interurban, and rural scheduled bus routes. The MVRTA's service area includes Haverhill, Lawrence, Methuen, Andover, North Andover, Amesbury, and Newburyport, with services provided to the Lowell Transit Center and the Buckley (Lawrence) Transportation Center and area rail stations. The MVRTA provides access throughout Haverhill's downtown area and provides general access to area along Route 110, Route 125 north to Plaistow, NH, and south to include the Industrial Parks.



The City is served by two rail stations, which include Bradford and downtown Haverhill. The City is also served by the Boston-to-Portland Amtrak High Speed Rail System. The Haverhill Train Station, which has undergone significant renovations, was originally the only station stop in Massachusetts, besides Boston.

The City has four (4) vehicular bridges that span the Merrimack River, not including the two along Route I-495. These bridges are the Comeau Bridge (Upper County Bridge), which was originally built in 1906 and reopened in 2007 following a five-year replacement construction period; the Basiliere Bridge, which was built in 1925; the Bates Bridge (Groveland Bridge, Lower County Bridge), which was built in 1914, rebuilt in 1951 and is scheduled for replacement with construction of an adjacent new bridge beginning in 2009; and the Rocks Village Bridge, which was originally built in 1883 and was rebuilt in 1914.

### ***Water Supply***

In 1891, the Haverhill Water Works System was established through acquisition of a private company. The consolidation with the Bradford Water System occurred in 1896 to create the Haverhill water system, as it exists today.

The Haverhill water system services the majority of the area within the City. Water for this system is supplied from six reservoirs: Kenoza Lake, Millvale Reservoir, Crystal Lake, Round Pond (a.k.a. Lake Pentucket), Chadwick Pond, Hovey's Pond, and Johnson's Pond. Kenoza Lake, Crystal Lake, Round Pond, and Millvale Reservoir are the water supplies for the City. The remaining three reservoirs are currently not on line and are reserved for emergency use. Water from the Millvale Reservoir and Crystal Lake is pumped to Kenoza Lake which is then pumped to the treatment plant and finally into the distribution system. Round Pond drains to Kenoza Lake, via Winnekenni Basin, through a gravity pipe system.

### ***Water Supply Needs***

By definition, the maximum firm yield is the amount of water that the City might expect to have available in a severe drought (e.g. mid-1960s). The current firm yield of the Haverhill Water supply system is 7.1 million gallons per day (mgd). However, this figure does not account for deteriorated water quality or drought condition of greater severity than that of the 1960s.

The firm yield for the City's reservoirs is comprised of two components, the registered volume and the permitted volume. These volumes are defined by the City's Water Management Act Withdrawal Permit and are aggregated based on the City's active water supply reservoirs.

Registered Withdrawal Volume	6.06 mgd
Permitted Withdrawal Volume	1.04 mgd
<b>TOTAL</b>	<b>7.10 mgd</b>

The registered volume is the volume granted to the City in through legislation and is considered the City's right to water without condition. The permitted volume is the amount allowed under the Water Management Act that can be conditioned by the Massachusetts Department of Environmental Protection to meet certain performance standards. Today all increases in withdrawal volumes fall under the permitted volume category.

According to the City's records, the average daily water demand during 2001 was 6.80 mgd. As a further indication of the increased strain on the water supply system, the maximum water demand for a single day in 2001 was 13.82 mgd.

Although Haverhill's water supply currently meets demand additional sources are being explored to meet future water needs. Future water demand projections done in February 2006 by the City's water supply consultant, Weston & Sampson, estimated that by 2010 the City's water demand will exceed its safe yield. Therefore, the City should aggressively pursue water conservation measures and additional water supplies. Average day water demand and projections are as follows:

**Table 8. City Demands on the Water Supply**

<b>Year</b>	<b>Average Day Demand (mgd)</b>
1981	5.61
1982	6.13
1983	5.73
1984	6.16
1985	6.48
1986	6.64
1987	6.55
1988	7.40
1990	6.34
1991	6.06
1992	6.07
1993	6.14
1994	5.93
1995	6.00
1997	6.31
1998	6.34
1999	6.67
2000	6.34
2001	6.80
2002	6.34
2003	6.18
2004	6.28
2005	6.61
2006	6.34
2007	6.06

Year	Average Day Demand (mgd)
2010*	7.70
2015*	8.10
2020*	8.32
Buildout*	9.30

\*Source: "Merrimack River Feasibility Study" by Weston & Sampson, February 2006

### ***Additional Water Supplies***

In the past, a variety of additional water supplies have been identified and examined for the City. Currently, new water supply options are Johnson's Pond in Groveland, the Merrimack River, and groundwater induced by the Merrimack River. Since Johnson's Pond has been utilized as a supply in the past and is currently listed as an emergency source, it has been considered for transfer to Kenoza Lake for treatment. The Merrimack River has been considered as a long-term future supply and work is underway to explore groundwater induced by the Merrimack River as the next water supply. Johnson's Pond and the Merrimack River as surface water supplies would both require complete treatment at Kenoza Lake following some type of chemical pre-oxidation at their respective transfer pumping stations.

If Johnson's Pond is developed first, as a transfer supply, the Merrimack River will probably still have to be developed in the future because only 1.0 mgd is available from the pond for the City's use, which is not sufficient to meet projected water demands. However, if needed water would be diverted from Johnson's Pond, and eventually the Merrimack River. Based on past treatment experience, Johnson's Pond water is of poor quality and may require substantial modification to the City's water treatment plant to adequately treat the water.

The Merrimack River as a groundwater source is being explored as the next viable water supply for the City. Based on water quantity and quality data collected from the exploratory work it is possible that groundwater from the Merrimack River may require less treatment and may be able to be treated at the point of withdrawal and pumped into the distribution system. This has an advantage by not having to pump the water to Kenoza Lake and modify the water treatment plant capacity. This option also gives the City the benefit of redundancy in its water supply.

Another potential water source supply is from the City of Methuen. Methuen's existing supply is the Merrimack River. It may be economically feasible for Haverhill to connect to Methuen's system (via Ayers Village area) and buy water from Methuen and financially assist in the expansion of that City's water treatment plant. Since Methuen currently sells water to Salem, New Hampshire, this option would further establish Methuen and the Merrimack River as a regional water supply source.

### ***Water Quality and Treatment***

High levels of sodium from roadway runoff are currently the only water quality contaminant in the supply system. Johnson's Pond has been burdened with substantial agricultural runoff and seepage from domestic septic systems, which has

resulted in high nutrient concentrations. However, other land uses located in the supply watersheds also threaten water quality (e.g. insecticide and fertilizer applications on golf courses, underground storage tanks, and gravel pit runoff).

The water treatment plant located at Kenoza Lake is designed to treat 16 million gallons per day with a maximum filtration capacity of 12 million gallons per day (although filtration can be expanded to 24 mgd). The water treatment process consists of coagulation using static mixers, sedimentation, dual media filtration (anthracite and sand), granular activated carbon filtration and disinfection. Chemicals used in the treatment process include aluminum sulfate, sodium hydroxide, potassium permanganate, sodium hypochlorite, sodium silicofluoride, and zinc orthophosphate.

### ***Sewer and Onsite Septic Disposal***

The City's wastewater treatment plant can process 18.1 mgd of sewage. The plant currently treats an average of 11.3 mgd. In 1989 the plant was processing approximately 12.2 mgd. The City completed a Wastewater Facility Plan in October of 1990. This document recommended a 20-year plan to best meet the City's present and future wastewater collection system needs. The existing plant can accommodate projected flows generated from the existing and projected zoning build-outs. However, extensions to the system (pipes, pumps, etc.) will be necessary to serve increased development. Several areas of Haverhill are currently experiencing problems with onsite disposal systems, primarily the results of high ground water and poor soil conditions. Failing septic systems pose potential public health problems. Generally, areas with high residential densities, industrial uses, and high commercial and office densities should be on the City's sewer system.

The existing sewer system and proposed extensions services the central core of the City. Areas not serviced by the sewer system include West Haverhill (North Broadway, Crystal Lake Area and Ayers Village); East Haverhill (Amesbury Road, Rocks Village, east of Kenoza Lake, East Broadway), and South Bradford (south of Willow Avenue).

To insure environmental resource protection Federal standards suggest that residential areas not serviced by sewer or water system have a 2-acre lot minimum. To protect environmental resources and promote development, industrial and office zoned areas must be sewered. Business parks in the Ward Hill and Broadway areas have been constructed with municipal sewer systems. The City anticipates the commencement of construction to provide sewer to the Hilldale Avenue business park in 2008. The office park zoned land on Route 108 benefits from the recent installation of a sewer lift station on this roadway.

## **Long Term Growth and Development Patterns**

### ***Local Land Use Controls***

The City of Haverhill, on December 5, 2006, established a Chapter 40R Downtown Smart Growth Overlay District (City Code Section 255-98). It is the purpose of this ordinance to encourage smart growth in accordance with the purposes of M.G.L. Chapter 40R and to foster a range of housing opportunities along with a mixed-use

development component, to be proposed in a distinctive and attractive site development program that promotes compact design, preservation of open space, and a variety of transportation options, including enhanced pedestrian access to employment and nearby rail access. Other objectives of this ordinance are to:

1. Promote the public health, safety, and welfare by encouraging diversity of housing opportunities;
2. Provide for a full range of housing choices for households of all incomes, ages, and sizes in order to meet the goal of preserving municipal character and diversity;
3. Increase the production of a range of housing units to meet existing and anticipated housing needs;
4. Provide a mechanism by which residential development can contribute directly to increasing the supply and diversity of housing;
5. Establish requirements, standards, and guidelines and ensure predictable, fair, and cost-effective development review and permitting;
6. Establish development standards to allow context-sensitive design and creative site planning; and
7. Enable the City to receive Zoning Incentive Payments and/or Density Bonus Payments in accordance with M.G.L. Chapter 40R, 760 CMR 59.06, and M.G.L. Chapter 40S, arising from the development of housing in the District.

Development within watershed areas of Haverhill is regulated at the local level by the following mechanisms:

- The Watershed Protection Overlay District Ordinance
- The Conservation Commission's Wetlands Protection Ordinance
- The Planning Board Subdivision Rules and Regulations
- The Board of Health Regulations
- Zoning Ordinances

The City created a Watershed Protection Overlay District Ordinance, City Code Section 255-19, on May 5, 1998. The purpose of this ordinance is to preserve and enhance the water quality of the watersheds within the City of Haverhill and to create a mechanism to discourage the detrimental use and development of land and waters within the watershed protection district. This ordinance defines watershed boundaries and provides additional controls over development that falls within watershed areas; however, the ordinance works in conjunction with the underlying zones as well. The underlying zones in the watershed area are as follows:

- Special Conservation (SC)
- Residential Rural Density (RR)
- Residential High Density (RH)
- Residential Medium Density (RM)
- Residential Low Density (RL)
- Commercial Highway (CH)

The predominant underlying zone in the watershed is the SC zone. The following table provides an approximate percentage of the underlying zones in each watershed. A Zoning District Map has been provided in Appendix A.

**Table 9. Underlying Zoning Districts within Watersheds**

Watershed Name	<i>Underlying Zoning District</i>						Total Area of Watershed in Haverhill
	SC	RR	RL	RM	RH	CH	
Kenoza Lake: Area (Acres)	650.4	2.8	--	43.9	--	--	697.1
% of Watershed	93.3%	0.4%	0%	6.3%	0%	0%	100% in Haverhill
Millvale Reservoir: Area (Acres)	2,549.3	43.1	--	40.5	32.4	32.4	2,697.7
% of Watershed	94.5%	1.6%	0%	1.5%	1.2%	1.2%	56% in Haverhill
Round Pond: Area (Acres)	61.4	--	--	41.1	12.1	--	114.6
% of Watershed	53.5%	0%	0%	35.9%	10.6%	0%	100% in Haverhill
Crystal Lake: Area (Acres)	843.0	68.4	--	--	--	--	911.4
% of Watershed	92.5%	7.5%	0%	0%	0%	0%	72% in Haverhill
Chadwick's/Johnson's Ponds: Area (Acres)	1,155.4	37.9	29.3	--	--	--	1,222.6
% of Watershed	94.5%	3.1%	2.4%	0%	0%	0%	38.7% in Haverhill

**Table 10. Haverhill Zoning Districts and Minimum Lot Sizes**

Zoning District		Minimum Lot Size
SC	Special Conservation	2 acres
RR	Rural Density Residential	80,000 sf
RL	Low Density Residential	40,000 sf
RM	Medium Density Residential	20,000 sf
RH	High Density Residential	7,500 sf/single-family house
RU	Urban Rural	7,500 sf/single-family house

Zoning District		Minimum Lot Size
CN	Commercial Neighborhood	5,000 sf
CH	Commercial Highway	22,500 sf
CG	Commercial General	20,000 sf
CC	Commercial Central	5,000 sf
OP	Office Park	10,000 sf
IP	Industrial Park	40,000 sf 15,000 sf/single-family house
IG	Industrial General	10,000 sf

**Table 11. Residential Development Alternatives**

Development Form*	Minimum Acreage	Density
Cluster Development	15	7,500 sf/unit; Gross Density not to exceed that of underlying district; 10% density bonus for minimum 30% open space
Planned Unit Development (PUD)	10 (25 in RM Zone)	Gross Density not to exceed that of underlying district; 30% of overall area set aside for open space
Multi-family	--	Varies based on zoning district; no open space requirement; must conform to existing environmental site constraints

*\*Allowed only in areas served by municipal water and sewer.*

### Density Concerns

In 2000, the City increased the minimum lot sizes and frontage requirements for a number of its zoning districts. However, it maintained the minimum acreage requirements to promote residential development alternatives. Many cluster development projects were approved during the ensuing decade which translated into the City's acquisition of important open space tracts.

### Permitted Uses

There are certain permitted uses in each zone that are of concern for water quality. The CH zone has the most uses that are of concern; however, the CH zone covers a relatively small portion of the watershed. In addition, the Watershed Protection Overlay District Ordinance requires all proposed commercial uses to go through the Special Permit Review Process.

Of particular concern in the SC zone are golf courses, power plants, sewage treatment plants, and solid waste facilities.

### Additional Zoning Ordinances

In addition to those mentioned above, there are other ordinances that regulate development activities in Haverhill. These ordinances are as follows:

255-18	Floodplain District
255-82	Environmental Performance Standards
255-84	Removal of Earth Materials
255-85	Filling of Any Water or Wet Areas
255-85.1	Building near Water Supply

## **Subdivision Regulations**

### **Rules and Regulations Governing the Subdivision of Land in the City of Haverhill**

In 2000, the City of Haverhill updated its Subdivision Rules and Regulations. The Rules and Regulations are administered by the Planning Board. The updates, in part, addressed concerns outlined in the 1989 WMP in the following areas:

- Erosion and sedimentation control;
- storm water management;
- vegetative cover; and
- natural resources.

The new Rules and Regulations have strengthened these areas as follows:

#### ***Erosion and Sedimentation Control***

Erosion Control Plans are required for (Form C) Subdivision Plans. The plan must provide erosion and sediment control methods both during and after construction.

#### ***Storm Water Management***

The new regulations specify the design storms for the sizing of drainage facilities and states that the Planning Board may require a 0% increase in the rate of runoff. The new regulation also states that for discharges onto adjacent properties not owned by the applicant, the applicant shall present evidence to the Planning Board that such discharge is satisfactory, permitted, and does not cause any detrimental effects to public or private property.

In addition to the Subdivision Regulations, a project that disturbs one acre or more of land requires a Storm Water Pollution Prevention Plan (SWPPP), and a Notice of Intent filing with the Environmental Protection Agency under the National Pollution Discharge Elimination System program. Also, the project must comply with the Massachusetts Storm Water Regulations when it falls under the jurisdiction of the Massachusetts Wetlands Protection Act.

#### ***Vegetative Cover***

The new regulations require a Vegetative Cover Analysis as part of a Statement of Environmental Impact. It also provides planting requirements, street trees, and planting strips. The regulation specifies the numbers of trees and dimensions and slopes of planting strips, but it does not specify time limits for exposed soil, seeding requirements, mulching, slope protection, or other landscaping best management practices.



### ***Natural Resources***

The subdivision regulations require a statement of Environmental Impact that must evaluate topographic conditions, soils, groundwater, surface water, and the project's impact on these resources. Natural resources, however, are mostly protected through zoning and state and federal regulations.

Currently, City officials are again discussing updates to accommodate "Smart Growth" principles, such as Low Impact Development, and methods for protecting groundwater.

### **Board of Health Regulations**

The Board of Health is responsible for ensuring that septic systems are correctly sited and installed according to the provisions of 310 CMR 15.000: The State Environmental Code, Title V, Effective Date: 4/21/06. In addition to the requirements of this code, the Board of Health requires septic system tanks and leaching facilities to be constructed a minimum of 500' from the City's surface water supplies.

The Board of Health witnesses soil testing and is responsible for reviewing and approving plans. The Board of Health also performs inspections during construction.

In the City's 1989 watershed management plan, concerns were raised about soil testing and the high number of approvals in areas where soil conditions were poor. Since the 1989 plan, the State code has dramatically changed the procedure of soil testing. Title V currently requires that soils tests be performed by a Massachusetts Department of Environmental Protection Certified Soil Evaluator. The seasonal high water table is now estimated using soil morphology (i.e. indication of a water table from soil oxidation / reduction evidence) as opposed to measuring the observed water table during the wet season. In general, this approach should prevent systems from being placed too low in "dry" years when the water table may be lower than normal. In the watershed, however, the Board of Health should ensure that the soil profiles are complete and consistent as far as where mottling (indication of the seasonal high water table) was observed versus the soil texture, associated land forms and soil layers. For example, a perched water table might be expected on a drumlin with compact glacial till. Also, it is important that a percolation test be performed in the most restrictive layer of soil.

### **Conservation Commission Requirements**

The Conservation Commission is responsible for administering the Wetlands Protection Act, the Rivers Protection Act, the related Stormwater Management Regulations, and the City's Ordinance to Protect the Wetlands, Related Water Resources, and adjoining land areas. The ordinance is administered through the typical Wetlands Protection Act permitting process.

### **Zoning: Permitted Land Uses in Surrounding Communities**

Because such a large percentage of Haverhill's watershed area lies outside of the City (as much as 44%), this update has extended the limits of the Zoning Review to include Boxford, Groveland, and Merrimac, MA, as well as Newton, Plaistow, and Atkinson, NH. In the original 1989 WMP, a Zoning Map and table were provided that identified

the percentage of zoning districts within the main watersheds for Haverhill only. In this update, a new figure and table have been developed to show the zoning districts for each watershed, including portions outside of Haverhill. Although the City does not have the same level of control over activities and land use in surrounding communities as it does over land in Haverhill, it is important that development and zoning issues that occur in surrounding communities within Haverhill's watershed be monitored. The City should be involved in development and/or zoning proposals in surrounding communities that affect its watershed and find ways to ensure that Haverhill's interest in source water protection are considered. In some instances, Haverhill may be able to assist a neighboring community in some other way in exchange for watershed protection considerations. The following is a brief overview of the zoning bylaws in the six communities that are in Haverhill's watershed.

#### ***Atkinson, NH***

Zoning in Atkinson has a direct impact on the Crystal Lake watershed since 28% of the watershed is located in Atkinson. The portion of the Crystal Lake watershed in Atkinson consists of two zones, Rural Residential with a Golf and Sports Complex Sub-district (RR-2/SCR) and Town Residential (TR-2). Atkinson has both a wetlands provision and a Floodplain Conservation District that regulate building in wetlands and floodplains. The watershed area in Atkinson consists predominantly of residential and agricultural uses. The area is not served by municipal sewerage.

#### ***Plaistow, NH***

Zoning in Plaistow has a direct impact on the East Meadow River / Millvale Reservoir watershed, as 7% of that watershed is located in Plaistow. The portion of the Millvale watershed in Plaistow consists of two zones, Low Density Residential (LDR) and Integrated Commercial-Residential (ICR). Plaistow has a wetlands provision that regulates building in wetlands and floodplains. The watershed area in Plaistow is predominantly residential with some commercial uses along Route 108. The area is not served by municipal sewerage.

#### ***Newton, NH***

Zoning in Newton has a direct impact on the East Meadow River / Millvale Reservoir watershed, as 9% of that watershed is located in Newton. The portion of the Millvale watershed in Newton consists of three zones; Residential-A, Commercial, and Light Industrial/ Commercial. Newton has a wetlands provision that regulates building in wetlands. The watershed area in Newton is predominantly residential with some commercial and light industry uses along Route 108. The area is not served by municipal sewerage.

#### ***Merrimac, MA***

Zoning in Merrimac has a direct impact on the East Meadow River / Millvale Reservoir watershed, as 27% of that watershed is located in Merrimac. The portion of the Millvale watershed in Merrimac consists of three zones; Agricultural-Residential, Suburban Residential, and Commercial. The area is predominantly residential with some commercial uses along Route 110.

### ***Groveland, MA***

Zoning in Groveland has a direct impact on the Johnson's Pond watershed, as Johnson's Pond is partially located in Groveland, including 11.5% of the Johnson's Pond watershed (11.5% does not include Chadwick's Pond watershed). The portion of the Johnson's Pond watershed in Groveland is in the Residential-A zone. The area is predominantly residential with some agricultural uses. The area is not sewered.

### ***Boxford, MA***

Zoning in Boxford has a direct impact on the Chadwick's Pond / Johnson's Pond watershed since Chadwick's Pond and Johnson's Pond are both partially located in Boxford. Boxford contains 15.6% of Haverhill's total watershed area. The portion of the Chadwick's Pond / Johnson's Pond watershed in Boxford consists of the Residential-A zone and two Overlay districts, the Conservancy District, and the Pond Watershed Overlay District around Hovey's Pond (which is the headwaters for Johnson's Pond). The area is predominantly residential with some agricultural uses. A golf course is located on the west side of the watershed. The area is not sewered. Boxford's Pond Watershed Overlay District is similar to Haverhill's Watershed Protection District in that it regulated uses and setbacks in the watershed area.

### **Maximum Buildout**

The 1989 "Watershed Management Plan", prepared by Camp Dresser & McKee, performed an extensive Build-Out Analysis of the City. In the 1999 "Watershed Management Plan – Guidelines for Source Protection Through the Year 2005," Green International Affiliates reviewed existing structures from the City's current tax maps and updated a "Vacant Developable Land Plan" from the 1989 study.

## Section IV

### Environmental Inventory and Analysis

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#### A. *Geology, Soils, and Topography*

##### **Topography**

Noted for its numerous hills, the topography of Haverhill is varied, ranging from steep slopes like those found in the area of Kenoza Lake, to flatlands along the Merrimack River, to gently rolling hills found throughout the City. Table 12 identifies Haverhill's higher peaks, along with some of the more notable hills. There are numerous peaks over 200 feet in height and some exceeding 300 feet in height. Many of the City's hills provide a broad panorama of the lower Merrimack Valley, with views towards the ocean, New Hampshire, the City, and surrounding towns. Slope characteristics effect development potential, since slopes exceeding 30 percent are more difficult and costly to develop than flatter areas.

**Table 12. Haverhill's Hills**

<b>Hill Common Name</b>	<b>Approximate Height in feet (meters)</b>
Ayers (Great)	337 (102)
Ayers Village	307 (93)
Gale	307 (93)
Maiden	307 (93)
Long	297 (90)
Corliss	287 (87)
Scotland	287 (87)
West Meadow	287 (87)
Ward	277 (84)
Winnekenni	277 (84)
Dead	274 (82.9)
Bush	267 (81)
Job	267 (81)
Parsonage	267 (81)
Silver	267 (81)
Golden	257 (78)
Turkey	257 (78)
Beebe	238 (72)
Kimball	198 (60)

##### **Soils**

Soils in Haverhill consist chiefly of sands and loamy sands formed in outwash deposits along the Merrimack River and sands formed in compact glacial till. Soils formed in compact glacial till have seasonal high water tables, slow permeability rates, and a cemented layer of silt and very fine sand that restricts downward movement of water.

Small scattered areas in the City have no soil restrictions for the use of the standard leaching system as required in The State Environmental Code, Title 5: Minimum Requirements for the Subsurface Disposal of Sanitary Sewage. The majority of areas not on the sewer system contain limitations to standard leaching system due to soil restrictive features such as:

- Flooding.
- Seasonal high water table.
- Shallow depth to bedrock.
- Slow permeability.
- Cemented layer of silt and very fine sand at a depth of 18" that restricts the movement of water.

Examination of soils in these areas would be needed to determine more precisely the extent of restrictive and non-restrictive soil features. An area north of Crystal Lake contains soils with a shallow depth to bedrock, should not be considered for future growth unless the sewer system is expanded.

Soil groups in the City are concentrated in the Paxton-Woodbridge-Mills, and Windsor-Hinckley associations, they constitute 63% of the City total, and are found mainly in the eastern and western sections of the City, and in the southern Bradford. The Paxton-group has severe limitations for high density residential, industrial, or school use; and the Windsor-group has slight limitations (U.S. Soil Conservation Service). Residential development will be confined to a low-density, thus favors the retention of this land for forest or agricultural use.

Soils will be available in digital format later in 2000 as they become available from the State of Massachusetts and the City Engineers Office.

### **Farmlands**

Agricultural land is concentrated mainly in the eastern areas, along the Merrimack River and East Broadway, and in the western area along Broadway and North Broadway. Much of this is used as pasture, or along the Merrimack River, for raising crops. These two areas also contain most of the woodland in the City, along with the Chadwick Pond area in Bradford. Development pressures have been increasing in these areas, which are partially protected by special conservation (two-acre) zoning. The enactment of Chapter 61A, for agricultural assessment at its use value, has provided relief for some farm owners and helps to retain this valuable (and scenic) land for agricultural use.

### ***B. Landscape Character***

Haverhill has a unique and valuable landscape that gives it its unique character. As the name implies Haverhill contains the Merrimack River in close proximity to rather substantial hills. Rolling hills, large as well as small farms, streams, thick forests, and its lakes and wetland areas all combine to establish Haverhill's landscape. Haverhill

still contains many active farms and along with the weekly farmer's market serves to retain a strong farming heritage.

The close proximity of the river to thick forest teeming with wildlife is still rather unusual for eastern Massachusetts and whole sections of the City outskirts remain untouched. To date the City has done a good job of limiting most development toward the center of town.

### *C. Water Resources*

#### **Rivers, Lakes, and Streams**

The City of Haverhill is located entirely within the Merrimack River watershed basin. Throughout the City, the water level of the Merrimack River fluctuates with the tides.

The City's three outlying lakes (Crystal Lake, Millvale Reservoir, and Chadwick Pond) have large watersheds which effectively restrict development in these areas. Millvale Reservoir and Crystal Lake have outflow streams, East Meadow River and Creek Brook, which flow into the Merrimack River. The river is tidal up to Haverhill. The Little River flows through the center of the City, cutting the City into two distinct sections. Throughout most of their paths, the two rivers are bordered by extensive woodlands and agricultural land.

These lakes and water courses provide a unique opportunity to the residents of Haverhill for boating, fishing, swimming, and passive recreation along their shores. At present, Kenoza Lake, Lake Pentucket (Round Pond), Lake Saltonstall (Plug Pond), and the Millvale Reservoir are protected from development by City-owned land. With purchase and protection of other lakes and streams in the watershed, a greenbelt system can be established which will provide direct pedestrian access from the central area to this open space. The beginning of tying river corridors to the urban populace has already begun to take shape in the downtown area. A riverfront boardwalk has been designed and funded. Construction of the boardwalk is scheduled to begin in the summer of 2008. The preservation of existing and the acquisition of Merrimack River waterfront property is a high priority in the overall plan.

#### **Wetlands**

Wetlands are transitional zones between terrestrial and aquatic systems. Wetlands in Haverhill were identified and mapped by compiling data from the following source of wetland information:

- U.S. Geological Survey Topographical Maps.
- U.S. Fish and Wildlife Service National Wetlands Inventory Maps.
- Soil Conservation Service Maps.
- Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps.
- Massachusetts Geographic Information System.

The location of significant areas of wetlands, including water bodies, waterways, and vegetated wetlands are shown on Figure 1-4. Wetlands in Haverhill are generally associated with the Merrimack River, which bifurcates the City. Additional tracts of wetlands are associated with Crystal Lake, Creek Brook, Little River, Kenoza Lake, East Meadow Brook, and Millvale Reservoir, all located north of the Merrimack. Wetlands south of the Merrimack include a portion of Chadwick Pond and small pockets of vegetated wetlands associated with streams.

Performance Standards have been established by the Wetlands Protection Act, which limits the amount of disturbance permitted for wetlands. Because of these limitations, the wetlands shown in Figure 1-4 are considered unsuitable for development.

### **Vernal Pools**

Vernal pools constitute a unique and increasingly rare type of wetland that is inhabited by many species of wildlife, some of which are totally dependent of vernal pool habitat for their survival. This uniqueness is due to a number of factors, including their small size, generally temporary nature, isolation from permanent water bodies and absence of fish populations. Owing to the fact that vernal pools are devoid of the effects of fish predation, the breeding strategies of a number of amphibian species have evolved to the point of total reliance on these isolated wetlands. Currently, 16 Vernal Pools have been certified in Haverhill. More vernal pools exist in Haverhill and should be documented and then certified for protected status.

### **Merrimack River Basin Aquifers**

The principal aquifers in the Merrimack River basin are composed of unconsolidated sand and gravel that were deposited in melt water streams during the glacial period. Aquifers that can sustain well yields of more than 300 gal/min lie primary along the Merrimack River and its major tributaries. The largest area of glacial deposits capable of yielding more than 300 gal/min to single wells is located in northwestern Amesbury, near the New Hampshire border.

Many small aquifers (saturated thickness less than 50 ft) in stream valleys and wetlands throughout the basin sustain wells yielding less than 100 gal/min. Igneous and metamorphic bedrock throughout the basin provides a sufficient quantity of water for most domestic wells. Yields range from less than a gallon per minute to about 100 gal/min. The median yield of 41 bedrock wells is 10 gal/min.

In Massachusetts, the Merrimack River planning basin includes the Stony Brook basin, the drainage area of the Merrimack River below the confluence of the Merrimack and Concord Rivers, excluding the Shawsheen River basin. The basin, sometimes referred to as the lower Merrimack River basin, is located in Essex and Middlesex Counties and includes all part of 28 cities and towns, including the cities of Haverhill, Lawrence, and Lowell.

Altitudes in the basin range from sea level to about 300 ft above sea level at the tops of small hills. Unless otherwise noted, these descriptions of the water resources of the

Merrimack River basin are based on Hydrologic Investigations Atlas 616, Gay and Delaney, 1980.

### **Recreational Uses**

The City owns a significant amount of the land adjacent to its water supply sources. Most of this land is kept in a natural vegetated condition to act as a buffer between development and roadways and the physical water supply sources. Because of this natural condition and the fact that the land is publicly owned, these areas provide a secondary benefit for recreational use. Currently, the City has a number of recreational programs and activities that occur within the watershed areas that are consistent with sound watershed management and source protection uses. Secondly, the City also has an active program to ensure that recreational uses that are illegal and would adversely impact the water supply do not occur.

The following is a list of recreational activities that are allowed on City property and in some cases organized by the City for each of the watershed areas:

#### **Kenoza Lake (Active Primary Source)**

- Hiking
- Cross country skiing
- Fishing (in Winnekenni Basin)
- Winnekenni Park Conservation Area (includes playground equipment and tennis courts)
- Bird Watching
- Horseback riding
- Mountain biking

#### **Millvale Reservoir (Active Primary Source)**

- Meadow Brook Conservation Area
- Fishing
- Boating (Electric motors only)
- Hiking
- Cross country skiing
- Bird watching
- Hunting

#### **Round Pond (Active Primary Source)**

- Fred DeBartolomeo Memorial Park
- Fishing
- Boating (no motors)

#### **Crystal Lake (Active Primary Source)**

- Crystal Point and Crystal Gorge Conservation Areas
- Hiking
- Fishing by special permit
- Cross country skiing



- Mountain biking
- Hunting

#### **Johnson's Pond/ Chadwick's Pond (Reserve and Possible Future Water Source)**

- Fishing
- Boating (No electric motors allowed on Johnson's Pond)
- Wheeler Woods Conservation Area
- Hiking/walking
- Mountain biking
- Cross-country skiing

The City's Conservation Officer monitors activities in watershed areas within the City. The City's Recreation Department organizes activities in these areas. In general, the current activities are passive in nature and consistent with source protection goals. Unless water quality monitoring shows degradation resulting from these activities, they should be allowed to continue.

#### **Flood Hazard Areas**

The City of Haverhill has participated in the National Flood Insurance Program (NFIP) since 1983. The NFIP Program's Community Rating System (CRS) was implemented in 1990 as a program for recognizing and encouraging community floodplain management activities that exceed the minimum NFIP standards. The National Flood Insurance Reform Act of 1994 codified the Community Rating System in the NFIP. Under the CRS, flood insurance premium rates are adjusted to reflect the reduced flood risk resulting from community activities that meet the three goals of the CRS: (1) reduce flood losses; (2) facilitate accurate insurance rating; and (3) promote the awareness of flood insurance.

The CRS recognizes 18 creditable activities, organized under four categories including Public Information, Mapping and Regulations, Flood Damage Reduction, and Flood Preparedness. The City of Haverhill (Community Number 250085) received this designation in 1992 and is one of fourteen communities in Massachusetts.

There are now over 1080 communities receiving flood insurance premium discounts based on their implementation of local mitigation, outreach, and educational activities that go well beyond minimum NFIP requirements. While premium discounts are one of the benefits of participation in CRS, it is more important that these communities are carrying out activities that save lives and reduce property damage. These 1080 communities represent a significant portion of the Nation's flood risk as evidenced by the fact that over 67% of the NFIP's policy base is located in these communities. Communities receiving premium discounts through the CRS cover a full range of sizes from small to large, and a broad mixture of flood risks including coastal and riverine.

#### *D. Vegetation*

The City of Haverhill is dedicated to the preservation, protection, and perpetuation of the City's forested areas, which improve water quality and provide wildlife habitat, recreational opportunities, and a renewable resource of timber through the use of a forest management plan. Forest and vegetative cover control erosion, moderate temperatures, provide moist air, control water flow, and provide living environments for wildlife.

Many of the City's forested areas have undergone various land use changes over the years. Some were cleared for farmland, then left to reforest themselves. In other areas trees have been planted for watershed improvements. There are very dense areas where sunlight cannot penetrate which can cause insect infestation and disease. The City has common trees such as Maple, Little Leaf Linden, White ash and Locusts trees. Less common trees in the area are White Oak, Crimson Cloud Hawthorne and Buttonwood trees.

The City has a successful Commemorative Tree Program, which allows citizens to purchase different species of trees and have them planted by the Department of Public Works in any area of the City. A plaque is then added to a wall at City Hall, which displays all donor gifts.

The most prominent forest areas in the City of Haverhill are Winnekenni Park Conservation Area, Meadow Brook Conservation Area, Clement Farm Conservation Area, Crystal Gorge Conservation Area, Dead Hill, Gale Hill, and the upper East Meadow River watershed area.

Each of these areas has varied recreational use. There are ball fields for sports, trails for hiking, cross-country skiing and biking, and bird watching. The waterways in these areas allow for plenty of fishing.

The City previously developed Forest Management Plans to improve and maintain a number of these forested areas. Work is needed to carry through on these plans. Key elements of any forest management measures performed by the City are not only the long-term health of the forest stands, but also the education of the public on the importance of sound management.

#### *E. Fisheries and Wildlife*

##### **Wildlife**

There is an abundance of wildlife located primarily in the undeveloped watershed areas of the City and the predominantly rural sections of Haverhill. As in all sections of America, when development increases in the rural areas, the natural habitat of wildlife is altered, resulting in a decrease in wildlife and vegetation. The protection of watershed and open space will ensure that existing wildlife can remain and flourish, and provide the urban residents a close opportunity to view the wildlife indigenous to

this area. According to the U.S. Fish and Wildlife Service and the Massachusetts Natural Heritage and Endangered Species Program (“NHESP”), habitats of rare wildlife species are located within the City, and should be given special care and attention.

In 2000 and 2001, the City of Haverhill and groups of volunteers participated in the “Biodiversity Days” program, which, at that time, was organized by the NHESP. The results of these efforts may be found in Appendices E and F, respectively. The NHESP produced a report, “Core Habitats of Haverhill”, in 2004 in which the Program identifies six BioMap Core Habitats and three Living Waters Core Habitats in the City. These habitats are generally located along the Merrimack River and in the Chadwick Pond/Johnson’s Pond area of Haverhill. The species and natural communities of concern are incorporated within Appendix G. This appendix includes a table of rare and endangered species found within the City.

### **Endangered Species**

According to the NHESP, several rare and endangered species are present in Haverhill. Appendix G includes a table listing these species.

### **Wildlife Corridors and Greenbelts**

Notwithstanding the Merrimack River corridor, the City has two primary wildlife corridors. First is the East Meadow River corridor, which was created mostly for its importance in protecting the City’s water supply – the river is the primary tributary to Millvale Reservoir. Much of this corridor is mapped by NHESP as providing habitat for rare turtle species. The Meadow Brook Conservation Area is located on the southern end of this corridor, around the reservoir. This conservation area provides residents many opportunities to view wildlife and its related activities along the river, such as the City’s increasing Great Blue Heron population and its busy Beaver population. The conservation area also offers excellent springtime opportunities for viewing activity within a certified vernal pool in the conservation area. The northern end of the corridor – the Brandy Brow Road neighborhood – was recently reviewed by the City’s Forest Management Committee. The City’s forestry consultant has prepared a Forest Stewardship Plan for more than 450 acres in this area. The Plan has been submitted to the Department of Conservation and Recreation for approval. One of the primary concerns for the Committee is the protection and enhancement of wildlife habitat in this area, including that of the many potential vernal pools across this acreage.

The second corridor is along Creek Brook. This brook flows out of Crystal Lake, one of the City’s water supplies, and eventually reaches the Merrimack River. Although no formal conservation area exists below the lake, this corridor has been protected through acquisition by the City and, most recently, the Essex County Greenbelt Association, as well as by implementation of the City’s alternative residential design ordinances, such as planned unit developments and cluster developments. There is even a Chapter 40B comprehensive zoning project approved near the southern end, which was designed with features to protect this corridor. Although the presence of rare species are no

longer mapped by NHESP along this corridor, the area continues to be monitored for such.

### **Bird Conservation and Migration**

The North America Bird Conservation Initiative (“NABCI”) is a collaboration of governmental agencies and private groups that has established a national vision for bird conservation in the United States. NABCI focuses its efforts on advancing coordinated bird monitoring, conservation design, private land conservation, continentally important projects, and institutional support in state and federal agencies for integrated bird conservation.

NABCI has established Bird Conservation Regions based on common bird communities, habitats, and resource management issues. The City of Haverhill is contained within the New England/ Mid Atlantic Coast Bird Conservation Region. This Region is defined by its dense population and its significant acreage of land that was once cleared for agricultural usage, but is now either forested or converted to residential usage. In this region the highest priority birds are found in coastal wetland and beach habitats.

### *F. Scenic Resources and Unique Environments*

#### **Scenic Landscapes**

Haverhill's visual character is illustrated by its diversity of landforms including forested hills, wetlands, farmlands, the Merrimack River, ponds and historic brick factory blocks. Land that has been acquired in parts of the City maintains the open space and forested visual quality of the area. Particularly in the Kenoza Lake area, land acquisitions enhance the City's rural and diverse character.

Visual-cultural values of such areas consist of an array of interrelated, intangible values, which benefit the public, but are often very difficult to measure. These include aesthetic, recreational, educational and other heritage values. The term "heritage value" is used to define special uses or meanings individuals have attached to a particular area because of personal or cultural interaction with that area.

Farmland, marshes and woodlands, for example, contribute directly to the scenic value of landscapes and add to landscape diversity. This value of aesthetics is achieved through direct recreational usage as well as from distance viewing. The open space/recreational values vary greatly according to user and landform type. Open space/recreational activities may range from bird watching and picnicking to walking, canoeing, hunting, and fishing.

Many scenic areas may also serve as areas for scientific research and as outdoor educational exhibits to demonstrate the dynamics of ecological relationships or the natural or man-made histories of a culture, landform, City or entire region.

In May 2005, the Massachusetts Heritage Landscape Program released the “Haverhill Reconnaissance Report”, which inventories Haverhill’s “Heritage Landscape”.<sup>1</sup> During the Summer of 2004, the Massachusetts Department of Conservation and Recreation, along with the Essex National Heritage Commission, conducted a “Heritage Landscape Identification Meeting” and follow-up fieldwork in order to construct a list of Haverhill’s Heritage Landscapes. Table 13 displays the results of the meeting and fieldwork. The full report and supporting map may be found on the Essex National Heritage website at <http://www.essexheritage.org/heritagelandscapes/index.shtml>.

**Table 13. Heritage Landscapes Identified by Community<sup>2</sup>**

Location	Comments
<b>Agriculture</b>	
Clement Farm Main St. (Rt. 121A)	Now softball fields, buildings, and hiking trails – owned by City – American Legion Post uses the building.
Kimball Farm East Broadway	APR on 191 acres. Active farm with historic buildings. The current uses are raising livestock and crops are corn and hay. The public may visit to feed the farm’s llamas or to walk the corn maze (seasonal).
Silsby Farm Salem St.	APR on 132 acres. Carter’s Ice Cream, active farm with historic buildings. One of the main uses is raising food for livestock known as forage. Both sides of Salem St. A pumpkin patch on the south side. Hill from farm overlooks Golden Hill and schools. Can see Main St. NR district – red brick steeple is First Baptist and white stucco steeple is Congregational. Currently on the market for \$4 million.
Srybny Farm Hilldale Ave.	Privately owned.
Tattersall Farm 542 North Broadway	150-acre farm bequeathed to City by will of Mary Alice Tattersall who died in 1999 with restrictions to keep as open space, conservation and maintain farming activities. Active farm with historic buildings, hayfields, rolling meadows, wooded areas, and hiking trails.
Wally’s Farm Amesbury Rd. Rt. 110.	Farm stand. Owner, Lesiczka family, also tills fields at Whittier Birthplace. Offers dozens of fruits, vegetables, plants, holiday decorations, and Christmas trees. Also offers several food products, specializing in Polish food.
<b>Burial Grounds and Cemeteries</b>	
Bradford Cemetery Salem St.	Known as the Bradford Burial Ground – was also the site of the first parish building that now is on Bradford Common.
Elmwood Cemetery Salem Street	Two sites; one of .75 acres and the other of 27.11 acres, both City-owned.
Greenwood Cemetery East Broadway	4.89 acres. Managed by Kimball Farm

<sup>1</sup> Massachusetts Department of Conservation and Recreation and the Essex National Heritage Commission. “Haverhill Reconnaissance Report: Essex County Landscape Inventory”. Massachusetts Heritage Landscape Inventory Program, May 2005.

<sup>2</sup> Massachusetts Department of Conservation and Recreation and the Essex National Heritage Commission. “Haverhill Reconnaissance Report: Essex County Landscape Inventory”. Massachusetts Heritage Landscape Inventory Program, May 2005. Pp. 18-23, with recent property updates.

Haynes Family Cemetery Carlton Street	Off Broadway.
Hilldale Cemetery* Hilldale Ave.	1859. 19 <sup>th</sup> c. rural cemetery with curvilinear paths, hills and dales, granite and marble headstones and monuments. 20.94 acres. Very poor condition. No funds, maintenance issues. Records in library. Next to Potters Field.
Hillside Cemetery	Off Broadway.
Linwood Cemetery Mill St.	31.39 acres. Well maintained, associated with Pentucket Cemetery for maintenance.
Lithuanian Cemetery Montvale St.	Once next to a camp ground which was a vacation spot of ethnic groups. Camp ground purchased by the City and school built there.
North Parish Cemetery Main Street	Small early cemetery of less than ½ acre.
Pentucket Cemetery Water Street	2.58 acres. Also known as First Cemetery. Next to Historical Society, site of original meeting house.
Potters Field*	City-owned, next to Hilldale Cemetery. Alley of sycamores. Many handcrafted markers.
<b>Industrial</b>	
Taylor Goodwin Mill	The buildings have been demolished and the site will probably be developed. The adjacent Webster Building is a Romanesque Revival style. It formerly housed Hooker & Howe, a costume company, and was recently redeveloped for handicapped housing.
Millvale Cider Mill Millvale Rd.	On Millvale Reservoir. Active.
<b>Institutional</b>	
Zion College (formerly Bradford College*)	NR, LHD, including Bradford Common. Identified by Preservation MASS as one of “2005’s Ten Most Endangered Historic Resources”. Zion College has bought the campus and is in the process of restoring the buildings for educational use. Main campus buildings fronting on Main Street in districts. College originally included Kimball Tavern (see below). Main Street houses also important. Forty acres of campus known as the Back 40 has been sold for housing. Tupelo Pond on main campus – used for skating.
Kimball Tavern*	Kimball Tavern (1692), which is in good repair and is situated on the other side of Bradford Common. Although originally a part of Bradford College, there is dispute over the Tavern’s status; the housing developer claims that it is separate from the College and is up for sale.
Buttonwoods 240 Water St.	NR District designated in March 2005. Museum, Historical Society. 3 buildings including the John Ward House, the Duncan House and the Daniel Hunkins Shoe Shop. Potential for LHD expansion to include these resources.
Clement Estate Mill Street	Davis-Clement Homestead. In Highlands area at Mill Street and Boardman.
Don Orione* Salem St.	Former religious retreat and camp owned by the Boston Archdiocese in Bradford section of City. Head Start and Community Action Inc. recently used some buildings. The

	property has been sold and is slated for development. More than 24 of the site's 49+ acres will be protected as open space. The main residence will be saved and sold as part of the residential "cluster" subdivision.
Hannah Duston House 665 Hildale Ave.	NR. First Period. Ca. 1700. Two-story, three-bay, brick house – one of very small number of surviving brick First Period houses. Also known as the Duston Garrison House. Was being built when Hannah Duston (also spelled Dustin) was taken away by Native Americans with new born and wet nurse. The baby was killed. The mother, nurse, and a boy escaped and returned with many scalps. There are rocks on Monument Street that mark the place from which she was taken.
Powderhouse Powder House Hill	Vacant.
Schools:	Cogswell School, Greenleaf School, which was the Old Bradford Town Hall, Smiley School, Walnut Square School, which has an old clock in the school.
Whittier Building Winter Street	Next to the Y, Chamber of Commerce Building.
Woolworth Building Merrimack	Art Deco, on corner at Bridge and Water Sts. Empty since 1970. Now prime real estate but issue is parking. Owned by Greater Haverhill Foundation.
<b>Natural Features</b>	
Chadwick Pond	Part in Boxford. Wheeler Woods Conservation Area
Crystal Lake	Northwest part of City, a relatively large lake of 10 acres. Crystal Point Recreation Area.
Hale's Island	Part of Silsby's Farm (APR).
Johnson Pond	Part in Groveland.
Kenoza Lake	Pump house and waterworks, "Great Pond" named Kenoza by Whittier in 1859, meaning "Lake of the Pickerel". Part of water supply since 1871. Recreational activities not permitted.
Little River	Flows south to the Merrimack River. Is most publicly visible at Lafayette Square, Rosemont St., and Clement Farm trails.
Merrimack River*	Public views and access issues, zoning along river, proposal for Friend's Landing which would include two 10-story towers on river edge. One beautiful section is at the crossing from Comfort Inn – hill with pine forest, oak, birch, the back side of Ward Hill Industrial Center. 18 City Landings.
Millvale Reservoir	East of E. Broadway. Meadow Brook Conservation Area
Plug Pond/ Lake Saltonstall	City-owned bath house, a beach house in bad repair, only City-owned swimming area, boating lessons also, Highlands Area. Activities limited to Haverhill residents only.
Round Pond / Lake Pentucket	Off Stanley Drive. East of Concord St.
Silver Hill	View from Silver Hill disrupted by towers and visitors no longer can go to the top, thus view is diminished.
Saltonstall Lake	Named for Saltonstall family – Nathaniel Saltonstall and ancestors who settled in Haverhill. Family home was here. Demolished in 1919.
Tupelo Pond	Also known as Lake Tupelo. See Bradford College listing. A long narrow pond used for ice skating.
Winnekenni Basin	At entrance to Winnekenni Park.

<b>Open Space &amp; Parks</b>	
Bradford Ski Area	Near Salem St. beyond Silsby Farm. Still in business as a ski area. Former Atwood Farm.
First Landing Park Water St.	Opposite Pentucket Burial Ground. Understated park with major development proposed nearby.
Gale Park Mill Street	City-owned, edge of Highlands area, the statue known as The Hiker by Kitson, WWI and Women's WWII statues.
GAR Park Winter & Main Sts.	NR – Main Street Historic District. City-owned, Grand Army of the Republic common land. 1.68 acres near Merrimack River.
Hannah Duston Park Rt. 110	Closed, was a state rest area.
Stadium Lincoln Ave. at Nettleton Ave.	NR eligibility determination in 2004. NR listing in progress. WPA project. Stands recently condemned; however, 2007 funding allowed for the renovation and re-opening of half of the stands. A 9.5 acre athletic complex with football and baseball fields enclosed by brick wall. Concrete football grandstand and ticket office dating to the mid 1930s. Original wooden baseball grandstand dated to 1916 was demolished in 1991.
<b>Residential (Neighborhoods and Village Centers)</b>	
The Acre	NR. Mid 19 <sup>th</sup> c. urban residential neighborhood northwest of original village center. Bound by Winter and Main Sts., Little River and the B& M railroad. Most of the development is after the Civil War when industrial base of Haverhill required large population increase to maintain shoe manufacturing and railroads. Representations of all house forms and styles, particularly Greek Revival and Italianate in earlier construction – such as side gables, gable front houses – duplexes and other multi-family housing in later period of development after the 1887 Haverhill & Groveland Street Railway introduced.
Bradford Common	NR. LHD Includes Common, and properties along Main Street, but not adjacent residential neighborhoods. Common is enclosed with granite posts and wood posts on angle. Paths through the Common. Congregational Church on Bradford Common. Recently restored steeple with fiberglass replica. Henry Ford wanted steeple, but only has a replica. Original steeple built by local ship builders. The church owns common but City uses and maintains. 1870s Parsonage. Kimball Tavern. Bradford was a separate town until 1896 then annexed. Ward Hill is a neighborhood of Bradford that needed water and Bradford had no funds to carry water out to the neighborhood – Haverhill did, thus the annexation.
Elmwood Estate 229 Kenoza Avenue	Was the Thomas West Estate, which once included much of the land between Lake Saltonstall and Kenoza Lake, east of Kenoza Avenue. Property subdivided in the mid 20 <sup>th</sup> c. and brick Colonial Revival House with monumental columns and shingled barn remain on a sizeable lot with mature landscape.
The Highlands* Highland Avenue	1850s to 1900s, civic and institutional corridor and upper and middle class residential neighborhood with housing for manufacturers, retailers and professionals with architect-designed commodious houses. The Highlands on three sides of



	Plug Pond (also called Lake Saltonstall), Gale Park, Hale Hospital. On Saltonstall Rd. is a Montessori School in Tudor Revival building.
Lafayette Square *	Statue and buildings, historically French neighborhood that serves as a gateway to the City. Recent improvements removed rotary and moved statue of Lafayette to the side. The brick building that wraps the corner is marked Union St. Jean Baptiste 1892-1922. Winter St (97), Broadway and Hilldale
Main Street District	NR. Seven churches including UU, Baptist, Congregational, Armenian. City Hall / 1909 Old Haverhill High, GAR Park, Romanesque Revival St. Gregory the Illuminator (1847-1848) now the Armenian Apostolic Church. 25 contributing resources.
Monument Square Main & Arlington Sts.	Corner of Main and Arlington Streets. Recent demolitions changing nature of square. Civil War Monument.
Mt. Washington*	Development phases were Silver's Hill pre-1850 up to 1945 with brick buildings of late 19 <sup>th</sup> century shoe manufacturing lining north bank of Merrimack, and housing for mercantile elite in many styles resulting from speculative real estate development, shoe manufacturing owners and managers. Then a later phase of development was the multi-family housing (3-deckers on Pilling St.) for the immigrant neighborhood - housing for shoe tanneries workers. Riley's Corner, Fantini Baking Company, Observatory Avenue with tower at top and all new housing. Italian immigrants established social clubs and church. Streetscapes – Grove Street with 1890 John G. Tilton School at top of Grove. Wysocki Park.
Rocks Village Wharf Lane	NR, LHD. Northeast corner of City on backs of Merrimack River at crossing to West Newbury. 18 <sup>th</sup> century maritime site with shipyards. Bypassed by industrial revolution, thus retains much of its 18 <sup>th</sup> and 19 <sup>th</sup> c. Georgian and Federal architecture.
Walnut Square	School with clock tower – off Main St. North Avenue – Highlandville.
Washington Square	NR, LHD. Historic shoe district. Downtown commercial district.
J.G. Whittier Birthplace 105 Whittier Rd.	NR. Whittier born here 1807. 50 acres with house built in 1688 by Thomas Whittier. House is immortalized in Whittier's poem Snow Bound. In 1892 the Haverhill Whittier Club was formed – owns the house and operates the farm associated with house. Public hiking trails.
Winnekenni Castle 347 Kenoza Ave.	Castle built by James R. Nichols, physician and inventor in 1873-1875 as summer house. The architect was Charles Willis Damon. Built on site of Darling Farm which Nichols renamed Winnekenni (meaning "very beautiful" in Algonquin). A large barn also is at the castle site. Castle sold to City in 1895. Winnekenni Basin is man-made used to regulate Kenoza Lake, which Castle overlooks.
Winnekenni Park	Surrounds Lake Kenoza, Lake Saltonstall and the Castle. Public.
<b>Transportation</b>	
Basiliere Bridge	An old drawbridge which does not work.

Bridge St.	
Crescent Yacht Club & Marina	On Merrimack River at Railroad Avenue. Important river access point. There were ferry landings along entire river including here.
City Landings	18 City-owned landings.
Comeau Bridge	The original Bridge was a Parker Truss bridge. It was demolished and replaced with modern structure in 2007.
Gateways*	Entrances to City = Main Street, East Broadway, Water Street, Bradford Street, River Street.
Groveland Bates Bridge	Slated for demolition and adjacent replacement.
Rocks Village Bridge & Firehouse Bridge St.	Reported to be the last hand cranked bridge on East Coast. Bridge spans Merrimack River adjacent to Rocks Village HD. Bridge is 1882, 1895 and 1914. 6-span iron and steel riveted metal trusses.
Scenic roads	East Broadway has been identified as a scenic road for its rural character entering Haverhill from Merrimack. Other scenic roads are Crystal Street, Kenoza Street, Hilldale Avenue, Middle Road, Millvale Road, and Whittier Road.
Trolley Car Barns River Street	Now commercial space.

*APR = Agricultural Preservation Restriction, CR = Conservation Restriction, ECGA = Essex County Greenbelt Association, LHD = Local Historic District, NR = National Register, PR = Preservation Restriction, TTOR = The Trustees of Reservations, \* = Priority*

The City has identified the additional areas in Table 14 as scenic resources. These areas were not included in the “Haverhill Reconnaissance Report”; however, they are listed in the Essex National Heritage Area’s “Guide to Farms & Agriculture” (2007)

**Table 14. Additional Scenic Resources**

Location	Comments
<b>Agriculture</b>	
Bittersweet Farm North Broadway	Raises cattle and produces hay
Chris’ Farm Stand (at Silsby’s Farm) 436 Salem Street	Chris’ Farm Stand sells an assortment of fresh fruit and vegetables.
Crescent Farm Stand 140 Willow Avenue	Offers over 22 flavors of premium ice cream. Also available is local produce including native corn, tomatoes, beans, and more
Fay’s Farm 120 Amesbury Line Road	Fay’s Farm offers Pick Your Own and retail apples, peaches, squash, mini pumpkins, candied apples, cider, and caramel corn.
Goddard Hay Farm 1020 & 1034 N. Broadway	This farm sells hay, straw, mulch, and manure
Hansen’s Tree Farm 1100 North Broadway	Three generations of Hansen’s, dating back to 1935, have operated the farm. On site is an old farm house dating to 1775
Spring Hill Farms 133 Neck Road	Founded by Randolph Rogers in 1902, Rogers Spring Hill has been handed down for 5 generations of Rogers. Rogers Spring Hill is a full service garden center offering a wide range of products. The Garden Center raises 90% of all the annual flowers and most of the perennial flowers it sells.

Turkey Hill Farm 380 Middle Road	A designated tree farm that also offers Pick Your Own berries, cut flowers, and Christmas trees. They also sell honey and maple syrup.
Willow Springs Vineyards 840 West Lowell Avenue	Produces Cabernet Franc, Chardonnay, Leon Millot, Marachal Foch, Seyval Blanc, Vignoles Blanc, Blueberry, and Rhubarb wines.

### **Merrimack River**

In the past, the Merrimack River has been neglected by many communities both as a recreation source and an economic revitalization catalyst. The Massachusetts Executive Office of Energy and Environmental Affairs “Merrimack River 5-Year Watershed Action Plan” notes, “municipalities in the mid and lower sections of the Merrimack watershed are alarmed at the loss of open space in recent years and the threat of greater loss in the future. They realize the value of open space in rural, suburban, and urban areas and note that most municipalities have good open space protection plans. However, they note a disconnect between what their open space protection plans say and how land use decisions are made.”

Massachusetts Outdoors 2006!, the State Comprehensive Outdoor Recreation Plan further notes “a special word is warranted on the Merrimack River, one of the largest yet least protected riverine systems in New England. This river serves as water supply to major cities, such as Lowell and Lawrence, and is the subject of an interstate compact with New Hampshire, but has precious little protected land along its Massachusetts course. This fact relates, in part, to its early industrialization, because of its tremendous water power resource. However, as most protection of conservation and recreation lands have occurred in the the last one hundred years, many opportunities have been passed by, allowing further urbanization and suburbanization to creep down to the river banks. This spectacular regional resource merits very special efforts among the many parties of interest (local, state, non-profit and federal) to save and restore it as a primary asset to its bordering communities.”

However, during recent years, the Merrimack River has become the focus of Haverhill’s open space and economic revitalization efforts. Through an UrbanRiver Visions 2 grant from the Massachusetts Executive Office of Energy and Environmental Affairs, Haverhill conducted a public charrette on March 31, 2007. The resulting “Haverhill Action Plan” identified one of the key community vision as creating “a new vision for Haverhill along key stretches of the Merrimack and Little Rivers”.

Also in 2007, Gruen, Gruen and Associates created a downtown master plan on behalf of the City. In the plan, it is stated that “the City recognizes through the UrbanRiver Visions and Riverwalk design initiatives the importance of making the Merrimack River more of a recreational draw, including dock and marina facilities for boating, and open up view corridors through redevelopment. Increased scenic views of and access to the River will add value for residential and office uses.”

Recently, the Mayor established a Waterfront Development Task Force to develop a plan and guidelines to regulate future development along the Merrimack River in the downtown area and to preserve public access to the River.

### **Climate**

Haverhill's proximity to the ocean and the Merrimack River has a somewhat moderating effect on the climate. Average temperatures range from 26 degrees F in January to 73 degrees F in July. The normal annual precipitation is approximately 42 inches. Seasonal variations in the City allow the greatest mix of recreational activities such as downhill and cross-country skiing, skating, swimming, boating, fishing, and hiking. The associated beauty of seasonal changes also allows for full enjoyment of open space/passive recreation areas.

### **Unique Features and Characteristics**

The City of Haverhill "Comprehensive Guide Plan for the Year 2005" evaluated Haverhill's existing urban design characteristics and identified specific features in the City's natural and man-made environment worthy of protection.

These features included: East Broadway Lowland Area, an area of mixed farming with unique visual and aesthetic qualities on the river's edge; River Street Lowland Area, an area of mixed-use with views to the river to the river and across; Kenoza Lake – Winnekenni Park, a natural wooded and open space area with visual and aesthetic quality; Chadwick Pond, a natural wooded area surrounding this rural upland water body; Crystal Lake. A natural, wooded and open space upland area with visual and aesthetic quality; Bradley's Brook Watershed, dominant small hills and valleys with wetland pockets characterize this rural area to the river's edge; Little River Watershed, upland hills and valleys with wetland pockets and ponds feed this major watershed and open space that bisects the urban center of Haverhill; and Meadow Brook Watershed, rural upland small hills and valleys with wetlands feed this watershed and open space.

The urban design analysis also focused on the Washington Square Historic Center. Rock's Village and Bradford's Historic Areas, Main Street "Gateways", and East Broadway, Water Street, Bradford and River Street edges along the Merrimack River.

## ***G. Environmental Challenges***

### **Brownfields**

Brownfields are defined as real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of hazardous substance, pollutant, or containment. Perhaps the most notable Brownfields site in the City is the "Ted's Tires" site on Granite Street. The City has acquired and cleaned this site and is in the midst of a cooperative project with the Merrimack Valley Regional Transit Authority to construct a multi-level parking garage on the site, in the heart of downtown. The garage will be directly linked to the Haverhill commuter rail stop and is an important component to the revitalization and redevelopment of downtown

Haverhill. The City has established a Brownfields Steering Committee, which continues to assess sites for cleanup and redevelopment.

### **Haverhill Municipal Landfill**

The Haverhill Landfill was operated for municipal and commercial refuse from the late 1930s to 1981. From 1982 until June 30, 1996, sludge generated from the City's Municipal Wastewater Treatment Plant and beater waste from the Haverhill Paperboard Company were disposed of at the landfill. During 1996, the City covered the landfill with intermediate cover soils and vegetated the site. The landfill is currently inactive. Approximately 55 acres of the 71 acres that comprise the landfill site were historically landfilled.

The landfill covers five parcels including two owned by the City of Haverhill, two by Aggregate Industries, Inc., and one by Massachusetts Electric (National Grid). The National Grid parcel runs east-west across the site along a former rail line and is used for electric lines and a sewage force main. As co-owners and past operators of the landfill site, the City and Aggregate have entered into an Agreement to share the costs of landfill closure.

In October 1984, the United States Environmental Protection Agency (EPA) proposed to place the Haverhill Landfill site on the National Priorities List (NPL, also known as the Superfund program). The NPL listing was finalized by EPA in June 1986. Since the site was placed on the NPL, the EPA has only performed a minor removal action of two drums and two sets of screening level environmental investigations at the site.

In 1990, the DEP promulgated revisions to the Solid Waste Management Regulations (310 CMR 19.000) that required all unlined solid waste landfills to cease operating and construct a cap in accordance with DEP and EPA regulations by 1994. As the landfill was still being regulated as a NPL site, these regulations did not have a direct impact on the schedule for capping. However, the City continued to accept sludge and beater waste from Haverhill Paperboard at the landfill for disposal. In 1993, the State Legislature passed revisions to the Solid Waste Act that required DEP to rank landfills based on their site and proximity to sensitive receptors such as drinking water wells, wetlands and residences, and establish a site-specific schedule for ceasing operations and eventual capping. The City submitted a request to continue operating under this program and was allowed to continue accepting sludge and beater waste until June 30, 1996. The City then entered into discussions with the EPA and DEP on the site capping being undertaken as a DEP-lead site.

On January 22, 1999, the City and Bardon Trimount Corporation (now Aggregate Industries, Inc.) signed an Administrative Consent Order (ACO-NE-98-4001) with the Massachusetts Department of Environmental Protection (DEP) defining a schedule for completion of the environmental assessment and closure of the Haverhill Landfill. The ACO also included provisions for revising the schedule based on the acceptance of grading and shaping materials to create a plateau suitable for potential post-closure recreational use of the site.

Since signing the ACO, the City and Aggregate have undertaken several steps to meet DEP and EPA requirements for the closure of the landfill. These steps have included the completion of the environmental assessment of the site to determine if there are any contaminants migrating away from the landfill that pose a risk to human health, safety or the environment. The assessment, which has been conditionally approved by DEP, concluded that there were no risks to human health, safety and the environment from the landfill site and that construction of a final cap is appropriate. Additional monitoring wells and an ecological risk assessment are currently underway to complete the assessment phase.

During the environmental assessment process in 1999, a review of aerial photographs and old plans available through the City found that the northern landfill mound was used for the disposal of industrial wastes – both in lagoons and drummed materials. In 2002 and 2003, the City and Aggregate undertook a program to determine the extent of these “hot spots” and take appropriate action to remove any materials such as drummed liquid wastes that might release into the environment in the future. Those investigations removed approximately 135 drums and identified two significant areas containing buried drums. Subsequently, a two-phased drum removal program, undertaken from 2004 through 2007, removed approximately 6,700 buried drums from the landfill.

The next steps in landfill closure include completion of the site environmental assessment, evaluation and selection of corrective action alternatives, preparation of an Environmental Impact Report (EIR), closure design and associated permitting. Final design of the landfill’s closure will include the collection and treatment of landfill gases, the permanent stabilization of the Merrimac River bank and the landfill cap. Currently, it is anticipated that the final closure construction will begin in 2011.

As part of the landfill closure process, the City and Aggregate have considered post-closure use options for the site. The landfill consists of two areas bisected by the National Grid parcel and electric lines. The northern landfill mound is at an approximate elevation of 24 and is located along the Merrimac River. The southern landfill mound is at an approximate elevation of 110 or higher. The site, located along the Merrimac River and in a primarily residential area of Haverhill, is appropriate for the development of recreational facilities. However, because of the landfill’s varied topography, steep slopes and the location of the utility lines, there was not available adequate flat area for construction of recreational fields. Consequently, the City and Aggregate moved forward with a grading and shaping project (e.g., the Phase I Soils Project) on the southern landfill mound. Historically, the southern mound served as the municipal portion of landfill disposal; there is no evidence that industrial waste was disposed of in this area. DEP approved the Phase I Soils Project in October 2004, with soil deliveries occurring from June 2005 through June 2008. The City’s share of net revenues from the Phase I Soils Project is estimated to be \$800,000. Currently, the City and Aggregate are considering a Phase IA Soils Project, which would allow additional soil deliveries onto the southern mound over a two year period. This project would

provide additional revenues to the City, while also increasing the plateau available for post-closure recreational use.

## **Watershed Protection**

### **Millvale Reservoir (East Meadow River)**

Millvale Reservoir has the largest inventory of potential threats of all of Haverhill's Water Supply sources, mainly because it has the largest drainage area of all the sources.

- **Interstate 495:** Highway runoff including roadway salt, grease oil, metals, and sediment are all potential threats to Haverhill's drinking water. Approximately 2.5 miles of Route 495 are located within the Millvale Watershed. In addition to highway runoff, there is always the potential of an accidental spill of hazardous materials along a highway.
- **Junk Yard:** Brandy Brow Junk Yard is located near the Plaistow, NH line off Route 108. Runoff from this facility could contain petroleum contaminants and metals.
- **Construction Activities:** Significant new residential construction is occurring within the watershed. Storm water pollution from construction impacts is a potential threat.
- **Septic Systems:** A large part of the watershed is not served by sanitary sewers. There is a potential threat from older failing septic systems and new improperly designed/ constructed systems.
- **Gravel Operations:** There are a number of significant gravel removal operations occurring within the watershed. These pose a threat of erosion and contamination from fueling of heavy equipment and sediment transport from erosion of exposed soil.
- **Development Outside of Haverhill:** A large portion of the Millvale Watershed is located outside of Haverhill. There is a potential threat from surrounding communities allowing development that is not consistent with Haverhill's Watershed Management Overlay District.
- **Recreational Access:** The City experiences problems with littering and illegal ATV riding near Millvale Reservoir.
- **Litter and Illegal Dumping:** Along Brandy Brow Road.
- **Forestry:** The City has hired Bay State Forestry Service to perform Forestry Management on City land within the watershed. There is a potential threat of erosion from this type of operation.

## **Round Pond**

- **Roadway Runoff:** Roadways are located relatively close to the shoreline on three sides of the Pond. There is a potential threat from roadway salts and pollutants from vehicles.
- **New Parking Lot:** A new parking lot has been constructed recently as part of the construction of the Lake Pentucket School. There is a potential threat from roadway salts and pollutants from vehicles.
- **Fertilizers:** From new fields at school.

- **Litter and Illegal Dumping:** The City experiences a problem along a secluded section of roadway near Round Pond with illegal dumping and litter. There is a potential threat that hazardous materials could be dumped and enter the water supply.

### Crystal Lake

- **Construction Activities:** Significant new residential construction is occurring within the watershed. Storm water pollution from construction activities is a potential threat.
- **Septic Systems:** Watershed is not served by sanitary sewers. There is a potential threat from older failing septic systems and new improperly designed/ constructed systems.
- **Golf Course:** Fertilizers used at Crystal Springs Golf Course pose a threat to water quality.
- **Development Outside of Haverhill:** Part of the watershed is located in Atkinson. A potential threat exists with new development that is inconsistent with sound watershed management.
- **Agricultural Runoff and Animal Waste:** From livestock.

### Chadwick and Johnsons Ponds

- **Agricultural Runoff:** There is a potential threat of agricultural runoff from several small farms.
- **Septic Systems:** There is a potential threat from older failing septic systems.
- **Construction Activities:** Significant new residential construction is occurring within the watershed. Storm water pollution from construction activities is a potential threat.
- **Development Outside of Haverhill:** Part of the watershed is located in Boxford and Groveland. A potential threat exists with new development that is inconsistent with sound watershed management.
- **Roadway Runoff:** Roadway runoff and erosion due to proximity of roadways to shorelines of both ponds.

### Riverside Park

The City's Riverside Park has been identified as a viable site where the City could withdraw groundwater from a well or well field.

- **Rear Parking Lot:** MassDEP has identified the rear parking lot as a concern if this site is developed as a public water supply. This lot would need to be altered to allow a well to be approved.
- **Ball Fields:** The use of fertilizers and herbicides on the ball fields within the Zone 1 of a proposed well would have to be eliminated. The City would have to demonstrate to MassDEP that it has the ability to restrict the use of fertilizers and herbicides through a turf management plan or ordinance.



- **Pet Waste:** Due to the significant pet traffic in Riverside Park there is a chance that pet waste could contribute to degradation of the groundwater quality if not controlled in any proposed well Zone 1 area.

### **Erosion**

Perhaps the most significant erosion concern within the City is the loss of bank along the Merrimack River. With regard to open space and recreational management, this concern is most evident in the area of Riverside Park. The City has lost the use of two picnic locations during to severe erosion of the riverbank. The rooftop boat launch in the park is located immediately adjacent to these picnic locations.

The City is currently seeking funding to stabilize approximately 1,900 linear feet of riverbank in this portion of the city. Some funding has already been secured and, beginning in 2010, the City has implemented bio-engineering techniques to stabilize approximately 500 linear feet of river bank in an effort to preserve the tree canopy along the riparian corridor.

### **Sedimentation**

The City of Haverhill makes every effort to comply with its NPDES Stormwater Permit. To reduce the impacts of sedimentation to local wetlands and streams, the City's Department of Public Works swept 289 of its 532 lane miles in 2010. This represents an increase from the 234 lane miles swept in 2009. In 2010, the City also cleaned 330 of its catch basins. In anticipation of a new Stormwater Permit from the Environmental Protection Agency, the City is considering costs and options for increasing the frequency and efficiency of these maintenance procedures.

As a result of having a large city with numerous drainage structures along its roadway miles, some intermittent stream channels have seen an accumulation of sediment that has effected their capacity to carry flow. In recent years, the City has pursued permitting from the Conservation Commission to clean some of these stream channels. The City is currently planning for the cleaning of intermittent streams on Kenoza Street and Lincolnshire Drive.

### **Flood Control**

The City of Haverhill has numerous localized flooding and drainage concerns over its many roadway miles. In FY2012, the City anticipates expending up to \$100,000 to address some of these concerns based on priority and need.

Another flood concern the City is currently addressing is that of the downtown "floodwall". The floodwall was constructed in the late 1930's following extensive flooding of the downtown area. It has served to protect these properties from the Merrimack River ever since. However, in 2009, the Federal Emergency Management Agency required a re-certification of the floodwall. The City's consulting firm has developed a number of alternatives to repair and improve the floodwall for re-certification, all of which require significant financial investment.

## Section V

### Inventory of Lands of Conservation and Recreation Interest

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The City of Haverhill contains a wide variety of natural resources, open spaces, and recreational facilities. Open spaces are generally located outside the City center in areas where lakes, streams, ponds, forests, and farm pastures are located. Active recreational facilities are located in the more densely populated areas of the City. The protection of these lands is significant to providing sustainable sources of clean air and water, protecting wildlife habitat, and providing residents with beautiful landscapes, safe lifestyle environments, and improved quality of life. As the Massachusetts Division of Conservation Services aptly notes, “it is through thoughtful planning and active stewardship that Massachusetts’ open spaces, critical plant and animal habitats, neighborhood parks, and quality outdoor recreation facilities remain a part of our communities’ landscapes. Without planning, the appearance of a community, the lifestyle of its residents, and the condition of its natural resources can be dramatically altered in a short period of time due to ill-conceived changes in land use patterns.”

According to land reports prepared by the City’s Assessor’s Office, the City of Haverhill owns more than 450 parcels of land, amounting to nearly 2,400 acres. A number of private parcels are enrolled in Chapter 61, 61A, or 61B programs, totaling nearly 3,000 more acres.

Haverhill offers an abundance of passive recreation/open space and active recreation opportunities to its citizens. Approximately 2,110 acres are publicly devoted to open space and/or recreation uses and an additional 761 acres are quasi-public or privately devoted. This includes approximately:

**Table 15. Haverhill Open Space and Recreation Distribution**

Public Passive Recreation/Open Space*	1676
Public Active Recreation (including school facilities)	434
Private Open Space	761
<b>TOTAL</b>	<b>2871</b>

*\* Includes designated watershed parcels.*

**Table 16. Haverhill Chapter Land**

Chapter 61 - Forest Classification			
	# of Parcels	Acreage	Category Examples
	21	148.59	Actively forested land

<b>Chapter 61A - Agricultural Classification</b>			
	<b># of Parcels</b>	<b>Acreage</b>	<b>Category Examples</b>
	<b>371</b>	<b>2428.89</b>	Active farms, pasture land, vineyards and equestrian centers
<b>Chapter 61B - Recreational Classification</b>			
	<b># of Parcels</b>	<b>Acreage</b>	<b>Category Examples</b>
	<b>18</b>	<b>293.91</b>	Bradford Country Club, Garrison and Crystal Lake Golf Courses

The majority of the parks are less than 1 acre in size and do not offer recreational facilities. However, the two largest parks Winnekenni Park (214 acres) and Plug Pond (98.81 acres) include tennis courts, hiking trails, picnic areas, and public beach and skating pond. The City also has 18 playgrounds scattered throughout Central Haverhill.

There are no playgrounds located outside the City's central area and there is only one playground, Smiley School, located to the west of Route 1-495. With increased residential development in the western part of Haverhill (Crystal Lake area), additional playgrounds and tot lots will be needed. Haverhill exceeds nationally recognized open space and recreation standards although facilities and open spaces are not evenly dispersed across the City.

#### **Protected Parcels—Open Space/ Passive Recreation**

The City's situation in the Merrimack Valley offers its citizens unique natural resources and open space opportunities. Forests/woodlands, wetlands, lakes, rivers/streams, and hills are all prevalent in the City.

Protected open spaces in Haverhill consist of watershed land, golf courses, conservation commission land, and privately owned open space lands.

#### **Passive Recreation**

Passive recreation includes activities such as picnicking, hiking, nature study, cross-country skiing, and walking/jogging trails. Although the City has some designated passive recreation facilities, additional opportunities exist for this use within the City boundaries. Hills, wetlands, ponds, and the Merrimack River provide ideal passive recreation settings. Table 17 is an inventory of passive recreation/open space lands. A combination of passive recreation activities may be suitable and appropriate for the same site.

**TABLE 17. Passive Recreation/Open Space**

City-Owned				
Site	Acreage	Equipment/Facilities	Condition	Maintenance Responsibilities
Bradford Common	1	benches, walkways	excellent	DPW
Brickett Park	< 1	none	good	DPW
Clement Farm Conservation Area	52	trails	natural	DPW, HTC
Crystal Gorge Conservation Area*	67.13	trails	natural	HTC
Crystal Lake (other)	174.2	trails	natural	DPW, HTC
Crystal Point Conservation Area	10.5	trails	natural	HTC
First Landing Park	< 1	benches, gazebo, walkways	excellent	DPW
Gale Park	< 1	benches, monument, walkways	excellent	DPW
GAR Park	1	bandstand, benches, walkways	excellent	DPW
Lake Pentucket / Round Pond (excluding school property)	11.33	boat landing, trail	natural	DPW, HTC
Lake Saltonstall / Plugs Pond	129.2	benches, boat landing, trail	natural	DPW, HTC, REC
Meadow Brook Conservation Area	275.9	boat landing, trails	natural	HTC, DPW
Mendum Road	< 1	none	natural	
Merrimack River Trail Buttonwoods Section	3	trail		HHS
Merrimack River Trail Hannah Dustin Section	15	benches, trail	natural	DPW, HTC, MHD
Merrimack River Trail/Riverside Park Section	8	observation platform, trail	natural	DPW, HTC, REC
Mt. Washington Park	1	walkways	good	DPW
River Rest Park	< 1	benches, boat landing, float, walkways	excellent	DPW
River Edge Park	< 1	benches, walkways	good	DPW
Sagamore Park	< 1	none	good	DPW
Saltonstall Park	< 1	trails	excellent	DPW
Shore Land Park	< 1	walkway	good	DPW
Tattersall Farm / 542 North Broadway	84.4	trails	natural	HTC, TFCT
Tattersall Farm /	65.8	trails	natural	HTC, TFCT

Chase Place				
Washington Square	< 1	benches, comfort station, shelter, water fountain	natural	DPW
Westland Terrace	79	trails	excellent	
Wheeler Woods Conservation Area	40.81	trails	natural	HTC
White Park	< 1	none	good	DPW
Windsor Park	< 1	none	excellent	DPW
Winnekenni Park	310	trails	natural	DPW, HTC, REC, WF
<b>TOTAL</b>	<b>1340</b>			

\* Acquired through Self-Help Program

### Privately Owned

Site	Acreage	Equipment/Facilities	Condition	Maintenance Responsibilities
James P. Ginty Boulevard	< 1		natural	Essex County Greenbelt
McKay Street	< 1		natural	Essex County Greenbelt
Powder House Avenue	< 1		natural	Essex County Greenbelt

DPW: Department of Public Works; HTC: Haverhill Trails Committee; REC: Recreation Department  
MHD: Massachusetts Highway Department; TFCT: Tattersall Farm Charitable Trust;  
WF: Winnekenni Foundation; HHS: Haverhill Historical Society

### Picnic Areas

The diverse ecosystems in Haverhill provide excellent settings for picnic areas. Scenic views along the Merrimack River and from hilltops provide enjoyable picnic locations. The City owns land in watershed areas, wetlands, hilltops, and along the banks of the Merrimack which could be easily developed to accommodate picnic tables. Coordination between the Department of Public Works, Water Department, Recreation Department, and Conservation Department for picnic area locations will ensure public water supply protection and scenic vistas.

### Nature Study/Conservation Areas

Wetlands, the Merrimack River, ponds, and hills all offer interesting environments for nature study. The City currently owns areas ideal for use as nature study areas (e.g., protected watershed lands, wetlands, and parcels abutting the Merrimack River). These areas should be developed to accommodate nature study needs.

### City Landings

The City of Haverhill has 18 landings on the Merrimack River. The landings offer fantastic open space and boating opportunities for the City. City-owned landings on the

Merrimack River vary in size and accessibility. Some lands are virtually alleyways, while others are undeveloped scenic parcels. Many of these landings offer excellent opportunities for boat launching facilities and various passive recreation opportunities.

**Table 18. Inventory of City Landings**

<b>Landing #</b>	<b>Location</b>	<b>Parcel ID</b>	<b>Acreage</b>	<b>Description</b>	<b>Maintenance Responsibility</b>
1	N side Rocks Village Bridge, 1870	471-4-1	< 1	Considered open	DPW
2	S side Rocks Village Bridge, 1870	471-5-9	< 1	Considered open	DPW
3	Steamboat wharf, foot of Wharf Lane, 1870	471-5-1A	< 1	Limited parking; neighbor encroachment	DPW
4	Foot of "Old Ferry Road", E of Cottle's Creek, 1870	402-90-5	< 1	Potential park; needs road built	DPW
5	S side Water St, near foot of Keeley St, 1870	207-2-2	< 1	Potential park; riverbank concern	DPW
6	S side Water St, near foot of Mill St, 1812	unknown	< 1	Potential park	DPW
7	S side Water St, near foot of Came Ave, 1870	unknown	< 1	Narrow, 33' R.O.W.	DPW
8	S side Water St, near foot of Lindel St, "Old Ferry Landing", 1870	unknown	< 1	Potential park; 200' frontage; close to downtown	DPW
9	S side Water St, near foot of Moore St, 1820	unknown		R.O.W. strip	DPW
10	S side Water St, near Green St, 1820	unknown		R.O.W. strip	DPW
11	Water St, E of Bridge, 1820	unknown		R.O.W. to downtown alleys	DPW
12	Water St, 1870	unknown	< 1	R.O.W. to downtown alleys	DPW
13	S side Washington Square, behind Post Office	unknown	< 1	Downtown alleyway	DPW
14	S side River St, 1870	unknown		Lift station next to Hannah Duston Trail	DPW
15	S side River St, near foot of Forest St, 1870	unknown		Lift station next to Hannah Duston Trail	DPW
16	SE end Groveland St	443-5-1	< 1	Junction Groveland St-Ferry Rd	DPW
17	Bradford, near foot of Ferry Street	700-630-2	< 1	Boat Launch, recently improved by Public Access Board	DPW
18	N side Cove Road	745-2-14	< 1	Small lot between residences	DPW

## Cemeteries

Cemeteries offer protected open space and passive recreation opportunities to the City. Cemetery roadways, which are tree-lined, offer ideal scenic walkways and bicycle paths. Other scenic qualities of cemeteries include well-maintained flowers, shrubs, streams, and ponds. Table 19 inventories the City's cemeteries.

**Table 19. Inventory of Cemeteries**

<b>Cemeteries</b>	<b>Location</b>	<b>Acreage</b>
City Cemetery (City)	Carleton Street	1.00
City Cemetery (City)	Hilldale Avenue	3.10
Old Burial Ground (City)	Salem Street	1.50
Pentucket Cemetery (City)	Water Street	2.58
Children of Israel	Middle Road	25.60
Elmwood Cemetery	Salem Street	27.87
Gedemino Club	Montvale Street	4.57
Greenwood Cemetery	East Broadway	7.89
Hilldale Cemetery	Hilldale Avenue	13.20
Hillside Cemetery	Broadway	5.36
Linwood Cemetery	Kenoza Street	51.11
Linwood Cemetery	Mill Street	32.93
North Parish Cemetery	Main Street	0.43
St. James Cemetery	Primrose Street	41.06
St. Joseph Cemetery	Hilldale Avenue	44.00
St. Patrick Cemetery	North Broadway	64.14
Walnut Cemetery	Middle Road	7.08
West Congregational Church (undeveloped)	Broadway	1.13
West Parish Cemetery	Broadway	1.00
<b>TOTAL</b>		<b>335.55 acres</b>

## Active Recreation

Haverhill offers its citizens a wide variety of active recreation facilities and programs. There are twelve City-owned active recreation facilities and numerous year-round recreation programs and special events.

In addition to public recreation and school facilities a wide variety of private and state facilities are located in Haverhill. There are five (5) private golf courses, a skating rink (managed by the City), two bowling alleys, a ski area, four (4) health clubs - including the largest in New England, and numerous other facilities.

## Active Recreation Facilities

The City's active recreational facilities, listed in Table 20, offer varying accommodations and conditions. The City's school facilities, listed in Table 21, offer additional amenities for the public. The City's larger playgrounds have basketball courts and ball fields, e.g. 12th Avenue Playground. The playfields are the city's largest

recreation areas. These playing fields contain tennis courts, skateboard parks, football, baseball, softball and soccer fields.

**Table 20. Active Recreation Facilities**

Site	Acreage	Equipment / Facilities	Condition / Comments	Maintenance Responsibilities
American Legion Field/Clement Farm	40	4 Softball Fields general Recreation Fields	Good	DPW
Cashman's Field	5	2 Little League diamonds Skate Board park 1 Basketball Court	Good children's play	DPW
Consentino Playfield	4.88	1 Soccer Field 1 Baseball diamond	Good	DPW
Fox Field	2	1 baseball field	poor	DPW
Hunking Playfield	4.34	3 Little League diamonds	Fair/excellent	DPW
Mt. Washington Park	< 1	Street Hockey	poor	DPW
Plug Pond	98.81	beach/swimming area 12 benches children's play area picnic areas bath house boat ramp	good 4 benches and swimming area are in good condition	DPW
Portland Street	0.5	basketball court Tot Lot	Poor Good	DPW
Riverside Park	35	5 softball fields 3 Little League diamonds 3 basketball courts 1 Sr. Diamond 1 Soccer Field 1 mile-long walking/jogging track 1 car top boat ramp 2 horseshoe pits 6 picnic tables 3 tennis courts 1 Tot Lot 1 handicapped swing set 1 swing set High School Athletics Stadium	Good Good Fair Fair Good Good Good Fair Poor Fair Excellent Fair Poor	DPW



Site	Acreage	Equipment / Facilities	Condition / Comments	Maintenance Responsibilities
Riverside Playground (Zins Park)	1.5	bench monument	Excellent	DPW
Rocks Village Playground	< 1	children's play area	Poor	DPW
Smiley School Playground	1.2	play equipment no development	Good	DPW
Swasey Playfield	14	2 Little League diamonds Major League Basketball courts poles Tot Lot	Poor/Fair Fair Fair Fair/Poor	DPW
Tilton School Playground	1	basketball court no development	Poor	DPW
12th Avenue Playground	2	1 baseball diamond tennis courts basketball court tot lot	Good/Fair Poor Fair Excellent	DPW
Union Street Playground	< 1	basketball court Tot Lot	Poor Poor	DPW
Veterans Memorial Ice Skating Rink	3.79	ice skating rink meeting rooms	Good	State-owned City-maintained
Walnut Square Playground	< 1	no development Tot Lot	(asphalt) Good Good	DPW
Winnekenni Park	214	3 tennis courts skating pond picnic area Tot Lot trails	Fair  Good Some trails in Poor condition	DPW and Winnekenni Foundation
Wood School Playground	1.7	1 Little League diamond basketball court 1 tennis court play equipment	Fair/Good Good Poor	DPW
<b>TOTAL</b>	<b>433.72</b>			

**Table 21. School Facilities**

<b>Site</b>	<b>Location</b>	<b>Ownership</b>	<b>Acreage</b>	<b>Equipment/ Facilities</b>	<b>Condition/ Comment</b>	<b>Maintenance Responsibilities</b>
Bartlett	551 Washington St	City	1.33	Play Equipment	Fair/Good	School/DPW
Consentino	685 Washington St	City	28.16 (with Silver Hill)	3 Softball, 1 Baseball, Play Equipment, Gymnasium	Good	School/DPW
Crowell	26 Belmont Ave	City	<1	Little League Field	Fair	School/DPW
Golden Hill (with Nettle)	150 Boardman St	City	22	2 Baseball Fields, Gymnasium	Good	School/DPW
Greenleaf	58 Chadwick St	City	0.5	Basketball Court	Fair	School/DPW
Haverhill High	137 Monument St	City	18	Softball Field, Track, 2 Basketball Courts, 6 Tennis Courts, Football/Soccer Field, 2 Gymnasiums, Olympic Size Swimming pool, Ice Skating Rink	Good	School
Hill View Montessori Charter Public School of Haverhill	75 Foundation Av	City	7	paving, not development	Fair/Good	School/DPW
Hunking	98 Winchester St	City	17.25	2 baseball fields, 2 softball fields, 6 basketball courts, gymnasium	Good; Fair- Baseball Fields	School/DPW

Site	Location	Ownership	Acreage	Equipment/ Facilities	Condition/ Comment	Maintenance Responsibilities
Whittier	256 Concord St	City	54.25 (w/ Pentucket Lake)	Gymnasium, Baseball Field, Soccer Field	Good	School/DPW
Moody	59 Margin St	City	<1	Children's Play Area; Basketball Court	Good	School/DPW
Nettle (w/ Golden Hill)	150 Boardman	City	10	2 Baseball Fields, Gymnasium	Good	School/DPW
Northern Essex Community College	100 Elliot St	Commonwealth of Massachusetts	15	2 Baseball Fields, Football/Soccer Field, Track, 4 Tennis Courts, 4 Handball / Squash Courts, Basketball Courts	Good	Owner
Pentucket Lake	252 Concord St	City	54.25 (with Whittier)	Children's Play area, Baseball & Soccer Fields	Good	School/DPW
Silver Hill	675 Washington St	City	28.16 (with Con- sentino)	3 Softball, 1 Baseball, Play Equipment, Gymnasium	Good	School/DPW
Tilton	70 Grove St	City	2.67	Paved Playground, Open Play Field	Good	School/DPW
Walnut Square	645 Main St	City	< 1	Children's Play area	Good	School/DPW
Whittier Vocational Technical High School	115 Amesbury Line Road	Multi Town Collaborative	166.72	Baseball Field, Football Field, Track, Soccer Field, 4 Tennis Courts, Gymnasiums	Good	Owner

Site	Location	Ownership	Acreage	Equipment/ Facilities	Condition/ Comment	Maintenance Responsibilities
Zion Bible College	340 South Main St	Private	5	Scenic Paths around Tupelo Pond	Good	Owner

### Regional Recreation Area

An abundance of recreational areas are available in Essex County. Beaches, forests, and wildlife sanctuaries are all within a 20-mile radius of Haverhill.

### Private Recreation Facilities

Haverhill contains a wide variety of quasi-public and private recreational facilities (Table 22). The majority of these facilities offer indoor recreation uses. Swimming pools, handball courts, gymnasiums, roller skating, basketball courts, tennis courts, bowling, racquetball courts, indoor tracks, and weight rooms are just a few of the available facilities. The most extensive private indoor facility in New England is the Cedardale Health and Swim Club, which is located in Haverhill. Outdoor recreation facilities in the City include six golf courses and a ski area. The City boasts a number of other private health and fitness clubs, martial arts studios, dance studios, gymnastics facilities, and equestrian centers.

**Table 22. Privately-Owned Recreation Facilities**

Facility	Membership Required	Acreage	Equipment / Facilities
YMCA	Yes	0.77	4 handball / 2 racquetball courts weight room / Nautilus & Cardio equipment Pool Universal sauna steam room whirlpool health club - including yoga, spinning, Pilates, & Karate gymnasium – 1 basketball court, 1 gymnastics gym, & floor hockey meeting rooms climbing wall
YWCA	Yes	5.19	gymnasium meeting & function rooms
Boys Club	Yes	0.22	gymnasium games room video game room weight room library bowling lanes
Girls Inc.	Yes	0.19	meeting rooms
Bradford Swim Club	Yes	4.24	pool basketball courts table tennis

Facility	Membership Required	Acreage	Equipment / Facilities
Cedardale Health & Swim Club	Yes, for Club No, for Amazement Fun Center Cedarland	7	tennis courts (indoor/outdoor) pools (indoor/outdoor) exercise rooms basketball courts racquetball courts track (indoor/outdoor) Nautilus / weight room Roman bath / steam room / sauna dance studios Cedarland – 2 miniature golf courses 10 baseball batting cages Amazement Fun Center
Bradford Christian Academy	Yes	< 1	Children's play area basketball court
Merrimack Montessori School	Yes	5.14	Children's play area
Sacred Heart School	Yes	1.27	asphalt play surface
St. Joseph's School	Yes, for gym No, for alleys	2.9	gymnasium bowling alleys
Bradford Golf Course (public)	No	190	18-hole golf course
Crystal Lake Golf Club (public)	No	137.2	18-hole golf course cross-country skiing center
Far Corner Farm Golf Course (public) (Haverhill portion)	No	11.63	27-hole golf course (Haverhill portion)
Garrison Golf Course (public)	No	20	9 holes, par 3 driving range putting green
Haverhill Country Club (private) (Haverhill portion)	Yes	56	18-hole golf course swimming pool cross-country skiing
Renaissance Golf Club (private)	Yes	200+	18-hole golf course swimming pool
Crescent Yacht Club	Yes	.23	Boat docks Public Boat Launch adjacent to Club

Facility	Membership Required	Acreage	Equipment / Facilities
Kazmiera Marina	Yes	13.5	Boat docks Access to boat launch available to public for nominal fee
Abbott's Marina	Yes	12.2	Boat docks
Bradford Ski	No	48	chair lift warming hut 10 ski trails 2 T-bars 2 triple chairs 100% snowmaking rental shop
Haverhill Twin Rinks	Yes	8.34	indoor ice hockey rink
Bradford Skating Rink - Skateland	No	1.4	roller skating rink
Academy Lanes	No	4.5	bowling
Pilgrim Lanes	No	< 1	bowling
Haverhill Ridge Runners Fish & Game Club	Yes	3.45	sportsmen's club
Haverhill Hound, Rod & Gun Club	Yes	25.6	sportsmen's club
<b>TOTAL</b>		<b>760.97</b>	

### Recreation Programs

The Recreation Department is primarily responsible for public recreation in Haverhill. However, the Haverhill Council on Aging, the Haverhill Arts Commission, the Conservation Department, and the Haverhill Trails Committee offer recreation programs and/or activities.

The Recreation Department oversees a wide variety of recreation programs for elementary, high school, adult, and special needs groups. The Recreation Department is also responsible for scheduling all area softball and baseball fields for tournaments as well as league play.

Haverhill recreation programs offer year-round activities for all populations. Children's programs include instructional baseball and day camps; teen and adult programs include tennis lessons, softball, basketball, volleyball leagues; and special needs programs include day camps, softball tournaments, and arts and crafts lessons.

### Recreation Programs

- Summer Day Camp
- Swimming - Plug Pond
- Arts & Crafts

- Summer Concert Series
- Jr Football
- Children's Theater
- Coed Softball
- Men's League Softball
- Tennis Camp
- Open-Gym Basketball
- Instructional Baseball
- Soccer Clinics
- Summer Soccer Camp
- Fencing
- Youth Wrestling
- Boys Lacrosse
- Girls Lacrosse
- Annual Tennis Tournament
- Golf Lessons

#### **Special Events**

- Native American Pow Wow at Plug Pond
- Fourth of July Festival
- Plug Pond Fishing Derby



### **Haverhill Council on Aging**

The Haverhill Council on Aging (COA) operates out of the Citizens Center. The programs offered range from health and nutrition to recreation.

#### **Health and Nutrition Programs**

- Meals on Wheels Program
- Hearing, vision and other preventative clinics
- Health Screenings ( weekly Blood pressure clinics and others)
- Flu & Pneumonia Clinics
- SHINE Health Insurance Counseling
- Diabetic Support Group
- Monthly Foot Care clinic
- Therapeutic Massage
- Low Vision Support group

#### **Special Programs**

- Taxi Voucher Program
- Voice of the Friends Newsletter
- Tax Assistance (Seasonal)
- Minority Outreach (Latino) Program
- Cell Phone Program
- Social Club for Widows and Widowers
- Volunteer Opportunities
- Yellow Dot Sticker Program – provides a photo id and informational package to be placed in Senior Citizens cars to assist medical personnel in case of emergency.

#### **Recreation Activities**

- Seasonal Parties
- Day and Overnight Trips
- Cultural Events – Trips to Art Museums, Boston Symphony Orchestra, Ballet
- Line Dancing
- Yoga – both day and evening classes available
- Tai Chi
- Bingo
- Cards and Billiard club
- Knitting, Stained Glass, Mosaic and Ceramic Classes
- Movement to Music Exercise Class
- Teddy Bear Workshop
- Comedy Masque Revue (Chorus)
- Drawing/Painting Art Classes
- Memoirs Workshop
- Monthly Book Club
- Golf Clinic (seasonal)

## Section VI

### Community Vision

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#### *A. Description of Process*

The Open Space and Recreation Committee consists of a diverse group of stakeholders with varying levels of open space and recreation experiences, such as representatives from various City departments, athletic leagues, and the general public. However, the Committee developed Haverhill's Community Goals and Objectives through an open and inclusive process, which included biweekly public meetings that began in February of 2007; meetings with private residents, local officials, and appointed and elected board members; and a community vision survey.

The Committee found the public meetings to be productive working sessions, with an opportunity for the free exchange of ideas. Perhaps the most influential information in the development of the plan's goals and objectives, was the results from the survey. From mid-July 2007 through mid-August 2007 the Committee conducted a survey titled "2007 Haverhill Open Space and Recreation Community Vision Survey" to determine Haverhill's residents' priorities and concerns. The survey was primarily conducted online, through the City's website and an internet survey firm – Survey Monkey, but, hand-written results were also obtained through the Haverhill Citizen's Center and some of the City's service clubs. The survey was well advertised in the Eagle Tribune and Haverhill Gazette newspapers and on the City's public access cable channel.

The survey revealed the following community views:

- Protecting Open Space is important;
- There are insufficient adult and youth recreational opportunities in the City;
- The maintenance of existing recreational resources needs improvement;
- Protecting the Merrimack River, other water resources, and Open Space and wildlife are important to enhancing Haverhill's community character;
- Residents would vote for a City-supported land acquisition program; and
- Zoning protection is needed for Open Space conservation

The survey results may be found in Appendix C.

The Committee also developed Haverhill's Community Goals and Objectives by reviewing the results of the UrbanRiver Visions 2 Charette held in Haverhill on March 31, 2007. This program, an initiative of the Massachusetts Executive Office of Energy and Environmental Affairs, brought together more than 50 local officials and residents to discuss the future of the Merrimack River, its influence on the community, and the Riverwalk Project. From the Charrette an Action Plan was developed. This Action Plan calls for the following, over a five-year period:

- Secure funding to acquire the land necessary to accommodate the Bradford component of the Riverwalk.

- Expand programming for festivals and events in existing public spaces along the riverfront area – behind the Tap Restaurant and the Haverhill Bank.
- Initiate actions to secure immediate increase in boating activity in the downtown area.
- Initiate steps to create a major waterfront park at the current location of the bus depot and parking lot at Washington and Essex Streets.
- Draft and adopt design standards for downtown and riverfront development; initiate design review for buildings and the public realm; develop guidelines for stormwater and water quality management.
- Explore ways to tap the potential of the Woolworth building as a highly visible gateway to the downtown and model for how the riverfront can be re-envisioned.
- Consider development of a downtown heritage and arts trail that explores aspects of the city's built and natural environments – a “sturgeon and boot trail,” also providing a link between the Merrimack and Little Rivers.

The Action Plan may be found in Appendix D. However, more information on the Haverhill Charrette, including its resulting Vision and Action Plans may be found online at: <http://www.urbanrivervisions2.org/haverhill.asp>.

One of Haverhill's newer and well-known community groups is “Team Haverhill”. “Team Haverhill” is represented on the Open Space and Recreation Committee. “Team Haverhill” meets regularly to create a vision for Haverhill's future, with the concept that the community should be an active participant in Haverhill's development.

In 2006, “Team Haverhill” asked people what their Haverhill “vision” was. The results of this survey were translated into a number of renderings and a community vision plan. Many respondents identified the Merrimack River as being important to Haverhill's future development. This belief and respondents' visions of a downtown riverfront walking loop, a downtown marina, and a cultural complex were all valued by the Committee in its development of Haverhill's Community Goals and Objectives.

## *B. Statement of Open Space and Recreation Goals*

The City of Haverhill is an expansive community with a growing population. The City's landscape ranges from an urbanized and revitalized downtown district to the most rural of streams surrounded by hundreds of acres of undeveloped land. Along the way, one will find the smallest of parks, such as Columbus Park in the downtown area, to the largest of conservation areas, such as Winnepesaukee Park or Meadow Brook Conservation Area, or the largest of recreational facilities – Haverhill Stadium and Riverside Park. Haverhill is rich with lakes and ponds, winding rivers, and scenic vistas. Our community's goals are not unlike those found across the Commonwealth, to:

- improve the recreational opportunities offered to not only our own residents, but those of our neighbors;

- promote “sustainable” development so that we may better preserve our valued natural resources, wildlife habitats, open spaces, and cultural and agricultural heritage;
- improve the management and maintenance of our public facilities and lands; and
- reach out to the public to better meet its needs and to better meet the needs of our environment.

## Section VII

### Analysis of Needs

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#### A. *Summary of Resource Protection Needs*

##### **Regulatory Improvements – Smart Growth / Smart Energy Principles**

As of April 4, 2007, Haverhill had an inventory of more than 2,800 publicly or privately owned acres reserved for conservation or active/passive recreation, plus almost 2,400 additional acres containing no structures. This amounts to about 24% of Haverhill's total acreage.

However, except for the adoption of a Chapter 40R district in the downtown area, Haverhill is not using Smart Growth strategies for residential development. A Metropolitan Area Planning Council report ("MetroFuture - The Recommended Plan for a Greater Boston Region", published May 1, 2007) predicted that by 2030, if its sprawl-friendly development trend continues, Haverhill would lose 1,064 acres of farmland, forestland, and natural habitats; only Middleton would lose more. This prediction was based on Traffic Analysis Zones ("TAZ"). Each TAZ was allocated a combination of the 2000 Census results for population and the 2000 employment patterns and considered local land use trends and "buildable" land use redevelopment opportunities.

The Community Vision Survey revealed that a majority of respondents felt that having open space was important and that some type of zoning may be necessary to protect it. In June of 2007, Andrea Cooper, then the Commonwealth's Smart Growth Coordinator, graciously presented the principles of "Transfer of Development Rights", "Open Space Residential Design", and "Low Impact Development" to members of the City's Open Space and Recreation Committee, Conservation Commission, Planning Board, and Zoning Board of Appeals. During that same construction season, the City saw its first "Low Impact Development", known as Falcon Lane, begin to take shape on the ground.

The City should continue to promote sustainable development principles, particularly those presented by Ms. Cooper. The City should look to balance the as-of-right higher residential densities in its Chapter 40R district with lowered densities in its more rural areas. The Smart Growth principle of "Transfer of Development Rights" may be the key to such a strategy. This principle combines the downtown revitalization efforts in progress within the City with the protection of its water supplies, agricultural land, natural habitats, recreational opportunities, and other purposes by "transferring" some or all of the development that would otherwise have occurred in these sensitive places to more suitable locations, such as downtown Haverhill.

The Commonwealth's "Smart Growth / Smart Energy Toolkit" ("Toolkit") notes that "conventional zoning has failed to prevent, and is often the cause of, suburban sprawl in Massachusetts". The City has had "Cluster Residential Development" and "Planned Unit Development" zoning ordinances in place since 1972. Both ordinances provide

alternatives to a conventional zoning layout approach. In the 1980's and early 1990's the City saw protection of open space on West Meadow Hill, golf course reconfiguration with new housing at Bradford Country Club, and golf course construction and open space protection adjacent to the Tattersall Farm by projects using the planned unit approach. More recently, the City has seen some successes in open space protection with projects using the cluster approach. Significant acreage was protected on Gale Hill by both the Gale Avenue and Magnavista Drive subdivisions; along Creek Brook by the Parker Lane subdivision; on West Meadow Hill by the Jillian's Village subdivision; and along the Merrimack River by the Hales Landing subdivision.

Although somewhat effective, these ordinances have their limitations, such as special permits requirements from the City Council, minimum acreage requirements, minimum lot dimensions, and public water and sewer requirements. The City should reconsider these ordinances with respect to the principle of "Open Space Residential Design". The Toolkit describes this principle as "an approach to residential development that promotes open space preservation based on environmental and social priorities. It features partnership in development design between municipal officials and developers that provides innovative flexible incentives for highest marketability, mixed housing types and land uses, and minimal disturbance to the natural terrain." This development approach follows four basic steps: identifying important natural and historic property features; locating desirable house site; aligning roads, trails, and other infrastructure; and lastly, drawing in lot lines.

In 2005, the Massachusetts Audubon Society developed a draft "Open Space and Residential Design" ordinance for the City. The City should review this draft and modify it as needed in an effort to develop a new tool to use either in conjunction with or in place of the existing City ordinances.

The Toolkit notes "development patterns based on conventional zoning codes in Massachusetts often result in 'sprawl' with its associated large impervious areas, loss of natural resources and habitat, increase in nonpoint source pollution, and alteration of hydrologic systems." In January of 2008, the Commonwealth enacted revised Stormwater Management Standards, which, in part, are designed to begin addressing this concern. The revisions place "Low Impact Development" and the concept of "Environmentally Sensitive Site Design" at the forefront of project design, not just for residential projects, but also commercial, industrial, institutional, office, and transportation projects. Proponents of projects subject to the Standards must consider environmentally sensitive site design and low impact development techniques to manage stormwater.

The Commonwealth describes "Low Impact Development" as "a more sustainable land development approach that begins with a site planning process that first identifies critical natural resource areas for preservation. Then, once the building envelope is established, LID techniques, such as maintaining natural drainage flow paths, minimizing land clearance, clustering buildings, and reducing impervious surfaces are incorporated into the project design. A series of small stormwater best management

practices (BMPs) that preserve the natural features and hydrology of the land are used instead of the conventional methods of collecting, conveying, and piping away runoff.”

“Low Impact Development” and “Environmentally Sensitive Site Design” are at the heart of “Open Space Residential Design” and are significant components in the Haverhill Stormwater Committee’s draft “Stormwater Management and Erosion Control Ordinance”, which is currently under departmental review. This review should continue forth with an eventual proposal to the Mayor and City Council and the adoption of supporting regulations.

### **Public Outreach and Education**

A primary focus should be in the area of public outreach and education. Clearly a proactive approach to enhancing public awareness will increase the likelihood of support of all the actions necessary to enact this plan. Furthermore, this awareness will improve quality of life, as citizens learn what is currently available and what is coming in the near future. An Open Space and Recreation section on the City’s website, with appropriate related links, should be developed as soon as possible. In addition signage, pamphlets, planned events, and a relationship with the schools to develop Open Space curriculum goals would also help motivate a larger segment of the citizenry. All resources should be explored as well as cooperating with other groups in the city working on projects aligned with Open Space and Recreation.

### **Land Acquisition and Protection**

To ensure that the scenic quality of the City is maintained, open space and recreation lands need to be protected. Wooded hilltops, scenic vistas, open fields and undeveloped lakes and ponds enhance Haverhill's quality. In recent years, the Open Space and Recreation Committee considered the following attributes when reviewing potential open space and recreation lands:

- Potential for providing active and passive recreational opportunities;
- Location within an area of critical environmental sensitivity, such as a potable water supply watershed;
- Wildlife habitat protection and the continuity of migration corridors, greenbelt value;
- Areas of aesthetic value;
- Heritage preservation and archaeological value;
- Vulnerability to development;
- Preservation of farmland;
- Continuity with adjacent existing open space and recreation parcels;
- Potential for providing green space to enhance the livability and character of a densely populated area; and
- Located in areas under-served by open space and recreation facilities.

However, the acquisition and protection of lands for open space and recreation may be the most challenging goal of all. There are a considerable number of actions that should be pursued by the City to achieve desired goals. Among these actions are fostering relationships with existing land trusts, such as Essex County Greenbelt Association and the Trust

for Public Lands, or the development of a Haverhill Land Trust; identifying parcels of land that are potentially significant for open space, watershed protection, and recreation sites; building relationships with landowners that may be willing to sell or donate land or to provide permanent land restrictions; developing methods of outreach to landowners; and reviewing funding mechanisms with organizations, such as the Massachusetts Division of Conservation Services.

There are three general options available for the City to protect its open space areas: land acquisition, regulation, and taxation. No one method alone is recommended for open space protection; a combination of all three is the most effective approach. Acquisition methods are useful to gain direct control of land through purchases of land or land rights (e.g. Conservation Restrictions and Easements). The regulatory process may be used to promote “sustainable” development so that we may better preserve our valued natural resources, wildlife habitats, open spaces, and cultural and agricultural heritage. And finally, real estate taxation programs, such as Chapters 61, 61A, and 61B provide property owners with incentives to preserve land as open space for forestry management, agricultural production, and recreational uses.

Municipal acquisition can come in many forms; however, the City has had some recent success in bargain sales with the acquisition of 46.5 acres on Crystal Street to create the Crystal Gorge Conservation Area and of 40.8 acres on Boxford Road to create the Wheeler Woods Conservation Area. The City has also acquired open space in recent years through charitable private gifts, with the most notable being the willing of the 150-acre Tattersall Farm to the City. The City’s regulatory approach, particularly through the implementation of the Cluster Residential Development Ordinance has also recently led to the donation of open space, as noted above.

Charitable gifts of land and bargain sales to the City provide the landowner with significant tax benefits. Another source of tax relief is the donation of a Conservation Restriction placed on a parcel of open space. The Haverhill Conservation Commission has recently worked with two developers to identify significant natural resources on their respective parcels suitable for protection by Conservation Restriction. A third developer is currently weighing the option of a Conservation Restriction on his land with the outright donation of the land to the Essex County Greenbelt Association, with a Conservation Easement.

The financing of acquisitions is an obstacle, which needs to be explored with an eye to traditional as well as new and more creative options. Currently, in order to finance proposals recommended in the Open Space and Recreation Plan, the City must raise funds either through its annual budget, capital improvements program, or through grants from the Federal or State governments. However, Haverhill’s present financial situation significantly restricts its ability to use these options. In 1997, with a thriving economy, a question on a local ballot to establish a Land Bank in Haverhill was soundly defeated. Since that time, Massachusetts passed the Community Preservation Act (“CPA”). The CPA allows cities and towns in the Commonwealth to levy an additional property tax of up to 3% on its real estate parcels. The funds must be spent on open



space and recreation, historic preservation and affordable housing projects. To date, the city has not attempted to pursue local adoption of this act.

As noted above, the overlay district recently established downtown under Chapter 40R is a start to realizing the benefits of Smart Growth / Smart Energy strategies, particularly through residential design as a means to promote open space, access the Merrimack River, and the revitalization of our urban center. The establishment of a permanent Open Space and Recreation Planning Committee is a regulatory approach that would also create an opportunity for additional input for large development, both residential and commercial, as well as review of chapter land releases.

The long and unique history of this city should be front and center through aggressive efforts to identify historic sites and insure their protection. In tandem with this, scenic and cultural resources should be identified as well. Providing these protections may take the form of covenants, easements, or restrictions and may also be included in an ordinance or ordinances, which protect hilltops and or other parcels. Further, a tree adoption ordinance/program would lend itself to the enhancement of the landscape and habitat across the city.

The City has significant agricultural resources. Promoting farmland being placed under Chapter 61 or 61A, the formation of an Agricultural Commission, and exploring a right to farm ordinance are objectives to preserving these resources. In addition, the Haverhill Farmers Market should be encouraged to continue, expand and market itself with assistance and support from the City. The benefits of Chapter 61A to the City of Haverhill are the preservation of land from any development, jobs for people in the farming industry, and sales of locally grown and raised produce within the community.

Chapter 61B and its protection of land that is substantially natural, wild, open, landscaped or pasture condition is also a valuable tool in the City's open space and recreation efforts. This land typically contains any number of the following uses: skiing, hunting, golfing, hiking, horseback riding, archery, target shooting etc. The benefits of Chapter 61B to the City are obvious and numerous, providing jobs and recreational opportunities in the golf, ski, and related industries; the use of the land for hiking trails, horseback riding, etc; and the preservation of wildlife habitat.

### **Scenic Roads Ordinance**

A Scenic Road Ordinance drafted pursuant to Massachusetts General Laws Chapter 40 section 15C was proposed to the Haverhill Community Development Director in February, 2006. The draft was intended to assist the City of Haverhill in protecting scenic vistas and historic neighborhoods. The proposed ordinance would only affect City owned land, not privately owned parcels. The ordinance has not yet been adopted by the City of Haverhill.

Designation as a scenic road would require planning board approval before trees could be cut or removed or stone walls could be torn down or destroyed, if these were done in

connection with repair, maintenance, reconstruction or paving of a scenic road. Scenic road designation may require planning board approval for trimming or other cutting of trees, or destruction of stone walls, or roadway work that does not affect trees or stone walls, unless related to the above-listed improvements. It also does not require planning board approval for roadway work which does not affect trees or stone walls.

The proposed ordinance states a purpose of providing a procedure to designate scenic roads on specified criteria and to prohibit the unauthorized alteration of the roads. Trees and stone walls in the rights-of-way of scenic roads would not be destroyed without following proper procedures.

The ordinance would allow the City to protect the tree-lined, winding country roads, bounded by historic walls from roadway upgrading, widening and other road-related construction that removes or destroys the elements that give the road a scenic character. Haverhill would be able to preserve its rural roads and the scenic, historic, environmental, agricultural, and economic values through adoption of a Scenic Roads Ordinance.

The proposed ordinance includes procedures for the Planning Board to consider a recommendation for a scenic road, with a list of factors to review, including preservation of natural resources, environmental and historical values, scenic and aesthetic characteristics, public safety, legal issues, and any proposed compensatory actions. Upon designation, the City Council would provide public notification within thirty (30) days. There is a section on enforcement and fines for violation. Enforcement authority would rest in the Conservation Commission.

Suggested scenic road designations include: East Broadway, Crystal Street, Lake Street, Hilldale Avenue, Bridge Street, Vale Street, Whittier, Millvale Road, Middle Road and sections of Kingsbury Ave., Boxford Road, North Broadway, Willow Ave., South Cross Road, West Lowell Ave., Route 110 (west of Rt. 495), and Kenoza Street.

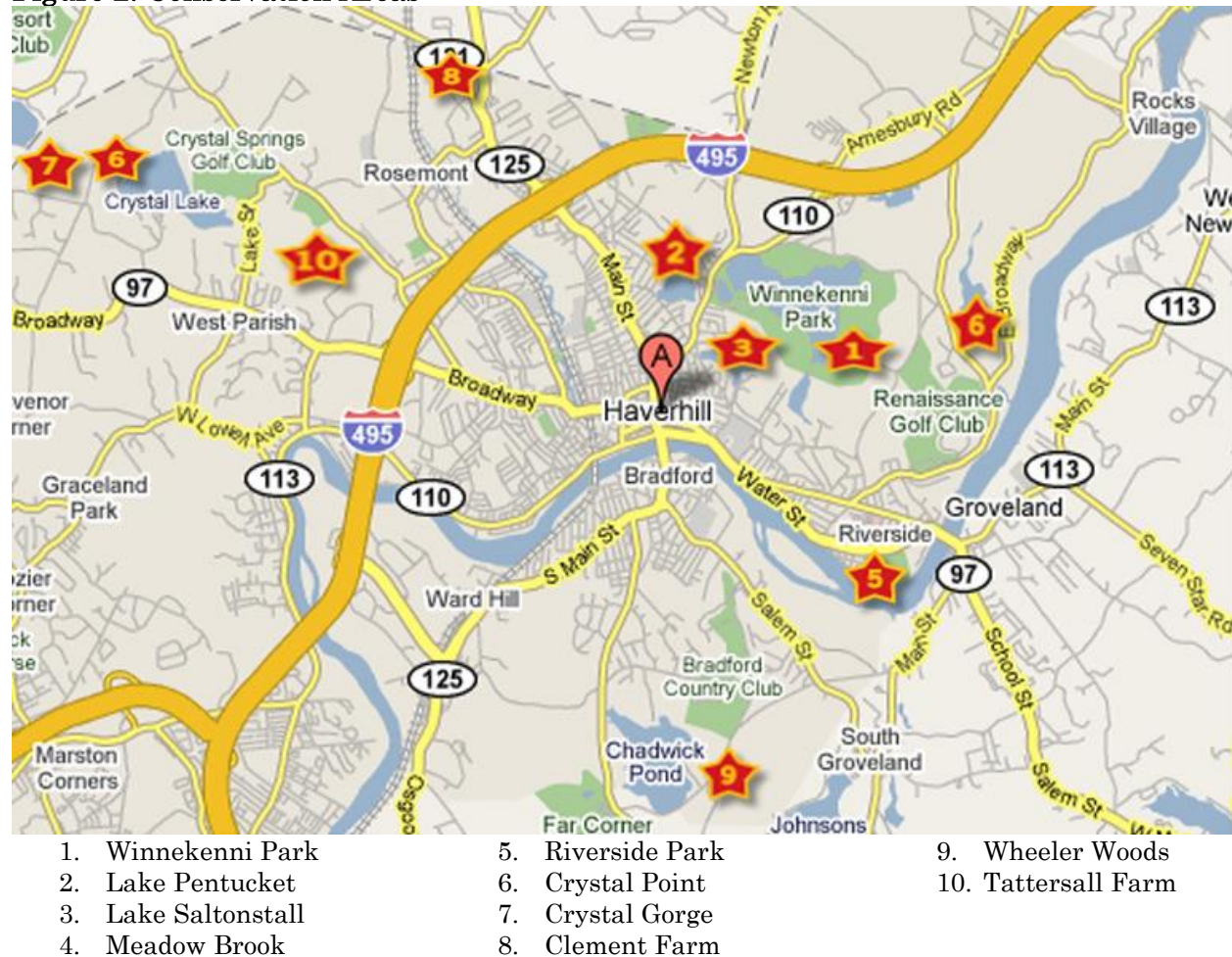
### **Green Infrastructure**

Haverhill has a number of large open space resources: 10 conservation areas with trails and the Merrimack and Little River corridors. However, only one area - Wheeler Woods - is located in the Bradford section of the City. Also of concern is that there is limited linkage between these areas and limited accessibility to people with disabilities.

There were past efforts to link some of these areas. The Haverhill Trails Committee developed a trail on the abandoned right-of-way of Pear Tree Lane. This trail system essentially connects Winnekenni Park to the Meadow Brook Conservation Area. In the early 2000's, the Haverhill Water Department, now part of the Department of Public Works, installed a cross-country water main between Lake Saltonstall and Winnekenni Park. The resulting corridor of work allowed for improved trail access between these two recreational areas. These efforts should recommence.

Adding burden to this effort has been the City's auctioning of land in recent years to bridge its budgetary gaps. Of particular note is the auctioning of large tracts of land along the Little River corridor that were eyed for linkage to Clement Farm. Haverhill is not part of the Bay Circuit Trail (BCT). If it was involved with the BCT, there might have been more consideration of a network.

**Figure 2. Conservation Areas**



The only connecting resource, aside from streets and highways, is the Merrimack River. In 1993, The Merrimack River Watershed Council proposed a Merrimack River Trail. Haverhill was one of a few communities that committed itself through its Trails Committee to help build a Merrimack River Trail. However, with eventual staffing changes at the Merrimack River Watershed Council, the impetus for the River Trail waned throughout most of the Merrimack Valley. The “Merrimack River 5-Year Watershed Action Plan, 2002-2007” developed by the then Executive Office of Environmental Affairs called attention to this. Specifically, Goal 5 of the Plan calls for “improved river recreational access and regional open space protection for all watershed residents”, with an objective to “increase the support and extend the Merrimack River Trail.”

In 2007, with the assistance of the Massachusetts Department of Fish & Game - Office of Fishing & Boating Access, a second public boat launch was installed in Haverhill along the Merrimack River. This new launch is located in the Bradford section of the City, immediately downstream from the Crescent Yacht Club. It consists of a bituminous concrete ramp, leading down to a concrete plank launch. The City's first boat launch is a cartop access launch located within the Riverside Park. Access to the Merrimack River was a repeated comment with the Community Vision Survey and should continue to be expanded upon.

**Figure 3. Merrimack River Boat Access Points**



## *B. Summary of Community's Needs*

### **Community Expectations**

The results of the Community Vision Survey showed that City resources and private facilities generally meet expectations, but that City facilities and programs need some improvement. The survey also invited comments from the responders. A major topic was recycling. Twelve (12) comments addressed the city's recycling program. These comments focused upon a need for more information and a general improvement in the amount and type of materials being recycled. At the time of the survey curbside pick-up was for paper only, not glass or plastics. The City now provides single-stream, curbside pick-up for numerous recyclable items.

Other comments addressed a perceived lack of care and maintenance at the ice rink, high school pool, parks, playing fields, and playgrounds. Additional comments concerned a lack of rest room facilities at parks and playgrounds. There is concern among the residents about the increased development in the City and preserving of

historic buildings and scenic vistas. Other topics concerned a need for increased arts and recreational sources, including suggestions for a teen center, performing arts center, water park, organic farm, community garden, off leash dog park, bird watching trails at Kenoza Lake, and increased use of the waterfront.

Regarding community character, protection the Merrimack River and other water resources were the highest ranked categories in the Survey. However, the two lowest ranking categories were water related activities. This could be interpreted that people do not consider the Merrimack River and other water resources as significant for recreational activity as they do for conservation and health reasons.

Still more public comments identified the need for a dog park, additional access and amenities for disabled persons, increased and improved access to the Merrimack River, a network of bicycling and jogging routes, and additional parks throughout the City, particularly in the downtown district.

### **Open Space Preservation**

When asked what actions the respondent would take to help preserve open space in Haverhill, donating or selling land to the City at a “bargain price” was considered the least popular method of preserving open space. This result recognizes the high value of land in the recent real estate market and the unwillingness to give it away.

Limiting future development of land by way of a deed restriction or Conservation Restriction, selling land to the City at fair market value, and donating money to buy land garnered more positive responses, with more than 1/3 of the respondents in favor of each method. The overwhelming Survey support (64.1%) was for a City-supported land acquisition program. This result is most likely due to the comfort and interest of community involvement toward the same goal.

Although the majority of Haverhill taxpayers live in condominiums or homes with small lots, neither with excess land available to be sold or donated, the overall feeling is that most residents are in favor of maintaining open space and acquiring additional land for conservation and recreation purposes. According to the survey, the substantial support for a City-sponsored land acquisition program evidences the interest and popularity of Open Space but at a minimal cost to the individual taxpayer.

When asked what actions the City should take to preserve open space, Survey respondents were overwhelmingly in favor of preserving open space using a variety of methods. Joint public-private action, zoning for open space, and lower property taxes for farms, forests and recreation were understood and supported by greater than 80% of those responding. However, the receipt of conservation land and the purchase of development rights were not well understood responses, given high “Not Sure” responses of greater than 35%. This lends itself



to the need for further public outreach and education. The purchase of land by the City was viewed favorably by 75% of respondents.

The comments provided by respondents to this inquiry enlightened the Committee to the general concern by residents that the City is not trusted to preserve land that it receives or purchases. There is also a concern that other City services would suffer if the City purchased land. These concerns could be correlated to the recent land auction and other sales conducted by the City to bridge its budgetary gaps. In general, there is a public perception of excessive growth in the City in recent years. Respondents indicated a desire to control growth by restricting lot sizes, preserving our farms, and taxing new homes to preserve open space.

### **Active Recreation Needs**

The majority of recreational facilities and programs currently offered by both the City and private firms adequately fulfill the needs of the residents at this time. However, the condition and maintenance of those City facilities is deficient and has been reported as such in previous Open Space and Recreation Plans. Playground equipment needs to be updated and handicapped friendly play areas should be increased to properly serve the population. Information concerning the locations and programs of recreational activities available to the public should be coordinated and accessible through various means such as destination signage, kiosks and the internet.

The majority of Survey responses indicate that much improvement is required regarding whether the City provides and maintains appropriate recreational facilities. According to respondent comments, a significant topic of concern was the care and maintenance of the existing facilities. Respondents expressed dissatisfaction with the conditions of playground equipment, tennis courts, base ball and softball fields. The respondents indicated that some of these areas had fallen into disrepair. Concerns of perceived cleanliness, trash removal and the lack of public restroom facilities were also noted. Another topic of concern was the perceived lack of public information regarding recreational activities and facilities. Some respondents were not aware of the various facilities and their locations within the City. Lastly, there were a number of responses requesting the City provide more supervised summer recreational programs. Based on the responses and comments from the survey it appears that Haverhill provides the appropriate recreational facilities but should increase its' efforts to maintain them. A well-defined maintenance plan and schedule, along with public information announcements concerning programs and facilities is highly recommended by the citizens.

### **Recreation Department Priorities, 2008 *(In Order of Importance)***

#### **Soccer Fields**

- Due to increased popularity/ participation in sport, additional fields are needed.

#### Restroom Facilities

- Restroom facilities are needed at all fields, and an additional facility at Riverside Park. Restroom maintenance responsibility needs to be assigned.

#### Running/ Fitness Track

- The running/ fitness trail at Winnekenni Park needs to be regularly maintained.

#### Neighborhood Playgrounds

- Playgrounds in outlying areas are noticeably absent. Areas in need include: Ayers Village, Rocks Village, and Bradford.

#### Play Lots/ Tot Lots

- Children's play area and equipment are needed at Cashman Field and Plug Pond.

#### Baseball Fields

- If the population continues to increase and more youth wish to participate, more fields will be needed.

#### Resurface Basketball Courts

- Basketball courts are heavily used throughout the City. Although all of the basketball courts could use some work, the courts in immediate need include: Portland St. Playground.

#### **School Department Priorities, 2008** *(In Order of Importance)*

**Facility Upgrades** - The renewal and/or improvement of indoor and outdoor recreational facilities to a safe, usable, and attractive state, where the condition of such facilities is less than satisfactory. The following facilities need immediate upgrading:

##### Whittier Middle School

- Develop fields to ensure drainage.

##### Haverhill High School

- Develop fields to ensure drainage.

**Maintenance Plan** - The establishment and implementation of a timely and effective plan for maintaining and upgrading existing indoor and outdoor facilities in safe and usable conditions. The following facilities need immediate maintenance and upgrading:

##### Haverhill Stadium

- Install additional lighting
- Remove and replace bleachers

##### Whittier Middle School

- Develop fields to ensure drainage.

Haverhill High School

- Develop fields to ensure drainage.

### **Statewide Comprehensive Outdoor Recreation Plan**

The Statewide Comprehensive Outdoor Recreation Plan (SCORP), and For Our Common Good, identified regional open space and recreation needs, local planning issues, and outlined recommendations for Northeastern Massachusetts, including Haverhill.

Recreation deficiencies in the northeastern region identified in SCORP include tennis, boating, fishing, and golf. Facility dissatisfaction was also noted for field-based activities, hiking, cross-country skiing, and picnicking.

The top five local planning issues in order of importance for the northeastern region are: maintenance of recreation facilities; acquisition and protection of recreation facilities; expansion of water-based recreation facilities; liability issues; and, acquisition and protection of scenic areas. Other high priority issues include: development and expansion of trail corridors; acquisition and protection of cultural areas; acquisition and protection of wildlife habitat areas; development and expansion of handicapped access; access to inland waterways; and, the provision of recreational day care programs.

These findings by the state are a reflection of the issues addressed by the residents of the City of Haverhill in the public survey performed during the summer of 2007. The survey found that the respondents had the same concerns.

### *C. Management Needs, Potential Change of Use*

The most consistent and, by far, greatest response to the Community Vision Survey was the concern over the maintenance and upgrade of existing facilities.

Perhaps second only to the need for the maintenance and upgrade of existing facilities, the Community Vision Survey revealed the need to increase public outreach and education on the recreational opportunities available in the City and the importance of open space protection.

Both insufficient maintenance and public outreach point towards a need for improved management of the City's parks and open spaces. With regard to maintenance and improvements, the City has a Parks Division of the Department of Public Works and a Recreation Department that perform various duties. These efforts are supplemented by maintenance activities performed by individual athletic leagues, as well as civic groups, such as the Haverhill Trails Committee, the Haverhill Lakes Alliance, and Team Haverhill.

With the City's Department of Public Works currently undergoing a significant re-organization, the opportunity exists to take more of a unified "Haverhill Parks System" approach to this issue. Such an approach could entail the Parks Division of Public Works serving in both a managerial and maintenance role. Just as the Highway



Division is developing a pavement management plan to identify immediate needs and forecast future concerns, the Parks Division could do the same for the City's open space lands and recreational facilities. The City should work towards the development of a sustainable routine maintenance plan with funding for existing facilities and the development of a 5-year improvements plan with projections for future needs. Such improved management should incorporate the much needed management of the City's public forest lands, the unification of maintenance efforts with the Recreation Department, and the support of projects led by civic groups. The desire is that improved management would lead to improved efficiency, increasing the level of maintenance and allowing the Recreation Department and the civic groups a greater opportunity to promote public outreach, education, programming, and volunteerism.

There is also opportunity for improvement in the City's structure for reviewing and managing open space and recreation opportunities. There continues to be good communication among the various municipal boards - Planning Board, Conservation Commission, Zoning Board of Appeals, and the City Council Natural Resources and Public Property Subcommittee. However, the City should consider the codification of an "Open Space and Recreation Planning Committee" to:

- Act as a City-wide steering committee to implement and regularly update the Open Space and Recreation Plan;
- Coordinate open space and recreation efforts with the municipal boards;
- Liaison with the Parks Division, the Recreation Department, the Haverhill Stadium Commission, and the City's many civic groups;
- Increase public outreach and education;
- Improving the City's acquisition and protection of lands of open space and recreation interest;
- Review and provide input on proposed large developments, both residential and commercial;
- Review and provide input on proposed Chapter land releases; and
- Identify and pursue grant funding to meet the City's open space and recreation needs.

### Recent Developments

Some recent developments have occurred that may help renew interest in a Haverhill Trails Network, particularly along the Merrimack River.

- **High gas prices** may turn residents of Haverhill and surrounding communities toward local recreational opportunities
- The **downturn in the housing market** may provide the City with time to review and implement the Smart Growth / Smart Energy strategies discussed in this plan.
- The 2007 **UrbanRiver Visions Charette and Action Plan** demonstrates that residents are interested in the Merrimack River as a recreational resource. The plan also calls for green spaces to replace existing structures.
- The **Downtown Riverwalk Project**, scheduled to commence in 2008, has renewed interest not only in the downtown area, but also its recreational possibilities.

- The “**Haverhill Trails Guide**”, partially funded through an Essex National Heritage Commission grant, will be published in 2008. With, perhaps, the exception of Winnekenni Park, many residents and non-residents are unaware of Haverhill’s other Conservation Areas and trail systems. A number of guides will be provided free to the library and schools.
- The Merrimack Valley Planning Commission hired a transportation planner (a former Rails-To-Trails employee), whose goal is to develop a **Merrimack River Trail** from Newburyport to Lowell. The Commission has applied for a Massachusetts Division of Conservation and Recreation Recreational Grant to conduct a survey of the needs of the communities that border the Merrimack River.
- The **Little River** corridor has been identified as a hidden jewel of sorts by the UrbanRiver Visions effort, the work of the Haverhill Trails Committee, and the visions of Team Haverhill, a local civic organization. The development of a trail system along this corridor could provide a link from the Clement Farm to the downtown area.
- The **Computer – Research Drive Loop**, a horseshoe-like stretch of road off of Route 97, has become a hot spot for locals over the past couple of years. The roadways themselves provide access to a business park containing both retail properties – Regan Ford, Lowe’s Home Improvements, and Target – and large commercial/industrial properties – General Mills, Hans Kissle, Magellan Aerospace, and Adamson Industries – with still more industrial park zoned land to be developed. However, the roadways provide views of some of the business park’s wetland resource areas, including Creek Brook. With the roadways currently handling tractor trailer transport and layovers, shopper and employee traffic, and auto dealership test driving, significant improvements to the area would be required to provide a safe public recreational opportunity. However, such an endeavor would open the opportunity for the area’s linkage to nearby Tattersall Farm.
- **Groundwork Lawrence** is now a recognized Land Trust and is also working on developing a trail along the Merrimack River. There has been interest in seeing Haverhill become affiliated with Groundwork Lawrence.
- The Mayor’s **Merrimack Waterfront Interim Taskforce** was recently appointed to develop guidelines to provide public access to the Merrimack River from both the Downtown and Bradford sides of the Merrimack River.

**Figure 4. Little River Corridor and Computer – Research Drive Loop**



- There are currently a number of opportunities that could provide **Bradford** with more recreation resources and a possible link to downtown Haverhill.

### 1. **Bradford Rail Trail**

Guilford/Pan Am Transportation has officially abandoned its former rail bed land in Bradford. Haverhill's State delegation has worked diligently for the City to secure funding to help Haverhill purchase significant portions of the land. The land and the development of a trail system on it would serve many public benefits, such as providing a walking loop between Bradford and the downtown area via the new Comeau Bridge, the Riverwalk Project, and the Basiliere Bridge. The land would enhance public access to the Merrimack River and the development of the trail system could lead to the long term possibility that Haverhill could tie in to the future Borders-To-Boston rail trail or a new Merrimack River Trail.

### 2. **Haverhill Municipal Landfill**

The Haverhill Municipal Landfill site is a 71-acre former industrial and municipal landfill located off of Groveland Road, on the right bank of the Merrimack River. The landfill is southeast of downtown Haverhill, near the Groveland town line, with portions of the land owned by the City and by Aggregate Industries, Inc. Capping of the landfill is scheduled to be completed around 2013. Over the next two to three years, fill material is

planned to be deposited and graded on the site in preparation for this capping, but also in preparation for future recreational reuse of the land.

**3. Don Orione**

This former religious retreat property was recently sold by the Catholic Archdiocese of Boston and is currently permitted for a cluster residential development. During municipal permitting, the developer agreed to deed approximately 5 acres of the property to the City. This land is located on the right bank of the Merrimack River. As part of the City's Cluster Residential Development ordinance, additional land was required to be protected as open space, including approximately 20 acres of mostly woodland that leads down to the riverfront parcel, but also abuts the Haverhill Municipal Landfill. The developer is currently working with the City to transfer ownership of this additional open space to the City.

**4. Haverhill Paperboard Company ( Planned closing in August 2008 )**

This company has been a Haverhill business since 1902. The plant covers 15 acres and has more than 375,000 square feet. However, the Company owns a significant amount of abutting, open space acreage that includes an existing baseball field and the site of a former baseball field. As is also the case with the three aforementioned opportunities, this land lies on the right bank of the Merrimack River. Part of the former Bradford Rail is on this property and the National Grid Access Road, noted below, ends at this property. If Haverhill cannot develop this land for recreational use, it should pursue obtaining public access to the river across this land or an easement on the land for future recreational use.

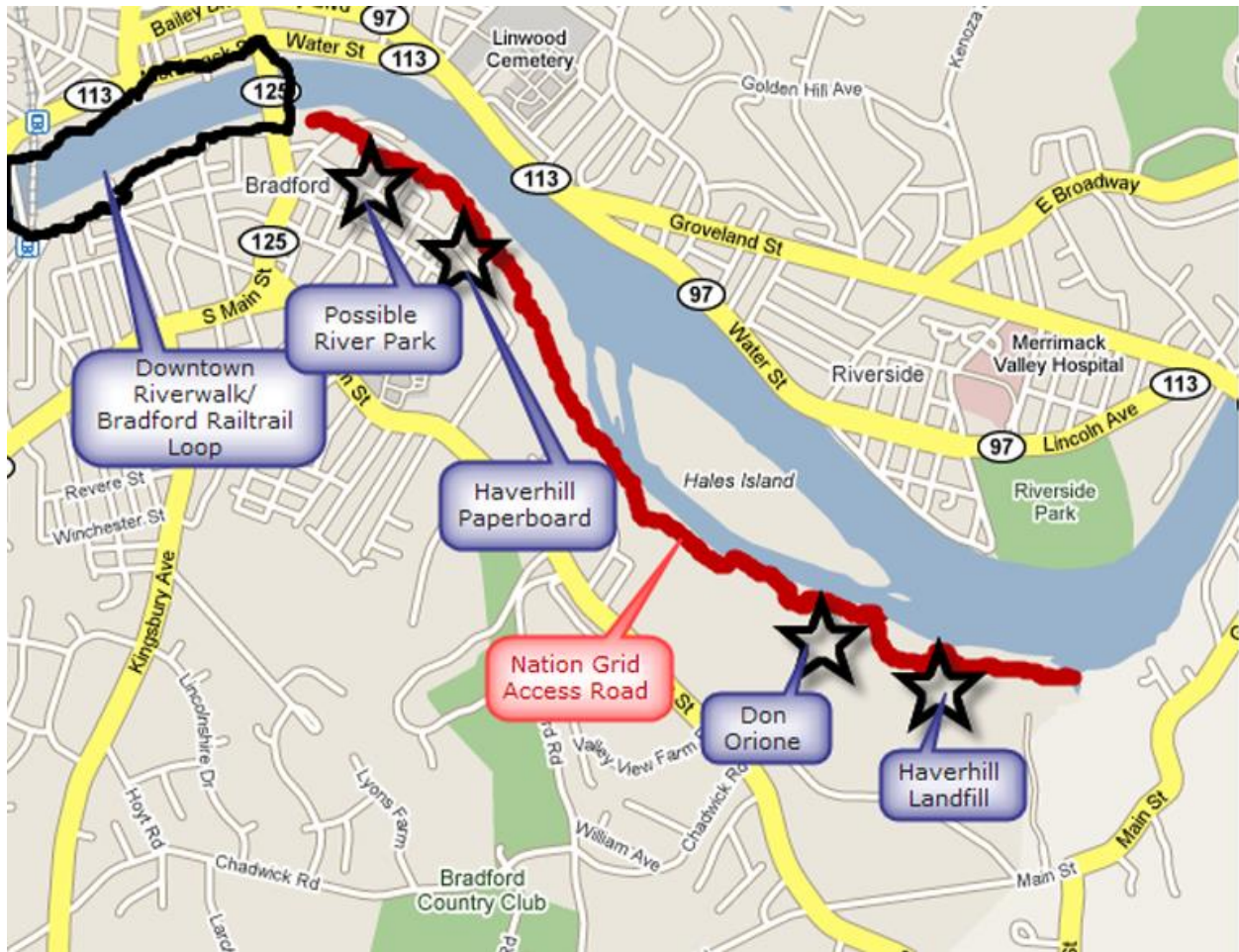
**5. National Grid Access Road (Old Rail Road Track)**

Proceeding along the Merrimack River, this parcel could be used as the linear connection for the above four components. The road continues to Groveland and then to Georgetown.

**6. River Park**

A river park to enhance public access to enjoyment of the Merrimack River is being researched by the City. This would also be near the old Bradford Rail line, possibly in the area of the new boat launch installed in 2007.

**Figure 5. Bradford Recreational Opportunities**





## Section VIII

### Goals and Objectives

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A first step toward developing specific guidelines for a five-year program of action on open space and recreation for Haverhill is to develop general goals and objectives. In large part, the goals and objectives discussed here have been derived from those stated in the Comprehensive Plan for the year 2005, Planning Department, Conservation Commission, Recreation Committee, School Department, the 1999 Open Space Plan, and 2007 Community Survey. They also reflect the current fiscal constraints facing the City. Much interest has been recently focused on maintenance, controlling development, protecting water quality, and developing a Merrimack River access plan. Other areas of interest include preserving the character of the City, developing passive recreation areas and increasing public awareness/environmental education.

Over the last ten years, the City has done much to meet the 1999 goals and objectives, which remain valid in the 2000's. A comparison of the 1989 Recreation/Conservation Master Plan and the 1999 Comprehensive Plan Open Space Goals and Objectives is located in Table 19.

The following open space and recreation goals and objectives have been updated as a result from the current identified community needs and progress towards meeting the 1999 goals and objectives which remain valid in the 2000's. In general, "goals" are long-range priorities and "objectives" are short-range tasks to meet the intentions of the goal. The actual prioritization of goals/objectives are determined in the five-year action plan (Chapter V) based upon identified community needs (Chapter IV). In general the shared open space and recreation goals of the Recreation, Conservation and School Departments include:

- Facility maintenance and upkeep,
- Land acquisition for additional recreational open spaces
- Better communication of resources to the public
- Increased environmental education, and
- Development of City parcels for open space and recreation needs.

#### **Goal 1:** Codify the Open Space and Recreation Planning Committee

**Objective A:** Empower the Open Space and Recreation Planning Committee as a City-wide steering committee to implement the Open Space and Recreation Plan

**Objective B:** Establish the members of the Open Space and Recreation Planning Committee to include representatives from the general public appointed by the Mayor. Include one member each from the

Conservation Commission, Recreation Commission, and Planning Board, to be selected by each of the respective boards

**Goal 2:** Coordinate open space and recreation efforts with other organizations within the City

**Objective A:** Identify open space and recreation partners of the Committee and designate Committee members to serve as liaisons to these partner organizations (e.g. Haverhill Stadium Commission, City Council Natural Resources and Public Buildings Subcommittee, Haverhill athletic leagues...)

**Goal 3:** Keep it clean!

**Objective A:** Eliminate graffiti, vandalism, and litter from the City's public spaces and encourage civic pride and responsibility

**Objective B:** Increase the number of public restrooms available at the City's recreation areas

**Goal 4:** Improve public property maintenance and facility management

**Objective A:** Develop a sustainable routine maintenance plan with funding for existing facilities

**Objective B:** Develop a 5-year improvements plan with projections for future needs

**Objective C:** Manage the City's public forest lands

**Goal 5:** Increase public outreach and education

**Objective A:** Improve information available on the City's website

**Objective B:** Improve and standardize open space and recreation signage throughout the City

**Objective C:** Promote public awareness of the Committee's goals

**Objective D:** Develop a working relationship with the City's school department to relate environmental curriculum to areas of local interest

**Objective E:** Promote the development of new programs and the expansion of existing programs regarding lectures, pamphlets, and guided walks concerning the local culture, heritage, and environment

**Goal 6:** Improve the City's acquisition and protection of lands of open space and recreation interest

**Objective A:** Establish a land trust or a partnership with an existing regional trust

**Objective B:** Establish a financial mechanism to support this goal, such as the establishment of an open space and recreation fee or land donation requirement for new development

**Objective C:** Improve protection of watershed lands through regulation and acquisition

**Objective D:** Improve creation, continuity, and protection of greenbelt corridors

**Objective E:** Map open space and recreation parcels; identify and evaluate their levels of "protection" (e.g. covenants, easements, restrictions...)

**Objective F:** Identify privately owned parcels of open space and recreation interest

**Objective G:** Provide private landowners with information (e.g. workshops, newsletters, brochures...) on the benefits of permanent land protection and land donation

**Goal 7:** Enhance and increase open space and recreation opportunities available to the public

**Objective A:** Increase pedestrian and boat access to the Merrimack and Little Rivers

**Objective B:** Support the implementation of the UrbanRiver Visions Haverhill Action Plan

**Objective C:** Increase the amount of "green space" in the downtown area to support its new residential growth

**Objective D:** Redevelop network of bicycling and jogging routes throughout the City



**Objective E:** Improve handicapped accessibility and opportunities at public facilities and parks

**Goal 8:** Promote sustainable development within the City

**Objective A:** Adopt and promote Smart Growth development principles, such as Open Space Residential Design, Low-Impact Development, and Transfer of Development Rights

**Objective B:** Include the Open Space and Recreation Planning Committee as a commenting party in the review of chapter-land releases, proposed large residential developments, and proposed large commercial/industrial projects

**Goal 9:** Improve the City's heritage preservation and protection of historic resources

**Objective A:** Map unique landscape and habitat features and scenic, historic, and cultural resources; identify and evaluate their levels of "protection" (e.g. covenants, easements, restrictions...)

**Objective B:** Adopt a street tree ordinance

**Objective C:** Adopt a hilltop protection ordinance

**Goal 10:** Promote the preservation of the City's agricultural resources

**Objective A:** Promote farmland being placed under the State's Agricultural Preservation Restriction program or the City's chapter-land (Chapter 61 and 61A) programs

**Objective B:** Promote the Haverhill farmers' market

**Objective C:** Explore the formation of an Agricultural Commission

**Objective D:** Explore the adoption of a "Right to Farm" ordinance

## Section IX

### Seven- Year Action Plan

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The Seven-Year Action Program translates the City's needs and its goals and objectives of the previous two chapters into specific recommended actions within a suggested time frame. The current financial constraints at the federal, state and local level inhibit the ability of the City to meet all of the open space and recreation goals and objectives. To adequately meet the City's needs over the next few years a financially realistic open space and recreation plan needs to be adopted. Community support from local businesses, civic groups, and other organizations need to be encouraged to support and assist the City in meeting the open space and recreation goals and objectives.

These initiatives are based on a strategy of priorities matched to the realities of Haverhill's ability to move along this course. A program of this kind is valuable because it gives the Mayor, the City Council, and other City bodies and officials an overview of what needs to be done, and a timetable for implementation (see Table 23). Thus, the time frame is only suggestive and should be reviewed and modified at the end of each year on the basis of actual performance. The time frame also reflects long-range and short-range priorities of the City. A suggested time sequence over the seven years covered by this plan is indicated for the individual actions identified in the following pages. The placement represents the consensus of the bodies most directly concerned.

**Table 23. Seven-Year Action Program: Implementation Responsibilities and Schedule**

Goals	Objectives	Actions	Schedule	Funding	Responsible Party
1. Codify the Open Space and Recreation Planning Committee (OSRPC)	A. Empower the OSRPC as a City-wide steering committee to implement the Open Space and Recreation Plan	<ul style="list-style-type: none"> <li>• Draft a City Ordinance to empower the Committee and outline its responsibilities</li> <li>• Submit the ordinance to the City Solicitor and Mayor for approval</li> <li>• File the ordinance with City Council for adoption</li> </ul>	<ul style="list-style-type: none"> <li>• Summer 2008</li> <li>• Summer 2008</li> <li>• Spring 2010</li> </ul>	• Local	• HCD
	B. Establish the members of the OSRPC to include representatives from the general public appointed by the Mayor. Include one member each from the Conservation Commission, Recreation Commission, and Planning Board, to be selected by each of the respective boards	<ul style="list-style-type: none"> <li>• Identify member language in the draft ordinance</li> </ul>	<ul style="list-style-type: none"> <li>• Summer 2008</li> </ul>	• Local	• HCD
2. Coordinate open space and recreation efforts with other organizations within the City	A. Identify open space and recreation partners of the Committee and designate Committee members to serve as liaisons to these partner organizations (e.g. Haverhill Stadium Commission, City Council Natural Resources and Public Buildings Subcommittee, Haverhill athletic leagues...)	<ul style="list-style-type: none"> <li>• Identify and make contact with partner organizations</li> </ul>	<ul style="list-style-type: none"> <li>• Summer 2010</li> </ul>	• Local	• OSRPC
3. Keep it clean!	A. Eliminate graffiti, vandalism, and litter from the City's public spaces and encourage civic pride and responsibility	<ul style="list-style-type: none"> <li>• Establish partnerships with public service groups, such as the Boy Scouts</li> <li>• Identify problem spots by</li> </ul>	<ul style="list-style-type: none"> <li>• Fall 2010</li> <li>• Fall 2010</li> </ul>	• Local	<ul style="list-style-type: none"> <li>• OSRPC</li> <li>• HPD</li> </ul>

Goals	Objectives	Actions	Schedule	Funding	Responsible Party
	<b>B.</b> Increase the number of public restrooms available at the City's recreation areas	<p>promoting use of City's website</p> <ul style="list-style-type: none"> <li>• Inventory facilities and prioritize needs</li> <li>• Determine funding requirements for needs</li> <li>• Investigate grant funding possibilities</li> <li>• Pursue partnerships with recreational organizations where common needs may be met</li> <li>• Install new facilities at Riverside Park, Swasey's Field, and Cashman's Field</li> </ul>	<ul style="list-style-type: none"> <li>• Fall 2008</li> <li>• Fall 2008</li> <li>• Winter 2008-09</li> <li>• Winter 2008-09</li> <li>• Summer 2010-2011</li> </ul>	<ul style="list-style-type: none"> <li>• Local</li> <li>• PARC</li> </ul>	<ul style="list-style-type: none"> <li>• OSRPC</li> <li>• HRD</li> </ul>
<b>4.</b> Improve public property maintenance and facility management	<p><b>A.</b> Develop a sustainable routine maintenance plan with funding for existing facilities</p> <p><b>B.</b> Develop a 5-year improvements plan with projections for future needs</p>	<ul style="list-style-type: none"> <li>• Inventory lands and facilities</li> <li>• Assess conditions of each</li> <li>• Identify necessary maintenance and improvements</li> <li>• Determine resources required, including manpower, equipment, and funding</li> <li>• Incorporate information into a sustainable plan</li> <li>• With the maintenance plan as a basis, identify future needs</li> <li>• Develop an improvements plan that includes scheduling, funding, new maintenance needs, etc.</li> </ul>	<ul style="list-style-type: none"> <li>• Summer 2010 through Summer 2012</li> <li>• Summer 2012</li> </ul>	<ul style="list-style-type: none"> <li>• Local</li> <li>• Local</li> <li>• PARC</li> <li>• LWCF</li> </ul>	<ul style="list-style-type: none"> <li>• OSRPC</li> <li>• HDPW</li> <li>• OSRPC</li> <li>• HDPW</li> </ul>

Goals	Objectives	Actions	Schedule	Funding	Responsible Party
	<b>C.</b> Manage the City's public forest lands	<ul style="list-style-type: none"> <li>• Establish a Forest Management Committee responsible for developing a plan to address the City's forest stewardship, urban forest, and public firewood needs</li> <li>• Identify and prioritize parcels in need of stewardship, based in part on past management plans</li> <li>• Pursue the development of Forest Stewardship Plans based on priority concerns</li> <li>• Pursue the development of Forest Cutting Plans for parcels in need of current management</li> </ul>	<ul style="list-style-type: none"> <li>• Summer 2009</li> <li>• Fall 2009</li> <li>• Springs 2010-2015</li> <li>• Summers 2010-2015</li> </ul>	<ul style="list-style-type: none"> <li>• Local</li> <li>• FS</li> </ul>	<ul style="list-style-type: none"> <li>• HFMC</li> </ul>
<b>5.</b> Increase public outreach and education	<b>A.</b> Improve information available on the City's website	<ul style="list-style-type: none"> <li>• Develop "Open Space and Recreation" webpage</li> <li>• Create a map identifying the OSR Areas open to the public</li> <li>• Add "hotspots" to the map to provide details on the individual areas</li> <li>• Create links to public and private OSR opportunities in the City</li> </ul>	<ul style="list-style-type: none"> <li>• Summer 2010</li> <li>• Winter 2010-2011</li> <li>• Spring 2011</li> <li>• Summer 2011</li> </ul>	<ul style="list-style-type: none"> <li>• Local</li> </ul>	<ul style="list-style-type: none"> <li>• OSRPC</li> <li>• HDPW</li> <li>• Haverhill IT Dept.</li> </ul>
	<b>B.</b> Improve and standardize open space and recreation signage throughout the City	<ul style="list-style-type: none"> <li>• Identify and prioritize facilities and signage locations</li> <li>• Coordinate with other City signage efforts</li> </ul>	<ul style="list-style-type: none"> <li>• Winter 2010-2011</li> <li>• Spring 2011</li> </ul>	<ul style="list-style-type: none"> <li>• Local</li> <li>• ENHA</li> </ul>	<ul style="list-style-type: none"> <li>• OSRPC</li> <li>• HDPW</li> <li>• HRD</li> </ul>

Goals	Objectives	Actions	Schedule	Funding	Responsible Party
	<p><b>C.</b> Promote public awareness of the Committee's goals</p> <p><b>D.</b> Develop a working relationship with the City's school department to relate environmental curriculum to areas of local interest</p> <p><b>E.</b> Promote the development of new programs and the expansion of existing programs regarding lectures, pamphlets, and guided walks concerning the local culture, heritage, and environment</p>	<ul style="list-style-type: none"> <li>• Determine funding requirements for needs</li> <li>• Investigate grant funding possibilities</li> <li>• Pursue partnerships with organizations where common needs may be met (e.g. Adopt-a-Park participants)</li> <li>• Make better use of City's website – see Objective 5A</li> <li>• Promote City's resources through the newspapers</li> <li>• Work with partners identified in Goal 2</li> <li>• Meet with Curriculum Coordinator to discuss target age levels, programs, and staff members</li> <li>• Inventory existing programs and identify organizers</li> <li>• Review programs in surrounding communities</li> <li>• Identify any missing elements in our community</li> </ul>	<ul style="list-style-type: none"> <li>• Spring 2011</li> <li>• Spring 2011</li> <li>• Spring 2011</li> <li>• Summer 2010</li> <li>• Summer 2010</li> <li>• Summer 2010</li> <li>• Summer 2011</li> <li>• Summer 2011</li> <li>• Summer 2011</li> <li>• Summer 2011</li> </ul>	<ul style="list-style-type: none"> <li>• Local</li> <li>• Local</li> <li>• Local</li> </ul>	<ul style="list-style-type: none"> <li>• OSRPC</li> <li>• IT Dept.</li> <li>• OSRPC</li> <li>• OSRPC</li> <li>• HRD</li> </ul>
<b>6.</b> Improve the City's acquisition and protection of lands of open space and recreation interest	<b>A.</b> Establish a land trust or a partnership with an existing regional trust	<ul style="list-style-type: none"> <li>• Contact the Essex County Greenbelt Association to discuss options for a partnership or for assistance with the establishment of a new trust</li> </ul>	<ul style="list-style-type: none"> <li>• Summer 2009</li> </ul>	<ul style="list-style-type: none"> <li>• Local</li> </ul>	<ul style="list-style-type: none"> <li>• OSRPC</li> <li>• HCD</li> </ul>

Goals	Objectives	Actions	Schedule	Funding	Responsible Party
	<b>B.</b> Establish a financial mechanism to support this goal, such as the establishment of an open space and recreation fee or land donation requirement for new development	<ul style="list-style-type: none"> <li>• Explore traditional options such as the use of municipal funds, grant funding, passage of the CPA, and donations</li> <li>• Explore legality of modifying appropriate municipal ordinances and regulations to require payment of an OSR fee or donation of land for new development projects</li> </ul>	<ul style="list-style-type: none"> <li>• Winter 2011-2012</li> <li>• Winter 2011-2012</li> </ul>	• Local	• OSRPC
	<b>C.</b> Improve protection of watershed lands through regulation and acquisition	<ul style="list-style-type: none"> <li>• Review and recommend updates to the City's Watershed Protection Overlay District Ordinance</li> <li>• Identify and prioritize watershed parcels of interest – see Objective 6F</li> </ul>	<ul style="list-style-type: none"> <li>• Winter 2011-2012</li> <li>• Spring 2012</li> </ul>	• Local	• OSRPC
	<b>D.</b> Improve creation, continuity, and protection of greenbelt corridors	<ul style="list-style-type: none"> <li>• Identify possible funding sources and/or partnerships with educational institutions for conducting a wildlife habitat analysis of the City</li> <li>• Identify and prioritize habitat parcels of interest – see Objective 6F</li> </ul>	<ul style="list-style-type: none"> <li>• Spring 2012</li> <li>• Summer 2012</li> </ul>	• Local	• OSRPC
	<b>E.</b> Map open space and recreation parcels; identify and evaluate their levels of “protection” (e.g. covenants, easements, restrictions...)	<ul style="list-style-type: none"> <li>• Map OSR parcels for use with the City's GIS system and the MassGIS program</li> <li>• Identify levels of parcel protection for representation</li> </ul>	<ul style="list-style-type: none"> <li>• Begin Summer 2008</li> <li>• Begin Summer</li> </ul>	• Local	<ul style="list-style-type: none"> <li>• OSRPC</li> <li>• HDPW</li> </ul>

Goals	Objectives	Actions	Schedule	Funding	Responsible Party
	<p><b>F.</b> Identify privately owned parcels of open space and recreation interest</p> <p><b>G.</b> Provide private landowners with information (e.g. workshops, newsletters, brochures...) on the benefits of permanent land protection and land donation</p>	<p>in mapping</p> <ul style="list-style-type: none"> <li>Evaluate levels of parcel protection and determine actions for improving protection of appropriate parcels</li> <li>Develop list of parcel attributes relative to open space and recreational importance</li> <li>Apply attributes to parcels to identify and prioritize parcels of OSR interest</li> <li>Consult with the MA Division of Conservation Services, ECGA, and similar organizations to develop a benefits brochure that may be included in a mailing of real estate tax bills</li> <li>Update the City's website to include links to additional resources</li> </ul>	<ul style="list-style-type: none"> <li>2008</li> <li>Begin Summer 2008</li> <li>Following Completion of Objective 6E</li> <li>Following Completion of Objective 6E</li> <li>Following Completion of Objective 6F</li> <li>Summer 2010</li> </ul>	<ul style="list-style-type: none"> <li>Local</li> <li>Local</li> <li>ECGA</li> </ul>	<ul style="list-style-type: none"> <li>OSRPC</li> <li>OSRPC</li> <li>Haverhill IT Dept.</li> </ul>
<p><b>7.</b> Enhance and increase open space and recreation opportunities available to the public</p>	<p><b>A.</b> Increase pedestrian and boat access to the Merrimack and Little Rivers</p> <p><b>B.</b> Support the implementation of the UrbanRiver Visions Haverhill</p>	<ul style="list-style-type: none"> <li>Identify and evaluate current access points and lands with potential for future access.</li> <li>Prioritize access needs</li> <li>Identify possible funding sources to meet objective</li> <li>Identify common goals within the Plans and</li> </ul>	<ul style="list-style-type: none"> <li>Fall 2008 - ongoing</li> <li>Fall 2008</li> <li>Fall 2008</li> <li>Winter 2008-09</li> </ul>	<ul style="list-style-type: none"> <li>Local</li> <li>PARC</li> <li>LAND</li> <li>LWCF</li> <li>Local</li> <li>PARC</li> </ul>	<ul style="list-style-type: none"> <li>OSRPC</li> <li>HRD</li> <li>OSRPC</li> </ul>



Goals	Objectives	Actions	Schedule	Funding	Responsible Party
	Action Plan	partner with appropriate parties to meet objectives		<ul style="list-style-type: none"> <li>• LAND</li> <li>• LWCF</li> <li>• RTG</li> </ul>	
	<b>C.</b> Increase the amount of “green space” in the downtown area to support its new residential growth	<ul style="list-style-type: none"> <li>• Identify and evaluate current “green space” in the downtown area</li> <li>• Prioritize “green space” needs</li> <li>• Identify possible funding sources to meet objective</li> </ul>	<ul style="list-style-type: none"> <li>• Summer 2009</li> <li>• Summer 2009</li> <li>• Summer 2009</li> </ul>	<ul style="list-style-type: none"> <li>• Local</li> <li>• TIP</li> </ul>	<ul style="list-style-type: none"> <li>• OSRPC</li> <li>• HDPW</li> </ul>
	<b>D.</b> Redevelop network of bicycling and jogging routes throughout the City	<ul style="list-style-type: none"> <li>• Identify partners in the bicycling and jogging communities and establish a task force (“Bike Haverhill”)</li> <li>• Research original network and program</li> <li>• Assess current needs and develop a new program</li> <li>• Identify possible funding sources to meet objective</li> </ul>	<ul style="list-style-type: none"> <li>• Fall 2009</li> <li>• Summer 2009</li> <li>• Winter 2009-2010</li> <li>• Summer 2010</li> </ul>	<ul style="list-style-type: none"> <li>• Local</li> <li>• RTG</li> <li>• PARC</li> <li>• LWCF</li> <li>• TIP</li> </ul>	<ul style="list-style-type: none"> <li>• OSRPC</li> <li>• Bike Haverhill</li> </ul>
	<b>E.</b> Improve handicapped accessibility and opportunities at public facilities and parks	<ul style="list-style-type: none"> <li>• Using current facility inventories, identify facilities and parks that require repair of existing provisions</li> <li>• Identify facilities and parks within the City that lack acceptable accessibility and provisions and develop an improvements plan with a budget</li> <li>• Identify possible funding sources to meet objective</li> </ul>	<ul style="list-style-type: none"> <li>• Fall 2010</li> <li>• Fall 2010 – Winter 2010-2011</li> <li>• Spring 2011</li> </ul>	<ul style="list-style-type: none"> <li>• Local</li> <li>• PARC</li> <li>• LWCF</li> </ul>	<ul style="list-style-type: none"> <li>• OSRPC</li> <li>• HRD</li> <li>• HDPW</li> </ul>

Goals	Objectives	Actions	Schedule	Funding	Responsible Party
8. Promote sustainable development within the City	A. Adopt and promote Smart Growth development principles, such as Open Space Residential Design, Low-Impact Development, and Transfer of Development Rights	<ul style="list-style-type: none"> <li>• Support the City's development and implementation of "Smart Growth" development principles</li> </ul>	<ul style="list-style-type: none"> <li>• Ongoing</li> </ul>	<ul style="list-style-type: none"> <li>• Local</li> </ul>	<ul style="list-style-type: none"> <li>• OSRPC</li> </ul>
	B. Include the Open Space and Recreation Planning Committee as a commenting party in the review of chapter-land releases, proposed large residential developments, and proposed large commercial/industrial projects	<ul style="list-style-type: none"> <li>• Contact appropriate municipal department representatives to discuss associated procedural matters</li> </ul>	<ul style="list-style-type: none"> <li>• Summer 2010</li> </ul>	<ul style="list-style-type: none"> <li>• Local</li> </ul>	<ul style="list-style-type: none"> <li>• OSRPC</li> </ul>
9. Improve the City's heritage preservation and protection of historic resources	A. Map unique landscape and habitat features and scenic, historic, and cultural resources; identify and evaluate their levels of "protection" (e.g. covenants, easements, restrictions...)	<ul style="list-style-type: none"> <li>• Map parcels for use with the City's GIS system and the MassGIS program</li> <li>• Identify levels of parcel protection for representation in mapping</li> <li>• Evaluate levels of parcel protection and determine actions for improving protection of appropriate parcels</li> </ul>	<ul style="list-style-type: none"> <li>• Begin Summer 2008</li> <li>• Begin Summer 2008</li> <li>• Begin Summer 2008</li> </ul>	<ul style="list-style-type: none"> <li>• Local</li> </ul>	<ul style="list-style-type: none"> <li>• OSRPC</li> <li>• Haverhill Eng. Dept.</li> </ul>
	B. Adopt a street tree ordinance	<ul style="list-style-type: none"> <li>• Work with the City's Department of Public Works to draft a City Ordinance</li> <li>• Submit the ordinance to the City Solicitor and Mayor for approval</li> <li>• File the ordinance with City Council for adoption</li> </ul>	<ul style="list-style-type: none"> <li>• Winter 2009-2010</li> <li>• Winter 2009-2010</li> <li>• Spring 2010</li> </ul>	<ul style="list-style-type: none"> <li>• Local</li> </ul>	<ul style="list-style-type: none"> <li>• OSRPC</li> <li>• HFMC</li> <li>• HDPW</li> </ul>
	C. Adopt a hilltop protection ordinance	<ul style="list-style-type: none"> <li>• Work with the City's Planning Department to</li> </ul>	<ul style="list-style-type: none"> <li>• Winter 2011-2012</li> </ul>	<ul style="list-style-type: none"> <li>• Local</li> </ul>	<ul style="list-style-type: none"> <li>• OSRPC</li> </ul>

Goals	Objectives	Actions	Schedule	Funding	Responsible Party
		draft a City Ordinance <ul style="list-style-type: none"> <li>• Submit the ordinance to the City Solicitor and Mayor for approval</li> <li>• File the ordinance with City Council for adoption</li> </ul>	<ul style="list-style-type: none"> <li>• Winter 2011-2012</li> <li>• Winter 2011-2012</li> </ul>		
10. Promote the preservation of the City's agricultural resources	A. Promote farmland being placed under the State's Agricultural Preservation Restriction program or the City's chapter-land (Chapter 61 and 61A) programs	<ul style="list-style-type: none"> <li>• Promote with the action items of Objective 6G</li> </ul>	<ul style="list-style-type: none"> <li>• Following Completion of Objective 6F</li> </ul>	<ul style="list-style-type: none"> <li>• Local</li> </ul>	<ul style="list-style-type: none"> <li>• OSRPC</li> </ul>
	B. Promote the Haverhill farmers' market	<ul style="list-style-type: none"> <li>• Promote with the action items of Objective 5C</li> </ul>	<ul style="list-style-type: none"> <li>• Summer 2009</li> </ul>	<ul style="list-style-type: none"> <li>• Local</li> </ul>	<ul style="list-style-type: none"> <li>• OSRPC</li> </ul>
	C. Explore the formation of an Agricultural Commission	<ul style="list-style-type: none"> <li>• Consult with the MA Department of Agricultural Resources and other communities on the benefits of a commission</li> <li>• Meet with local farmers to measure interest in and discuss benefits of a commission</li> <li>• If determined to be a significant benefit to the City and its farmers, pursue formation</li> </ul>	<ul style="list-style-type: none"> <li>• Fall 2013</li> <li>• Fall 2013</li> <li>• Winter 2013-14</li> </ul>	<ul style="list-style-type: none"> <li>• Local</li> </ul>	<ul style="list-style-type: none"> <li>• OSRPC</li> </ul>
	D. Explore the adoption of a "Right to Farm" ordinance	<ul style="list-style-type: none"> <li>• If determined to be a significant benefit to the City and its farmers, pursue adoption similar to Objectives 9B &amp; 9C</li> </ul>	<ul style="list-style-type: none"> <li>• Spring-Summer 2012</li> </ul>	<ul style="list-style-type: none"> <li>• Local</li> </ul>	<ul style="list-style-type: none"> <li>• OSRPC</li> </ul>

Table Abbreviations:

CPA	–	Community Preservation Act
DCR	–	Massachusetts Department of Conservation and Recreation
DCS	–	Massachusetts Division of Conservation Services
ECGA	–	Essex County Greenbelt Association
ENHA	–	Essex National Heritage Area (and Essex Heritage Partnership Grant Program)
FS	–	Forest Stewardship Planning Grants for Private and Town Forestlands (DCR)
HCD	–	Haverhill Conservation Department
HDPW	–	Haverhill Department of Public Works
HFMC	–	Haverhill Forest Management Committee
HPD	–	Haverhill Police Department
HRD	–	Haverhill Recreation Department
LAND	–	Local Acquisitions for Natural Diversity Program (DCS)
LWCF	–	Land and Water Conservation Fund (DCS)
OSR	–	Open Space and Recreation
OSRPC	–	Open Space and Recreation Planning Committee
PARC	–	Parkland Acquisitions and Renovations for Communities Program (DCS)
ReLeaf	–	ReLeaf Grant Program (DCR)
RTG	–	Recreational Trails Grants (DCR)
TIP	–	Transportation Improvement Project (Federal Highway Administration & Massachusetts Dpt. of Transportation)
UF	–	Urban Forest Planning and Education Grants (DCR)

## Section 10

### Public Comments

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- Letter of Review: James J. Fiorentini, Mayor, City of Haverhill, July 6, 2011
- Letter of Review: Alan Macintosh, Assistant Director/Environmental Program Manager, Merrimack Valley Planning Commission, July 11, 2011
- Letter of Review: William Pillsbury, Jr., Director, Economic Development and Planning, July 5, 2011
- Letter of Review: Vincent Ouellette, Director of Human Services and Recreation
- Letter of Review: Cheryl Ruth Accardi, Chairperson, Haverhill Conservation Commission, June 30, 2011
- Letter of Review: Mark Sheehan, Coordinator, Haverhill Trails Committee, July 6, 2011
- ADA Accessibility: Vincent Ouellette, Chairperson, Haverhill Commission on Disabilities

JAMES J. FIORENTINI  
MAYOR



**CITY OF HAVERHILL  
MASSACHUSETTS**

CITY HALL, ROOM 100  
FOUR SUMMER STREET  
HAVERHILL, MA 01830  
PHONE 978-374-2300  
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WWW.CI.HAVERHILL.MA.US

July 6, 2011

Massachusetts Executive Office of Energy and Environmental Affairs  
Division of Conservation Services  
Attn: Melissa Cryan  
100 Cambridge Street, 9<sup>th</sup> Floor  
Boston, Massachusetts 02114

**RE: City of Haverhill 2008-2015 Open Space and Recreation Plan**

Dear Ms. Cryan,


I would like to convey my support for the Plan developed by our Open Space and Recreation Committee. This Plan lays out a detailed blueprint to assist the City in meeting its open space and recreation goals and objectives. As you know, thanks to help from DCR and many other state, local and volunteer organizations, our City has already seen remarkable achievements in the implementation of the Seven-Year Action Plan.

- New bathroom facilities have been installed at three of our recreational parks;
- New public access to the Merrimack River and Little River will be created this year;
- Plans have been developed for the renovation of Swasey's Field, one of the City's more heavily used urban parks. A new playground has been installed at this location;
- Audits are being updated relative to studying ADA access to public facilities;
- Our farmers' market has been expanded in a new location.

I have also established a Forest Management Committee to review the conditions of our conservation areas and other municipal forested lands. The Committee recently submitted Forest Stewardship plans for DCR approval.

On behalf of the City of Haverhill and its Open Space and Recreation Committee, I thank you for your continued support of our open space and recreation efforts.

Very truly yours,

  
James J. Fiorentini  
Mayor



## Merrimack Valley Planning Commission

*plan • develop • promote*

July 11, 2011

Haverhill Open Space and Recreation Committee  
c/o Robert E. Moore, Jr., Haverhill Conservation Department  
City Hall, Room 210  
4 Summer Street  
Haverhill, MA 01830

RE: Regional Review of Haverhill Open Space & Recreation Plan Update

Dear Open Space and Recreation Committee Members:

The Merrimack Valley Planning Commission has reviewed the City of Haverhill's Open Space and Recreation Plan Update and commends your Committee members, the Haverhill Conservation and Planning Department staff, and other contributing partners for a job exceptionally well done. Having worked closely with your planning team on various aspects of the plan, including data development and preparation of supporting GIS maps, we are well aware of the countless hours the Committee members and city personnel devoted to the plan. This comprehensive open space and recreation plan provides a wealth of important new information on the city's open space and recreation facilities and needs, natural resources, community character, socioeconomic conditions, land use, and public infrastructure. Used in conjunction with other city planning and policy documents, this Open Space and Recreation Plan update will be a valuable municipal tool for guiding future growth and preserving the city's outstanding and diverse land, water, and wildlife resources.

We are pleased to note the plan's strong commitment to preserving Haverhill's remaining rural character and agricultural heritage. As you know, the Merrimack Valley region's communities have witnessed an alarming loss of farmland and forest over the last several decades, and, regrettably, this trend is continuing. With each passing year, more family farms and woodlots are being bulldozed into subdivisions. While Haverhill has not escaped this trend, and indeed faces continuing development pressure today, significant parts of the city's outlying areas remain largely unspoiled and worthy of preservation. Despite its recent strong urban growth, focused on "smart and sustainable" downtown revitalization and transit-oriented development, Haverhill still retains much of the beauty and flavor of the traditional New England countryside. Its quiet back roads, expansive and picturesque riparian and watershed lands, historic working farms, and pastoral woodland and wetland habitats are among the most noteworthy and treasured in Essex County. However, as the Open Space and Recreation Plan aptly points out, this current landscape is subject to change, and likely will change if steps are not taken to properly plan for and manage future growth and aggressively preserve the city's special but vulnerable resource areas. Your Open Space and Recreation Plan update represents a positive step in this direction.

We applaud the open, public process the Committee followed in preparing the updated plan. The participation of multiple city boards and committees, as well as of the general public and the business community, demonstrates a broad base of local stakeholder investment in and support for the plan. This support should prove helpful in the months and years ahead as the Open Space and Recreation Committee and city personnel work collaboratively to implement the plan's action recommendations.

160 Main Street, Haverhill, MA 01830

phone - 978.371.0349 • fax - 978.372.4890

Serving the communities of:

Andover Andover Boston Georgetown Groveland Haverhill Lawrence Merrimack Methuen  
Newbury Newburyport North Andover Rowley Salisbury West Newbury



We also commend the Committee and city for the ongoing efforts to provide diverse recreational facilities and experiences for residents of all ages and income levels. Particularly noteworthy in this regard is the exciting Bradford Rail-Trail project in progress. Upon its completion, the Bradford Rail-Trail will be a publicly-accessible, multi-purpose open space for passive, non-motorized recreation, including walking, hiking, bird-watching, bicycling and rollerblading. As a 'green' protected urban park that will ring the city's Downtown between the two main downtown bridges, the Basiliere and Comeau Bridges, the rail-trail will be a featured element of the city's refurbished bike routes. In time, the Bradford Rail-Trail may become part of the east-west 'spur' of the multi-community 'Borders-to-Boston Trail', since the rail corridor that runs through Bradford also traverses Groveland and Georgetown, connecting to the 'B to B' (north-south) Trail.

Thank you for the opportunity to comment on your updated open space and recreation plan. Your planning team has done a truly fine job and merits the appreciation of the entire Haverhill community.

If the MVPC planning staff can be of assistance to the Open Space and Recreation Committee and city conservation and planning personnel in implementing elements of the 5-Year Action Plan, please do not hesitate to call on us.

Sincerely,

A handwritten signature in black ink, appearing to read "Alan Macintosh".

Alan Macintosh  
Assistant Director/Environmental Program Manager





# Haverhill

Economic Development and Planning  
Phone: 978-374-2330 Fax: 978-374-2315  
[wpillsbury@cityofhaverhill.com](mailto:wpillsbury@cityofhaverhill.com)

July 5, 2011

Massachusetts Executive Office of Energy and Environmental Affairs  
Division of Conservation Services  
Attn: Melissa Cryan  
100 Cambridge Street, 9<sup>th</sup> Floor  
Boston, Massachusetts 02114

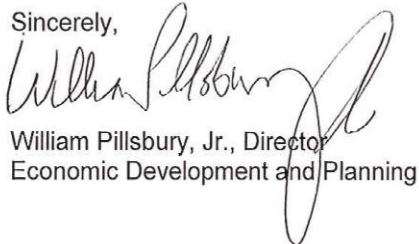
RE: City of Haverhill 2008-2015 Open Space and Recreation Plan

Dear Ms. Cryan,

I would like to convey my support for the Plan developed by our Open Space and Recreation Committee. This Plan lays out a detailed blueprint to assist the City in meeting its open space and recreation goals and objectives. I am particularly pleased with the Plan's call for the promotion of sustainable development with the City and for the improvement of the City's heritage preservation.

On behalf of the City of Haverhill Economic Development and Planning Department, I thank you for your continued support of our open space and recreation efforts.

Sincerely,



William Pillsbury, Jr., Director  
Economic Development and Planning

City Hall Room 201 • 4 Summer Street • Haverhill, MA 01830 • [www.ci.haverhill.ma.us](http://www.ci.haverhill.ma.us)



# Haverhill

Human Services –Director Vincent R Ouellette  
Phone: 978-374-2388 ext 28 Fax: 978-5212626  
vouellette@cityofhaverhill.com

Massachusetts Executive Office of Energy and Environmental Affairs  
Division of Conservation Services  
Attn: Melissa Cryan  
100 Cambridge Street, 9<sup>th</sup> Floor  
Boston, Massachusetts 02114

RE: City of Haverhill 2008-2015 Open Space and Recreation Plan

Dear Ms. Cryan,

I would like to convey my support for the Plan developed by our Open Space and Recreation Committee. I had an active role in the development of this Plan and believe that it will assist the City in meeting its open space and recreation goals.

We have already seen remarkable achievements in implementing this Plan. The new bathroom facilities we installed last year have been of great benefit during this current baseball season. We installed a new playground at the heavily-used Swasey's Field last year and look forward to complete renovations of its ball fields and courts in the near future. I have seen increased interest in promoting paddling in our rivers and lakes. We look forward to the new public access points to be created along the Merrimack and Little Rivers this year.

On behalf of the City of Haverhill Recreation Committee, I thank you for your continued support of our open space and recreation efforts.

Sincerely,

Vincent Ouellette  
Director of Human Services and Recreation

Citizen Center -Council on Aging - Cultural Council--Recreation – Veterans Services  
10 Welcome Street Haverhill Ma 01830



# Haverhill

Economic Development and Planning  
Conservation Department  
Phone: 978-374-2334 Fax: 978-374-2337  
[rmoores@cityofhaverhill.com](mailto:rmoores@cityofhaverhill.com)  
[conservation@cityofhaverhill.com](mailto:conservation@cityofhaverhill.com)

June 30, 2011

Massachusetts Executive Office of Energy and Environmental Affairs  
Division of Conservation Services  
Attn: Melissa Cryan  
100 Cambridge Street, 9<sup>th</sup> Floor  
Boston, Massachusetts 02114

RE: City of Haverhill 2008-2015 Open Space and Recreation Plan

Dear Ms. Cryan,

I would like to convey my support for the Plan developed by the City of Haverhill Open Space and Recreation Committee. The Plan is quite detailed in setting direction to assist the City in meeting its open space and recreation goals. The Haverhill Conservation Commission's staff played a key role in the development of this Plan. I am particularly pleased with the City's establishment of a Forest Management Committee to review the conditions of our conservation areas and other municipal forested lands.

I thank you for your continued support of our open space and recreation efforts.

Sincerely,

Cheryl Ruth Accardi, Chairperson  
Haverhill Conservation Commission

City Hall Room 210 • 4 Summer Street • Haverhill, MA 01830 • [www.ci.haverhill.ma.us](http://www.ci.haverhill.ma.us)



# Haverhill

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## Trails Committee



July 6, 2011

Massachusetts Executive Office of Energy and Environmental Affairs  
Division of Conservation Services  
Attn: Melissa Cryan  
100 Cambridge Street, 9<sup>th</sup> Floor  
Boston, Massachusetts 02114

RE: City of Haverhill 2008-2015 Open Space and Recreation Plan

Dear Ms. Cryan,

I would like to convey my support for the Plan developed by the City of Haverhill Open Space and Recreation Committee. This Plan is an important tool for assisting the City in meeting its open space and recreation goals and objectives. The Haverhill Trails Committee is particularly pleased to already see the establishment of a Forest Management Committee, of which I am a member, to review the conditions of our conservation areas and other municipal forested lands.

On behalf of the Haverhill Trails Committee, I thank you for your continued support of our open space and recreation efforts.

Sincerely,

  
Mark Sheehan, Coordinator  
Haverhill Trails Committee

For Information, Contact: Haverhill Conservation Department, City Hall Room 210, 4 Summer Street,  
Haverhill, MA 01830, Phone: 978-374-2334, [conservation@cityofhaverhill.com](mailto:conservation@cityofhaverhill.com)





# Haverhill

Human Services –Director Vincent R Ouellette  
Phone: 978-374-2388 ext 28 Fax: 978-5212626  
vouellette@cityofhaverhill.com

Massachusetts Executive Office of Energy and Environmental Affairs  
Division of Conservation Services  
Attn: Melissa Cryan  
100 Cambridge Street, 9<sup>th</sup> Floor  
Boston, Massachusetts 02114

RE: City of Haverhill 2008-2015 Open Space and Recreation Plan

Dear Ms. Cryan,

As the Chair of the Haverhill Commission on Disabilities I am pleased to inform you that the Commission has authorized the expenditure \$ 25,000 for an RFP to develop ADA accessible report to include but not limited to public buildings and active and passive recreation parks and play grounds. It s the commissions intention to have the report completed by Jan 1 2012. The current plan was last updated in the mid 1990s.

Sincerely,

Vincent Ouellette  
Director of Human Services

Citizen Center -Council on Aging - Cultural Council—Recreation – Veterans Services  
10 Welcome Street Haverhill Ma 01830

## Section 11

### References

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Watershed Protection Overlay District Ordinance, Section 255-18.1 Watershed Protection District, Haverhill, Massachusetts, February 2, 1998.

“Merrimack River Feasibility Study” by Weston & Sampson, February 2006

“Core Habitats of Haverhill” – BioMap and Living Waters, Guiding Land Conservation for Biodiversity in Massachusetts, by the Massachusetts Natural Heritage and Endangered Species Program, 2004

“Merrimack River 5-Year Watershed Action Plan, 2002-2007”, prepared by the Massachusetts Executive Office of Environmental Affairs, dated May 2002

“Massachusetts Outdoors 2006! State Comprehensive Outdoor Recreation Plan”, prepared by Massachusetts Executive Office of Environmental Affairs, Division of Conservation Services, 2006

“A Market Analysis and Strategic Action Plan for Downtown Haverhill”, prepared by Gruen, Gruen and Associates, dated June 2007

“UrbanRiver Visions 2 – Haverhill Action Plan”, an initiative of the Massachusetts Executive Office of Energy and Environmental Affairs in partnership with the City of Haverhill, 2007

“Haverhill Reconnaissance Report, Essex County Landscape Inventory, Massachusetts Heritage Landscape Inventory Program”, prepared by the Massachusetts Department of Conservation and Recreation and the Essex National Heritage Commission, dated May 2005

"Guide to Farms and Agriculture", prepared by the Essex National Heritage Commission, 2007

"MetroFuture - The Recommended Plan for a Greater Boston Region", prepared by the Metropolitan Area Planning Council, dated May 1, 2007

Smart Growth Smart Energy Toolkit, prepared by the Commonwealth of Massachusetts

Recreation / Conservation Master Plan, prepared by the City of Haverhill, 1984

Open Space and Recreation Plan, prepared by the City of Haverhill, 2000-2005

Comprehensive Guide Plan for the Year 2005, prepared by the City of Haverhill

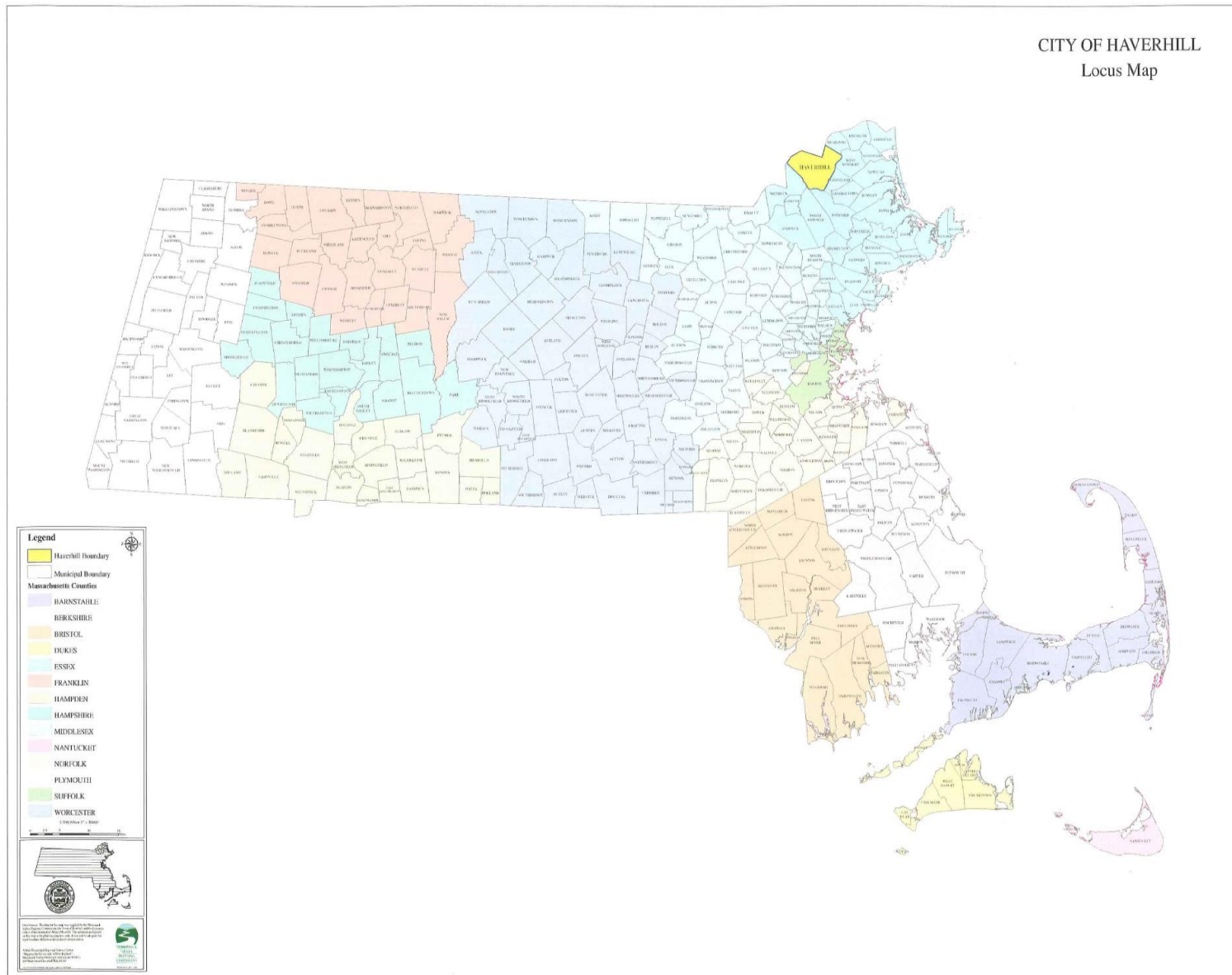
## **Appendix A**

### **2008-2015 Open Space and Recreation Plan Mapping**

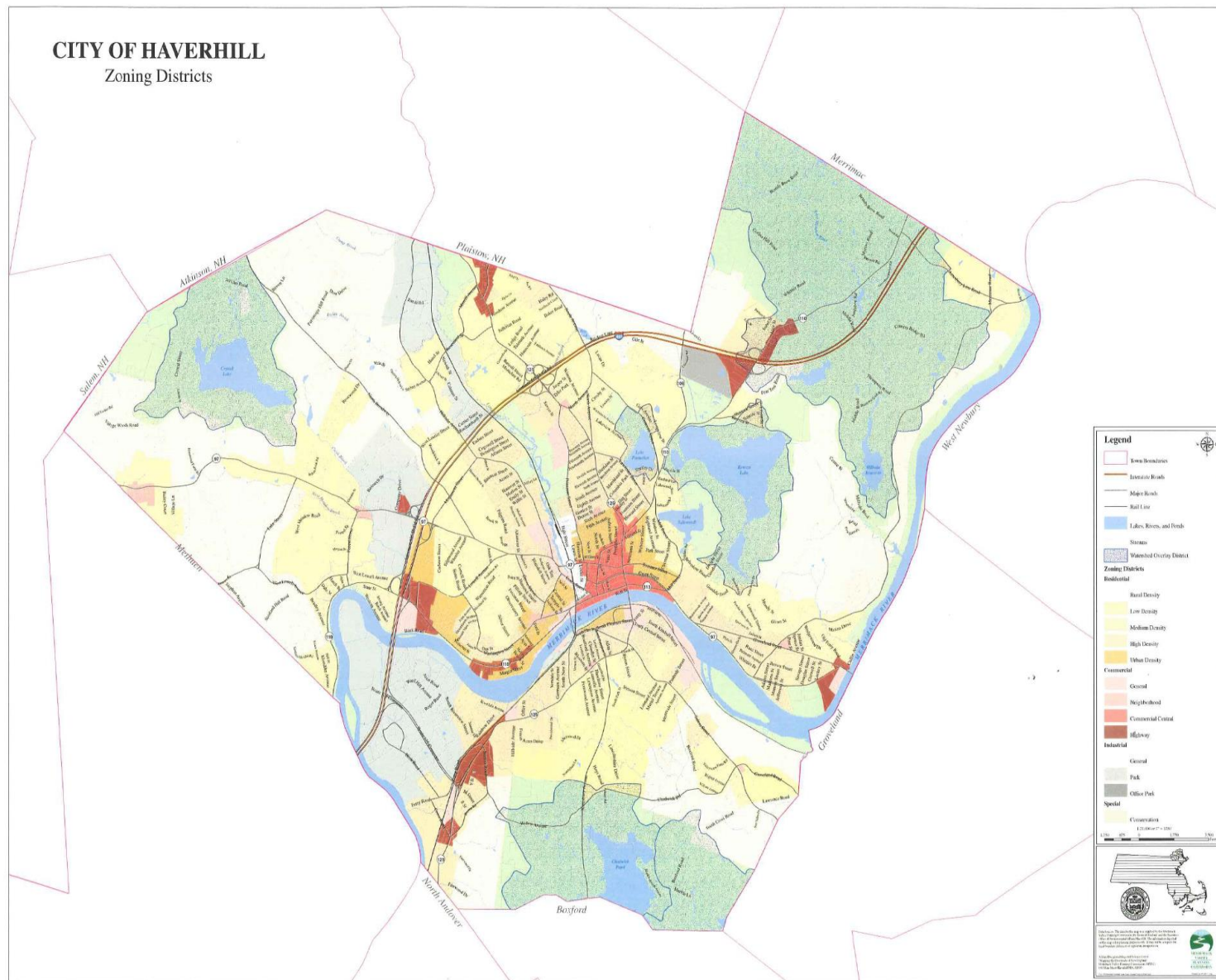
#### **Produced by the Merrimack Valley Planning Commission**

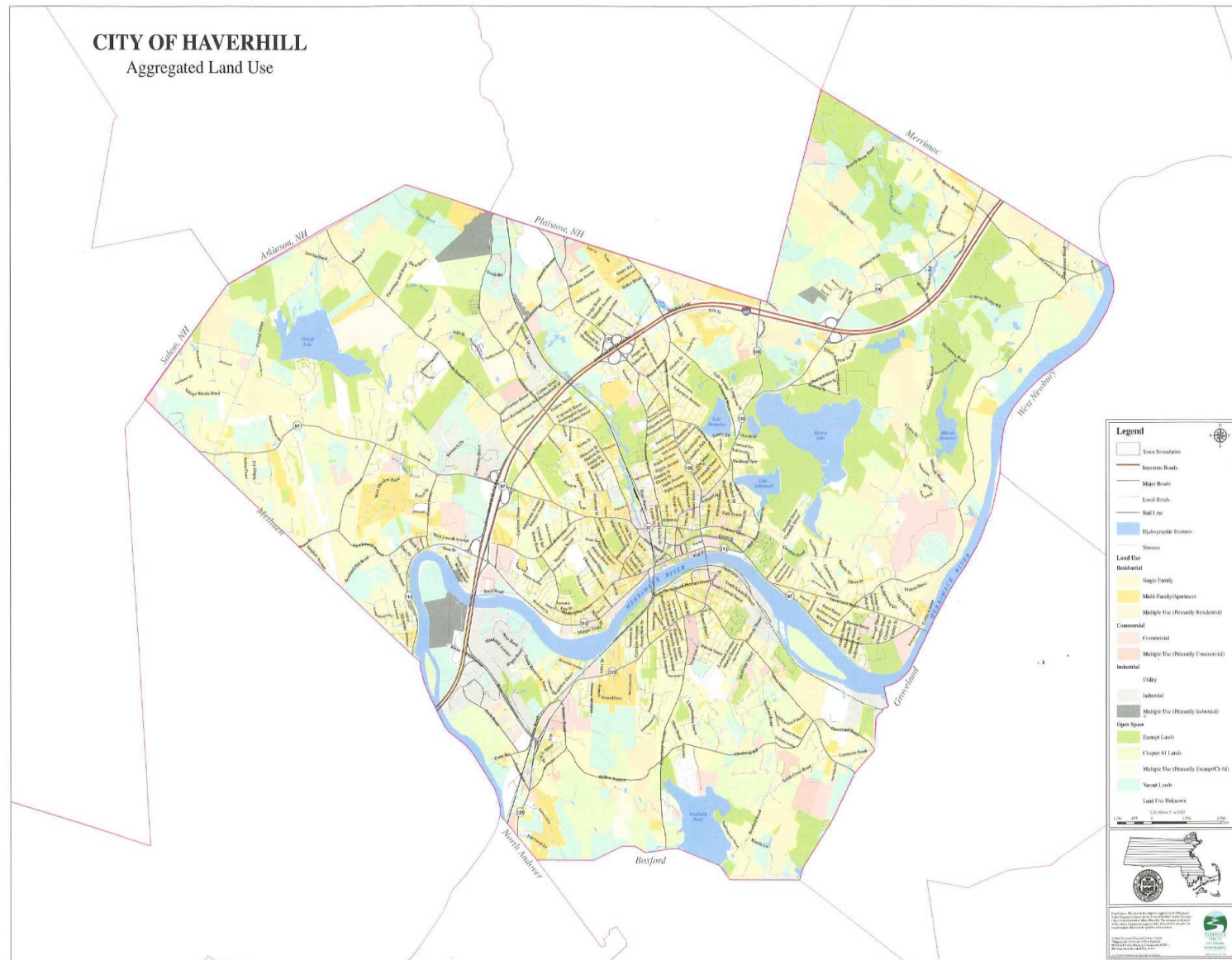
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- Locus Map
- Zoning Districts
- Aggregated Land Use
- Soils and Geologic Features
- Water and Wetland Resources
- Unique Landscape Features
- Scenic, Historic, and Cultural Resources
- Lands of Conservation and Recreation Interest
- 5 Year Action Plan

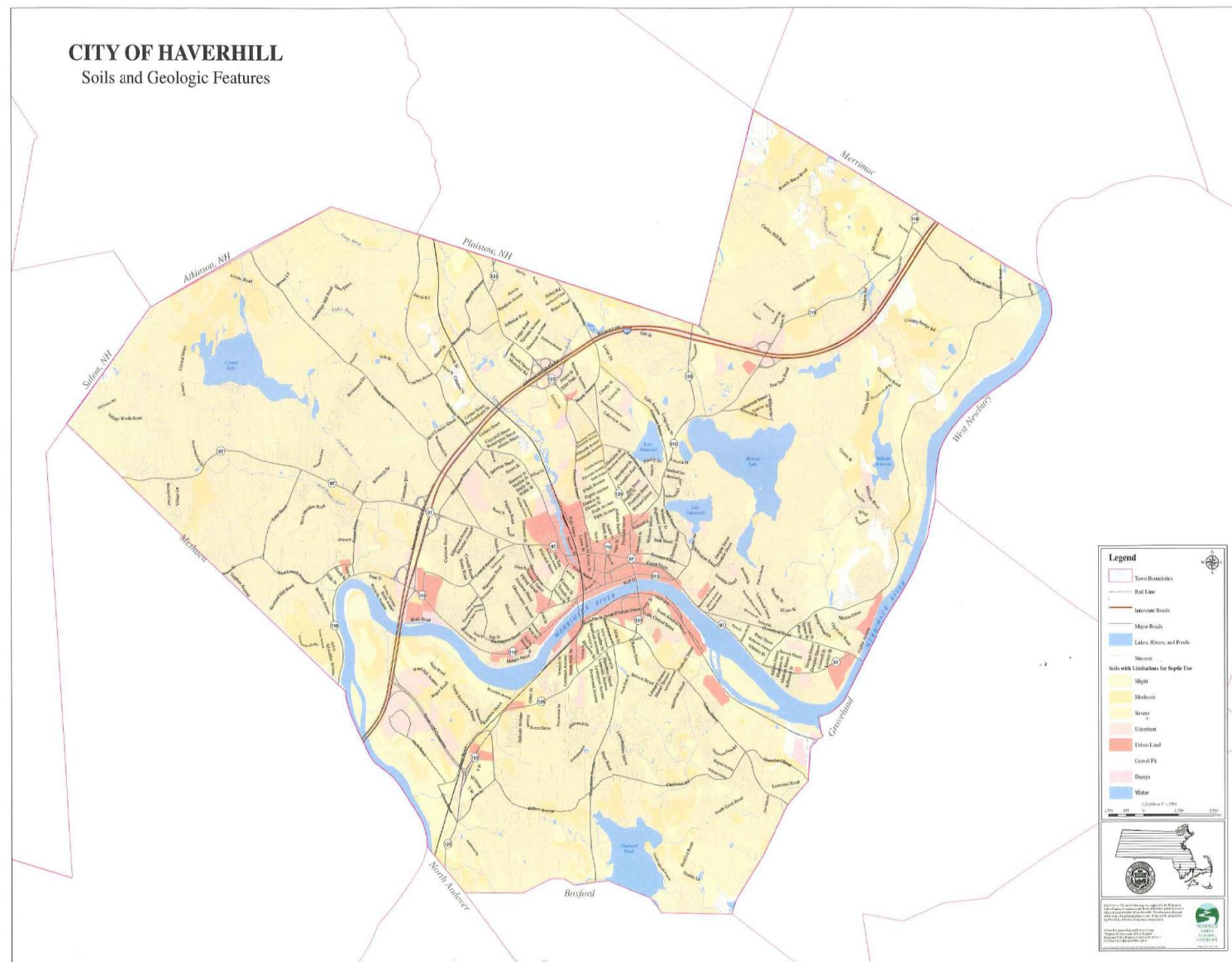


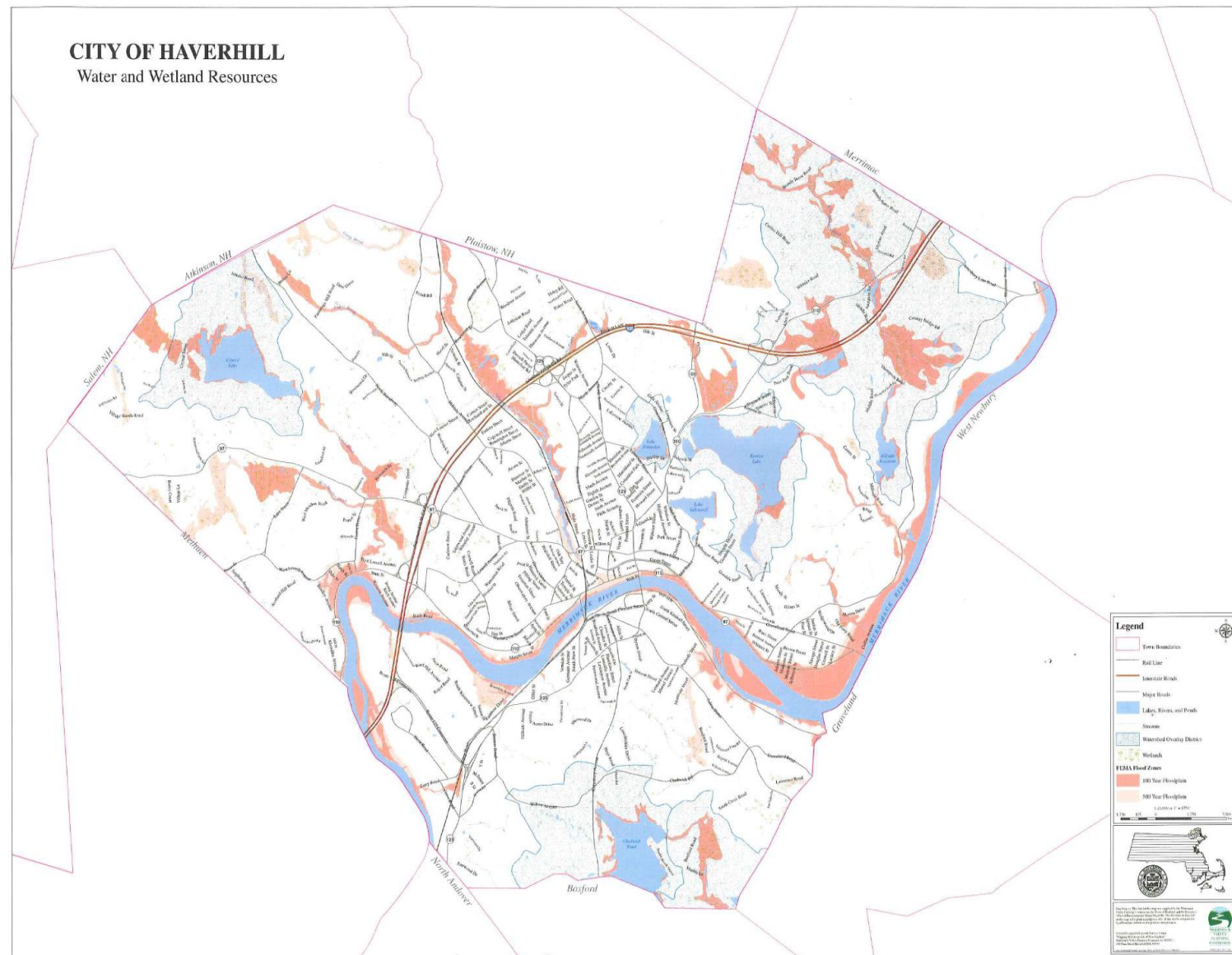


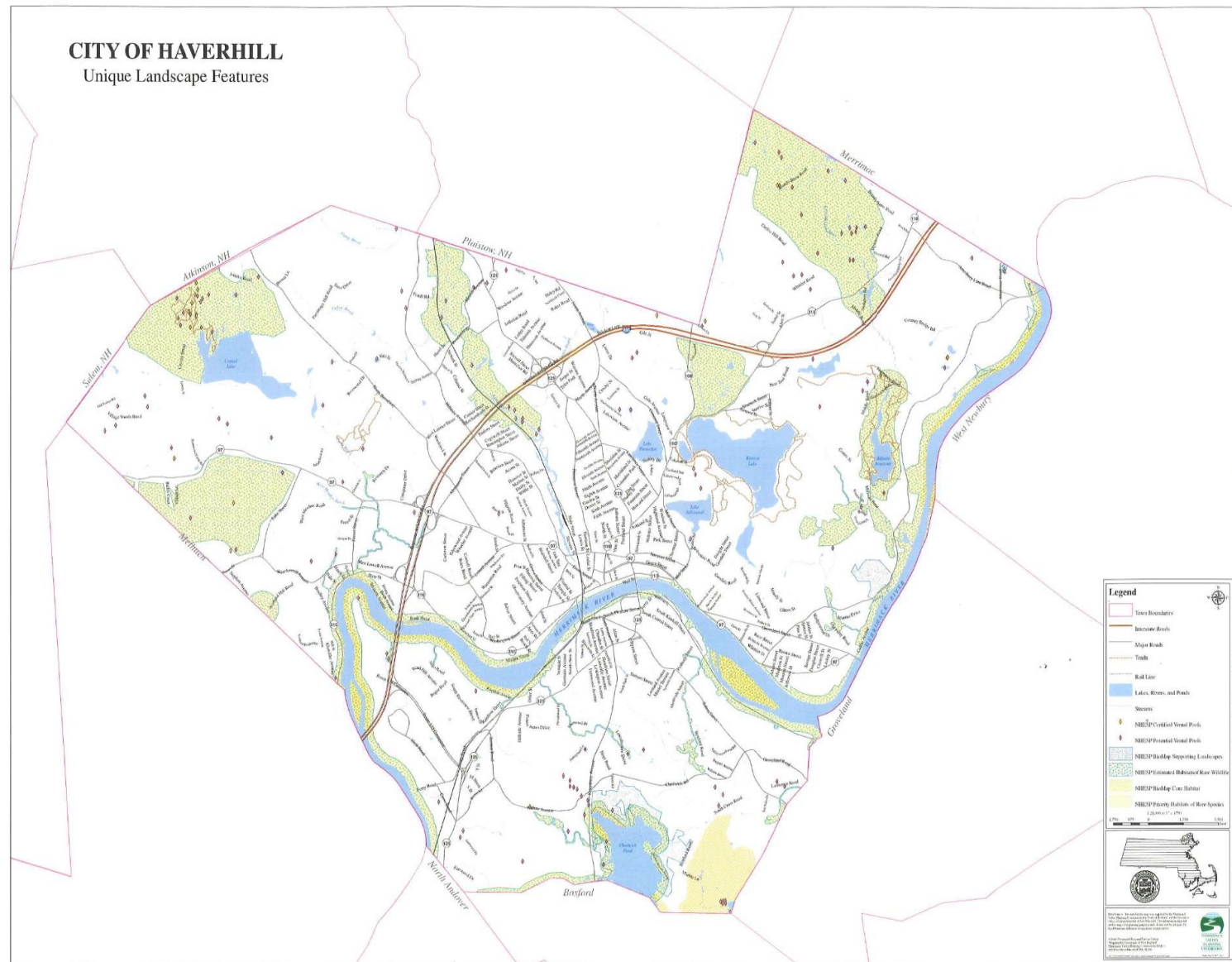




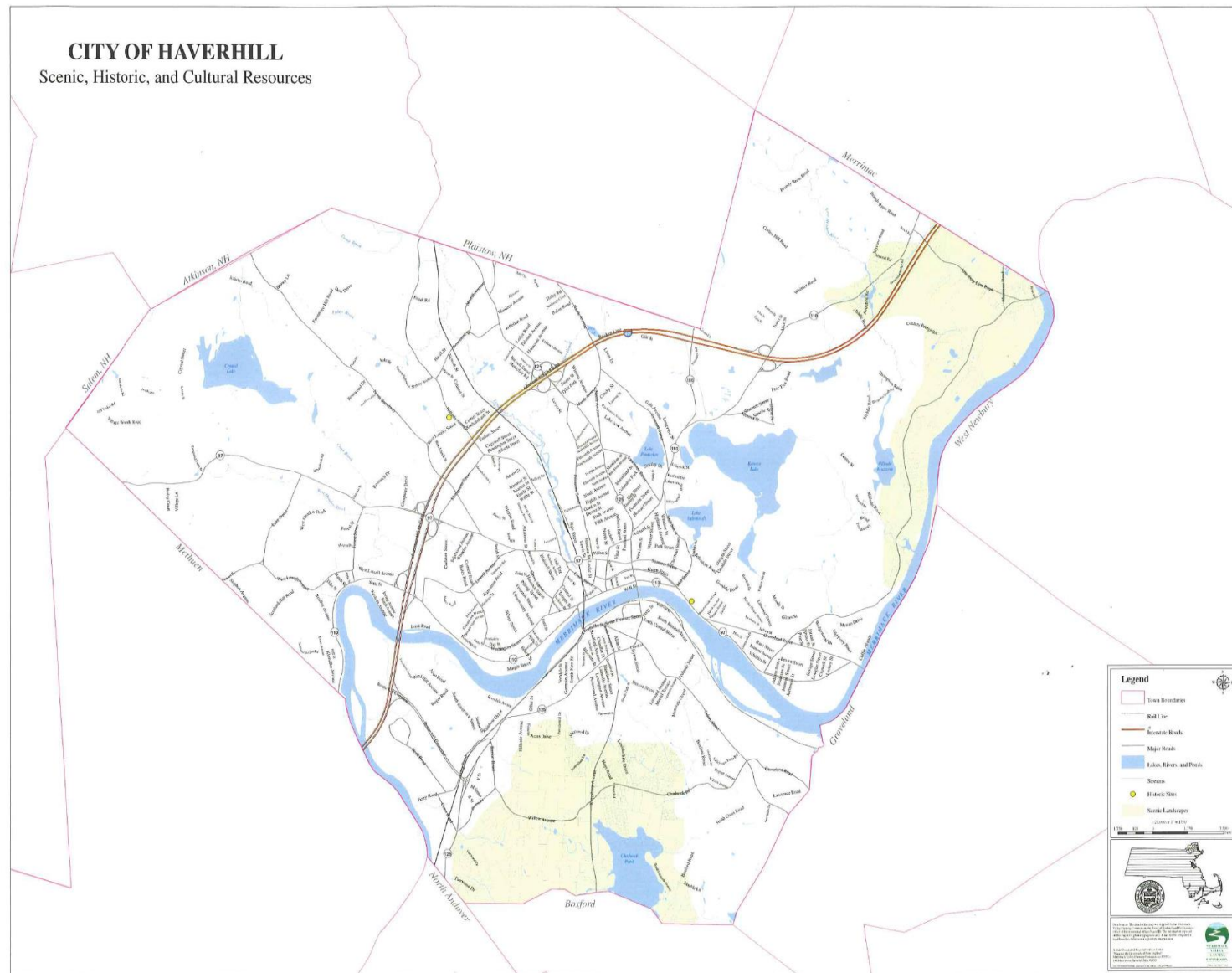












**CITY OF HAVERHILL**  
Lands of Conservation and Recreation Interest

This map illustrates the City of Haverhill, Massachusetts, and its surrounding areas, highlighting lands of conservation and recreation interest. The map includes the Merrimack River, various lakes, and surrounding towns like Andover, North Andover, and Lowell. A legend in the bottom right corner defines symbols for town boundaries, roads, rail lines, water bodies, and conservation areas. A scale bar and north arrow are also present.

**Legend**

- Town Boundaries
- Interstate Roads
- Major Roads
- Rail Line
- Lakes, Rivers, and Ponds
- Streams
- Protected Open Space
- Agricultural Preservation Restriction
- Conservation Easement

Chapter 66 Lands  
12/2004  
1:25,000

Scale: 1 inch = 1 mile  
North Arrow

Map of the City of Haverhill, Massachusetts, showing lands of conservation and recreation interest. The map includes the Merrimack River, various lakes, and surrounding towns like Andover, North Andover, and Lowell. A legend in the bottom right corner defines symbols for town boundaries, roads, rail lines, water bodies, and conservation areas. A scale bar and north arrow are also present.

[illegible]



**Appendix B**  
**1996 Haverhill Community Attitudes Survey Findings**  
**1996 Experience Haverhill Survey**

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## HAVERILL COMMUNITY ATTITUDES SURVEY

HELLO, I AM CALLING ON BEHALF OF THE CITY OF HAVERILL CONSERVATION DEPARTMENT. MAY I SPEAK TO ONE OF THE ADULTS IN CHARGE OF THIS HOME?

TERMINATE, IF CHILD (UNDER 18 YEARS OLD).

THE CITY WOULD LIKE TO KNOW YOUR OPINION ON A FEW ISSUES.

1. Which of these issues do you think is the most serious problem facing the city of Haverill?

1. 18% Traffic congestion
2. 23 Loss of open space and wildlife habitat
3. 10 Protection of our natural resources
4. 11 Quality of city services
5. 5 Quality of city facilities (i.e. buildings and land) 105
6. 5 Maintaining an adequate supply of affordable housing.
7. 8 Water supply and distribution
8. 3 Trash disposal
9. \_\_\_\_\_ Other (state) \_\_\_\_\_ 106

2. Do you think that the city of Haverill is ...

1. 27% Too developed? -----> Go to Q.3
2. 55 About right? -----> Go to Q.3 107
3. 17 Could be more developed? -----> Go to Q.4

3. Which of these two actions do you think should be taken?

1. 34% Reduce the number of building permits granted. 108
2. 38 Increase the zoning restrictions.
3. \_\_\_\_\_ Other \_\_\_\_\_ state 109

4. Are there enough shopping facilities in Haverill?

1. 57% Yes -----> Go to Q.6

110

2. 43 No -----> Go to Q.5

5. Are the additional shopping facilities most needed downtown, in the neighborhoods, or in shopping centers?

1. 74% Downtown

2. 3 Neighborhoods

111

3. 23 Shopping centers

6. Would you be in favor of rezoning parts of Haverill to protect open space and agriculture?

1. 88% Yes

112

2. 9 No

7. Would you be in favor of rezoning parts of Haverill to protect its historical districts?

1. 82% Yes

113

2. 16 No

8. Would you be in favor of rezoning parts of Haverill to provide more commercial and retail development?

1. 50% Yes

114

2. 49 No

9. Would you be in favor of establishing a national historic park for Haverill's leather and other industrial buildings?

1. 70% Yes

115

2. 28 No

10. In your opinion, is Haverill's history adequately supported?

1. 42% Yes
2. 41 No
3. 16 Don't know

116

11. On the subject of preserving Haverill's character and heritage, which of these natural features do you think are important and should be protected, or are important, or are not important. The features are...

	Import/ Protect	Important	Not Import.	
1. Merrimack River and its banks	<u>83</u> %	<u>16</u> %	<u>1</u> %	117
2. Scenic hilltops	<u>42</u>	<u>42</u>	<u>15</u>	118
3. Farms	<u>55</u>	<u>37</u>	<u>6</u>	119
4. Open spaces	<u>60</u>	<u>32</u>	<u>6</u>	120
5. Scenic roads	<u>39</u>	<u>47</u>	<u>13</u>	121
6. Other water resources	<u>82</u>	<u>14</u>	<u>2</u>	122
7. Wildlife	<u>73</u>	<u>21</u>	<u>6</u>	123

12. About what percentage of the city would you say should be preserved as open space for indigenous wildlife and passive recreation?

1. 0 - 10% 12%
2. 11% - 20% 35
3. 21% - 30% 23
4. 31% - 40% 10
5. 41% - 50% 4
6. 51% - 60% 1
7. 61% - 70% 1
8. 71% - 80% 1

124

9. 81% - 90% 1

10. 91% - 100% 1

13. Which of the following types of retail stores and services would you say Haverill needs more of.

1. 3% Banks
2. 10 Food stores
3. 6 Drug stores
4. 45 Clothing stores
5. 13 Hardware stores
6. 26 Household goods (sheets, dishes, etc.) 125
7. 10 Cards/gifts stores
8. 23 Movie houses
9. 20 Restuarants
10. 18 Other (state) \_\_\_\_\_ 126

14. Do you think that there are enough public recreational facilities in Haverill?

1. 53% Yes -----> Go to Q. 16 127
2. 44 No -----> Go to Q. 15

15. In your opinion, which of the following kinds of public recreational facilities most need improvement?

1. 9% Playfields (for active sports)
2. 9 Tot lots
3. 5 Tennis courts
4. 12 Swimming facilities 128
5. 23 Playgrounds
6. 13 River related recreation
7. 3 Other (state) \_\_\_\_\_ 129

16. Would you be in favor of building more multi-family housing (4 or more units) in Haverill?

1. 17% Yes

130

2. 80 No

17. Do you think that the city should encourage building more affordable housing?

1. 52% Yes

131

2. 45% No

18. Which of the following reasons would you say is the chief reason why you moved to Haverill?

1. 13% Convenient to job

2. 21 Available housing in my price range

132

3. 2 Schools

4. 50 I am a lifetime resident

5.      Other (state) \_\_\_\_\_ 133

19. In your opinion, is the amount of industrial development in Haverill too much, too little, or about right?

1. 4% Too much -----> Go to Q.21

2. 40 Too little -----> Go to Q.20

134

3. 54 About right -----> Go to Q.21

20. Would you support rezoning to provide for additional industrial development?

1. 85% Yes

135

2. 16 No

21. At present the city water supply system is unable to meet the current demand for water. The city is considering a project to expand the water supply by

drawing down Crystal Lake. To do so it will be necessary to connect a pipe from Crystal Lake to the Kenoza Reservoir, at a cost of about \$4 million. Who do you think should pay for the cost of this project?

1. 36 % Don't know or have no opinion
2. 19 I do not support the project 136
3. 62 The developers who need new water hook-ups
4. 34 The City (i.e. taxpayers)
5. \_\_\_\_\_ Other \_\_\_\_\_ state 137

22. Would you be in favor of extending the water and sewer system to ....

1. To promote economic development and increased tax revenues.

1-1. 53 % Yes

1-2. 41 No 138

2. To provide utilities to those residential areas presently on private systems.

2-1. 60 % Yes

2-2. 34 No 139

3. To promote expansion in undeveloped residential zoned areas.

3-1. 35 % Yes

3-2. 60 No 140

23. Do you think that the city should restrict sewer and water hook-ups so as to limit growth in undeveloped areas of the city?

1. 60 % Yes

2. 34 No 141

24. Do you think that the city should consider making major expenditures for open space acquisition in order to limit city growth?

24. Do you think that the city should consider making major expenditures for open space acquisition in order to limit city growth?

1. 54% Yes

2. 41 No

142

25. Do you travel to work outside of Haverill?

1. 45% Yes -----> Go to Q. 26

2. 52 No -----> Go to Q. 28

143

26. About how many miles do you travel to work?

1. 7% Under 5 miles

2. 23 5-10 miles

3. 33 11-20 miles

4. 27 Over 20 miles

144

5. 10 In the greater Boston area (within Rt.128 corridor)

THE FOLLOWING DEMOGRAPHIC QUESTIONS ARE ASKED ONLY FOR STATISTICAL PURPOSES.

27. Is your age ...

1. 17% 18-24 years

2. 17 25-34 "

3. 21 35-44 "

4. 15 45-54 "

5. 8 55-64 "

6. 26 65 or over

145

28. Which of these categories best describes your occupation?

1. 33% Professional/technical worker

2. 6 Manager/proprietor



3. 7 Clerical
4. 6 Sales
5. 8 Craftsman/supervisor
6. 5 Homemaker
7. 27 Retired
8. 3 Not working at present
9.      Other(state) \_\_\_\_\_

146

147

29. How long have you lived in Haverill?

1. 3% Less than 2 years
2. 11 2-5 years
3. 10 6-10 years
4. 73 More than 10 years

148

30. Which of these statements best describes your living arrangement. You ...

1. 66% Own and live in a single family house
2. 8 Own and live in a two family house
3. 3 Own and live in a condominium
4. 18 Rent an apartment or house
5.      Other(state) \_\_\_\_\_

149

150

31. Do you live in Ward 1,2,3, or 4?

1. 3% Ward 1
2. 8 Ward 2
3. 11 Ward 3
4. 13 Ward 4
5. 63 Don't know

151

32. Is your total annual family income (before taxes)

1. 97 Under \$15,000
2. 17 15,000 - 29,999
3. 29 30,000 - 49,999
4. 18 50,000 - 69,999
5. 13 Over \$70,000

152

THANK YOU FOR TAKING THE TIME OUT TO ANSWER THESE  
QUESTIONS. IT WILL HELP MAKE OUR CITY A BETTER PLACE TO  
LIVE!

\_\_\_\_\_  
Initials

## EXPERIENCE HAVERHILL “New England’s Home Town”

Please fill out this survey if you live in Haverhill. For each question, please check the blank that best represents your opinion.

### Your Quality of Life

**1. What three things do you like most about living in Haverhill ?**

1. \_\_\_\_\_ 2. \_\_\_\_\_ 3. \_\_\_\_\_

**2. What three things do you like least about living in Haverhill ?**

1. \_\_\_\_\_ 2. \_\_\_\_\_ 3. \_\_\_\_\_

### Your Ideas For Downtown & Recreational Planning

**3. In the past 12 months, how frequently, if ever, have you done each of the following things?**

	Never	Occasionally	Often	Regularly
• Used the Haverhill Public Library	_____	_____	_____	_____
• Visited area pick-your-own fruit or animal farm	_____	_____	_____	_____
• Visited Winnekenni Park	_____	_____	_____	_____
• Visited a neighborhood or town park	_____	_____	_____	_____
• Cross-country skied	_____	_____	_____	_____
• Visited the town beach at Lake Saltonstall(Plug Pond)	_____	_____	_____	_____
• Downhill skied	_____	_____	_____	_____
• Visited area ocean beaches	_____	_____	_____	_____
• Visited area health and fitness facilities	_____	_____	_____	_____
• Used the Merrimack River in Haverhill for fishing or boating	_____	_____	_____	_____
• Canoeed	_____	_____	_____	_____
• Bicycled/Jogged	_____	_____	_____	_____
• Recycled paper, cans, or bottles from your home	_____	_____	_____	_____
• Fished area waters	_____	_____	_____	_____
• Hiked Haverhill Trails	_____	_____	_____	_____
• Visited a Conservation Area	_____	_____	_____	_____
• Visited the skating rink	_____	_____	_____	_____
• Golfed	_____	_____	_____	_____
• Swam at the High School Pool	_____	_____	_____	_____

**4. Realizing that not all of these projects can be undertaken, please rate each of the following as to its importance in enhancing Haverhill’s community character.**

	Very Important	Somewhat Important	Not Imp’t	Don’t Know
• Protect Farmland in Haverhill	_____	_____	_____	_____
• Protect large trees along town streets	_____	_____	_____	_____
• Develop bike trails in town	_____	_____	_____	_____
• Build a river viewing area downtown	_____	_____	_____	_____
• Build a walkway and hiking trails along the Merrimack River	_____	_____	_____	_____
• Promote canoeing in city lakes and rivers	_____	_____	_____	_____
• Repave downtown side walks with red bricks and otherwise preserve historic aspects of the city	_____	_____	_____	_____
• Develop sports fields downtown	_____	_____	_____	_____
• Develop an outdoor activity area for rollerblading and skateboarding	_____	_____	_____	_____
• Develop mountain bike trails	_____	_____	_____	_____

**5. What do you feel are important natural features of Haverhill character, and heritage ?**

(Please respond by checking off one column for each item)

	Important, Should be Protected	Important	Not Important
• Merrimack River and its Banks	_____	_____	_____
• Hilltops	_____	_____	_____
• Farms	_____	_____	_____
• Open Spaces/Conservation Areas	_____	_____	_____
• Scenic Roads	_____	_____	_____
• Other Water Resources (e.g. lakes, ponds, streams, watersheds, wetlands)	_____	_____	_____
• Wildlife	_____	_____	_____

**6. Would you be in favor of the establishment of a State Park in the city that offered picnicking, swimming, nature trails, and camping ?** a. ☐ Yes b. ☐ No

Questions About You

**7. About how many years have you lived in Haverhill ? \_\_\_\_\_ years.**

**8. Please check the AREA in which you live.**

Ward Hill \_\_\_\_\_ Central Bradford \_\_\_\_\_ Eastern Bradford \_\_\_\_\_ Ayers Village \_\_\_\_\_  
 Rocks Village \_\_\_\_\_ Downtown Haverhill \_\_\_\_\_ Whittier Birthplace Region \_\_\_\_\_  
 The Avenues \_\_\_\_\_ Upper Main St. \_\_\_\_\_ Bradley Brook \_\_\_\_\_ Riverside \_\_\_\_\_  
 North Broadway/Hilldale \_\_\_\_\_ Mt. Washington \_\_\_\_\_ Kenoza Lakes Region \_\_\_\_\_

**9. Where do you spend most of your entertainment & recreational time: (Check One)**

Haverhill \_\_\_\_\_ Merrimack Valley \_\_\_\_\_ New Hampshire \_\_\_\_\_ Maine \_\_\_\_\_

**10. Please indicate the appropriate gender and age for yourself.**

Male ☐ Female ☐ AGE: \_\_\_\_\_

**THANKS FOR YOUR IDEAS IN MAKING  
HAVERHILL THE BEST IT CAN BE!**

**Appendix C**  
**2007 Haverhill Open Space and Recreation**  
**Community Vision Survey Final Results**

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## 2007 Haverhill Open Space and Recreation Community Vision Survey

1. Do you feel there is a need to preserve open space in Haverhill?

	Response	Response
	Percent	Count
Yes	95.9%	257
No	1.1%	3
Not Sure	3.0%	8
	<i>answered question</i>	268
	<i>skipped question</i>	1

2. Do you think that Haverhill has enough youth recreational opportunities?

	Response	Response
	Percent	Count
Yes	18.6%	50
No	62.1%	167
Not Sure	19.3%	52
	<i>answered question</i>	269
	<i>skipped question</i>	0

3. Do you think that Haverhill has enough adult recreational opportunities?

	Response	Response
	Percent	Count
Yes	14.2%	38

No	64.2%	172
Not Sure	21.6%	58
<i>answered question</i>		268
<i>skipped question</i>		1

4. Does the City meet your expectations in regards to the following needs?

	Response			
	Yes	No	Needs Improvement	Don't Know
City Resources (e.g. Library, Citizens' Center...)	59.2% (158)	3.7% (10)	34.1% (91)	3.0% (8)
City Facilities (e.g. Ice Rink, High School Pool...)	37.6% (100)	11.7% (31)	39.5% (105)	11.3% (30)
City Programs (e.g. athletic leagues, festivals, recycling...)	23.8% (63)	17.4% (46)	54.3% (144)	4.5% (12)
Private Recreational Facilities (e.g. athletic/fitness clubs,golf courses, skiing...)	74.4% (198)	7.9% (21)	11.3% (30)	6.4% (17)
Heritage Preservation (e.g. Buttonwoods Museum, J.G. Whittier's Birthplace, Tattersall Farm...)	52.7% (139)	10.6% (28)	24.6% (65)	12.1% (32)
Fostering Farming Land Uses (e.g. pick-your-own fruit or animal farms)	22.7% (61)	29.4% (79)	34.9% (94)	13.0% (35)
Managing Growth to Ensure Appropriate Protection of Open Space and Recreational Needs	10.2% (27)	38.3% (102)	38.7% (103)	12.8% (34)
Other/Comments:				
			<i>answered question</i>	269
			<i>skipped question</i>	

## 5. Does the City meet your expectations in regards to providing and maintaining:

	Response				Count
	Yes	No	Needs Improvement	Don't Know	
Large parks (e.g. Winnekenni Park, Riverside Park and Plugs Pond)	41.2% (110)	13.5% (36)	<b>43.1% (115)</b>	2.2% (6)	267
Small neighborhood parks (e.g. Cashmans Field and 12th Avenue)	15.8% (42)	20.3% (54)	<b>47.0% (125)</b>	16.9% (45)	266
Passive-recreational areas (e.g. Meadow Brook Conservation Area)	21.3% (56)	11.4% (30)	24.7% (65)	<b>42.6% (112)</b>	263
Bicycle, jogging, and hiking trails throughout the City	16.1% (43)	23.2% (62)	<b>46.4% (124)</b>	14.2% (38)	267
Outdoor winter activities (e.g. cross-country skiing, skating, sledding...)	23.2% (61)	22.8% (60)	<b>39.2% (103)</b>	14.8% (39)	263
Outdoor summer activities (e.g. public beach swimming, boating, fishing...)	27.5% (73)	18.5% (49)	<b>40.0% (106)</b>	14.0% (37)	265
Boating and fishing access to the Merrimack River	23.5% (62)	12.5% (33)	<b>35.6% (94)</b>	28.4% (75)	264
Boating and fishing access to the City's lakes and ponds	30.4% (80)	9.9% (26)	28.5% (75)	<b>31.2% (82)</b>	263
Baseball and softball fields	<b>40.1% (107)</b>	12.7% (34)	33.0% (88)	14.2% (38)	267
Soccer and football fields	27.9% (74)	17.0% (45)	<b>32.1% (85)</b>	23.0% (61)	265
Basketball courts	20.1% (53)	16.3% (43)	<b>38.3% (101)</b>	25.4% (67)	264
Tennis courts	19.3% (51)	17.8% (47)	<b>33.7% (89)</b>	29.2% (77)	264
Playgrounds and tot lots	17.4% (46)	20.1% (53)	<b>43.2% (114)</b>	19.3% (51)	264
Skateboarding parks	10.7% (28)	21.8% (57)	26.3% (69)	<b>41.2% (108)</b>	262
Handicapped-friendly play equipment	7.0% (18)	16.0% (41)	26.6% (68)	<b>50.4% (129)</b>	256



Other/Comments:

75

*answered question*

**267**

*skipped question*

**2**

6. Please rate each of the following as to its importance in enhancing Haverhill's community character:

	Very Important	Somewhat Important	Not Important	Don't Know	Rating Average	Response Count
Protecting open space and wildlife	<b>82.8% (222)</b>	14.6% (39)	1.5% (4)	1.1% (3)	1.00	268
Providing zoning protections for street trees, hilltops, and scenic roads	<b>73.9% (198)</b>	22.4% (60)	2.2% (6)	1.5% (4)	1.00	268
Protecting farmland	<b>76.1% (204)</b>	19.4% (52)	3.7% (10)	0.7% (2)	1.00	268
Protecting the Merrimack River	<b>91.8% (245)</b>	7.1% (19)	0.4% (1)	0.7% (2)	1.00	267
Restoring the Merrimack River channel to provide for larger boat use	33.7% (90)	<b>37.5% (100)</b>	22.5% (60)	6.4% (17)	1.00	267
Constructing a downtown riverwalk along the Merrimack River	<b>52.6% (141)</b>	41.8% (112)	3.7% (10)	1.9% (5)	1.00	268
Promoting paddling in the City's lakes and rivers	<b>41.0% (110)</b>	39.9% (107)	15.3% (41)	3.7% (10)	1.00	268
Protecting other water resources	<b>82.8% (222)</b>	16.0% (43)	0.0% (0)	1.1% (3)	1.00	268
Creating conservation areas/hiking trails	<b>70.9% (190)</b>	26.9% (72)	1.9% (5)	0.4% (1)	1.00	268
Developing bicycle & jogging trails	<b>58.4% (156)</b>	36.3% (97)	3.4% (9)	1.9% (5)	1.00	267
Preserving historic aspects of the City	<b>75.5% (203)</b>	21.2% (57)	2.6% (7)	0.7% (2)	1.00	269
Developing athletic fields	<b>48.5% (130)</b>	39.9% (107)	9.3% (25)	2.2% (6)	1.00	268

Creating playgrounds & tot lots	<b>50.7% (136)</b>	42.5% (114)	4.9% (13)	1.9% (5)	1.00	268
Adding supervised summer recreational programs	<b>56.2% (150)</b>	33.3% (89)	7.1% (19)	3.4% (9)	1.00	267
Other/Comments:						45

*answered question* **269**

*skipped question* **0**

7. To preserve open space in Haverhill, would you:

	Response			
	Yes	No	Not Sure	Count
Donate land to a land trust	21.6% (53)	<b>42.9% (105)</b>	35.5% (87)	245
Donate money to buy land	<b>37.5% (94)</b>	26.7% (67)	35.9% (90)	251
Rewrite your deed to limit future development of your land	<b>37.8% (93)</b>	28.5% (70)	33.7% (83)	246
Sell land to the City at a "bargain price"	11.2% (27)	<b>48.8% (118)</b>	40.1% (97)	242
Sell or contribute a Conservation Restriction to protect your land from future development	<b>38.5% (94)</b>	26.6% (65)	34.8% (85)	244
Sell some land to the City at fair market value	31.8% (77)	<b>34.3% (83)</b>	33.9% (82)	242
Vote for a City-supported land acquisition program	<b>64.1% (164)</b>	9.0% (23)	27.0% (69)	256
Other/Comments:				62

*answered question* **258**

*skipped question*

## 8. Do you favor the following City actions to preserve open space?

	<b>Response</b>			
	Yes	No	Not Sure	<b>Count</b>
Combination of public & private action	<b>82.3% (218)</b>	3.0% (8)	14.7% (39)	265
Receipt of Conservation Restrictions	<b>59.8% (156)</b>	5.7% (15)	34.5% (90)	261
City purchases of land	<b>74.9% (197)</b>	7.2% (19)	17.9% (47)	263
Zoning for open space conservation	<b>89.8% (239)</b>	1.5% (4)	8.6% (23)	266
Mandatory dedication of open space by developers	<b>81.2% (216)</b>	5.3% (14)	13.5% (36)	266
Purchase of development rights	<b>52.5% (135)</b>	6.2% (16)	41.2% (106)	257
Property tax reduction programs for farm, forest, and recreation land	<b>81.1% (215)</b>	5.3% (14)	13.6% (36)	265
Other/Comments:				21
	<b><i>answered question</i></b>			<b>267</b>
	<b><i>skipped question</i></b>			<b>2</b>

## 9. Please offer your comments or suggestions regarding open space and recreational goals for the City of Haverhill:

**Response****Count**

85

<i>answered question</i>	85
<i>skipped question</i>	184

## Appendix D

### 2007 Haverhill Open Space and Recreation Community Vision Survey - Respondent "Other/Comments" Results Followed by Committee Interpretations

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Question #4. Does the City meet your expectations in regards to the following needs?		
#	Response Date	Comment
1.	Fri, 7/13/07 7:52 PM	we need more of a commitment from the city for HIGH Quality arts and recreation sources
2.	Sat, 7/14/07 12:54 PM	haverhill is the 2nd largest city in land area in the state and can't seem to provide a decent soccer or lacrosse facility for our youth or adults. I think it is a shame our city can't provide enough space for a facility like the Riverside Baseball complex for the youth and ADULTS that play soccer or lacrosse.
3.	Tue, 7/17/07 8:17 PM	The City does not have enough drinking water to support current growth rate
4.	Thu, 7/19/07 9:59 PM	I believe we are selling our city properties and resources as short term solutions, and not considering the future in the process!
5.	Fri, 7/20/07 12:46 AM	Why are there so few playgrounds in Haverhill? Also why are there no bathrooms at Winnekenni Park? What about outhouses?
6.	Sat, 7/21/07 11:57 AM	The Library is my favorite place in town and there is no good reason that it should ever suffer the threat of closure.
7.	Mon, 7/23/07 3:35 PM	I do not understand the "City Programs" question. 'Festivals' and 'Recycling' in the same category? I think our city sponsored festivals are fine but our recycling program is horrific. Please give more and better thought to what it is you are asking about and how you ask. A question such as this will not yield any useful results because each respondent will focus on a different example.
8.	Mon, 7/23/07 4:51 PM	Go to the high school pool, the condition of the locker rooms are a disgrace to the City of Haverhill.

Question #4. Does the City meet your expectations in regards to the following needs?		
9.	Mon, 7/23/07 4:54 PM	Haverhill needs to preserve it's history and whats left of open space. It's a disgrace on what has happened here. I wish the kids had what I had growing up in Haverhill. It was a great place not so long ago.It's a shame that when I look around and see the condition and quality of life change for the worse it's no wonder that all my Haverhill native friends have moved away.We need to slow down and take care of what we have.Please listen to the people who care before we all move out.
10.	Tue, 7/24/07 1:16 AM	ice rink and pool need updating - recycling program needs to be improved
11.	Tue, 7/24/07 3:40 AM	As a middle aged couple, my husband and I like to go walking. Due to lack of sidewalks in our neighborhood we often have to resort to driving to the other side of the city to walk at Rivrside Stadium. It would be wonderful to have more parks on the eastern and north eastern side of the city.
12.	Tue, 7/24/07 9:57 AM	cant even put docks in on time to fish or clean down the river
13.	Tue, 7/24/07 1:23 PM	The few open spaces we do have are not being maintained and are quickly deteriorating.
14.	Wed, 7/25/07 11:40 AM	The city of Haverhill has many wonderful facilities and opportunities for recreation but the problem is maintenance and advertising. The city does not maintain the facilities and therefore they fall to disrepair. The city needs to do a better job. The state owned city run skating rink should not be in the condition it is in. When property is owned it must be maintained. Open space in some areas of the city are not maintained and the grass is overgrown, trash is all over the place and the playgrounds are vandalized. Please do a better job as the open space and facilities in Haverhill are a great asset to the city and could attract people to Haverhill but not if they are not maintained.
15.	Thu, 7/26/07 2:21 PM	why doesn't the city have an off leash dog park?
16.	Fri, 7/27/07 3:18 PM	It would be great to have an organic farm nearby to be able to participate inthe community supported agriculture program locally.

Question #4. Does the City meet your expectations in regards to the following needs?		
17.	Sat, 7/28/07 5:42 PM	I would love to see fun things come to Haverhill. Maybe a water park off River Street where there is empty spots where old and young can enjoy. Love to see them stop building in the rural areas. But especially a place for teens to just hang out and enjoy themselves because there is NO place.
18.	Sat, 7/28/07 9:21 PM	woefully behind the times with recycling; way too much focus on development & very little focus on conservation of land
19.	Mon, 7/30/07 1:07 AM	Haverhill has no vision and no leadership to guide such vision. It is haphazard in its development, and ugly!
20.	Mon, 7/30/07 3:17 PM	Preservation of open space it very important to our quality of life. Not only to protect our drinking water but also our porperetty values and sense of well being.
21.	Mon, 7/30/07 3:21 PM	more information is needed regading recycling
22.	Mon, 7/30/07 4:17 PM	The city Ice Rink is need of alot of help. Someone should be looking into grants or funds available. One only needs to look at the Rink at Newburyport to see how much better the Haverhill Rink could be. Also it would be nice for someone to find out why the Haverhil Figure Skating Group (with 30 yr history) had to leave the Haverhill Rink. It's frustrating as a figure skating parent that now I have to go to a private rink. Also check the Hockey Tournaments that are round the area, yet Haverhill has one (lower scale) once a year MAYBE!! I was thinking that someone should think of these tournaments as rink fund raisers and development some sort of history and following. The rink needs help from someone!!!!!!!!!!!!!! I know your focus is baseball but honestly the rink needs attention and of course \$\$.
23.	Mon, 7/30/07 6:55 PM	Please, we need to have plastics and other recyclables picked up at the house
24.	Tue, 7/31/07 1:28 AM	need outdoor restrooms at parks, playing fields need professional maintenance periodically, recycling needs growth
25.	Tue, 7/31/07 3:20 AM	Haverhill needs a performing arts center. All of the dance studios have to go outside the city in order to have there

Question #4. Does the City meet your expectations in regards to the following needs?		
		recitals. In doing so, they spend on an average \$2000 for about 8 hrs of time. I have always thought the old Woolworth building should be made into a performing arts building.
26.	Tue, 7/31/07 3:29 AM	I think the city is already doing a good job, but with economic growth and real estate development there needs to be a fair balance of protecting our common area. For Haverhill to thrive in the future we need to act now.
27.	Tue, 7/31/07 3:46 AM	On Recycling - more plastics
28.	Tue, 7/31/07 11:15 AM	get rid of graffiti everywhere, replant trees that are cut down, remove stumps left everywhere
29.	Tue, 7/31/07 11:47 AM	Need more parking for downtown area. I drive to Plaistow post office because they have a real parking lot.
30.	Tue, 7/31/07 12:13 PM	would like to see more curbside recycling, to include glass and plastic
31.	Tue, 7/31/07 12:22 PM	improve the waterfront. stop putting up large condo buildings on the water
32.	Tue, 7/31/07 12:24 PM	The public recreational areas need to be maintained. Baseball fields were not mowed during the season, tennis courts have sagging nets & need resurfacing. These are few examples why residents go to other nearby towns and utilize their space.
33.	Tue, 7/31/07 12:48 PM	I'd like to see more play grounds
34.	Tue, 7/31/07 1:21 PM	recycling program is way behind other cities I have lived in. It is VERY limited.
35.	Tue, 7/31/07 5:53 PM	The size City Haverhill is it is sad that the City does little or nothing for sports program for children. Other local communities support and help thier programs. Haverhill doesn't help or support these organizations. The cost to help and support programs out ways the future cost lost children in the community.
36.	Tue, 7/31/07 8:44 PM	I think the city should demand more of residential developers. Housing developments should be required to maintain and plant new trees. Developers who take away open space and otherwise natural habitats should give



Question #4. Does the City meet your expectations in regards to the following needs?		
		back to the environment or community - parks, playgrounds school yards etc..
37.	Tue, 7/31/07 10:03 PM	If facilities for public use are to be built on the Merrimack, they should be in open, public areas, not behind private restaurants. If that is the case, do not use public funds.
38.	Wed, 8/1/07 3:10 AM	City fails to buy land for protection and ConCom is missing from Open Space protection efforts - NEED CPA
39.	Wed, 8/1/07 2:24 PM	i am over 40 acutally 50 would like to see adult sports related activities in haverhill like over 40 soccer league etc
40.	Wed, 8/1/07 4:38 PM	Recycling - I love the idea of recycling. Right now I recycle paper. I think they should offer additional curbside recycling (i.e. plastic, glass). I know myself I have no desire to drop off the recycling.
41.	Wed, 8/1/07 7:27 PM	Protection of scenic vistas is also needed. Designation of scenic roadways and their protection is needed.
42.	Wed, 8/1/07 7:47 PM	In other towns adult and younger age groups use schools to keep kids off the streets. I don't see it here.
43.	Thu, 8/2/07 12:30 PM	Please PLEASE preserve our wonderful historic buildings and homes. Offer tax incentives to those who own historic buildings to preserve them and not sell them to thoise who would and cannabalize them for architectural salvage(remember the Unitarian Chursh and the loss of the Tiffany windows!!!)
44.	Thu, 8/2/07 3:11 PM	Haverhill is allowing building on every ounce of open space. We will have nothing pretty to look at and although we are building like crazy, we never seem to have the finances to maintain good basic services to those already living in Haverhill. People (like myself) who have chosen to stay in Haverhill did so because of the beauty of the city. We are sadly allowing that to become simply more and more housing. If enough is taken away, I will seek it somewhere else. I am also requesting that Haverhill invest in actual open space. Do not build a soccer field and tell me that is the same thing. Open space opportunities like Don Orione (too late now: soon to

Question #4. Does the City meet your expectations in regards to the following needs?		
		be 26 houses and already an environmental blight) and the nearby Sylsby farm would have been ideal. Simple open space to see, walk in, house animals with an ever decreasing habitiat, and value for its inherent beauty.
45.	Thu, 8/2/07 4:53 PM	The swamp across from Kenoza Lake is a great area for bird watching. Can it be made usable to the public? - There is land around the East Meadow River that would make a great nature walk - there are many wild animals and plants that can be studied in their natural habitat. You can learn a whole lot more about nature by being there than from reading about it in a book.
46.	Fri, 8/3/07 1:28 PM	We should have Glass,Plastic,Metal, and Plastic curbside pick up as other towns do.
47.	Sat, 8/4/07 12:24 AM	a community garden would be great... where citizens could rent or be granted (in some cases) a little plot to grow vegetables
48.	Mon, 8/6/07 8:20 PM	More curbside recycling (plastics, etc. in addition to paper)
49.	Tue, 8/7/07 1:42 PM	don't know much about facilities and resources - maybe they should be publicized more
50.	Wed, 8/8/07 12:06 AM	The "development" of the former Bradford College is a disgrace. What is being done to slow/control development? I don't know how many fields, facilities, teams, participants are involved with the various activities. To the point, I am unaware of any issues preventing participation. However, it would be great to have distinct field for various sports so that in the off season, the fields could regenerate. Thank you for cutting the grass this year.
51.	Thu, 8/9/07 10:23 PM	We must save all our neighborhood playground facilities.

#### Question #4 - Committee Interpretation

In the summer of 2007, the residents of Haverhill were surveyed on whether the City meets their expectations regarding the quality of resources, facilities, and other important open space and recreational opportunities. The survey results on Question 4 showed that city resources and private facilities generally meet expectations, but that city facilities and programs need some improvement. The following table shows the number and type of responses.

	Yes	No	Needs Improvement	Don't Know
City Resources (e.g. library, citizen's center)	146	10	85	8
City Facilities (e.g. ice rink, high school pool)	91	28	100	29
City Programs (e.g. athletic leagues, Christmas stroll, Kidsfest, recycling)	58	42	135	12
Private Recreational Facilities (e.g. athletic clubs, golf courses)	186	21	25	17
Heritage Preservation (e.g. Buttonwoods, J.G. Whittier)	128	28	62	28
Fostering Farming Land Uses (e.g. pick own fruit, animal farms)	55	73	94	29
Managing Growth to ensure appropriate protection of open space and recreational needs	26	92	100	30

The survey also invited comments from the responders. A major topic was recycling. Twelve (12) comments addressed the city's recycling program. These comments focused upon a need for more information and a general improvement in the amount and type of materials being recycled. Presently the program is for paper only, not glass or plastics. Other comments addressed a perceived lack of care and maintenance at the ice rink, high school pool, parks, playing fields, and playgrounds. Additional comments concerned a lack of rest room facilities at parks and playgrounds. There is concern among the residents about the increased development in the city and preserving of historic buildings and scenic vistas. Other topics concerned a need for increased arts and recreational sources, including suggestions for a teen center, performing arts center, water park, organic farm, community garden, off leash dog park, bird watching trails at Kenoza Lake, and increased use of the waterfront.

In conclusion, this plan recommends that the current recreational facilities be reviewed and proper maintenance schedules put into place. Additional facilities like those suggested in the survey comments can be researched for popularity and cost prior to making a commitment to build. Open spaces should be aggressively sought and preserved. Development should be stable, but not haphazard, with careful thought toward the consequences of taking away any open space, historical structures, or scenic roads and vistas.

**Question #5. Does the City meet your expectations in regards to providing and maintaining:**

#	Response Date	Comment
1.	Sat, 7/14/07 12:54 PM	Soccer and Lacrosse fields are not present in this city at all!!
2.	Thu, 7/19/07 9:59 PM	There are no childrens playgrounds nor tot lots, no skateboarding parks and I have seen no handicap friendly equipment anywhere.
3.	Fri, 7/20/07 1:29 AM	I think that as the downtown is redeveloped that space needs to be set aside for parks and playgrounds in the downtown as well. The parks/playgrounds would enhance the development.
4.	Fri, 7/20/07 11:35 AM	Haverhill does not maintain or place any real importance on its environment. The City's investment is almost nil.
5.	Sat, 7/21/07 11:57 AM	For a long time, Haverhill has needed to improve its parks maintenance. We are so fortunate to have beautiful parks- but we need to maintain them more diligently. Playground equipment is often placed toward the back of park areas where they are prone to neglect and vandalism. This equipment should be made more visible to passersby and police for safety reasons.
6.	Mon, 7/23/07 3:35 PM	How about something simple such as more and better placed trashcans through all recreational facilities. AND a scheduled approach to removing the garbage the collect.
7.	Mon, 7/23/07 4:51 PM	The condition of what used to be outdoor tennis basketball courts behind Haverhill High School are a disgrace!
8.	Mon, 7/23/07 6:36 PM	With the exception of winnikinne park we need more playgrounds, and the ones we have need to be maintained continuously. the River side area is great, but on a recent walk I could have filled 2 trash bags of garbage. The stadium is as we know in need of major repairs, and the courts adjacent to it need some major overhauls. It concerns me that on a recent walk with my 5 year old she asked 'why is all dirty over there mom'.
9.	Mon, 7/23/07 7:01 PM	Mayor received copy from national program America in Bloom which gave insight on ho to improve parks, city

**Question #5. Does the City meet your expectations in regards to providing and maintaining:**

		streets, downtown areas. In addition, this program gave resources to network with other communities and share ideas of cost savings.
10.	Tue, 7/24/07 1:16 AM	We are active with sports and recreation - the playgrounds and baseball/soocer fields need work - always lots of litter and GLASS that children could become hurt on - the grass is disgraceful - swings at Riverside are unsafe -
11.	Tue, 7/24/07 3:10 AM	If the DPW workers mowed City lawns instead of working for the FLaherty's maybe the City would have looked nicer in year's past. As a tax payer, I am pleased to see their criminal activty stopped and look forward to Haverhill continuing to move forward. I would also like to suggest an evening sailing program for adults like they do in Boston.
12.	Tue, 7/24/07 3:40 AM	As we rebuild Haverhill and make improvements, new and old residents would benefit from a more "Family Friendly" enviornment with parks and fields, and most importantly sidewalks.
13.	Tue, 7/24/07 9:57 AM	dont need more need to keep the ones we have clean
14.	Tue, 7/24/07 1:23 PM	one example, my family went to swim at Plugs Pond and have a picnic on a hot summer evening at 7:00 and it was closed.
15.	Tue, 7/24/07 1:24 PM	Haverhill needs better tot parks w/fences, parking, bathrooms, handicap swings. Atkinson, W. Newbury, Newburyport, etc. has these. we should have at least one really nice park.
16.	Tue, 7/24/07 2:18 PM	The city needs to address it many small "pocket parks" and vartous "green spaces". Simply weeding, edging, mulching would go along way to at least visually improve these areas. Haverhill Brighside can only do so much with volunteers. The city has many "inner city" passive parks that need to be catagorized and survied to see what reasonable and affordable efforts can be applied to maitaining them has a vauable local resource.
17.	Tue, 7/24/07 7:31 PM	There are no good parks to bring our children to. A

**Question #5. Does the City meet your expectations in regards to providing and maintaining:**

		skateboard park would be wonderful.
18.	Tue, 7/24/07 7:47 PM	The grass in the parks need to be cut on a regular basis, need more Lacrosse fields. Lacrosse Goals should left out during the summer.
19.	Wed, 7/25/07 11:40 AM	Maintenance of fields ie baseball, softball etc. should not be left up to the leagues this is the responsibility of the city. The city council needs to stop waiving tournament fees and these fees could be used for maintenance. When a city allows private organizations to maintain open space I feel that creates a conflict for the city and its residents. There is inequity in fields assigned to certain private baseball organizations that seem to be allowed to use the better fields at the stadium and the girls softball league is not given the same opportunity. Please be fair to all city residents. The city should maintain its own fields and open space.
20.	Thu, 7/26/07 2:21 PM	There should be a large off leash dog park!
21.	Fri, 7/27/07 3:18 PM	It would be great to have more playgrounds that have equipment for younger AND older children; Also, we need recycling bins at these places. We use Winnekenni park a lot and it has pieces of ground cover/blanket type things sticking up everywhere, easy to trip on for small children.
22.	Sat, 7/28/07 3:03 PM	The need for improvement in all these areas is evident by simply traveling through the City and observing.
23.	Sat, 7/28/07 9:21 PM	"open space" to me means conservation land, not soccer fields! Would like to see tennis/basketball, etc. as opposed to something like bocce courts which only appeals to a very small percentage of people.
24.	Mon, 7/30/07 1:07 AM	Pathetic in comparison with other cities/towns regarding skateboarding facilities! Truly pathetic!
25.	Mon, 7/30/07 3:17 PM	My complex provides a pool and tennis courts. I still use Winnekenni Park for long walks. My concern is the shrinking amount of open space.
26.	Mon, 7/30/07 3:21 PM	I am not fully aware of if or where most of these are located

**Question #5. Does the City meet your expectations in regards to providing and maintaining:**

27.	Mon, 7/30/07 3:29 PM	The parks are a risk to the children they are broken and not repaired. The fields outside of Riverside park are not maintained well either. we need more neighborhood parks and every elementary school should have a playground for the children
28.	Mon, 7/30/07 4:19 PM	Our parks and playing fields are in deplorable condition
29.	Mon, 7/30/07 6:55 PM	Winnekinni is delightful!
30.	Mon, 7/30/07 6:58 PM	I have been to baseball tournaments this summer in Amesbury, Salisbury and Newburyport and each of those facilities have money making functional concession stands and each has clean operating bathrooms. I also play at Fox field 2 days ago that has trash barrels overflowing as teams come in from Lowell and Methuen. Embarrassing sights for Haverhill but sad to say it has been the same for the past 10 years I have been involved in Haverhill youth baseball.
31.	Mon, 7/30/07 7:43 PM	The playing fields in this city are a total disgrace. Every other city i've been to is much better
32.	Mon, 7/30/07 9:44 PM	there is not a wheelchair friendly park in haverhill at all
33.	Tue, 7/31/07 12:18 AM	While the city does offer quite a few fields, parks, etc, there is a greater issue than simply building more. Haverhill must GREATLY improve on the repair and maintenance of what they have, in addition to creating more. I consider this to be a top priority; why build more stuff if it will only be broken and run-down in a few short years.
34.	Tue, 7/31/07 1:45 AM	the parks are outdated and not well kept. also there are not enough playground parks for kids to just play, i usually go to another city. haverhill should take a look at recent developments in east boston. they used overrunned weeded waterfront land to create awesome parks that have outdoor fitness areas for adults as well as water parks for the kids.
35.	Tue, 7/31/07 3:29 AM	We enjoy time at winnekenni and the stadium grounds, and are looking forward to the proposed expansion of the Riverwalk and the dredging of the river to accomodate



**Question #5. Does the City meet your expectations in regards to providing and maintaining:**

		boating!
36.	Tue, 7/31/07 3:46 AM	Small parks are in disrepair, access to the river (great if it could be better developed)
37.	Tue, 7/31/07 3:49 AM	Many of the above places need to be advertised that they are available, perhaps a map at the library?
38.	Tue, 7/31/07 4:30 AM	Wennkenni Park -more parking, naturn walks ,identifing trees
39.	Tue, 7/31/07 10:38 AM	The city is much too anxious to tear demolish buildings such as they did to the old city hall and especially the old library. One would think that they'd have learned from their mistakes!
40.	Tue, 7/31/07 10:52 AM	Do we have a Skateboarding park?
41.	Tue, 7/31/07 11:15 AM	tennis courts at riverside, playground behind stadium-- both need lots of attention
42.	Tue, 7/31/07 12:22 PM	need to dredge the river
43.	Tue, 7/31/07 12:24 PM	These areas need to be maintained in order for people to be enthusiastic about using them!
44.	Tue, 7/31/07 1:17 PM	Playgrounds such as Winnikini are great for toddlers, however, more equipment and better maintenance is needed. Riverside Park is the perfect spot for a large playscape structure with many different things for the children of various ages to play on. There is more than enough space and it is a safe place, off the main road, for kids to play. In addition, better security (i.e., lighting) would be great to ensure the equipment placed there remained untouched by vandals. In the past, swings have been repeatedly been torn down and playscapes have been vandalized. I have to bring my small kids to other towns to find a decent play area that suits their differing ages (age 3 and 9). Many of the City's playgrounds/athletic fields located near it's schools, are what I consider to be unsafe. I have attended baseball games at several City fields where police were called to ensure public safety due to the kids in the neighborhoods interffering with games by walking across the baseball fields during games, shouting and causing trouble. That,



**Question #5. Does the City meet your expectations in regards to providing and maintaining:**

		I feel, is not in the best interest of what is supposed to be a safe, family-friendly event and should not be tolerated.
45.	Tue, 7/31/07 1:21 PM	have not used almost any of these... I have no kids and am not really aware of where bike trails, etc are. (Have only lived here 2 years)
46.	Tue, 7/31/07 5:53 PM	The sports fields are awful. When the children and parents go to other communities the most common thing we here is, why can't we have sports fields like these!! Other town come to Haverhill and comment on how poor the fields are taken care of and mantian in Haverhill. The best field in the city is Riverside 1 because the RB program has paid to renovate it.
47.	Tue, 7/31/07 6:25 PM	hard to find info on website; I recently moved to Haverhill & am a triathlete - I'd love to know where I can swim in a lake or pond; I know Kenoza & Pentucket do not allow it but don't know where I could swim.
48.	Tue, 7/31/07 6:25 PM	Need indoor/outdoor activities for kids who are not sport oriented
49.	Tue, 7/31/07 10:03 PM	A pubication listing all the public facilities in Haverhill and times for use, would eliminate the "don't know " responses.
50.	Wed, 8/1/07 3:10 AM	Maintenance in this City is a big fat joke.
51.	Wed, 8/1/07 12:00 PM	The tennis courts at Winnekenni are in need of a makeover!
52.	Wed, 8/1/07 12:22 PM	What about a dog friendly park like many of the other cities & towns in the area
53.	Wed, 8/1/07 2:06 PM	Winnekenni Park tennis courts need resurfacing. I use them all the time. I love them
54.	Wed, 8/1/07 2:24 PM	winnekeni tennis courts should be resurfaced
55.	Wed, 8/1/07 5:35 PM	I think the Tennis Courts at Winnekenni Park need to be re-surfaced and it would be excellent if there were lights so they could be used after dark - even if the lights were on a pay by the hour basis.

**Question #5. Does the City meet your expectations in regards to providing and maintaining:**

56.	Wed, 8/1/07 7:27 PM	Most of the issues with regard to recreational facilities are with "maintaining" as opposed to "providing"
57.	Wed, 8/1/07 7:47 PM	I think a lot could be accomplished with adult volunteer supervision.
58.	Thu, 8/2/07 12:39 AM	I think the baseball parks could use bleaches and out houses for the parents, players and spectators. Also the fields should be mowed more often.
59.	Thu, 8/2/07 3:11 PM	I would like more open space in Haverhill so I can snowshoe. Wide open quiet areas that make winter seem less tedious. Go ahead and charge me \$2 etc. to use it. If it is maintained well, safe, and free of crime I will be there!
60.	Thu, 8/2/07 9:59 PM	Dog Park
61.	Fri, 8/3/07 2:11 AM	The Winnekenni Tennis courts really need resurfacing and lights would even be better.
62.	Fri, 8/3/07 1:28 PM	The riverside park should have a grander childrens play park the ages 2-6.,add slides and more items with a picknik area.
63.	Sat, 8/4/07 12:24 AM	I wish there were more spots where skateboarders were welcome. I also think Plug Pond should be renting out those unused canoes!
64.	Sat, 8/4/07 2:19 PM	Washroom facilities in recreational areas would be a tremendous benefit-open dawn to dusk
65.	Mon, 8/6/07 1:17 AM	Tennis courts at Winnekenni need repair/resurfacing as do those at Riverside. Riverside could use some general improvements as well. Both could use some restrooms.
66.	Mon, 8/6/07 7:18 PM	The tennis courts at Winnekenni P ark are in serious need of repair. They have been resurfaced once in the 25 years since they were completely rebuilt( at a considerable price) in the early 80's. They now have cracks everywhere, and unless they aren't taken care of soon, they will be both unplayable and dangerous. In addition to heavy use by the public, the high school boys team play their home matches there. Also, the highly sucessful Rec Dept. summer tennis program, which drew

Question #5. Does the City meet your expectations in regards to providing and maintaining:		
		over 150 participants, is held there. The annual City Tennis championships have been held at Winnekenni Park for over 80 years! Tennis is a sport a person can play cheaply for a lifetime if there are decent public courts. The diversity of people one sees playing at Winnekenni makes one realize that without these tennis courts these people may never have met. I hope the committee seriously consider the need to have the courts resurfaced. Three decent courts for a city of 60,000 isn't too much. Thank you
67.	Mon, 8/6/07 8:20 PM	Riverside park playground equipment and bathroom maintenance/cleaning greatly need improvement
68.	Tue, 8/7/07 1:42 PM	what skateboard parks? what winter activities? How does the city provide and maintain these?
69.	Wed, 8/8/07 12:06 AM	Is there any possibility of getting tennis courts at the HHS? Perhaps courts that would properly support a tennis program, (gym class?) AND night-time/weekend public use? Thank you Mr. Shanahan for your efforts in revitalizing the stadium.
70.	Wed, 8/8/07 12:39 AM	The fields need regular care and maintenance
71.	Wed, 8/8/07 9:51 AM	The skate park is in terrible shape compared to those of neighboring communities.
72.	Wed, 8/8/07 2:52 PM	It is disgusting on how the girls softball fields are maintained in comparison to the baseball fields
73.	Thu, 8/9/07 2:11 AM	Tennis courts are a joke.
74.	Fri, 8/10/07 1:45 AM	All tennis courts in town need to be improved
75.	Fri, 8/10/07 3:27 AM	The tennis courts at Winnekenni badly need to be resurfaced

#### Question #5 - Committee Interpretation

The majority of the responses to the 15 questions posed indicate that much improvement is required regarding whether the City provides and maintains appropriate recreational facilities. The response percentages from the community were such: 66.7% stated Needs Improvement, 26.7% stated Don't Know and 6.6% stated Yes to the individual topic questions. In addition, seventy five (75) comments were garnered from the 267 respondents who completed the survey. According to their comments

(37.3%), a significant topic of concern was the care and maintenance of the existing facilities. They expressed dissatisfaction with the conditions of playground equipment, tennis courts, base ball and softball fields. The respondents indicated that some of these areas had fallen into disrepair. Concerns of perceived cleanliness, trash removal and the lack of public restroom facilities were also noted. Also, according to their comments (14.6%), another topic of concern was their perceived lack of public information regarding recreational activities and facilities. Some respondents were not aware of the various facilities and their locations within the City. Based on the responses and comments from the survey it appears that Haverhill provides the appropriate recreational facilities but should increase its' efforts to maintain them. A well-defined maintenance plan and schedule, along with public information announcements concerning programs and facilities is highly recommended by the citizens.

**Question #6. Please rate each of the following as to its importance in enhancing Haverhill's community character:**

#	Response Date	Comment
1.	Fri, 7/20/07 11:35 AM	Haverhill puts blinders on and places no importance on endangered and special concern species or their habitat
2.	Sat, 7/21/07 11:57 AM	Inner city areas need to keep the little green space they have, trees need to be planted on streets where there are none, as they are the easiest and most subtle way to improve the quality of life in general in poorer neighborhoods through providing shade and dignity to over-pave, over developed areas. Also, there should be more frequent street cleaning and an aggressive anti-litter education campaign. Increasing supervision and maintenance of parks- adding park staff, even rangers, and youth oriented community officers and directors. Education and promotional programs are necessary to raise awareness of open space issues and care, as well.
3.	Sun, 7/22/07 2:22 PM	boat ramps to go to downtown restaurants
4.	Mon, 7/23/07 3:35 PM	There are some very nice playgrounds at the city schools. The city needs to work with the school department to maintain them.
5.	Mon, 7/23/07 4:54 PM	Bring back the neighborhood playgrounds in the summer for the kids. These kids have nothing to do but get in trouble. We always enjoyed the playgrounds. I and my all the neighborhood kids went to Fox school playground everyday in the summer and a lot of fond memories still exist. But that playground is now sold. We lost a great neighborhood asset. We need to stop selling all our assets or there will be nothing left for future generations. It's not always about the money, sometimes we need to think about what we as Haverhill citizens want and need.
6.	Mon, 7/23/07 6:36 PM	We are developing our children to be responsible citizens and community leaders. The way they see their communities now have a great impact as to what type of citizens and community leaders they will be.
7.	Mon, 7/23/07 7:01 PM	If Haverhill is to become a destination, a reason for people to get off the train or to travel here, then it needs to be clean, promote its historic sites and quality

**Question #6. Please rate each of the following as to its importance in enhancing Haverhill's community character:**

		recreational opportunities. Everything is in such poor condition and reflects an administration that does not care how Haverhill and its assets.
8.	Tue, 7/24/07 1:16 AM	It is a shame how much litter is in and around the Merrrimack - also the trails at Riverside along the river could be beautiful if they were maintained -
9.	Tue, 7/24/07 3:40 AM	Consider the areas often voted "best locations to live in US", All of these noted "Very Important" play an essential role and making the area appealing. To draw families, these free of cost friendly environments are what truly matters.
10.	Tue, 7/24/07 9:57 AM	stock the lakes more with fish
11.	Tue, 7/24/07 1:23 PM	When compared with our surrounding towns, we should be ashamed of what Haverhill is becoming. Most other towns offer family oriented summer programs and concerts and open spaces to play and picnic. Haverhill offers heavy metal bands at the stadium and graffiti on nearly every place in the city, and signs, signs and more signs everywhere. Haverhill is cluttered and dirty and I'm almost ashamed to say I live here. If one more condo building goes up I'm going to start looking for another home.
12.	Tue, 7/24/07 1:24 PM	We need paved bike paths
13.	Tue, 7/24/07 7:47 PM	The Winnekenni Park trails need to be better maintained, and expanded
14.	Wed, 7/25/07 11:40 AM	The city should be promoting the things that it already has. The city should be running athletic programs to utilize our open space. The city should use the Veteran's Memorial Skating Rink to its full potential.
15.	Thu, 7/26/07 2:21 PM	Off leash dog park! Or specific hours at other parks when dogs can be off leash.
16.	Fri, 7/27/07 3:18 PM	Many residents would use bicycle and jogging trails! Something like this would be a great asset to the city.
17.	Sat, 7/28/07 5:42 PM	Haverhill took away the bike route along Route 97 which was there for years.

**Question #6. Please rate each of the following as to its importance in enhancing Haverhill's community character:**

18.	Sat, 7/28/07 9:21 PM	Haverhill needs to buy/protect more land for conservation before it's all bought up by developers & lost forever!
19.	Mon, 7/30/07 3:17 PM	I grew up in a blue collar town with excellent summer park programs for children that we were within walking distance. Kids need a safe place to run around outside in the summer. Also a skateboard park so the kids will stop using the downtown parking deck as a skateboard park.
20.	Mon, 7/30/07 3:29 PM	The youth in this city are screaming for summer activities. Most can't pay for expensive summer camps activities or working parents can't pickup kids at 12 noon. We need to realize that this is a working class community and our youth especially adolescents need to be involved in outdoor activities and sports to stay out of trouble and combat the epidemic of obesity.
21.	Mon, 7/30/07 4:19 PM	developing programs and trails is wonderful, but only if they are properly maintained
22.	Mon, 7/30/07 6:58 PM	As a kid growing up in the 70s each city playground was supervised in the summertime, go to those playgrounds now and they are sadly empty!!
23.	Mon, 7/30/07 11:49 PM	I think that Haverhill's summer program for kids is inadequate for the amount of children in the city.
24.	Tue, 7/31/07 12:18 AM	I consider Haverhill Conservation Officer to be an extremely valuable resource to the City of Haverhill. If you have not yet met him, you need to. Mark has dedicated much time to assisting with open space projects. Also, for the past few years Mark has done his job without benefit of a partner; budget cuts eliminated him; I would like to see a second conservation officer added. The job of the conservation officer seems to have lost much of its importance here in Haverhill, but it is very important. It is also a specialized area of law enforcement; Haverhill PD is not a substitute for the conservation officer. On another note, I have spoken with Mark Sheehan about improving the mapping and marking of existing trails; I believe he is working on this.
25.	Tue, 7/31/07 1:45 AM	haverhill is far behind some other cities that offer low income families summer programs at our parks, it could

**Question #6. Please rate each of the following as to its importance in enhancing Haverhill's community character:**

		be because our parks are lacking to begin with
26.	Tue, 7/31/07 2:33 AM	The city has a difficult time maintaining what it has now how could they ever expand.
27.	Tue, 7/31/07 3:29 AM	Haverhill is a city that still has back roads and rural landscapes, part of preserving those features are encouraging it's appreciation by locals and newcomers. Bicycle and jogging trails will allow people to appreciate the beauty within our own city.
28.	Tue, 7/31/07 11:25 AM	We need a Dog Park area for Residents to bring their Dogs for leash free Play and socialization
29.	Tue, 7/31/07 11:47 AM	Need more details on the riverwalk. Wouldn't want any major construction/tree removal for riverwalk's sake.
30.	Tue, 7/31/07 12:17 PM	Need more programs for 14-16 year olds
31.	Tue, 7/31/07 12:22 PM	need safe, beautiful places that will draw people into the city (tourism)
32.	Tue, 7/31/07 12:24 PM	All could be rated as #1 important, but you are heading in the right direction! Please keep this focus!
33.	Wed, 8/1/07 5:35 PM	I'd like to see more recreational programs for kids in Haverhill for the summer - with hours that could accommodate working parents. Many of the programs are in the middle of the day or start late and end early which makes it difficult for kids of working parents to take advantage of them.
34.	Wed, 8/1/07 7:27 PM	It would be nice to see a playground in the historic downtown area, perhaps Columbus park on the park behind the Tap.
35.	Wed, 8/1/07 7:47 PM	maintaining trash/ littering could use improvement
36.	Thu, 8/2/07 12:39 AM	There are not enough summer programs for the children and or school breaks
37.	Thu, 8/2/07 1:31 AM	Additional work programs and opportunities are needed for adolescents. I am a teacher at HHS and have many students between the ages of 14 and 16 who are eager to work. They need to be kept productive and active during



**Question #6. Please rate each of the following as to its importance in enhancing Haverhill's community character:**

		the summer months.I would be glad to assist- Judy Ryan, 978-764-1933.
38.	Thu, 8/2/07 12:06 PM	would love to see more summer rec programs for all kids (not just under privileged). North Andover does a GREAT SUMMER FUN Program from 9-12 at youth center and local schools for all kids.
39.	Thu, 8/2/07 12:30 PM	Look at Topsfield, Newburyport, Amesbury
40.	Thu, 8/2/07 3:11 PM	Our city is in a beautiful area and we have a lot of natural beauty to use to our advantage...we should do it whenever the opportunity arises. Once the land is put into use it can never be the same simple open space it was. Any number of improvements to the above section of this survey would bring a new type of person to Haverhill. Whether to live or simply visit. There could also be a nominal fee for some of these things to help maintain them. Though, as I said above there needs to be clear maintenace of these properties otherwise they will fail and become a blight. Should that happen, it would be difficult to ever gain support for open space acquisition again.
41.	Sat, 8/4/07 12:24 AM	We missed the boating program this year. If a volunteer went into the schools and 'talked up' programs like this, I think the response would be better.
42.	Mon, 8/6/07 3:24 PM	I would love to see more activities, especially in the summer, for kids and teens. They have nothing to do if parents don't have money to spend to send them to activites. We need to help them stay busy and out of trouble. Where I come from, there are counselors in the parks in the summer so kids who can't afford or don't go to camp have someplace fun to go that is supervised.
43.	Mon, 8/6/07 8:20 PM	Would like to see Pop Warner football & cheerleading for younger children
44.	Tue, 8/7/07 2:14 PM	It's time to stop "nickle and diming" with Haverhill Stadium and get the facility on par with the recently renovated stadiums in Lawrence and Lowell.
45.	Wed, 8/8/07 12:06 AM	we're selling the farm(s) - literally. Opportunities for

**Question #6. Please rate each of the following as to its importance in enhancing Haverhill's community character:**

		preservation of space/ trails, etc
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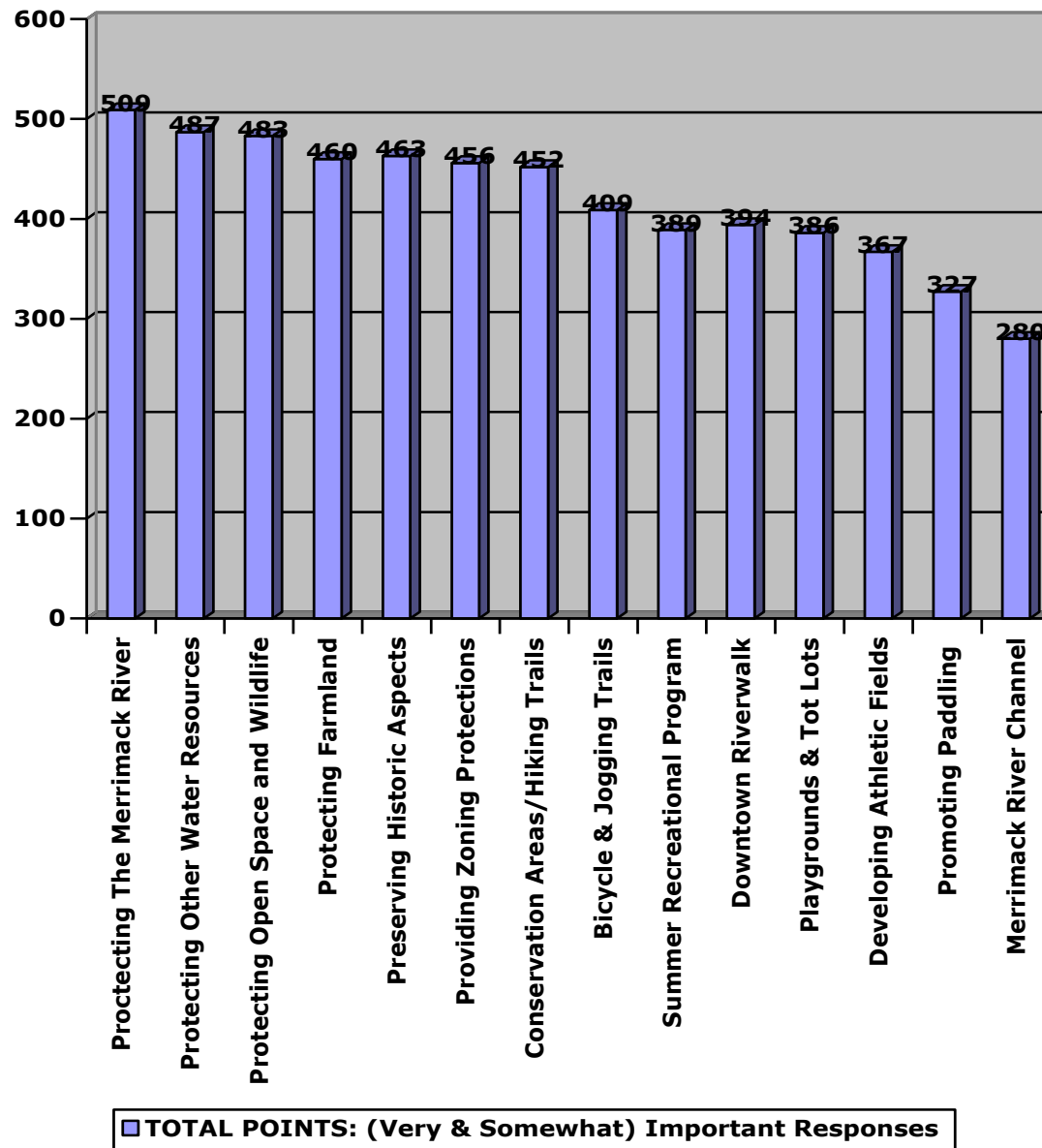
## Question #6 – Committee Interpretation

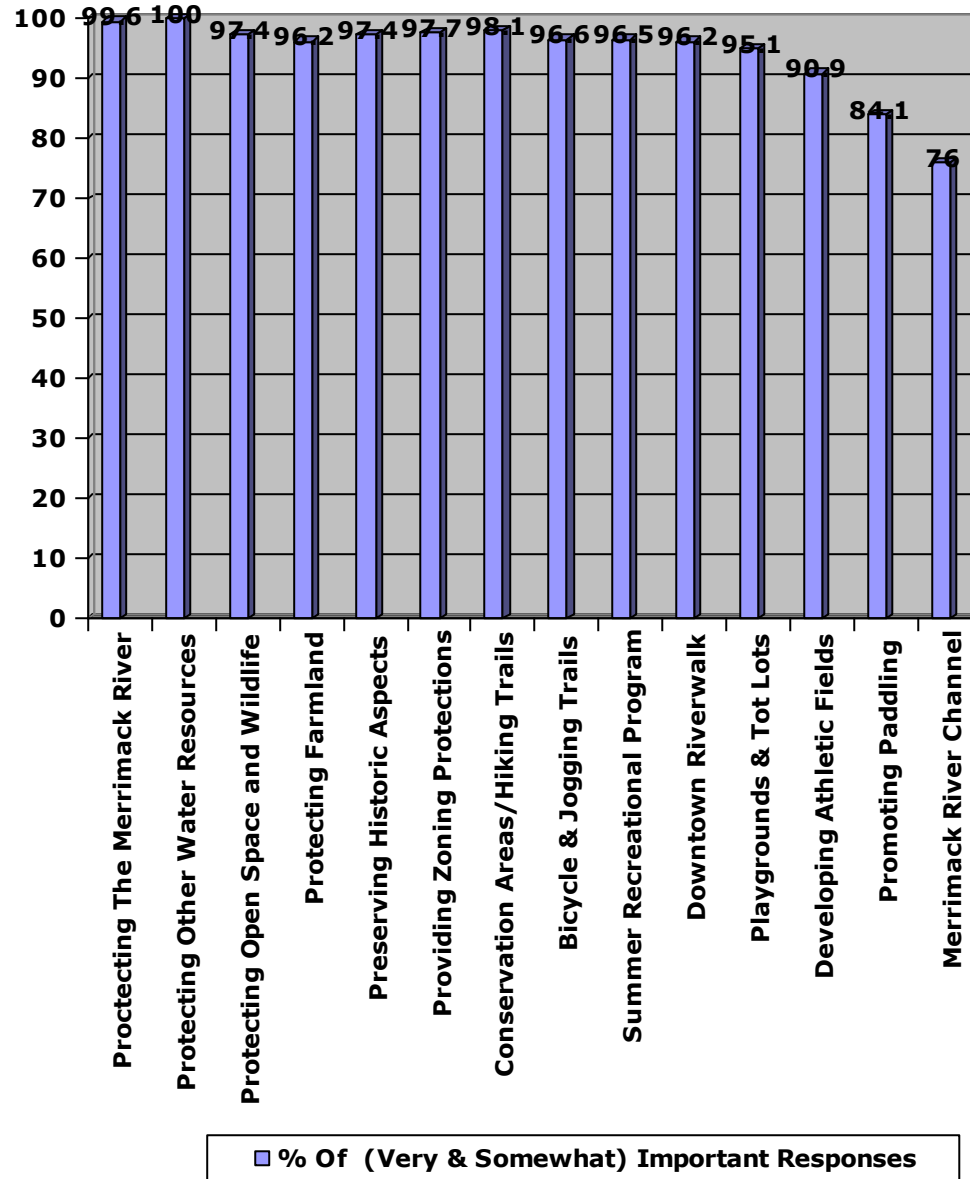
Question 6: Please rate each of the following as to its important in enhancing Haverhill’s community character														
	Very Important (VI) PTS: 1 Vote = 2			Somewhat Important (SI) PTS: 1 Vote = 1			TOTAL VI & SI			Not Important (NI)		Don’t Know		Total VI & SI & NI
Category	%	#	PTS	%	#	PTS	%	#	PTS	%	#	%	#	#
Protecting the Merrimack River	92.5	245	490	7.2	19	19	99.6	264	509	0.4	1	0.7	2	265
Protecting other water resources	83.8	222	444	16.2	43	43	100	265	487	0.0	0	1.1	3	265
Protecting open space and wildlife	83.8	222	444	14.7	39	39	97.4	261	483	1.5	4	1.1	3	265
Protecting farmland	76.7	204	408	19.5	52	52	96.2	256	460	3.8	10	0.7	2	266
Preserving historic aspects of the City	76.0	203	406	21.3	57	57	97.4	260	463	2.6	7	0.7	2	267
Providing zoning protections for street trees, hilltops, and scenic roads	75.0	198	396	22.7	60	60	97.7	258	456	2.3	6	1.5	4	264
Creating conservation areas/hiking trails	71.2	190	380	27.0	72	72	98.1	262	452	1.9	5	0.4	1	267
Developing bicycle & jogging trails	59.5	156	312	37.0	97	97	96.6	253	409	3.4	9	1.9	5	262
Adding supervised summer recreational program	58.2	150	300	34.5	89	89	96.5	249	389	7.4	19	3.4	9	258
Constructing a downtown Riverwalk along the Merrimack River	53.6	141	282	42.6	112	112	96.2	253	394	3.9	10	1.9	5	263
Creating playgrounds & tot lots	51.7	136	272	43.3	114	114	95.1	250	386	5.0	13	1.9	5	263
Developing athletic fields	49.6	130	260	40.8	107	107	90.5	237	367	9.5	25	2.2	6	262
Promoting paddling in the City’s lakes and rivers	42.6	110	220	41.5	107	107	84.1	217	327	15.9	41	3.7	10	258

Restoring the Merrimack River channel to provide for larger boat use	36.0	90	180	40.0	100	100	76.0	190	280	24.0	60	6.8	17	250
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Question 6: Please rate each of the following as to its important in enhancing Haverhill’s community character														
	Sort By Very Important % PTS: 1 Vote = 2				Sort By Somewhat Important % PTS: 1 Vote = 1				Sort By VI & SI Totals					
Category  (###) = Very & Somewhat & Not Important Responses	%	#	PTS	Rank	%	#	PTS	Rank	%	#	PTS	Rank By %	Rank By Pts	
Protecting the Merrimack River (265)	92.5	245	490	1	7.2	19	19	14	99.6	264	509	2	1	
Protecting other water resources (265)	83.8	222	444	T2	16.2	43	43	12	100.0	265	487	1	2	
Protecting open space and wildlife (265)	83.8	222	444	T2	14.7	39	39	13	97.4	262	483	T5	3	
Protecting farmland (266)	76.7	204	408	4	19.5	52	52	11	96.2	261	460	T8	5	
Preserving historic aspects of the City (267)	76.0	203	406	5	21.3	57	57	10	97.4	260	463	T5	4	
Providing zoning protections for street trees, hilltops, and scenic roads (264)	75.0	198	396	6	22.7	60	60	9	97.7	258	456	4	6	
Creating conservation areas/hiking trails (267)	71.2	190	380	7	27.0	72	72	8	98.1	256	452	3	7	
Developing bicycle & jogging trails (262)	59.5	156	312	8	37.0	97	97	7	96.6	253	409	7	8	
Adding supervised summer recreational program (258)	58.2	150	300	9	42.6	89	89	2	96.5	253	389	10	9	
Constructing a downtown Riverwalk along the Merrimack River (263)	53.6	141	282	10	43.3	112	112	1	96.2	250	394	T8	10	

Creating playgrounds & tot lots (263)	51.7	136	272	11	40.8	114	114	4	95.1	249	386	11	11
Developing athletic fields (262)	49.6	130	260	12	41.5	107	107	3	90.5	237	367	12	12
Promoting paddling in the City's lakes and rivers (258)	42.6	110	220	13	40.0	107	107	5	84.1	217	327	13	13
Restoring the Merrimack River channel to provide for larger boat use (250)	36.0	90	180	14	37.5	100	100	6	76.0	190	280	14	14

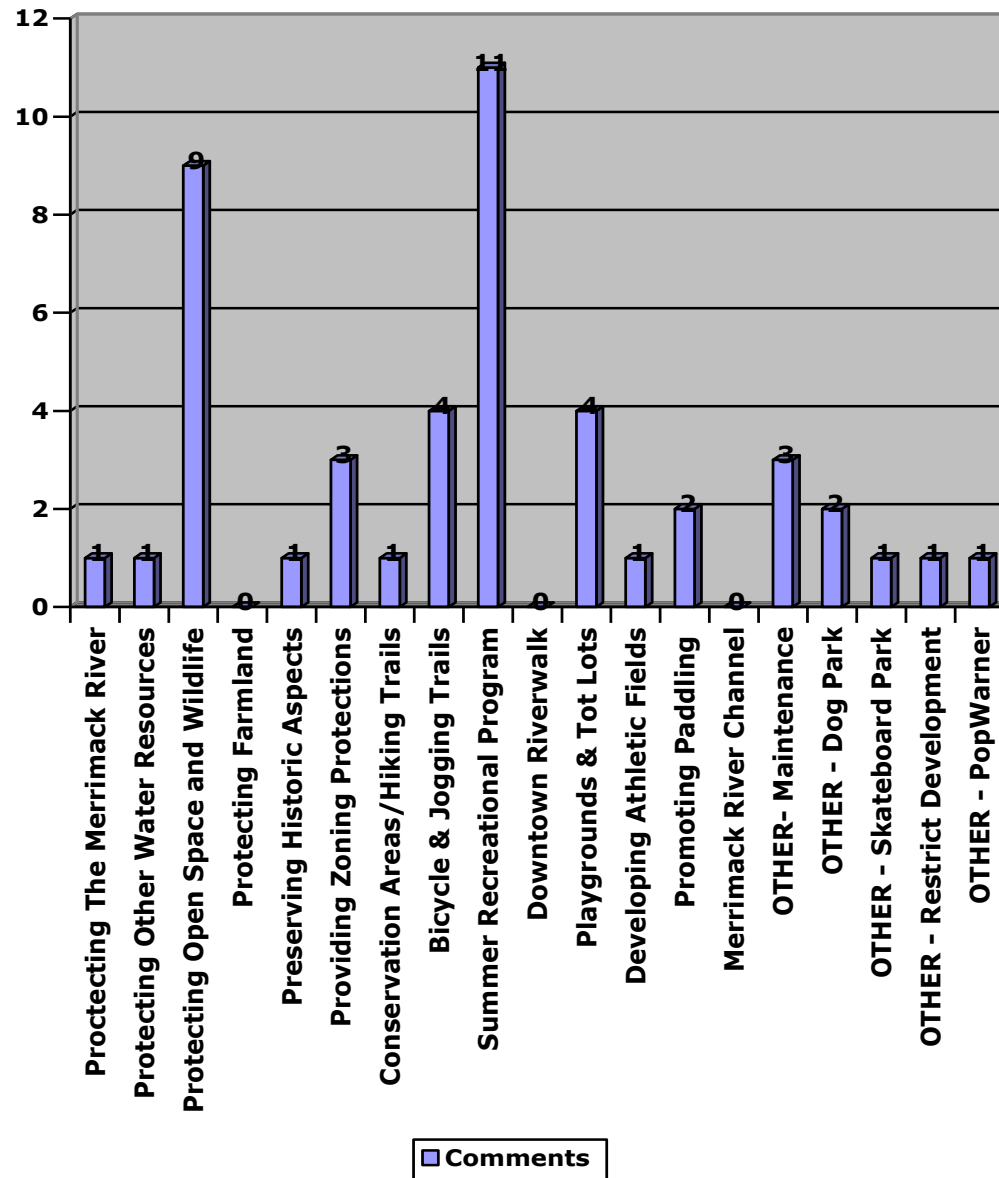




Category	# OF VI & SI Responses	#
Adding supervised summer recreational program	258	11
Protecting open space and wildlife	265	9
Developing bicycle & jogging trails	262	4
Creating playgrounds & tot lots	263	4
Providing zoning protections for street trees, hilltops, and scenic roads	264	3
Promoting paddling in the City's lakes and rivers	258	2
Protecting the Merrimack River	265	1
Protecting other water resources	265	1
Preserving historic aspects of the City	267	1
Developing athletic fields	262	1
Creating conservation areas/hiking trails	267	1
Restoring the Merrimack River channel to provide for larger boat use	250	0
Protecting farmland	266	0
Constructing a downtown Riverwalk along the Merrimack River	263	0
OTHER - Maintenance - Trash		3
OTHER - Dog Park		2



<b>OTHER - Skateboard</b>		<b>1</b>
<b>OTHER - Restrict Development</b>		<b>1</b>
<b>OTHER - Pop Warner</b>		<b>1</b>



## SUMMARY: Question 6 Responses

### DATA

In order to get some time of ranking I:

- considered only the **Very Important (VI)** and **Somewhat Important (SI)** responses
- arbitrarily weighted the **Very Important (2 Points)** and the **Somewhat Important (1 Point)** responses
- subtracted the **Don't Know** number of responses when computing percentage and total points.

Based on this scoring, **Protecting the Merrimack River (99.65)** and **Protecting Other Water Resources (100%)** were the top rated categories based on both percentage and points.

Except for **Promoting Paddling in the City's Lakes and Rivers** and **Restoring the Merrimack River Channel to Provide for Larger Boat Use** all the other categories received at least 90% response (VI & SI total) ranging from 98.1% to 90.5%, but six categories had less than 400 points.

The categories **Adding Supervised Summer Recreational Programs** and **Protecting Open Space and Wildlife** had the most comments; 11 and 9 respectively.

### CONCLUSION

While **Protecting the Merrimack and Other Water Resources** were the highest ranked categories, the two lowest ranking categories were water related activities.

This can be interpreted that people see the Merrimack and other water resources not for recreational activity but for conservation and health reasons.

Also, because the survey was conducted during the summer (August), this might be the reason **Adding Supervised Summer Recreational Programs** received the most comments.

One theme that seemed prevalent in a most of the comments is that Haverhill should do a better job of maintaining the resources that we already have.

To get a better idea of what residents want, I think you have to look at the other questions such as **# 5: Does the City Meet Your Expectations in Regards to Providing and Maintaining:**

Question #7. To preserve open space in Haverhill, would you:		
#	Response Date	Comment
1.	Wed, 7/18/07 7:18 PM	don't really have land that would fall into this category
2.	Thu, 7/19/07 9:59 PM	At present I do not trust the Mayor or the Planning Director to manage our land, conservation areas or historical resources sufficiently to sell or donate any of my land to the city. I would however do so to a trust that is not managed by a politician.
3.	Fri, 7/20/07 1:29 AM	All of the above are good ideas but most of them are not applicable to me (but if I owned anything more than a tiny house lot I'd give them consideration!)
4.	Fri, 7/20/07 7:19 PM	This section does not apply to 95 percent of the residents that only own their own homes.
5.	Sat, 7/21/07 11:57 AM	Right now, I do not have a lot of land, and I do not have much money. I'd like to think that if I did, I would want to limit development and donate my land.
6.	Sun, 7/22/07 9:50 PM	don't own enough land to contribute any
7.	Mon, 7/23/07 3:35 PM	This question is only useful if the responder actually has land that can be used in such a manner. I do not have such land and therefore cannot appropriately answer this question as written.
8.	Mon, 7/23/07 4:36 PM	Most of these do not apply.
9.	Mon, 7/23/07 7:01 PM	land has been given to the City for restricted use For example on the River Street . The City does not care for it and it adds to the blight instead of enhancing the River Street area.. It was suppose to be made into a river front pocket park.
10.	Tue, 7/24/07 3:40 AM	If I owned land, I would do some of the noted items above, yet I do not so can not.
11.	Tue, 7/24/07 12:02 PM	If I had land that could be used this way I would certainly take measures to ensure that it was.
12.	Tue, 7/24/07 1:23 PM	I would need more information as to what a "land trust" is and other details on these various ideas.
13.	Tue, 7/24/07 1:24 PM	If I had \$ to donate I would but I don't

14.	Tue, 7/24/07 7:47 PM	I wish I had land to donate to the city.
15.	Fri, 7/27/07 2:54 PM	Selling or donating land to the City does not apply to me, as my property is so small.
16.	Sat, 7/28/07 5:42 PM	How can people answer this if they don't have enough land to preserve for the future unless all the neighbors agreed
17.	Sat, 7/28/07 9:21 PM	I don't have any appreciable land that I could donate/sell to the city or put a conservation restriction on, but if I did, I would.
18.	Mon, 7/30/07 1:07 AM	I don't trust City leadership not to squander such a gift. If I did, I would seriously consider donating land.
19.	Mon, 7/30/07 3:16 PM	I would need more information to answer these questions
20.	Mon, 7/30/07 3:17 PM	I live at Jefferson Estates. Once the 10 year lawsuit that Mr. Xarris started is resolved, we will need to determine the best use of the undeveloped part of our complex. It would be nice to know we could have the option to create town conservation land in exchange for tax breaks. It will be awhile, but I am sure that other owners of large plots of land would like to have the option of Conservation Restriction.
21.	Mon, 7/30/07 3:21 PM	I do not own any land! Nor do I have any money to do so.
22.	Mon, 7/30/07 3:29 PM	I do not have land for sale just the one around my own house
23.	Mon, 7/30/07 3:59 PM	I do not own land or property
24.	Mon, 7/30/07 6:55 PM	I personally don't have the means in this category
25.	Mon, 7/30/07 7:45 PM	If the city needs land for preserving they should have thought about that before letting all these buildings and houses go up in every nook and cranny with the vacant land they had already. My land is even more valuable to myself and my family now that the land in Haverhill is becoming more scarce.
26.	Mon, 7/30/07 9:45 PM	I think we pay enough taxes to afford some of these things. and I don't believe our taxes are going to stay at the current rate.
27.	Tue, 7/31/07 12:18 AM	most of these do not apply to me

28.	Tue, 7/31/07 1:45 AM	at least if i kept my land i know it would be well kept and not used for more housing
29.	Tue, 7/31/07 3:29 AM	As a current homeowner in the West Meadow Hill condo development, I am not at liberty to donate land but I think it's a valuable way for people to give back to the community.
30.	Tue, 7/31/07 3:46 AM	Sorry, I have no land to donate or sell, but would be willing to help out :)
31.	Tue, 7/31/07 3:53 AM	I live in a condominium
32.	Tue, 7/31/07 5:01 AM	i live in a condo
33.	Tue, 7/31/07 9:45 AM	Live in a condo so have no land for sale
34.	Tue, 7/31/07 12:13 PM	If I had money I would do all of the above
35.	Tue, 7/31/07 12:22 PM	I own a condo therefore do not own any land outright
36.	Tue, 7/31/07 12:24 PM	Whether privately owned or publicly owned these spaces need to be maintained. Again, this focus is excellent!
37.	Tue, 7/31/07 12:48 PM	I don't have any land to donate!
38.	Tue, 7/31/07 12:55 PM	I believe our land already has a conservation restriction on it
39.	Tue, 7/31/07 1:21 PM	don't have much land, sorry!
40.	Tue, 7/31/07 2:03 PM	Unfortunately, we have no land to donate, but would support land preservation with cash donations or extra taxes.
41.	Tue, 7/31/07 3:21 PM	Most of the above do not apply to me
42.	Tue, 7/31/07 6:56 PM	The city right now is in trouble still paying off the Hale debt that Rurak put us into. Money for the city will be tight for years to come, because of this and the governor refusing to help with the Hale debt.
43.	Tue, 7/31/07 10:03 PM	Haverhill needs a long term master plan. it seems whoever is in office has a plan for the present without consideration of the ramifications for the future.
44.	Tue, 7/31/07 11:16 PM	My deed is already re-written to limit future development on it. I don't know what it means to: "Sell land to the City at a "bargain price""

45.	Wed, 8/1/07 2:22 AM	I would if I could but, I am unable to at this time.
46.	Wed, 8/1/07 3:10 AM	Notably absent is adopt the Community Preservation Act, Now why is that?
47.	Wed, 8/1/07 1:19 PM	Most of these questions don't apply to me
48.	Wed, 8/1/07 2:06 PM	land I own is not undeveloped therefore I'm not able to donate
49.	Wed, 8/1/07 7:27 PM	At the moment, I don't have land to donate.
50.	Wed, 8/1/07 7:47 PM	I don't own property at this time but would agree to some terms asked about
51.	Thu, 8/2/07 12:30 PM	YES YES YES! Protect our gorgeous natural open treefulled lands
52.	Thu, 8/2/07 2:23 PM	My answers would change if I had a large tract of land.
53.	Thu, 8/2/07 3:11 PM	I would do whatever I could to help the city in this endeavor. My personal resources are somewhat limited, but I would do what I could.
54.	Sat, 8/4/07 12:24 AM	More organized volunteer clean-ups would promote civic pride. There are so many disenfranchised young teens who are bored and uninspired... they could be a wonderful resource.
55.	Sat, 8/4/07 12:30 AM	I don't own a lot of land in Haverhill, just a sm. back yard.
56.	Sat, 8/4/07 2:19 PM	only land in excess of what the average square footage per household should be acquisitioned
57.	Sun, 8/5/07 2:29 AM	My house is on a very small lot, so these questions don't really apply to my situation
58.	Mon, 8/6/07 1:17 AM	Don't own a lot of land - just a house on .2 acres.
59.	Tue, 8/7/07 1:42 PM	we seem to have a good amount of land except for riverfront/riverwalk but need to improve maintenance and festivities there
60.	Wed, 8/8/07 12:06 AM	Wish I had land to give....
61.	Wed, 8/8/07 2:19 PM	If I had the land, then I would.
62.	Wed, 8/8/07 2:52 PM	Spend tax payer money on what we already have

### Question #7 – Committee Interpretation

Question #7 relates to the preserving of Open Space in the City of Haverhill. There were 258 responses to the question. The breakdown on how the respondents are willing to preserve open space is as follows:

	Yes	No	Not Sure	Count
Donate land to a Land Trust.....	21.6%	42.9%	35.5%	245
Donate money to buy land.....	37.5%	26.7%	35.9%	251
Rewrite deed to limit future development.....	37.8%	28.5%	33.7%	246
Sell land to the City at a “bargain price”.....	11.2%	48.8%	40.1%	242
Sell or contribute to a Cons. Restriction to protect land from future development.....	38.5%	26.6%	34.8%	244
Sell some land to the City at fair market value..	31.8%	34.3%	33.9%	242
Vote for a City Sponsored land acquisition Program.....	64.1%	9.0%	27.0%	258

Donation land or selling land to the city at a “bargain price” was considered the least popular method of preserving open space in the City of Haverhill according to the survey with only 21.6% and 11.2% respectively in support. This result recognizes the high value of land in the current real estate market and the unwillingness to give it away.

Limiting future development of land by way of a deed restriction or conservation restriction, selling land to the city @ fair market value or donating money to buy land garnered a more positive response with at least 1/3 of the respondents in favor.

The overwhelming support (64.1%) was for a city supported land acquisition program. This result most likely due to the comfort and interest of community involvement toward the same goal.

Although the majority of taxpayers live in Condos or homes with small lots, neither with excess land available to be sold or donated, the overall feeling is that most residents are in favor of maintaining open space and acquiring additional land for conservation and recreation purposes. According to the survey, the substantial support for a city sponsored land acquisition program evidences the interest and popularity of Open Space but at a minimal cost to the individual taxpayer.



Question #8. Do you favor the following City actions to preserve open space?		
#	Response Date	Comment
1.	Sat, 7/21/07 11:57 AM	Also, put some guidelines regarding the aesthetic qualities and placement of approved development. The condos in Bradford and in other places are among the most congested and least attractive (from the outside) I have seen, and this cannot be good for long term property values, planning, or desirability of the properties themselves.
2.	Mon, 7/23/07 3:35 PM	I do not know what is meant by "Receipt of Conservation Restrictions". Please explain.
3.	Mon, 7/23/07 7:01 PM	Please protect our watershed areas!! There is too much development taking place in these areas.
4.	Fri, 7/27/07 2:54 PM	While I support any means necessary to preserve open space (especially actions to preserve farmland and get or keep them functioning as farms), I see this as something the City should take a leadership role in.
5.	Sat, 7/28/07 3:03 PM	What is "Receipt of Conservation Restrictions?"
6.	Mon, 7/30/07 1:07 AM	As above, I don't trust City leadership whatsoever. It's a shame, because I believe many feel as I do.
7.	Mon, 7/30/07 3:17 PM	I have lived in Haverhill since June 1988. I have been horrified over the amount of development in the last 5 years. Not only has it damaged the town character we have limited water resources.
8.	Mon, 7/30/07 3:21 PM	I do not know enough about any of these.
9.	Tue, 7/31/07 10:38 AM	I've never seen a city in which there are so many new houses being built. What happened to the limit of building them that was suppose to have been enacted? Obvisoulsy some of the builders have a way of getting around it.
10.	Tue, 7/31/07 11:31 AM	When the City has purchased land in the past it has always been for development rather than conversation!
11.	Tue, 7/31/07 12:24 PM	Community involvement, such as sponsorship, both private & corporate will develop a partnership in this goal!

Question #8. Do you favor the following City actions to preserve open space?		
12.	Tue, 7/31/07 6:56 PM	Again the city has no money to purchase land.
13.	Tue, 7/31/07 10:03 PM	At the present, it seems developers get what they want according to who they know at City Hall, not what is best for the residents who would be impacted.
14.	Tue, 7/31/07 11:16 PM	I need more information on those I marked "Unsure" as I don't know what these mean or what is entailed
15.	Wed, 8/1/07 3:10 AM	Where is the Conservation Com. in all this? The City Board which can accept gifts of land, etc.
16.	Wed, 8/1/07 7:27 PM	Tax on sale of new homes to go toward a fund for purchasing and preserving open space.
17.	Thu, 8/2/07 12:30 PM	BRING BACK THE FARMS! It's a great trend. It creates jobs for youth, keeps our local food access secure and ensure pristine open spaces. A creation of a organic farm collaborative providing grants and tax incentives as well as assistance for marketing and promotion locally and statewide. Don't make it hard to start or keep our farms
18.	Thu, 8/2/07 2:23 PM	There also should be a restriction on buildable lot size.
19.	Thu, 8/2/07 3:11 PM	As long as Haverhill can accomplish this new goal without losing further police, firemen, teachers, programs etc. that are fundamental to running the city I am in full support.
20.	Tue, 8/7/07 1:42 PM	don't understand conservation restrictions and purchase of development rights
21.	Wed, 8/8/07 12:06 AM	Don't know what "purchase of development rights" means

### Question #8 – Committee Interpretation

The comments to this section of the survey indicated that there is a perception of excessive growth in the city in recent years. The Yes responses to the questions and the comments indicate a desire to control growth by restricting lot sizes, preserve our farms and tax new homes to preserve open space. The survey respondents were overwhelmingly in favor of preserving open space using a variety of methods. Joint public private action, zoning for open space and lower property taxes for farms, forests and recreation were understood and supported by greater than 80% of those responding. Receipt of Conservation Land and Purchase of development rights were not well understood given high “Not Sure” responses of greater than 35%. None of the questions received high “No” responses. The option of City Purchase of Land was seen as less favorable but still received 75% support. Based on the comments for this section there is a concern by residents that the city is not trusted to preserve land that it

receives or purchases. There is also a concern that other city services would suffer if the city purchased land.

**Question #9. Please offer your comments or suggestions regarding open space and recreational goals for the City of Haverhill:**

#	Response Date	Comment
1.	Sat, 7/14/07 12:54 PM	I enjoy living in the city of Haverhill but have recently put my house on the market because I don't feel that the city government has the best interest of the tax payers in their mind! We are not providing the best of recreation for our children, we are a large city and have a big area and have not set aside the proper space to do these things. The waste and fraud that has happened in our city with teh DPW and other departments shows that it is only looking out for the "life time" residents of Haverhill and not the people who have moved in to live in its community. We need to move out some of the old guard and be representative of the new in this city.
2.	Wed, 7/18/07 7:18 PM	there is never any such thing as too much open space. the more the better
3.	Thu, 7/19/07 9:59 PM	I believe we are at a very important time rgarding our city resources, and so much more has to be accomplished and is not.
4.	Fri, 7/20/07 11:35 AM	The open space and recreation goals and importance needs to be placed in a master plan and followed from one administration to the next. They should not be altered. Haverhill is in dire need of well educated conservation personel who have a background and concern for the environment.
5.	Fri, 7/20/07 8:25 PM	A boardwalk along the river downtown and looping to Bradford for jogging, walking and running would be phenomenal. We need a nice park downtown with swings and a playscape. That would help bring families downtown which would help restaruants and businesses.
6.	Sat, 7/21/07 11:57 AM	Hire a (one or many) parks and recreation director with vision and heart and eliminate complacency in city administration. I know the city does not have much money, but there is much that can be done with creativity and hard work. Whatever we invest will return to us one hundred fold.
7.	Mon, 7/23/07 3:35 PM	I highly recommend a better survey tool. That being said

**Question #9. Please offer your comments or suggestions regarding open space and recreational goals for the City of Haverhill:**

		- the city needs to do a better job of taking care of what we already have before adding new features.
8.	Mon, 7/23/07 4:36 PM	I live in Rocks Village and there is absolutely no park or play space for children in the area. Something should be done with the Vo Tech in this regard. Any time a resident attempts to use any of the facilities there -- track, b-ball hoops, playing fields, even dog walking -- he is immediately chased off by the staff. I have even been told by the Whittier staff there that it is "private property." This is outrageous! The superintendent runs the campus as if it is her personal fiefdom. She might argue (I have tried) that there is a permission process for using the Whittier facilities. But the so-called process is cumbersome and time-consuming. It discourages individuals from actually trying gain access. In my view, there should be OPEN ACCESS to the outdoor facilities at Whittier and on a regular basis. Another recommendation: the City should attempt to purchase the area known as the "Pit" (actually a sand pit) off of East Broadway and along Old Country Bridge Road. The land borders conservation land and should be a top priority for the City in terms of preserving open space as well as protecting our water resources.
9.	Mon, 7/23/07 4:51 PM	Why are cars allowed to park on the memorial jogging track at Winnekinni? It should not be allowed.
10.	Mon, 7/23/07 4:54 PM	We need to preserve what is left of Haverhill. I think Haverhill should put aside \$100.00 a year from everyone who pays property and business tax to buy open space.
11.	Mon, 7/23/07 6:36 PM	please see above comments. thanks
12.	Mon, 7/23/07 6:39 PM	HOW ABOUT A PARK DEDICATED AS A DOG PARK?
13.	Mon, 7/23/07 7:01 PM	he City of Haverhill needs to demonstrate a strong commitment to protecting and enhancing its natural and recreational resources. More conservation officers with a strong environmental education background is needed for a City of this size. We have many endangered and protected species in Haverhill and add value to our community. It would also be nice to see an outreach program to educate landowners on land protection

**Question #9. Please offer your comments or suggestions regarding open space and recreational goals for the City of Haverhill:**

		options.
14.	Mon, 7/23/07 8:07 PM	Haverhill needs to have a steady maintenance program to preserve the gems that are here but we also need to have a long range plan in place.
15.	Mon, 7/23/07 8:23 PM	Taking advantage of the Merrimack River should be the number one goal of the city(ie. boardwalk, dredging river channel, parks alongside the river)
16.	Tue, 7/24/07 3:40 AM	Once again, if the goal of the city is to provide a "better" and "more appealing" location to live in, we would do exceedingly better by providing more attractions that are free of cost yet, recreational for existing and future families. While residing in Portland OR, for many years, knowing one could go in or out of the downtown city limits to find recreational or peaceful parks made living there rank above any other location I have resided in. There were cascading waterfall & fountain parks in the heart of the city. In the summer months watching the children play in them brought great joy to take in. There were Japanese and Rose Gardens as well as high elevation viewing parks overlooking the city that made for wonderful sightseeing and picinicing. The river and lakes were available for kayaking and canoeing as well as outdoor concerts. The river waterfront was a park that stretched for miles allowing biking, blading, walking, jogging and local event locations. I strongly feel, Haverhill has the potential to bring these type of parks to fruition and become a great place to live. Driving residency where needed.
17.	Tue, 7/24/07 12:02 PM	I think that it is important to provide open space and recreational areas for residents and visitors especially since Haverhill is increasing the development of residential buildings in the downtown area. These residents when looking for something to do will travel to other cities and spend their money there instead of staying in their "home" city for recreation.
18.	Tue, 7/24/07 1:23 PM	I strongly feel that Haverhill has gone way off track in these areas. Open space is a wonderful thing, but if we're not going to maintain it, then it's useless. There needs to be a commitment to maintaining open spaces. For

**Question #9. Please offer your comments or suggestions regarding open space and recreational goals for the City of Haverhill:**

		<p>example, the area that was flooded at Riverside Park for ice-skating was a great idea, however, the snow was not cleared off so it was useless. We tried to shovel it, but it was too large an area, it needed a snowblower. We don't utilize our beautiful river. We're putting up condos and blocking off the views everywhere! My family goes out of town every time we want to do something fun as a family. For examples, Prescott Park in Portsmouth, the Common in Newburyport, and the park on the river in Newburyport. There are no summer activities for children, or if there are, they have not been advertised. The graffiti is out of control and is everywhere now. What is being done about this? When I drive elsewhere, I come back to Haverhill and say to myself..."why am I living here when there are so many other beautiful places nearby?" I've always loved Haverhill and want to stay, but it seems to be deteriorating rapidly. Thank you for listening!</p>
19.	Tue, 7/24/07 1:24 PM	<p>The surrounding communities have very nice tot parks. Most of them are fenced in areas with bathrooms, parking, handicap swings, etc... We are huge city compared to these towns and we don't even have one really nice park.</p>
20.	Tue, 7/24/07 2:18 PM	<p>As mentioned above, I believe the city has a great many green spaces that need to be "rediscovered". Winnekenni is vastly underfunded as a recreational area, no parking, no restrooms, no real sense of organization as a park in general. Very disappointing. I personally have maintained the various trees that have been planted by the city and Brightside for a number of years now. I see how much this park is used by a wide variety of folks from runners, to walkers, horse folks, cyclists, picnickers and tennis players. Any summer weekend you will find the Tennis Shed area filled with people basically parking anywhere, including the trails and grass areas! I am currently working with a boy scout on a eagle scout project to mark and post a trail system and map so that people can actually know where and how long they are exercising in the park. Long over due! Also I am maintaining two other green areas in and around the Highlands District. Windsor Park and Berkley Street. Simple mowing, edging</p>



**Question #9. Please offer your comments or suggestions regarding open space and recreational goals for the City of Haverhill:**

		of sidewalks, and mulching of the trees in these areas can go along way to enhance the over beauty of these and many other small "pocket parks" throughout the city. A clean, orgainized, green space invites residents to take advantage of the what these areas were orginnaly intended to present. A quite peaceful area to enjoy. Dave LaBrode 978 373 3408
21.	Tue, 7/24/07 7:31 PM	As a parent of four young children I would like to see more parks for kids be built. A park with a play structure, climbing structures, swings and a skatepark would be ideal. I would like to see something put in the Bradford section of Haverhill since there is nothing like it here. I always take my kids out of town to go to parks. It would be nice to stay here and meet friends for a day of fun with the kids. I would donate time and \$\$ to put something in the Bradford section.
22.	Wed, 7/25/07 6:42 PM	There are 50 baseball/softball fields and 3 soccer fields yet the two are comparible in membership. It's embarrassing when other towns come to play in Haverhill. A dedicated area is needed strickly for soccer such as baseball has Riverside.
23.	Thu, 7/26/07 2:21 PM	The city needs more parks. There should be some kind of park downtown with all of the development going on. The rest area on 110 looks horrible and it is closed. What's with that? The police should walk some of the parks to keep them safe. City workers should empty trash barrels regularly so they do not overflow (Riverside and Kenoza) and additional barrels should be added at Kenoza along the trail by the lake where so many kids dump there water bottles, coke cans, and dunkin' cups!
24.	Fri, 7/27/07 2:54 PM	I think the City would benefit greatly, on many levels, by facilitating the use of open space as farmland. The potential is enormous: youth could be engaged in farming activities while providing the community with more fresh, local food (through a community supported agriculture model). Programs such as The Food Project and Lowell UTEC's Fresh Roots are currently doing this with great success. While not an official expert on community supported agriculture, I participate in it now through a Lowell-based program and would be happy to



**Question #9. Please offer your comments or suggestions regarding open space and recreational goals for the City of Haverhill:**

		share my experiences. Sincerely, Lauren Barbieri 978.372.2313
25.	Sat, 7/28/07 3:03 PM	I suggest that the City strongly pursue obtaining the entire portion of the unused railroad line from the Comeau Bridge to the Haverhill Paperboard Corp. This would ensure that the land be developed for walkers, runners, bikers, and the people of Haverhill. I, and many others, strongly oppose the renaming of the Comeau Bridge. There is an overabundance of use of the Whittier name throughout Haverhill. The Whittier quote used at the top of the survey is now innaccurate and outdated. Where are "thick clusters of elms?" Where are the "blossoming or fruited orchardsâ€;" To say that "The scenery of the lower valley of the Merrimac is not bold or remarkably picturesque" is now simply wrong.
26.	Sat, 7/28/07 5:42 PM	Growing up in Haverhill, we used to have playgrounds where from 9 to 5 teachers or professionals would encourage us to do fun things. Softball, horse shoes, making straw baskets, gimp to mention a few. It kept us occupied and out of trouble. Both my parents worked and my grandma use to baby sit. I am 56.
27.	Sat, 7/28/07 9:21 PM	I have seen "open space" sometimes interpreted by communities as meaning golf courses, soccer fields, etc. I would like to see purchases of "open space" land to mean it would be dedicated conservation land and not turned into any sort of recreational land. Haverhill needs to concentrate on protecting land for future generations before it's all gobbled up by developers. There has been so much building in the 20+ yrs. we have lived here & I have seen very little interest on the part of Haverhill in protecting open space land.
28.	Sat, 7/28/07 11:25 PM	I think it is really important to preserve the parks and public spaces by creating a "dog park" most cities have them. They support all citizens by giving dogs a place of their own and keeping other parks clean.
29.	Mon, 7/30/07 1:07 AM	This City's leadership has shown the opposite of vision in its development plan. It has squandered resources, and build upon what should have been preserved open spaces. Mayor Fiorentini is nothing more than a pimp when it

**Question #9. Please offer your comments or suggestions regarding open space and recreational goals for the City of Haverhill:**

		comes to our most valuable spaces. Time for a change!
30.	Mon, 7/30/07 3:17 PM	The most important is to protect our water supply! Future development needs to emphasize our historic buildings while protecting our more rural neighborhoods. New construction in Ward Hill is one thing excluding Spring Hill Farm. It is another to fill in the Wetlands along RT 97 (Broadway) increasing existing flooding problems. New Retail should be centered on redeveloping Westgate which is accessible by public transit not paving over undeveloped land or speciality shopping downtown. The strip mall on 125 in Bradford (Academy Lanes) and Riverside Plaza provide enough parking lots for any needed shopping for our current resident population. Walking trails, cross country skiing, and parks for the kids including skateboarding parks should be a priority.
31.	Mon, 7/30/07 3:29 PM	We need to pull more from the community resources and get local business to donate money time and service to make our playground safe, up to code, and full of imagination like the Boy Scout Park on Topsfield Rd that has a theme of a castle. This park has swings, tires, slides, tunnel, horses, sand area and music area and this was done through community support and outreach. We are in desperate need for a youth center. The Boy's Club is not enough we need to get kids before they run into trouble. I went in there once and the Boys Club was a zoo very unsupervised.
32.	Mon, 7/30/07 5:14 PM	Riverside park needs to take care of the bathrooms so they are usable. Also an outhouse at the baseball fields. The playgrounds also need some attention.
33.	Mon, 7/30/07 6:13 PM	Once things are given over to private development, to private profit, it is just too hard to regulate. I think even though the city tried with Bradford College, the developer was given too much power to stall things and hold a whole constituency hostage to the private, out of town, company's profits.
34.	Mon, 7/30/07 6:58 PM	Riverside Park needs restrooms. Riverside Park needs dog crap enforcement as I see daily people unleashing their dogs. Riverside Park should have a profitable

**Question #9. Please offer your comments or suggestions regarding open space and recreational goals for the City of Haverhill:**

		concession stand especially with all the resources in the city. I received donations from Pepsi ( Ward Hill ) and Chicks Roast Beef ( Bradford ) to raise money for a baseball team this year, and sold food at the stadium!!
35.	Mon, 7/30/07 7:22 PM	Safer playgrounds would allow for more family activity in neighborhoods. Cashman needs a playscape.
36.	Mon, 7/30/07 7:43 PM	I think we need more playgrounds for the kids and keep them up. Also like i said before the playing fields are an embarrassment i'd like to know where the taxes i pay goes, is any going to parks and rec.
37.	Mon, 7/30/07 7:45 PM	some of these questions should be explained a little more clearly, and I may have answered differently, but I answered no to any questions that weren't quite clear to me. thank you
38.	Mon, 7/30/07 10:32 PM	Haverhill is trying to bring in more young families to build it up and it should have areas where these families can go and feel safe and comfortable. They would need to be accessible for all ages. The key factor is on safety - not only with equipment, but for mothers to be willing to go to with their young children.
39.	Mon, 7/30/07 11:49 PM	Haverhill needs to expand its summer recreation program. I don't feel there are enough supervised recreation options for a city of this size. Other towns in the area have seem to have beter programs. Also Haverhill needs to do a better job policing conservation areas to keep them clean and safe.
40.	Tue, 7/31/07 12:18 AM	Thanks, Larry C.
41.	Tue, 7/31/07 1:34 AM	Above ALL, we need better sports areas in Haverhill; especially BASEBALL FIELDS. It is an embarassment when we go to other towns to play and we see what the other communities have,
42.	Tue, 7/31/07 3:20 AM	I grew up in Haverhill and now live in Derry, NH. Derry is very much the Haverhill I knew growing up. Derry has a very popular and well working dog park. Maybe someone can check with them for information on how it started. I hope someone considers my thought for the old

**Question #9. Please offer your comments or suggestions regarding open space and recreational goals for the City of Haverhill:**

		Woolworth building. It's such a shame to see that beautiful building going to waste.
43.	Tue, 7/31/07 3:28 AM	Maintain what we have first.
44.	Tue, 7/31/07 3:29 AM	As a new resident of Haverhill, I love the features of downtown, easy access to main highways and the nearby amenities. I'm excited for the continued renovation of downtown, and support the Cordovan and other new ventures within our borders. But with commerce and growth comes the need to enjoy what sets Haverhill apart from other nearby cities - our beautiful parks, woodlands, and the river. These assets need to be preserved now before development takes over and reduces us to just another over developed cement landscape lacking character and inspiration. How many other locales can boast a historic castle, lakes and ponds, a riverwalk, flourishing downtown and horse farms all within the city limits? I'm proud to show the many unexpected benefits of living in Haverhill to my family and friends, and look forward to sharing our future accomplishments with them as well. I'd be proud to be a part of any volunteer organizations within the community who put in hands on effort to build trails and beautify the land we have - perhaps we should put some focus on collecting active members of the community who are willing to pay in sweat equity when we are already tight on budgets?
45.	Tue, 7/31/07 3:46 AM	While I think that bringing BJ's & Target, etc. to Haverhill is great and will really help the city, I do think that having open spaces and recreation in the city is important as well. We need both to attract people to Haverhill as residents and visitors. Cities that capitalize on the river seem to be doing well, I think there is definitely something there. I also support enviromentally friendly ideas, and trees certainly do a lot to help that. I appreciate that there is a delicate balance in achieving all these things and thank you for the opportunity to make my voice heard.
46.	Tue, 7/31/07 3:49 AM	We need more neighborhood parks. We should look at community builds.
47.	Tue, 7/31/07 3:53 AM	I would like to see skateboarding park with supervision

**Question #9. Please offer your comments or suggestions regarding open space and recreational goals for the City of Haverhill:**

		for young people. Also we need more soccer fields. Would like to see more kids involved with soccer and baseball at all ages.
48.	Tue, 7/31/07 4:04 AM	I think the Dog park, and a childrens park would be wonderful. The dog park, I feel needs to be monitored by either volunteers or paid help. I have seen dog parks in NYC and unfortunatley, people can be a problem when it comes to cleaning up after their dogs. ALso, it would need a water source to keep the area clean. Would love to see the childrens park be built. Would like to see it as a separate destination.
49.	Tue, 7/31/07 4:35 AM	My main concern as a mom of a toddler is having places to go. I see many communities around us with much better playgrounds and outdoor play areas. 4 swings at Winnekenni does not support the number of kids that go there on a given day. The play structure there is beginning to show wear and needs some repair.
50.	Tue, 7/31/07 9:34 AM	we only have one chance to protect what is unique to haverhill and that is it's large tracts of open land and pasture, to screw that up for the development money or whatever would be to ruin the very fabric of haverhill... you might as well call us lawrence-north.
51.	Tue, 7/31/07 9:45 AM	Think about a 20 mile bike trail meandering through the outskirts of Haverhill- this is a big, beautiful city - what a draw for locals and tourists alike - like the Cape Cod Rail Trail. Perhaps people on a proposed route could donate a strip of their land to "connect the dots"
52.	Tue, 7/31/07 10:38 AM	I remember growing up when there was an abundance open space. Some really beautiful fields. Each year the open space is being taken away by housing development after housing development. It angers me even more so when I see that houses have been built on land that are wetlands. What's up that? The loss of the open space and wetlands really is sad.
53.	Tue, 7/31/07 11:25 AM	Amongst the vast park system of Haverhill, I would like to see a Fenced, safe Dog Park area for residents to bring their dogs to have leash free socialization and play with regulations of course.

**Question #9. Please offer your comments or suggestions regarding open space and recreational goals for the City of Haverhill:**

54.	Tue, 7/31/07 12:06 PM	<p>There is a great need for more play equipment. Not just the Tot-Lot, but for those 8-9 years old. Something to actually "do". Some play scapes you just get in and stand there--where's the fun of that? Where are the mobility toys? A row of a dozen swings (not just 2-3), teater-toters, merry-go-rounds, monkey bars, punch balls, 4-square areas--the things I remember as a child. There needs to be more trees and green scapes. It's sad to go down to the Mer. River and see tall buildings. Ruins the scape. Living in Charleston, SC for many years, the rule was only a church steeple could be the highest sight. If we are going to keep our "New England Heritage" we must stop building on such grand scales. Why build a Riverwalk when the scenic is gone? I don't want to drive down to an area and see large Condo complexes. When you drive down Main Street and see the white steeple of the Bradford church, tucked among the trees--THAT looks New England. (especially in the Fall.) Then you look around and see mega-shops taller than they need to be, glowing in neon, or run down shopping plazas--that's Lawrence. I moved here 10 years ago to be in a small New England town--but the over building (all the woods behind my house on Concord Street are gone--for shame.), decimation of trees, and overly big shops make this area now seem inner-city. Our house has been paint balled, the school across the street from our house has had the playground equipment vandalized and the trash bin set afire. Even our Baby Jesus was taken from the Nativity in our front yard this past Christmas. Crime and vandalism statistics are backing up this over development. We don't even use the public school system. Thank you for your time.</p>
55.	Tue, 7/31/07 12:24 PM	<p>Owners of open space land may be more apt to donate to the city if they are ensured that it will remain undeveloped. A skate park would be a great addition to outdoor recreation space for our youth!</p>
56.	Tue, 7/31/07 12:48 PM	<p>I'm glad this issue is on your agenda! Please consider having any company using large, bright lights install the special ones that keep the light focused downward. Haverhill has such lovely evening and night scenery. Let's not have more blinding lights like the ones at the</p>



**Question #9. Please offer your comments or suggestions regarding open space and recreational goals for the City of Haverhill:**

		car dealers. Thanks for listening!
57.	Tue, 7/31/07 1:21 PM	I'm particularly interested in bike trails (maybe these exist and I just don't know of them?), and river access (walkway, etc.)
58.	Tue, 7/31/07 2:03 PM	I believe the city of Haverhill must make preservation of open spaces a priority. I am worried that we are losing some of the natural beauty of the area with overdevelopment.
59.	Tue, 7/31/07 5:53 PM	Improve the sports fields in the city. Work with the different league instead of putting up road blocks. Improve community pride and support the children
60.	Tue, 7/31/07 6:03 PM	I think that we have plenty of baseball fields, but not enough of nice playgrounds for children to play. I have a 6 year old and a son on the way and I do not use Haverhill parks because I think they are run down and unappealing. I would love to have a few choices in the city and the park at Winnikini Castle is the only one I would consider.
61.	Tue, 7/31/07 6:25 PM	Haverhill is generally not bike-friendly; lots of improvement opportunities here. Could offer dog waste pickup bag dispensers at/around parks like Winnekenni. Dog park would be wonderful.
62.	Tue, 7/31/07 6:56 PM	I had proposed a plan to Vinnie Oulette regarding the ball field at Consentino / Silver Hill School. We would convert that field into a senior field and also make a football field for the Jr. football program. We could get the field lighted so games could be played there and it would not interfere with anything else going on in the city. It fell on deaf ears, because those fields are designated only for soccer. He refused to listen to anything else. I had volunteers to supply machinery needed to convert everything over at no cost to the city and even materials. We then would have done a fund raiser to purchase lights and create a fund to pay for the light bill. Because the city is in tough shape financially, I never bothered the mayor about my proposal to Vinnie O. But the city needs to make department heads more accountable than whats being done know.

**Question #9. Please offer your comments or suggestions regarding open space and recreational goals for the City of Haverhill:**

63.	Tue, 7/31/07 11:16 PM	Many of us moved to Haverhill because of the open spaces and large old trees. We've lived here for 14 years and all we've seen is building - expansion - and little effort to conserve the open spaces and save old trees. We are becoming an ugly city without these wonderful natural resources!!!
64.	Wed, 8/1/07 12:28 AM	The city is slowly turning into Lawrence. We can stop this now if we would just stop and think about how our growth is going to affect this city.
65.	Wed, 8/1/07 3:10 AM	Haverhill has not sought to purchase or protect any land for the last twenty years, only sold excess City land as fast as it could.
66.	Wed, 8/1/07 2:06 PM	We need to preserve our open space. We have too many homes. I have lived in Haverhill all my life and am saddened to drive by areas that were once open fields and are now huge developments.
67.	Wed, 8/1/07 5:35 PM	Recently used the tennis courts at Winnekenni Park. They are in need of repair - for safety reasons - cracks will become bigger over this coming winter and could pose a danger if not repaired. Also, part of the fence needs repair/replacement. If we are spending money on a bacci ball court...we certainly could spend some city money on the tennis courts - that more people use regularly. Thank you.
68.	Wed, 8/1/07 7:27 PM	Years ago, under the Rurak administration, several neighbors and myself tried to attend an open space meeting. We were turned away - told it was not an open meeting. The argument being that if someone were to find out their land was targeted for possible preservation, they could somehow charge the city more money. I believe just the opposite - if someone knew their land was "targeted", they'd probably be honored and maybe even try to help out with a reasonable price. Further, by turning citizens away from the public process, you lose advocates and created ill-will. I'm aware the current administration didn't do this, but the history is there.
69.	Wed, 8/1/07 7:47 PM	As stated earlier the more volunteer help the better in preserving our heritage if it means anything to us.



**Question #9. Please offer your comments or suggestions regarding open space and recreational goals for the City of Haverhill:**

70.	Wed, 8/1/07 9:16 PM	Improve what is currently in the city by generating jobs for teens. Also, make volunteerism mandatory for High School athletes instead of user fees to help offset the cost of maintaining parks, playgrounds, fields, and the Haverhill Rink. Allow for organizations such as Riverside Baseball and Greater Haverhill Youth Hockey to setup, manage, and maintain refreshments at the facilities at which they play.
71.	Thu, 8/2/07 12:39 AM	There are some very nice parks in Havehill, but they are not maintained as well as they could be.
72.	Thu, 8/2/07 12:30 PM	Please keep up the great work with the youth programs But PLEASE start aggressive initiatives to bring back local farm collaboratives.Look at Topsfield, Amesbury, West Newbury.Their real estate values aren't becasue of lots of retail. Big real estate values means big real estate taxes. People want the gentile life, pristine lakes,local farms, preserves historic homes.It's a New Englander's dream. Haverhill is a wonderful city.I'm so proud to be born and to live here. Thanks for the planting of the new trees as well! Please help me find a way to be involved!!!
73.	Thu, 8/2/07 3:11 PM	Haverhill is losing its natural beauty at an alarming rate. As a 31 year member of this community it is sad to drive by so many areas that were once beautiful open space and are now large homes. The building seems as though it will never stop. I am not against growth in the city. I understand the difficulties in zoning laws and land owner rights, but I do think that if Haverhill doesn't act now to slow (better to stop) this trend, we will lose all that made this city beautiful. We can not turn back the clock. I am concerned however that Haverhill consider the best plan to take this forward. As a teacher in this city (and tax payer) I am disgusted that every year there are cuts to the city's schools and other vital city programs. We can't have 1200 new homes built and still close fire stations, let police and teachers go etc. So if we can't maintain what we simply need, then how can we afford open space? Be mindful of how this is done. Be sure that in the end it really does benefit the city without colateral damage. Personally, I would love to have open space available in my own town to hike, have a picnic, view wildlife, take

**Question #9. Please offer your comments or suggestions regarding open space and recreational goals for the City of Haverhill:**

		photos, snowshoe, and simply appreciate as I drive by. With the exception of the Kenoza lake area, I have to travel to other towns to do this. I would rather be here. It is not something to take lightly, and it should be considered a need rather than a want. I believe that eventually even those who once criticized an open space purchase would appreciate it in the end. Thank you and good luck moving forward.
74.	Thu, 8/2/07 4:53 PM	I think we have to look beyond what "people" want and look to what our wild friends need (a place to live, food to eat, and clean air water to drink. More and more animals are being displaced by industrial parks, strip malls, and housing developments. I think the refurbishing of downtown mills into affordable housing is not only critical to the growth of the city, but a means of protecting our valuable natural resources from further decline.
75.	Fri, 8/3/07 2:11 AM	The Winnekenni Tennis courts really need resurfacing and lights would even be better. To have only 3 public courts in town, that are only adequate, really is a shame. When the high school and summer programs(plus cedardale spill over) are using the courts there is no place to play tennis in haverhill. Lights would help and pay per use lights till 10pm are standard in other areas. The courts are constantly used almost every night in the summer and every weekend from 8am till 2pm.
76.	Fri, 8/3/07 1:41 PM	need to preserve open space for the beauty of our city and for future generations
77.	Fri, 8/3/07 6:32 PM	Hiking/biking trails would be great, but so would sidewalks on Haverhill's major roads like on Hilldale Ave. A riverwalk/rail trail could easily be used as hike/bike trail.
78.	Sat, 8/4/07 12:24 AM	I know so many kids between the ages of 11 and 15 who fish, bike, boat, skate and swim in the city's recreation areas. They are often seen as a nuisance, but I think they could be motivated to help beautify and improve the city. I would be glad to join a committee to get Haverhill youth more involved. Amy Shea 521-4146 momshea4@msn.com

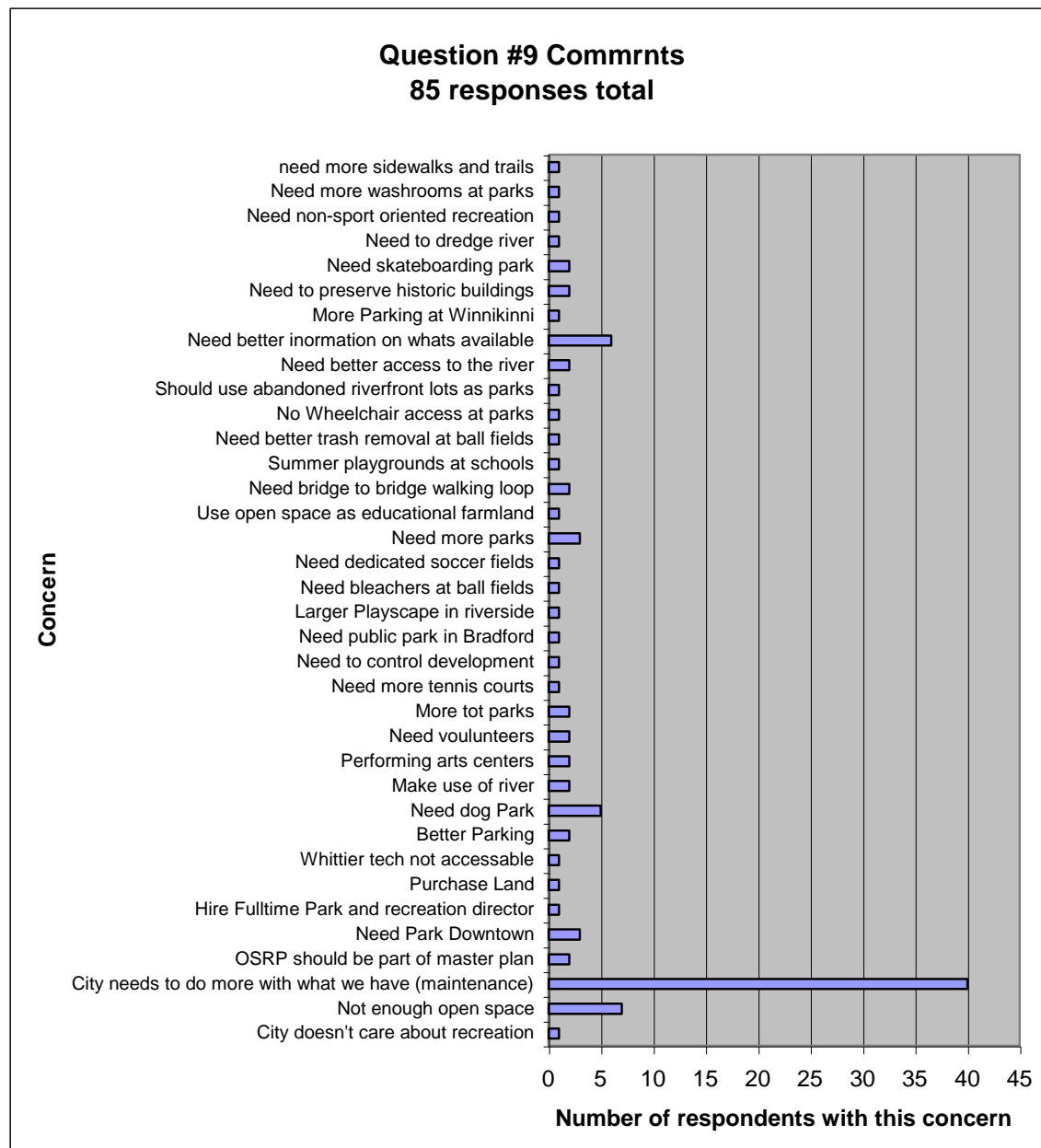
**Question #9. Please offer your comments or suggestions regarding open space and recreational goals for the City of Haverhill:**

79.	Mon, 8/6/07 3:24 PM	I think that providing more and better recreational opportunities for Haverhill citizens is very important to make Haverhill a great place to live. The parks are very disappointing. When I had young children I lived somewhere else where the playgrounds had new and fun equipment for the children. The only place I see new equipment in this city is in some of the poorer areas of town. The middle class likes to take their children to nice parks too. Thank you for your interest.
80.	Tue, 8/7/07 12:20 AM	The city is in the best position of all cities in the area, when considering the amount of eveloped and undeveloped land in very good balance.
81.	Tue, 8/7/07 1:42 PM	open space is overlooked and underutilized. perhaps better maintenance and signage and more large group activities, recreation and festivals
82.	Wed, 8/8/07 12:06 AM	I am in favor of improvements that will make Haverhill a better place to live and attract people/income to downtown (boating, walkways, condos, businesses). Think of former industrial centers you like to visit locally for "downtown" attractions / relaxation - Newburyport (historic, waterfront, boating, restaurants, shops, easily walkable, quaint), Lowell (baseball, hockey, entertainment, city festivals). Haverhill has the potential.....
83.	Wed, 8/8/07 9:51 AM	The rural feel of Haverhill is part of it's charm. We cannot let developers destory this character by putting up neighborhoods and high density housing on farmland and open spaces. It will negatively impact our already crowded schools. This should be a top priority for the city.
84.	Thu, 8/9/07 7:25 PM	I would like to have a dog park available for use. Currently, I have to drive to Derry or Portsmouth NH if I want to use a dogpark.
85.	Fri, 8/10/07 3:27 AM	The tennis courts need to be better maintained.

### Question #9 – Committee Interpretation

The two major issues to come out of this question were the lack of maintenance and utilization of the amenities that are available and the lack of public knowledge of what is available.

- The other useful comments had to do with:
- Lack of a dog park
- Lack of HC access at some parks
- More and better access to the river
- Wanting a park downtown
- Need for more parks in general



## **Appendix E**

### **2007 UrbanRiver Visions 2 Haverhill Action Plan**

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*An initiative of the Massachusetts Executive Office of Energy and Environmental Affairs  
in partnership with the City of Haverhill*

## **Haverhill Action Plan**

*The spring 2007 UrbanRiver Visions charrette resulted in both Vision and Action Plans. This Action Plan identifies first steps toward implementing the Vision Plan, available at [www.UrbanRiverVisions2.org](http://www.UrbanRiverVisions2.org). A summary of the vision is included below.*

Downtown Haverhill was once a center of industrial employment. In recent years, the city's old mill buildings have found new uses as housing for an influx of residents. Throughout the downtown, large areas of underutilized property along the Merrimack River represent a great opportunity for the city to re-envision its waterfront as an exciting destination with a range of amenities. New activities in spaces along both sides of the River, the return of boating activity, new civic green spaces, and trails that allow residents and visitors to learn about the city's rich history will allow Haverhill to re-establish the downtown as the heart of an attractive and vibrant area.

UrbanRiver Visions 2  
Haverhill Action Plan  
May, 2007

On March 31, 2007, over 50 local residents, business owners, and community leaders came together to create a new vision for Haverhill along key stretches of the Merrimack and Little Rivers. The outline below reflects the consultant team's thoughts about how you, the community, can begin to make this vision a reality. But this document should only serve as a starting point. The Action Plan – your list of “next steps” for moving the vision forward – will need to evolve. You'll need to keep tackling tough questions (What comes next? How will we make this happen? Who will do what?) with the same energy and enthusiasm that made the March event a success.

1. *Secure funding to acquire the land necessary to accommodate the Bradford component of the Riverwalk*

- The City of Haverhill should continue to take the lead in exploring potential sources of funding and should seek to secure a commitment from the existing owners of the old RR bed to make the property available for an agreed price. Possible partners that could assist in the process include Essex County Greenbelt Association (978-768-7241) and the Trust for Public Lands. Local advocates can provide financial and logistical support for the project and work with Bradford residents to ensure their support.

**Timeframe:** 0-2 years

**Lead Party:** City of Haverhill, Mayors' office, and Ron Thompson (citizen activist, 978-556-0612)

**Potential Funding:** Urban Self-Help Program; Federal Land and Water Conservation Fund, private donations in response to fundraising/educational drive

2. *Expand programming for festivals and events in existing public spaces along the riverfront area—behind the Tap Restaurant and the Haverhill Bank*

- The City of Haverhill should convene a meeting of potential stakeholders who could participate in shaping an events program that will increase local and regional awareness of the attractiveness of the downtown riverfront as a residential, commercial and entertainment destination. Participants should include key city officials, downtown businesses and organizations, Team Haverhill representatives, community organizations, downtown developers, and community residents. This initial meeting should explore potential responsibilities of each of the stakeholders, activities that could be initiated in the summer of 2007, and potential event sponsors and participants. One of the potential events would be an opening celebration this fall for the Comeau Bridge with a series of special activities designed to draw people into the open

riverfront spaces. (Find out about the public walks on the Zakim Bridge in Boston organized by Walk Boston before its opening).

**Timeframe:** 0-2 years

**Lead Party:** City of Haverhill and stakeholder partners

**Potential Funding:** TBD

3. *Initiate actions to secure immediate increase in boating activity in the downtown area*

- The City of Haverhill should initiate discussions with excursion boat operators interested in providing excursion service on the river using the existing dock at Riverfront Park. These discussions should lead to designation of an operator to provide service for an initial trial period. Deliberations among appropriate city officials, including the harbor master, should lead to development of a permit process that addresses safety, liability and responsibility issues.
- For additional docks or dock expansion on the downtown side of the river, a study should be initiated to address the potential need for infrastructure improvements, patron amenity upgrades, and maintenance.
- The City Engineer and Harbor Master should advance discussions with the State Office of Fishing and Boating Access (617-727-1843) to enhance existing boating access points to the river at the public area adjacent to the yacht club on the Bradford side of the river, allowing enhanced service in the summer of 2007 with additional improvements designed and built in subsequent years.
- The City should continue its discussions with the Army Corps of Engineers and downriver towns about dredging of the river to enhance boating while also ensuring protection of fisheries habitat.

**Timeframe:** 0-2 years

**Lead Party:** City of Haverhill, John Pettis (City Engineer) and Mike Vetts (Harbor Master)

**Potential Funding:** Rivers and Harbor Grant Program, MA Office of Fishing and Boating Access

4. *Initiate steps to create a major waterfront park at the current location of the bus depot and parking lot at Washington and Essex Streets*

- The City of Haverhill should work with the Merrimack Valley Regional Transit Authority to explore potential relocation sites for the existing bus station and parking areas.



- Representatives from the Mayor's Office and the City Engineer should meet with neighbors and adjacent property owners to address issues and concerns related to creation of the park.
- The City of Haverhill should seek grant funding to hire a consultant to develop plans for the park. This design process should be inclusive and focus on creating a green space in the center of the city that could be a major civic attraction and amenity.

**Timeframe:** 2-5 years

**Lead Party:** City of Haverhill, DPW, Planning Department, City Engineer, Community Development Director

**Potential Funding:** TBD

5. *Draft and adopt design standards for downtown and riverfront development; initiate design review for buildings and the public realm; develop guidelines for stormwater and water quality management*

- The City of Haverhill should explore potential sources of grant funds or technical assistance to support or assist its efforts to develop design guidelines.
- The guidelines should be developed through a public process that provides opportunities for public input and discussion of appropriate guidelines. This process should also explore potential incentives for developers whose projects exceed minimum standards established within the guidelines (or who provide additional public benefits such as access along the riverbank).
- The City of Haverhill in conjunction with the Merrimack River Watershed Association should convene public discussions on issues such as stormwater management, water quality improvements, and public access, and then seek funds for guidelines that evolve from these discussions.

**Timeframe:** 2-5 years

**Lead Party:** City of Haverhill, DPW, Conservation Commission, City Engineer, Community Development Director

**Potential Funding:** Smart Growth Technical Assistance Grants

6. *Explore ways to tap the potential of the Woolworth building as a highly visible gateway to the downtown and model for how the riverfront can be re-envisioned*

- Invite the building owners to engage in a public conversation of potential near-term improvements to the building's exterior that could tell the story of Haverhill. Potential ideas might include a riverfront interpretive mural that would be highly visible from the adjacent bridge. Promote activities and night lighting that encourages more pedestrian use of the bridge. Explore potential sources of funding.

**Timeframe:** 2-5 years  
**Lead Party:** City of Haverhill, Arts District Council  
**Potential Funding:** Massachusetts Arts Council

7. *Consider development of a downtown heritage and arts trail that explores aspects of the city's built and natural environments—a "sturgeon and boot trail," also providing a link between the Merrimack and Little Rivers*
- Identify and convene key stakeholders, including downtown residents, artists, businesses, Community College representatives, the Haverhill Historical Society, and the Buttonwoods Museum, to explore trail concepts and evaluate potential next steps.
  - Develop signs that would provide information on both the natural and cultural history in pictures and words. (Check out the signs located at strategic locations that tell the history of Belfast, Maine).

**Timeframe:** 2-5 years  
**Lead Party:** Arts District Council  
**Potential Funding:** Greenways & Trails Demonstration Grants,  
Massachusetts Historic Commission

**Action Plan Summary Table\***

Action	Time-frame	Lead Party	Potential Funding
1. <i>Secure funding to acquire the land necessary to accommodate the Bradford component of the Riverwalk</i>	0-2 years	City of Haverhill; Mayors' office; Ron Thompson (citizen activist)	Urban Self-Help Program; Federal Land and Water Conservation Fund; private donations in response to fundraising/ educational drive
2. <i>Expand programming for festivals and events in existing public spaces along the riverfront area—behind the Tap Restaurant and the Haverhill Bank</i>	0-2 years	City of Haverhill and stakeholder partners	TBD
3. <i>Initiate actions to secure immediate increase in boating activity in the downtown area</i>	0-2 years	City of Haverhill; City Engineer John Pettis; Harbor Master Mike Vets	Rivers and Harbor Grant Program; MA Office of Fishing and Boating Access
4. <i>Initiate steps to create a major waterfront park at the current location of the bus depot and parking lot at Washington and Essex Streets</i>	2-5 years	City of Haverhill, DPW, Planning Department, City Engineer, Community Development Director	TBD
5. <i>Draft and adopt design standards for downtown and riverfront development; initiate design review for buildings and the public realm; develop guidelines for stormwater and water quality management</i>	2-5 years	City of Haverhill; DPW; Conservation Commission; City Engineer; Community Development Director	Smart Growth Technical Assistance Grants
6. <i>Explore ways to tap the potential of the Woolworth building as a highly visible gateway to the downtown and model for how the riverfront can be re-envisioned</i>	2-5 years	City of Haverhill; Arts District Council	Massachusetts Arts Council

Action	Time-frame	Lead Party	Potential Funding
7. <i>Consider development of a downtown heritage and arts trail that explores aspects of the city's built and natural environments—a "sturgeon and boot trail," also providing a link between the Merrimack and Little Rivers</i>	2-5 years	Arts District Council	Greenways & Trails Demonstration Grants; Massachusetts Historic Commission

\* This table summarizes first steps to making the UrbanRiver Visions 2 Vision Plan a reality. It is not exhaustive and is intended to evolve over time, reflecting changing priorities, funding possibilities, and the availability of resources.

## Appendix F

### Natural Heritage and Endangered Species Program, Biodiversity Days Results, 2000

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The following taxa were found during Biodiversity Days 2000, June 9 - June 11. Also, a few results were from trips that fell outside the typical June 9 - June 11 range. If the English Name is a link, that link will take you to a page of descriptive information about the taxon. The Species Tree link will take you to the place in the Species Tree where that taxon resides. The Species Tree is an expandable/collapsible system of folders much like Windows Explorer.

NOTE: Species that are defined by NHESP as Rare, Endangered, Threatened, Special Concern or Watch List will not have their specific location listed.

English Name	Latin Name	Group	NHESP Status	Link to Species Tree	Date Found
<a href="#">American Toad</a>	Bufo americanus	Amphibians		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Dusky Salamander</a>	Desmognathus fuscus	Amphibians		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Common Gray Treefrog</a>	Hyla versicolor	Amphibians		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Red-backed Salamander</a>	Plethodon cinereus	Amphibians		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Spring Peeper</a>	Pseudacris crucifer	Amphibians		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Bullfrog</a>	Rana catesbeiana	Amphibians		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Green Frog</a>	Rana clamitans	Amphibians		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Pickerel Frog</a>	Rana palustris	Amphibians		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Wood Frog</a>	Rana sylvatica	Amphibians		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Blueback Herring</a>	Alosa aestivalis	Anadromous Fish		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Blueback Herring</a>	Alosa aestivalis	Anadromous Fish		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Alewife</a>	Alosa pseudoharengus	Anadromous Fish		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">American Shad</a>	Alosa sapidissima	Anadromous Fish		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Sea Lamprey</a>	Petromyzon marinus	Anadromous Fish		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Atlantic Salmon</a>	Salmo salar	Anadromous Fish		<a href="#">SpeciesTree</a>	6/10/2000

English Name	Latin Name	Group	NHESP Status	Link to Species Tree	Date Found
Carpenter Ants	Camponotus	Ants		<a href="#">SpeciesTree</a>	6/10/2000
Allegheny (Red) Mound Ant	Formica exsectoides	Ants		<a href="#">SpeciesTree</a>	6/10/2000
Little Black Ant	Monomorium emarginatum	Ants		<a href="#">SpeciesTree</a>	6/10/2000
Pondweed Genus	Potamogeton	Aquatic Plants		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Little Brown Bat</a>	Myotis lucifugus	Bats		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Honey Bee</a>	Apis mellifera	Bees and Wasps		<a href="#">SpeciesTree</a>	6/10/2000
A Green Metallic Bee	Augochlora	Bees and Wasps		<a href="#">SpeciesTree</a>	6/10/2000
Bumble Bees	Bombus	Bees and Wasps		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Bald-faced Hornet</a>	Dolichovespula maculata	Bees and Wasps		<a href="#">SpeciesTree</a>	6/10/2000
Paper Wasp	Polistes dominulus	Bees and Wasps		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Northern Paper Wasp</a>	Polistes fuscatus	Bees and Wasps		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Eastern Yellowjacket</a>	Vespula maculifrons	Bees and Wasps		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Two-spotted Lady Beetle</a>	Adalia bipunctata	Beetles		<a href="#">SpeciesTree</a>	6/10/2000
Green Ground Beetle	Chlaenius sericeus	Beetles		<a href="#">SpeciesTree</a>	6/10/2000
Nine-spotted Lady Beetle	Coccinella novemnotata	Beetles		<a href="#">SpeciesTree</a>	6/10/2000
Predaceous Diving Beetles	Dytiscidae	Beetles		<a href="#">SpeciesTree</a>	6/10/2000
Whirligig Beetles	Gyrinidae	Beetles		<a href="#">SpeciesTree</a>	6/10/2000
Click Beetle	Melanotus	Beetles		<a href="#">SpeciesTree</a>	6/10/2000
White-spotted Sawyer Beetle	Monochamus scutellatus	Beetles		<a href="#">SpeciesTree</a>	6/10/2000
Japanese Beetle	Popillia japonica	Beetles		<a href="#">SpeciesTree</a>	6/10/2000

English Name	Latin Name	Group	NHESP Status	Link to Species Tree	Date Found
Woodland Ground Beetle	Pterostochine	Beetles		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Spotted Sandpiper</a>	Actitis macularia	Birds		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Red-winged Blackbird</a>	Agelaius phoeniceus	Birds		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Wood Duck</a>	Aix sponsa	Birds		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Mallard</a>	Anas platyrhynchos	Birds		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">American Black Duck</a>	Anas rubripes	Birds		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Ruby-throated Hummingbird</a>	Archilochus colubris	Birds		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Great Blue Heron</a>	Ardea herodias	Birds		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Tufted Titmouse</a>	Baeolophus bicolor	Birds		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Ruffed Grouse</a>	Bonasa umbellus	Birds		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Canada Goose</a>	Branta canadensis	Birds		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Red-tailed Hawk</a>	Buteo jamaicensis	Birds		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Green Heron</a>	Butorides virescens	Birds		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Northern Cardinal, Red Cardinal</a>	Cardinalis cardinalis	Birds		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">American Goldfinch</a>	Carduelis tristis	Birds		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Purple Finch</a>	Carpodacus purpureus	Birds		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Brown Creeper</a>	Certhia americana	Birds		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Belted Kingfisher</a>	Ceryle alcyon	Birds		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Chimney Swift</a>	Chaetura pelagica	Birds		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Killdeer</a>	Charadrius vociferus	Birds		<a href="#">SpeciesTree</a>	6/10/2000

English Name	Latin Name	Group	NHESP Status	Link to Species Tree	Date Found
<a href="#">Northern Flicker, Yellow-shafted Flicker</a>	Colaptes auratus	Birds		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Rock Dove, Park Pigeon</a>	Columba livia	Birds		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Eastern Wood-Pewee</a>	Contopus virens	Birds		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">American Crow</a>	Corvus brachyrhynchos	Birds		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Blue Jay</a>	Cyanocitta cristata	Birds		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Yellow Warbler</a>	Dendroica petechia	Birds		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Bobolink</a>	Dolichonyx oryzivorus	Birds		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Pileated Woodpecker</a>	Dryocopus pileatus	Birds		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Gray Catbird</a>	Dumetella carolinensis	Birds		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">American Kestrel</a>	Falco sparverius	Birds		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Common Yellowthroat</a>	Geothlypis trichas	Birds		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Barn Swallow</a>	Hirundo rustica	Birds		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Wood Thrush</a>	Hylocichla mustelina	Birds		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Baltimore Oriole</a>	Icterus galbula	Birds		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Herring Gull</a>	Larus argentatus	Birds		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Ring-billed Gull</a>	Larus delawarensis	Birds		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Great Black-backed Gull</a>	Larus marinus	Birds		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Hooded Merganser</a>	Lophodytes cucullatus	Birds		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Red-bellied Woodpecker</a>	Melanerpes carolinus	Birds		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Wild Turkey</a>	Meleagris gallopavo	Birds		<a href="#">SpeciesTree</a>	6/10/2000



English Name	Latin Name	Group	NHESP Status	Link to Species Tree	Date Found
<a href="#">Song Sparrow</a>	Melospiza melodia	Birds		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Northern Mockingbird</a>	Mimus polyglottos	Birds		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Black-and-white Warbler</a>	Mniotilta varia	Birds		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Brown-headed Cowbird</a>	Molothrus ater	Birds		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Great Crested Flycatcher</a>	Myiarchus crinitus	Birds		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Eastern Screech-Owl</a>	Otus asio	Birds		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Osprey</a>	Pandion haliaetus	Birds		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">House Sparrow</a>	Passer domesticus	Birds		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Indigo Bunting</a>	Passerina cyanea	Birds		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Cliff Swallow</a>	Petrochelidon pyrrhonota	Birds		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Double-crested Cormorant</a>	Phalacrocorax auritus	Birds		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Ring-necked Pheasant</a>	Phasianus colchicus	Birds		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Rose-breasted Grosbeak</a>	Pheucticus ludovicianus	Birds		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Downy Woodpecker</a>	Picoides pubescens	Birds		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Hairy Woodpecker</a>	Picoides villosus	Birds		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Eastern Towhee, Rufous-sided Towhee</a>	Pipilo erythrophthalmus	Birds		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Scarlet Tanager</a>	Piranga olivacea	Birds		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Black-capped Chickadee</a>	Poecile atricapillus	Birds		<a href="#">SpeciesTree</a>	6/10/2000

English Name	Latin Name	Group	NHESP Status	Link to Species Tree	Date Found
<a href="#">Common Grackle</a>	Quiscalus quiscula	Birds		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Bank Swallow</a>	Riparia riparia	Birds		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Eastern Phoebe</a>	Sayornis phoebe	Birds		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">American Woodcock</a>	Scolopax minor	Birds		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Eastern Bluebird</a>	Sialia sialis	Birds		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Red-breasted Nuthatch</a>	Sitta canadensis	Birds		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">White-breasted Nuthatch</a>	Sitta carolinensis	Birds		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Chipping Sparrow</a>	Spizella passerina	Birds		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Northern Rough-winged Swallow</a>	Stelgidopteryx serripennis	Birds		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Barred Owl</a>	Strix varia	Birds		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Eastern Meadowlark</a>	Sturnella magna	Birds		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">European Starling</a>	Sturnus vulgaris	Birds		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Tree Swallow</a>	Tachycineta bicolor	Birds		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Brown Thrasher</a>	Toxostoma rufum	Birds		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">House Wren</a>	Troglodytes aedon	Birds		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">American Robin</a>	Turdus migratorius	Birds		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Eastern Kingbird</a>	Tyrannus tyrannus	Birds		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Mourning Dove</a>	Zenaida macroura	Birds		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Silver-bordered Fritillary</a>	Boloria selene	Butterflies		<a href="#">SpeciesTree</a>	6/10/2000

English Name	Latin Name	Group	NHESP Status	Link to Species Tree	Date Found
Common Ringlet	Coenonympha tullia	Butterflies		<a href="#">SpeciesTree</a>	6/10/2000
Clouded Sulphur	Colias philodice	Butterflies		<a href="#">SpeciesTree</a>	6/10/2000
Monarch	Danaus plexippus	Butterflies		<a href="#">SpeciesTree</a>	6/10/2000
Silvery Blue	Glaucopsyche lygdamus	Butterflies		<a href="#">SpeciesTree</a>	6/10/2000
American Snout	Libytheana carinenta	Butterflies		<a href="#">SpeciesTree</a>	6/10/2000
American Copper	Lycaena phlaeas	Butterflies		<a href="#">SpeciesTree</a>	6/10/2000
Mourning Cloak	Nymphalis antiopa	Butterflies		<a href="#">SpeciesTree</a>	6/10/2000
Eastern Tiger Swallowtail	Papilio glaucus	Butterflies		<a href="#">SpeciesTree</a>	6/10/2000
Black Swallowtail	Papilio polyxenes	Butterflies		<a href="#">SpeciesTree</a>	6/10/2000
Cabbage White	Pieris rapae	Butterflies		<a href="#">SpeciesTree</a>	6/10/2000
Long Dash	Polites mystic	Butterflies		<a href="#">SpeciesTree</a>	6/10/2000
Scarlet Bluet	Enallagma pictum	Dragonflies	Threatened	<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Eastern Pondhawk</a>	Erythemis simplicicollis	Dragonflies		<a href="#">SpeciesTree</a>	6/10/2000
Emerald Spreadwing	Lestes dryas	Dragonflies		<a href="#">SpeciesTree</a>	6/10/2000
Spangled Skimmer	Libellula cyanea	Dragonflies		<a href="#">SpeciesTree</a>	6/10/2000
Centipedes	Chilopoda	Earthworms, Centipedes and Millipedes		<a href="#">SpeciesTree</a>	6/10/2000
Millipedes	Diplopoda	Earthworms, Centipedes and Millipedes		<a href="#">SpeciesTree</a>	6/10/2000

English Name	Latin Name	Group	NHESP Status	Link to Species Tree	Date Found
Earthworms	Lumbricus	Earthworms, Centipedes and Millipedes		<a href="#">SpeciesTree</a>	6/10/2000
Maidenhair-fern, Northern Maidenhair	Adiantum pedatum	Ferns and Fern Allies		<a href="#">SpeciesTree</a>	6/10/2000
Hay-scented Fern	Dennstaedtia punctilobula	Ferns and Fern Allies		<a href="#">SpeciesTree</a>	6/10/2000
Southern Ground-cedar, Fan-clubmoss	Diphasiastrum digitatum	Ferns and Fern Allies		<a href="#">SpeciesTree</a>	6/10/2000
Marginal Wood-fern	Dryopteris marginalis	Ferns and Fern Allies		<a href="#">SpeciesTree</a>	6/10/2000
Field-horsetail, Common Horsetail	Equisetum arvense	Ferns and Fern Allies		<a href="#">SpeciesTree</a>	6/10/2000
River-horsetail, Water-horsetail	Equisetum fluviatile	Ferns and Fern Allies		<a href="#">SpeciesTree</a>	6/10/2000
Staghorn Clubmoss, Running Clubmoss, Common Clubmoss	Lycopodium clavatum	Ferns and Fern Allies		<a href="#">SpeciesTree</a>	6/10/2000
Ground-pine, Princess-pine, Tree-clubmoss	Lycopodium obscurum	Ferns and Fern Allies		<a href="#">SpeciesTree</a>	6/10/2000
Ostrich-fern	Matteuccia struthiopteris	Ferns and Fern Allies		<a href="#">SpeciesTree</a>	6/10/2000
Sensitive Fern	Onoclea sensibilis	Ferns and Fern Allies		<a href="#">SpeciesTree</a>	6/10/2000
Cinnamon-fern	Osmunda cinnamomea	Ferns and Fern Allies		<a href="#">SpeciesTree</a>	6/10/2000
Interrupted Fern	Osmunda claytoniana	Ferns and Fern Allies		<a href="#">SpeciesTree</a>	6/10/2000
Royal Fern	Osmunda regalis var. spectabilis	Ferns and Fern Allies		<a href="#">SpeciesTree</a>	6/10/2000

English Name	Latin Name	Group	NHESP Status	Link to Species Tree	Date Found
Christmas-fern	Polystichum acrostichoides	Ferns and Fern Allies		<a href="#">SpeciesTree</a>	6/10/2000
Bracken Fern	Pteridium aquilinum	Ferns and Fern Allies		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Deer Fly</a>	Chrysops callidus	Flies		<a href="#">SpeciesTree</a>	6/10/2000
Mosquitoes	Culex	Flies		<a href="#">SpeciesTree</a>	6/10/2000
Progressive Bee Flies	Exoprosopa	Flies		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">House Fly</a>	Musca domestica	Flies		<a href="#">SpeciesTree</a>	6/10/2000
Black Flies	Simulium	Flies		<a href="#">SpeciesTree</a>	6/10/2000
American Horse Fly	Tabanus americanus	Flies		<a href="#">SpeciesTree</a>	6/10/2000
Crane Flies	Tipula	Flies		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">White Catfish</a>	Ameiurus catus	Freshwater Fish		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Brown Bullhead</a>	Ameiurus nebulosus	Freshwater Fish		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">American Eel</a>	Anguilla rostrata	Freshwater Fish		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Goldfish</a>	Carassius auratus	Freshwater Fish		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">White Sucker</a>	Catostomus commersoni	Freshwater Fish		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Common Carp</a>	Cyprinus carpio	Freshwater Fish		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Gizzard Shad</a>	Dorosoma cepedianum	Freshwater Fish		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Redfin Pickerel</a>	Esox americanus	Freshwater Fish		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Chain Pickerel</a>	Esox niger	Freshwater Fish		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Pumpkinseed Sunfish</a>	Lepomis gibbosus	Freshwater Fish		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Bluegill</a>	Lepomis macrochirus	Freshwater Fish		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Common Shiner</a>	Luxilus cornutus	Freshwater Fish		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Small-mouthed Bass</a>	Micropterus dolomieu	Freshwater Fish		<a href="#">SpeciesTree</a>	6/10/2000

English Name	Latin Name	Group	NHESP Status	Link to Species Tree	Date Found
<a href="#">Large-mouthed Bass</a>	Micropterus salmoides	Freshwater Fish		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">White Perch</a>	Morone americana	Freshwater Fish		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Striped Bass</a>	Morone saxatilis	Freshwater Fish		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Golden Shiner</a>	Notemigonus crysoleucas	Freshwater Fish		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Spottail Shiner</a>	Notropis hudsonius	Freshwater Fish		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Rainbow Trout</a>	Onchorhynchus mykiss	Freshwater Fish		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Yellow Perch</a>	Perca flavescens	Freshwater Fish		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Black Crappie</a>	Pomoxis nigromaculatus	Freshwater Fish		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Brown Trout</a>	Salmo trutta	Freshwater Fish		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Brook Trout</a>	Salvelinus fontinalis	Freshwater Fish		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Cambarus bartonii, Appalachian Brook Crayfish</a>	Cambarus bartonii	Freshwater Invertebrates		<a href="#">SpeciesTree</a>	6/10/2000
Freshwater Leech	Erpobdella	Freshwater Invertebrates		<a href="#">SpeciesTree</a>	6/10/2000
Air-breathing Snails	Heliosoma	Freshwater and Land Mollusks		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Eastern Pond Mussel</a>	Ligumia nasuta	Freshwater and Land Mollusks	Special Concern	<a href="#">SpeciesTree</a>	6/10/2000
Slugs	Limax	Freshwater and Land Mollusks		<a href="#">SpeciesTree</a>	6/10/2000
Freshwater Snail	Promenectus exacuous	Freshwater and Land Mollusks		<a href="#">SpeciesTree</a>	6/10/2000
Tall or Large Crab-grass	Digitaria sanguinalis	Grasses, Sedges and Rushes		<a href="#">SpeciesTree</a>	6/10/2000

English Name	Latin Name	Group	NHESP Status	Link to Species Tree	Date Found
Reed Canary-grass	Phalaris arundinacea	Grasses, Sedges and Rushes		<a href="#">SpeciesTree</a>	6/10/2000
Timothy	Phleum pratense ssp. pratense	Grasses, Sedges and Rushes		<a href="#">SpeciesTree</a>	6/10/2000
Phragmites, Common Reed	Phragmites australis	Grasses, Sedges and Rushes		<a href="#">SpeciesTree</a>	6/10/2000
Annual Bluegrass, Low Speargrass	Poa annua	Grasses, Sedges and Rushes		<a href="#">SpeciesTree</a>	6/10/2000
Junegrass, Kentucky Bluegrass	Poa pratensis	Grasses, Sedges and Rushes		<a href="#">SpeciesTree</a>	6/10/2000
Corn, Maize	Zea mays	Grasses, Sedges and Rushes		<a href="#">SpeciesTree</a>	6/10/2000
Grasshoppers	Acrididae	Insects		<a href="#">SpeciesTree</a>	6/10/2000
Green Stinkbug	Acrostemum hilare	Insects		<a href="#">SpeciesTree</a>	6/10/2000
Squash Bug	Anasa tristis	Insects		<a href="#">SpeciesTree</a>	6/10/2000
Aphids	Aphis	Insects		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">German Cockroach</a>	Blattella germanica	Insects		<a href="#">SpeciesTree</a>	6/10/2000
Green Lacewing	Chrysoptera arnia	Insects		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Carolina Locust</a>	Dissosteira carolina	Insects		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">European Earwig</a>	Forficula auricularia	Insects		<a href="#">SpeciesTree</a>	6/10/2000
Water Striders	Gerris	Insects		<a href="#">SpeciesTree</a>	6/10/2000
Scarlet-and-green Leafhopper	Graphocephala coccinea	Insects		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Northern Field Cricket</a>	Gryllus pennsylvanicus	Insects		<a href="#">SpeciesTree</a>	6/10/2000
Common Silverfish	Lepisma saccharina	Insects		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Small Eastern Milkweed Bug</a>	Lygaeus kalmii	Insects		<a href="#">SpeciesTree</a>	6/10/2000

English Name	Latin Name	Group	NHESP Status	Link to Species Tree	Date Found
<a href="#">European Praying Mantis</a>	Mantis religiosa	Insects		<a href="#">SpeciesTree</a>	6/10/2000
Backswimmer	Notonecta	Insects		<a href="#">SpeciesTree</a>	6/10/2000
Stink Bugs	Pentatomidae	Insects		<a href="#">SpeciesTree</a>	6/10/2000
Meadow Spittlebug	Philaenus spumarius	Insects		<a href="#">SpeciesTree</a>	6/10/2000
Subterranean Termite	Reticulitermes flavipes	Insects		<a href="#">SpeciesTree</a>	6/10/2000
Caddisflies	Trichoptera	Insects		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Moose</a>	Alces alces	Mammals		<a href="#">SpeciesTree</a>	6/10/2000
Domestic Dog	Canis familiaris	Mammals		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Coyote</a>	Canis latrans	Mammals		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">American Beaver</a>	Castor canadensis	Mammals		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Virginia Opossum</a>	Didelphis virginiana	Mammals		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Common Porcupine</a>	Erethizon dorsatum	Mammals		<a href="#">SpeciesTree</a>	6/10/2000
Domestic Cat	Felis catus	Mammals		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Southern Flying Squirrel</a>	Glaucomys volans	Mammals		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Northern River Otter</a>	Lutra canadensis	Mammals		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Woodchuck, Eastern Marmot</a>	Marmota monax	Mammals		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Fisher</a>	Martes pennanti	Mammals		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Striped Skunk</a>	Mephitis mephitis	Mammals		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">American Mink</a>	Mustela vison	Mammals		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">White-tailed Deer</a>	Odocoileus virginianus	Mammals		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Common Muskrat</a>	Ondatra zibethicus	Mammals		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Common Raccoon</a>	Procyon lotor	Mammals		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Eastern Gray Squirrel</a>	Sciurus carolinensis	Mammals		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Eastern Cottontail</a>	Sylvilagus floridanus	Mammals		<a href="#">SpeciesTree</a>	6/10/2000



English Name	Latin Name	Group	NHESP Status	Link to Species Tree	Date Found
<a href="#">Eastern Chipmunk</a>	Tamias striatus	Mammals		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Red Squirrel</a>	Tamiasciurus hudsonicus	Mammals		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Red Fox</a>	Vulpes vulpes	Mammals		<a href="#">SpeciesTree</a>	6/10/2000
Tree Mosses	Climacium	Mosses		<a href="#">SpeciesTree</a>	6/10/2000
Sphagnum Moss, Peat	Sphagnum	Mosses		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Cecropia Moth</a>	Hyalophora cecropia	Moths		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Woolly Bear Caterpillar Moth</a>	Isia isabella	Moths		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Gypsy Moth</a>	Lymantria dispar	Moths		<a href="#">SpeciesTree</a>	6/10/2000
Eastern Tent Caterpillar Moth	Malacosoma americanum	Moths		<a href="#">SpeciesTree</a>	6/10/2000
Artichoke Plume Moth	Platyptila carduidactyla	Moths		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Artist's Polypore, Artist's Conk</a>	Ganoderma applanatum	Mushrooms (Fungi)		<a href="#">SpeciesTree</a>	6/10/2000
Sulphur Shelf Polypore, Chicken Mushroom	Laetiporus sulphureus	Mushrooms (Fungi)		<a href="#">SpeciesTree</a>	6/10/2000
Giant Puffball	Langermannia (Calvatia) gigantea	Mushrooms (Fungi)		<a href="#">SpeciesTree</a>	6/10/2000
Birch Polypore	Piptoporus betulinus	Mushrooms (Fungi)		<a href="#">SpeciesTree</a>	6/10/2000
Oyster Mushroom	Pleurotus ostreatus	Mushrooms (Fungi)		<a href="#">SpeciesTree</a>	6/10/2000
Russula Genus	Russula	Mushrooms (Fungi)		<a href="#">SpeciesTree</a>	6/10/2000
Boletes	part of Basidiomycetes	Mushrooms (Fungi)		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Snapping Turtle</a>	Chelydra serpentina	Reptiles		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Painted Turtle</a>	Chrysemys picta	Reptiles		<a href="#">SpeciesTree</a>	6/10/2000

English Name	Latin Name	Group	NHESP Status	Link to Species Tree	Date Found
<a href="#">Racer, Northern Black Racer race</a>	Coluber constrictor	Reptiles		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Milk Snake</a>	Lampropeltis triangulum	Reptiles		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Northern Water Snake</a>	Nerodia sipedon	Reptiles		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Brown Snake</a>	Storeria dekayi	Reptiles		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Eastern Ribbon Snake</a>	Thamnophis sauritus	Reptiles		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Common Garter Snake</a>	Thamnophis sirtalis	Reptiles		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Northern Short-tailed Shrew</a>	Blarina brevicauda	Small Mammals		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">House Mouse</a>	Mus musculus	Small Mammals		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Hairy-tailed Mole</a>	Parascalops breweri	Small Mammals		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">White-footed Mouse</a>	Peromyscus leucopus	Small Mammals		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Brown Rat, Norway Rat</a>	Rattus norvegicus	Small Mammals		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Meadow Jumping Mouse</a>	Zapus hudsonius	Small Mammals		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">American House Spider</a>	Achaearanea tepidariorum	Spiders and Ticks		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Funnel-web Grass Spider</a>	Agelenopsis naevia	Spiders and Ticks		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Black-and- yellow Argiope, Garden Spider</a>	Argiope aurantia	Spiders and Ticks		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Brown Dog Tick, Wood Tick</a>	Dermacentor variabilis	Spiders and Ticks		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Daddy Long- legs</a>	Leiobunum	Spiders and Ticks		<a href="#">SpeciesTree</a>	6/10/2000

English Name	Latin Name	Group	NHESP Status	Link to Species Tree	Date Found
Brown Daddy-long-legs	Phalangium opilio	Spiders and Ticks		<a href="#">SpeciesTree</a>	6/10/2000
Nursery Web Spider	Pisaurina mira	Spiders and Ticks		<a href="#">SpeciesTree</a>	6/10/2000
Balsam-fir	Abies balsamea	Trees and Shrubs		<a href="#">SpeciesTree</a>	6/10/2000
Boxelder, Ash-leaf Maple	Acer negundo	Trees and Shrubs		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Striped Maple, Moosewood</a>	Acer pensylvanicum	Trees and Shrubs		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Norway Maple</a>	Acer platanoides	Trees and Shrubs		<a href="#">SpeciesTree</a>	6/10/2000
Sycamore-maple	Acer pseudoplatanus	Trees and Shrubs		<a href="#">SpeciesTree</a>	6/10/2000
Red Maple	Acer rubrum var. rubrum	Trees and Shrubs		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Silver Maple</a>	Acer saccharinum	Trees and Shrubs		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Sugar-maple</a>	Acer saccharum	Trees and Shrubs		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Horse-chestnut</a>	Aesculus hippocastanum	Trees and Shrubs		<a href="#">SpeciesTree</a>	6/10/2000
Tree-of-heaven	Ailanthus altissima	Trees and Shrubs		<a href="#">SpeciesTree</a>	6/10/2000
Speckled Alder	Alnus incana ssp. rugosa	Trees and Shrubs		<a href="#">SpeciesTree</a>	6/10/2000
Downy Shadbush, Downy Serviceberry	Amelanchier arborea var. arborea	Trees and Shrubs		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Round-leaved Shadbush, New England Serviceberry</a>	Amelanchier sanguinea	Trees and Shrubs	Special Concern	<a href="#">SpeciesTree</a>	6/10/2000
Japanese Barberry	Berberis thunbergii	Trees and Shrubs		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Yellow Birch</a>	Betula alleghaniensis	Trees and Shrubs		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Black Birch, Sweet Birch, Cherry-birch</a>	Betula lenta	Trees and Shrubs		<a href="#">SpeciesTree</a>	6/10/2000

English Name	Latin Name	Group	NHESP Status	Link to Species Tree	Date Found
River-birch, Red Birch	Betula nigra	Trees and Shrubs	Watch List	<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Paper-birch,</a> <a href="#">Canoe-birch</a>	Betula papyrifera	Trees and Shrubs		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Gray Birch</a>	Betula populifolia	Trees and Shrubs		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Ironwood,</a> <a href="#">Musclewood,</a> <a href="#">Blue Beech,</a> <a href="#">Hornbeam</a>	Carpinus caroliniana	Trees and Shrubs		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Pignut, Pignut-</a> <a href="#">hickory</a>	Carya glabra	Trees and Shrubs		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Shagbark-</a> <a href="#">hickory</a>	Carya ovata	Trees and Shrubs		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">American</a> <a href="#">Chestnut</a>	Castanea dentata	Trees and Shrubs		<a href="#">SpeciesTree</a>	6/10/2000
Oriental Bittersweet, Asian or Asiatic Bittersweet	Celastrus orbiculata	Trees and Shrubs		<a href="#">SpeciesTree</a>	6/10/2000
American Bittersweet, Waxwork	Celastrus scandens	Trees and Shrubs		<a href="#">SpeciesTree</a>	6/10/2000
Hackberry, Northern Hackberry, Sugarberry	Celtis occidentalis	Trees and Shrubs		<a href="#">SpeciesTree</a>	6/10/2000
Atlantic White Cedar	Chamaecyparis thyoides	Trees and Shrubs		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Sweet Pepper-</a> <a href="#">bush, White</a> <a href="#">Alder, Coast</a> <a href="#">White Alder</a>	Clethra alnifolia	Trees and Shrubs		<a href="#">SpeciesTree</a>	6/10/2000
Sweet Fern	Comptonia peregrina	Trees and Shrubs		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Pagoda-</a> <a href="#">dogwood,</a> <a href="#">Alternate-</a> <a href="#">leaved Dogwood</a>	Cornus alternifolia	Trees and Shrubs		<a href="#">SpeciesTree</a>	6/10/2000

English Name	Latin Name	Group	NHESP Status	Link to Species Tree	Date Found
<a href="#">Flowering Dogwood</a>	Cornus florida	Trees and Shrubs		<a href="#">SpeciesTree</a>	6/10/2000
Red Osier	Cornus sericea	Trees and Shrubs		<a href="#">SpeciesTree</a>	6/10/2000
Bush-honeysuckle	Diervilla lonicera	Trees and Shrubs		<a href="#">SpeciesTree</a>	6/10/2000
Burning Bush, Wahoo	Euonymus atropurpurea	Trees and Shrubs		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">American Beech</a>	Fagus grandifolia	Trees and Shrubs		<a href="#">SpeciesTree</a>	6/10/2000
European Beech	Fagus sylvatica	Trees and Shrubs		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">White Ash</a>	Fraxinus americana	Trees and Shrubs		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Black Ash</a>	Fraxinus nigra	Trees and Shrubs		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Red Ash (hairy form); Green Ash (glabrous form)</a>	Fraxinus pennsylvanica	Trees and Shrubs		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Wintergreen, Checkerberry, Teaberry, Mountain-tea</a>	Gaultheria procumbens	Trees and Shrubs		<a href="#">SpeciesTree</a>	6/10/2000
Black Huckleberry	Gaylussacia baccata	Trees and Shrubs		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Witch-hazel</a>	Hamamelis virginiana	Trees and Shrubs		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">American Holly</a>	Ilex opaca	Trees and Shrubs		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Winterberry, Black Alder</a>	Ilex verticillata	Trees and Shrubs		<a href="#">SpeciesTree</a>	6/10/2000
Butternut, White Walnut	Juglans cinerea	Trees and Shrubs	Watch List	<a href="#">SpeciesTree</a>	6/10/2000
Black Walnut	Juglans nigra	Trees and Shrubs		<a href="#">SpeciesTree</a>	6/10/2000
Common Juniper, Pasture-juniper	Juniperus communis	Trees and Shrubs		<a href="#">SpeciesTree</a>	6/10/2000

English Name	Latin Name	Group	NHESP Status	Link to Species Tree	Date Found
Eastern Red Cedar	Juniperus virginiana	Trees and Shrubs		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Sheep-laurel, Lambkill, Wicky</a>	Kalmia angustifolia	Trees and Shrubs		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Mountain-laurel</a>	Kalmia latifolia	Trees and Shrubs		<a href="#">SpeciesTree</a>	6/10/2000
European Larch	Larix decidua	Trees and Shrubs		<a href="#">SpeciesTree</a>	6/10/2000
Tamarack, American Larch	Larix laricina	Trees and Shrubs		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Spicebush</a>	Lindera benzoin	Trees and Shrubs		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Tulip-tree, Tulip-poplar, Yellow Poplar</a>	Liriodendron tulipifera	Trees and Shrubs		<a href="#">SpeciesTree</a>	6/10/2000
Japanese Honeysuckle	Lonicera japonica	Trees and Shrubs		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Sweet Bay, Swamp-bay, Sweetbay Magnolia</a>	Magnolia virginiana	Trees and Shrubs	Endangered	<a href="#">SpeciesTree</a>	6/10/2000
Apple	Malus pumila	Trees and Shrubs		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">White Mulberry</a>	Morus alba	Trees and Shrubs		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Sweet Gale</a>	Myrica gale	Trees and Shrubs		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Bayberry, Wax-myrtle, Candleberry</a>	Myrica pensylvanica	Trees and Shrubs		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Hop-hornbeam, Ironwood</a>	Ostrya virginiana	Trees and Shrubs		<a href="#">SpeciesTree</a>	6/10/2000
Norway Spruce	Picea abies	Trees and Shrubs		<a href="#">SpeciesTree</a>	6/10/2000
White Spruce	Picea glauca	Trees and Shrubs		<a href="#">SpeciesTree</a>	6/10/2000
Black Spruce	Picea mariana	Trees and Shrubs		<a href="#">SpeciesTree</a>	6/10/2000

English Name	Latin Name	Group	NHESP Status	Link to Species Tree	Date Found
Red Pine	Pinus resinosa	Trees and Shrubs	Watch List	<a href="#">SpeciesTree</a>	6/10/2000
Pitch-pine	Pinus rigida	Trees and Shrubs		<a href="#">SpeciesTree</a>	6/10/2000
White Pine	Pinus strobus	Trees and Shrubs		<a href="#">SpeciesTree</a>	6/10/2000
Scotch Pine	Pinus sylvestris	Trees and Shrubs		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Sycamore,</a> <a href="#">Buttonwood</a>	Platanus occidentalis	Trees and Shrubs		<a href="#">SpeciesTree</a>	6/10/2000
Big-toothed Aspen	Populus grandidentata	Trees and Shrubs		<a href="#">SpeciesTree</a>	6/10/2000
Trembling Aspen, Quaking Aspen, Quiver-leaf	Populus tremuloides	Trees and Shrubs		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Wild Plum,</a> <a href="#">Hedge-plum</a>	Prunus americana	Trees and Shrubs		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Fire-cherry,</a> <a href="#">Pin-cherry,</a> <a href="#">Bird-cherry</a>	Prunus pensylvanica	Trees and Shrubs		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Choke-cherry</a>	Prunus virginiana	Trees and Shrubs		<a href="#">SpeciesTree</a>	6/10/2000
Pear	Pyrus communis	Trees and Shrubs		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">White Oak</a>	Quercus alba	Trees and Shrubs		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Scarlet Oak</a>	Quercus coccinea	Trees and Shrubs		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Pin-oak</a>	Quercus palustris	Trees and Shrubs		<a href="#">SpeciesTree</a>	6/10/2000
Red Oak	Quercus rubra var. rubra	Trees and Shrubs		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Black Oak</a>	Quercus velutina	Trees and Shrubs		<a href="#">SpeciesTree</a>	6/10/2000
Common Buckthorn	Rhamnus cathartica	Trees and Shrubs		<a href="#">SpeciesTree</a>	6/10/2000

English Name	Latin Name	Group	NHESP Status	Link to Species Tree	Date Found
<a href="#">Glossy Alder-buckthorn</a> , <a href="#">Smooth Alder-buckthorn</a> , <a href="#">European Alder-buckthorn</a>	Rhamnus frangula	Trees and Shrubs		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Great Laurel</a> , <a href="#">Rhododendron</a> , <a href="#">Rosebay</a>	Rhododendron maximum	Trees and Shrubs	Threatened	<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Swamp-azalea</a> , <a href="#">Swamp-honeysuckle</a>	Rhododendron viscosum	Trees and Shrubs		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Smooth Sumac</a>	Rhus glabra	Trees and Shrubs		<a href="#">SpeciesTree</a>	6/10/2000
Staghorn-sumac	Rhus hirta	Trees and Shrubs		<a href="#">SpeciesTree</a>	6/10/2000
Wild Black Currant	Ribes americanum	Trees and Shrubs	Watch List	<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Black Locust</a>	Robinia pseudoacacia	Trees and Shrubs		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Multiflora Rose</a>	Rosa multiflora	Trees and Shrubs		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Swamp-rose</a>	Rosa palustris	Trees and Shrubs		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Common Blackberry</a> , <a href="#">Sow-teat Blackberry</a> , <a href="#">Allegheny Blackberry</a>	Rubus allegheniensis	Trees and Shrubs		<a href="#">SpeciesTree</a>	6/10/2000
Bristly Dewberry, Running Dewberry, Swamp-dewberry	Rubus hispidus	Trees and Shrubs		<a href="#">SpeciesTree</a>	6/10/2000
Black Raspberry, Blackcap	Rubus occidentalis	Trees and Shrubs		<a href="#">SpeciesTree</a>	6/10/2000



English Name	Latin Name	Group	NHESP Status	Link to Species Tree	Date Found
Pennsylvania Blackberry, Highbush Blackberry	Rubus pensilvanicus	Trees and Shrubs		<a href="#">SpeciesTree</a>	6/10/2000
Weeping Willow	Salix babylonica	Trees and Shrubs		<a href="#">SpeciesTree</a>	6/10/2000
Large Pussy-willow	Salix discolor	Trees and Shrubs		<a href="#">SpeciesTree</a>	6/10/2000
Crack-willow, Brittle Willow	Salix fragilis	Trees and Shrubs		<a href="#">SpeciesTree</a>	6/10/2000
Black Willow	Salix nigra	Trees and Shrubs		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Black Elderberry</a> , <a href="#">Common Elderberry</a>	Sambucus canadensis	Trees and Shrubs		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Sassafras</a>	Sassafras albidum	Trees and Shrubs		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Common Greenbrier</a> , <a href="#">Catbrier</a> , <a href="#">Bullbrier</a>	Smilax rotundifolia	Trees and Shrubs		<a href="#">SpeciesTree</a>	6/10/2000
Meadowsweet	Spiraea alba var. latifolia	Trees and Shrubs		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Common Lilac</a>	Syringa vulgaris	Trees and Shrubs		<a href="#">SpeciesTree</a>	6/10/2000
American Yew, Canada Yew, Ground-hemlock	Taxus canadensis	Trees and Shrubs		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Arbor Vitae</a> , <a href="#">Northern White Cedar</a>	Thuja occidentalis	Trees and Shrubs	Endangered	<a href="#">SpeciesTree</a>	6/10/2000
Basswood, Whitewood, American Linden	Tilia americana var. americana	Trees and Shrubs		<a href="#">SpeciesTree</a>	6/10/2000
Small-leaved Linden, Small-leaved Lime (in England)	Tilia cordata	Trees and Shrubs		<a href="#">SpeciesTree</a>	6/10/2000

English Name	Latin Name	Group	NHESP Status	Link to Species Tree	Date Found
<a href="#">Poison-ivy, Climbing Poison-ivy</a>	Toxicodendron radicans	Trees and Shrubs		<a href="#">SpeciesTree</a>	6/10/2000
Eastern Hemlock	Tsuga canadensis	Trees and Shrubs		<a href="#">SpeciesTree</a>	6/10/2000
American Elm, White Elm	Ulmus americana	Trees and Shrubs		<a href="#">SpeciesTree</a>	6/10/2000
English Elm, Lock-elm	Ulmus minor	Trees and Shrubs		<a href="#">SpeciesTree</a>	6/10/2000
Slippery Elm, Red Elm	Ulmus rubra	Trees and Shrubs		<a href="#">SpeciesTree</a>	6/10/2000
Low Sweet Blueberry, Late Sweet Blueberry, Lowbush-blueberry	Vaccinium angustifolium var. angustifolium	Trees and Shrubs		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Highbush-blueberry</a>	Vaccinium corymbosum	Trees and Shrubs		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Maple-leaf Viburnum, Dockmackie, Flowering Maple</a>	Viburnum acerifolium	Trees and Shrubs		<a href="#">SpeciesTree</a>	6/10/2000
Northern Arrow-wood, Smooth Arrow-wood	Viburnum dentatum var. lucidum	Trees and Shrubs		<a href="#">SpeciesTree</a>	6/10/2000
Witch-hobble, Hobble-bush, Moosewood, Tanglewood	Viburnum lantanoides	Trees and Shrubs		<a href="#">SpeciesTree</a>	6/10/2000
Wild Raisin, Witherod	Viburnum nudum var. cassinoides	Trees and Shrubs		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Yarrow</a>	Achillea millefolium var. millefolium	Wildflowers		<a href="#">SpeciesTree</a>	6/10/2000
Doll's Eyes, White Baneberry	Actaea pachypoda	Wildflowers		<a href="#">SpeciesTree</a>	6/10/2000

English Name	Latin Name	Group	NHESP Status	Link to Species Tree	Date Found
Colic-root, Star-grass	Aletris farinosa	Wildflowers		<a href="#">SpeciesTree</a>	6/10/2000
Field Garlic, Scallions	Allium vineale	Wildflowers		<a href="#">SpeciesTree</a>	6/10/2000
Ragweed	Ambrosia artemisiifolia var. artemisiifolia	Wildflowers		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Wood-anemone, Wind-flower</a>	Anemone quinquefolia	Wildflowers		<a href="#">SpeciesTree</a>	6/10/2000
Field-pussytoes	Antennaria neodioica ssp. petaloidea	Wildflowers		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Spreading Dogbane, Pink Dogbane</a>	Apocynum androsaemifolium	Wildflowers		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Wild Sarsaparilla</a>	Aralia nudicaulis	Wildflowers		<a href="#">SpeciesTree</a>	6/10/2000
Woodland Jack-in-the-pulpit, Indian Turnip	Arisaema triphyllum ssp. triphyllum	Wildflowers		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Common Milkweed</a>	Asclepias syriaca	Wildflowers		<a href="#">SpeciesTree</a>	6/10/2000
Asparagus	Asparagus officinalis	Wildflowers		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Yellow Wild Indigo, Rattleweed, Horsefly-weed</a>	Baptisia tinctoria	Wildflowers		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Winter-cress, Yellow Rocket</a>	Barbarea vulgaris	Wildflowers		<a href="#">SpeciesTree</a>	6/10/2000
Turnip, Chinese Cabbage, Field-mustard	Brassica rapa	Wildflowers		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Wild Calla, Water-arum</a>	Calla palustris	Wildflowers		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Marsh-marigold, Cowslip</a>	Caltha palustris	Wildflowers		<a href="#">SpeciesTree</a>	6/10/2000

English Name	Latin Name	Group	NHESP Status	Link to Species Tree	Date Found
Late Blue Cohosh	Caulophyllum thalictroides var. thalictroides	Wildflowers		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Celandine, Swallow-wort</a>	Chelidonium majus	Wildflowers		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Striped Pipsissewa, Spotted Wintergreen</a>	Chimaphila maculata	Wildflowers		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Bull-thistle, Common Thistle</a>	Cirsium vulgare	Wildflowers		<a href="#">SpeciesTree</a>	6/10/2000
Lily-of-the-valley	Convallaria majalis	Wildflowers		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Pink Lady's Slipper, Moccasin-flower</a>	Cypripedium acaule	Wildflowers		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Queen Anne's Lace, Wild Carrot</a>	Daucus carota	Wildflowers		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Wild Balsam-apple, Prickly Cucumber</a>	Echinocystis lobata	Wildflowers		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Daisy-fleabane, Whitetop, Sweet Scabious</a>	Erigeron annuus	Wildflowers		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Philadelphia Fleabane, Pink Fleabane</a>	Erigeron philadelphicus	Wildflowers		<a href="#">SpeciesTree</a>	6/10/2000
Flowering Spurge	Euphorbia corollata	Wildflowers		<a href="#">SpeciesTree</a>	6/10/2000
Cypress-spurge	Euphorbia cyparissias	Wildflowers		<a href="#">SpeciesTree</a>	6/10/2000
Cleavers, Spring-cleavers	Galium aparine	Wildflowers		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Wild Geranium, Spotted Crane's Bill</a>	Geranium maculatum	Wildflowers		<a href="#">SpeciesTree</a>	6/10/2000

English Name	Latin Name	Group	NHESP Status	Link to Species Tree	Date Found
<a href="#">Gill-over-the-ground, Ground-ivy</a>	Glechoma hederacea	Wildflowers		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Orange Day-lily</a>	Hemerocallis fulva	Wildflowers		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Dame's Rocket</a>	Hesperis matronalis	Wildflowers		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Orange Hawkweed, Devil's Paintbrush</a>	Hieracium aurantiacum	Wildflowers		<a href="#">SpeciesTree</a>	6/10/2000
King-devil, Meadow Hawkweed	Hieracium caespitosum	Wildflowers		<a href="#">SpeciesTree</a>	6/10/2000
Mouse-ear Hawkweed	Hieracium pilosella	Wildflowers		<a href="#">SpeciesTree</a>	6/10/2000
Bluets, Quaker Ladies, Innocence, Churn-dasher	Houstonia caerulea	Wildflowers		<a href="#">SpeciesTree</a>	6/10/2000
Yellow Star-grass	Hypoxis hirsuta	Wildflowers		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Orange Jewelweed, Spotted Touch-me-not</a>	Impatiens capensis	Wildflowers		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Yellow Iris, Water-flag</a>	Iris pseudacorus	Wildflowers		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Northern Blue Flag, Wild Iris, Poison-flag</a>	Iris versicolor	Wildflowers		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Poor-man's Pepper, Wild Peppergrass</a>	Lepidium virginicum	Wildflowers		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Oxeye-daisy, Marguerite</a>	Leucanthemum vulgare	Wildflowers		<a href="#">SpeciesTree</a>	6/10/2000
Tiger-lily	Lilium lancifolium	Wildflowers		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Cardinal-flower</a>	Lobelia cardinalis	Wildflowers		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Birdsfoot-trefoil</a>	Lotus corniculatus	Wildflowers		<a href="#">SpeciesTree</a>	6/10/2000

English Name	Latin Name	Group	NHESP Status	Link to Species Tree	Date Found
Virginia Water-horehound, Floodplain Water-horehound	Lycopus virginicus	Wildflowers		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Whorled Loosestrife</a>	Lysimachia quadrifolia	Wildflowers		<a href="#">SpeciesTree</a>	6/10/2000
Purple Loosestrife, Spiked Loosestrife	Lythrum salicaria	Wildflowers		<a href="#">SpeciesTree</a>	6/10/2000
Canada Mayflower, False Lily-of-the-valley	Maianthemum canadense var. canadense	Wildflowers		<a href="#">SpeciesTree</a>	6/10/2000
False Solomon's Seal	Maianthemum racemosum	Wildflowers		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Indian Cucumber-root</a>	Medeola virginiana	Wildflowers		<a href="#">SpeciesTree</a>	6/10/2000
Common Cow-wheat	Melampyrum lineare var. lineare	Wildflowers		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Partridge-berry, Twinberry, Two-eyed Berry</a>	Mitchella repens	Wildflowers		<a href="#">SpeciesTree</a>	6/10/2000
Grape-hyacinth	Muscari botryoides	Wildflowers		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">True Forget-me-not</a>	Myosotis scorpioides	Wildflowers		<a href="#">SpeciesTree</a>	6/10/2000
Yellow Water-lily, Bullhead-lily, Spatterdock	Nuphar variegata	Wildflowers		<a href="#">SpeciesTree</a>	6/10/2000
White Water-lily, Fragrant Water-lily	Nymphaea odorata ssp. odorata	Wildflowers		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Virginia Creeper, Woodbine</a>	Parthenocissus quinquefolia	Wildflowers		<a href="#">SpeciesTree</a>	6/10/2000

English Name	Latin Name	Group	NHESP Status	Link to Species Tree	Date Found
<a href="#">Pokeweed,</a> <a href="#">Pokeberry,</a> <a href="#">Poke</a>	Phytolacca americana	Wildflowers		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Ribgrass</a> <a href="#">Plantain,</a> <a href="#">Narrow-leaved</a> <a href="#">Plantain,</a> <a href="#">English</a> <a href="#">Plantain</a>	Plantago lanceolata	Wildflowers		<a href="#">SpeciesTree</a>	6/10/2000
Common Plantain, Dooryard Plantain, White Man's Foot	Plantago major var. major	Wildflowers		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Solomon's Seal</a>	Polygonatum pubescens	Wildflowers		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Japanese Knotweed,</a> <a href="#">Japanese or Mexican Bamboo</a>	Polygonum cuspidatum	Wildflowers		<a href="#">SpeciesTree</a>	6/10/2000
Pickerel-weed	Pontederia cordata var. cordata	Wildflowers		<a href="#">SpeciesTree</a>	6/10/2000
Dwarf Cinquefoil, Running Five-fingers	Potentilla canadensis	Wildflowers		<a href="#">SpeciesTree</a>	6/10/2000
Wild Heal-all, American Heal-all, Self-heal	Prunella vulgaris ssp. lanceolata	Wildflowers		<a href="#">SpeciesTree</a>	6/10/2000
Glossy Shinleaf, Round-leaved Shinleaf, Glossy Pyrola, Round-leaved Pyrola	Pyrola americana	Wildflowers		<a href="#">SpeciesTree</a>	6/10/2000

English Name	Latin Name	Group	NHESP Status	Link to Species Tree	Date Found
Green Shinleaf, Greenish-flowered Shinleaf, Green Pyrola, Greenish-flowered Pyrola	Pyrola chlorantha var. chlorantha	Wildflowers		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Tall Buttercup,</a> <a href="#">Common Buttercup,</a> <a href="#">Meadow-buttercup</a>	Ranunculus acris	Wildflowers		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Creeping Buttercup,</a> <a href="#">Spotted Buttercup</a>	Ranunculus repens	Wildflowers		<a href="#">SpeciesTree</a>	6/10/2000
Yellow Rattle	Rhinanthus minor	Wildflowers		<a href="#">SpeciesTree</a>	6/10/2000
Black-eyed Susan, Yellow Daisy	Rudbeckia hirta var. hirta	Wildflowers		<a href="#">SpeciesTree</a>	6/10/2000
Evening Lychnis, White Campion, White Cockle	Silene latifolia ssp. alba	Wildflowers		<a href="#">SpeciesTree</a>	6/10/2000
Bladder-campion	Silene vulgaris	Wildflowers		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Stout Blue-eyed Grass</a>	Sisyrinchium angustifolium	Wildflowers		<a href="#">SpeciesTree</a>	6/10/2000
Horse-nettle, Bull-nettle, Sandbrier	Solanum carolinense	Wildflowers		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Bittersweet Nightshade,</a> <a href="#">Bittersweet</a>	Solanum dulcamara	Wildflowers		<a href="#">SpeciesTree</a>	6/10/2000



English Name	Latin Name	Group	NHESP Status	Link to Species Tree	Date Found
Common Stitchwort, Meadow--stitchwort, Field-stitchwort	Stellaria graminea	Wildflowers		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Skunk-cabbage</a>	Symplocarpus foetidus	Wildflowers		<a href="#">SpeciesTree</a>	6/10/2000
Dandelion	Taraxacum officinale ssp. officinale	Wildflowers		<a href="#">SpeciesTree</a>	6/10/2000
Tall Meadow-rue	Thalictrum pubescens	Wildflowers		<a href="#">SpeciesTree</a>	6/10/2000
Rue-anemone	Thalictrum thalictroides	Wildflowers		<a href="#">SpeciesTree</a>	6/10/2000
Palmate Hop-clover, Yellow Hop-clover	Trifolium aureum	Wildflowers		<a href="#">SpeciesTree</a>	6/10/2000
Red Clover	Trifolium pratense var. pratense	Wildflowers		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">White Clover</a>	Trifolium repens	Wildflowers		<a href="#">SpeciesTree</a>	6/10/2000
Nodding Trillium	Trillium cernuum var. cernuum	Wildflowers		<a href="#">SpeciesTree</a>	6/10/2000
Narrow-leaved Cat-tail	Typha angustifolia	Wildflowers		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Broad-leaved or Common Cat-tail</a>	Typha latifolia	Wildflowers		<a href="#">SpeciesTree</a>	6/10/2000
Slender Stinging Nettle	Urtica dioica ssp. gracilis	Wildflowers		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Common Mullein, Common Flannel-plant, Flannel Mullein, Velvet Plant</a>	Verbascum thapsus	Wildflowers		<a href="#">SpeciesTree</a>	6/10/2000

English Name	Latin Name	Group	NHESP Status	Link to Species Tree	Date Found
<a href="#">Common Speedwell, Gypsyweed</a>	Veronica officinalis	Wildflowers		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Bird-vetch, Cow-vetch, Tufted Vetch</a>	Vicia cracca	Wildflowers		<a href="#">SpeciesTree</a>	6/10/2000
Wild Violet, Northern White Violet	Viola macloskeyi ssp. pallens	Wildflowers		<a href="#">SpeciesTree</a>	6/10/2000
<a href="#">Golden Alexanders</a>	Zizia aurea	Wildflowers		<a href="#">SpeciesTree</a>	6/10/2000
N/A	Agrimonia			<a href="#">SpeciesTree</a>	6/10/2000
Catalpa Genus	Catalpa			<a href="#">SpeciesTree</a>	6/10/2000
Goosefoot Genus	Chenopodium			<a href="#">SpeciesTree</a>	6/10/2000
Hawthorn Genus	Crataegus			<a href="#">SpeciesTree</a>	6/10/2000
St. John's-wort Genus	Hypericum			<a href="#">SpeciesTree</a>	6/10/2000
Crabapple Genus	Malus			<a href="#">SpeciesTree</a>	6/10/2000
Slime Molds	Myxomycota			<a href="#">SpeciesTree</a>	6/10/2000
Sowbugs, Pillbugs	Oniscus			<a href="#">SpeciesTree</a>	6/10/2000
N/A	Philadelphus			<a href="#">SpeciesTree</a>	6/10/2000
Arrowhead Genus	Sagittaria			<a href="#">SpeciesTree</a>	6/10/2000
Goldenrod Genus	Solidago			<a href="#">SpeciesTree</a>	6/10/2000
N/A	Sorbus			<a href="#">SpeciesTree</a>	6/10/2000
Bur-reed Genus	Sparganium			<a href="#">SpeciesTree</a>	6/10/2000
Grape Genus	Vitis			<a href="#">SpeciesTree</a>	6/10/2000
Yellow-eyed-grasses	Xyridaceae			<a href="#">SpeciesTree</a>	6/10/2000

## Appendix G

### Natural Heritage and Endangered Species Program, Biodiversity Days Results, 2001

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The following 79 taxa were found during Biodiversity Days 2001, June 8 - June 10. Also, a few results were from trips that fell outside the typical June 8 - June 10 range. All results fall within March 31 - June 16. If the English Name is a link, that link will take you to a page of descriptive information about the taxon. The Species Tree link will take you to the place in the Species Tree where that taxon resides. The Species Tree is an expandable/collapsible system of folders much like Windows Explorer.

NOTE: Species that are defined by NHESP as Rare, Endangered, Threatened, Special Concern or Watch List will not have their specific location listed.

English Name	Latin Name	Group	NHESP Status	Link to Species Tree
Carpenter Ants	Camponotus	Ants		<a href="#">SpeciesTree</a>
Red Ants, Crater Ants, Mound Ants	Formica	Ants		<a href="#">SpeciesTree</a>
Japanese Beetle	Popillia japonica	Beetles		<a href="#">SpeciesTree</a>
<a href="#">Tufted Titmouse</a>	Baeolophus bicolor	Birds		<a href="#">SpeciesTree</a>
<a href="#">American Crow</a>	Corvus brachyrhynchos	Birds		<a href="#">SpeciesTree</a>
<a href="#">Barn Swallow</a>	Hirundo rustica	Birds		<a href="#">SpeciesTree</a>
<a href="#">Downy Woodpecker</a>	Picoides pubescens	Birds		<a href="#">SpeciesTree</a>
<a href="#">Field Sparrow</a>	Spizella pusilla	Birds		<a href="#">SpeciesTree</a>
Earthworms	Lumbricus	Earthworms, Centipedes and Millipedes		<a href="#">SpeciesTree</a>
Centipedes	Scutigera	Earthworms, Centipedes and Millipedes		<a href="#">SpeciesTree</a>
Sensitive Fern	Onoclea sensibilis	Ferns and Fern Allies		<a href="#">SpeciesTree</a>
Cinnamon-fern	Osmunda cinnamomea	Ferns and Fern Allies		<a href="#">SpeciesTree</a>
Interrupted Fern	Osmunda claytoniana	Ferns and Fern Allies		<a href="#">SpeciesTree</a>
Bracken Fern	Pteridium aquilinum	Ferns and Fern Allies		<a href="#">SpeciesTree</a>

New York Fern	Thelypteris noveboracensis	Ferns and Fern Allies		<a href="#">SpeciesTree</a>
Mosquitoes	Culicidae	Flies		<a href="#">SpeciesTree</a>
<a href="#">House Fly</a>	Musca domestica	Flies		<a href="#">SpeciesTree</a>
Crane Flies	Tipulidae	Flies		<a href="#">SpeciesTree</a>
Tussock-sedge	Carex stricta	Grasses, Sedges and Rushes		<a href="#">SpeciesTree</a>
Common Timothy	Phleum pratense	Grasses, Sedges and Rushes		<a href="#">SpeciesTree</a>
Mayflies	Ephemeroptera	Insects		<a href="#">SpeciesTree</a>
Crickets	Gryllidae	Insects		<a href="#">SpeciesTree</a>
Meadow Spittlebug	Philaenus spumarius	Insects		<a href="#">SpeciesTree</a>
Lichens	Symbiosis between Fungi and Algae	Lichens		<a href="#">SpeciesTree</a>
<a href="#">White-tailed Deer</a>	Odocoileus virginianus	Mammals		<a href="#">SpeciesTree</a>
<a href="#">Eastern Gray Squirrel</a>	Sciurus carolinensis	Mammals		<a href="#">SpeciesTree</a>
Haircap Moss	Polytrichum	Mosses		<a href="#">SpeciesTree</a>
Tent Caterpillar Moths	Lasiocampidae	Moths		<a href="#">SpeciesTree</a>
Fawn Mushroom, Deer Mushroom	Pluteus cervinus	Mushrooms (Fungi)		<a href="#">SpeciesTree</a>
False Turkey-tail	Stereum ostrea	Mushrooms (Fungi)		<a href="#">SpeciesTree</a>
<a href="#">Brown Dog Tick, Wood Tick</a>	Dermacentor variabilis	Spiders and Ticks		<a href="#">SpeciesTree</a>
<a href="#">Norway Maple</a>	Acer platanoides	Trees and Shrubs		<a href="#">SpeciesTree</a>
<a href="#">Paper-birch, Canoe-birch</a>	Betula papyrifera	Trees and Shrubs		<a href="#">SpeciesTree</a>
<a href="#">Shagbark-hickory</a>	Carya ovata	Trees and Shrubs		<a href="#">SpeciesTree</a>
Sweet Fern	Comptonia peregrina	Trees and Shrubs		<a href="#">SpeciesTree</a>
<a href="#">American Beech</a>	Fagus grandifolia	Trees and Shrubs		<a href="#">SpeciesTree</a>
<a href="#">Witch-hazel</a>	Hamamelis virginiana	Trees and Shrubs		<a href="#">SpeciesTree</a>
<a href="#">Mountain-laurel</a>	Kalmia latifolia	Trees and Shrubs		<a href="#">SpeciesTree</a>

Trembling Aspen, Quaking Aspen, Quiver-leaf	Populus tremuloides	Trees and Shrubs		<a href="#">SpeciesTree</a>
<a href="#">White Oak</a>	Quercus alba	Trees and Shrubs		<a href="#">SpeciesTree</a>
<a href="#">Swamp White Oak</a>	Quercus bicolor	Trees and Shrubs		<a href="#">SpeciesTree</a>
Staghorn-sumac	Rhus hirta	Trees and Shrubs		<a href="#">SpeciesTree</a>
<a href="#">Multiflora Rose</a>	Rosa multiflora	Trees and Shrubs		<a href="#">SpeciesTree</a>
<a href="#">Red Raspberry</a>	Rubus idaeus	Trees and Shrubs		<a href="#">SpeciesTree</a>
Pennsylvania Blackberry, Highbush Blackberry	Rubus pensilvanicus	Trees and Shrubs		<a href="#">SpeciesTree</a>
Eastern Hemlock	Tsuga canadensis	Trees and Shrubs		<a href="#">SpeciesTree</a>
<a href="#">Highbush-blueberry</a>	Vaccinium corymbosum	Trees and Shrubs		<a href="#">SpeciesTree</a>
<a href="#">Jack-in-the-Pulpit</a>	Arisaema triphyllum	Wildflowers		<a href="#">SpeciesTree</a>
<a href="#">Wild Geranium, Spotted Crane's Bill</a>	Geranium maculatum	Wildflowers		<a href="#">SpeciesTree</a>
Bluets, Quaker Ladies, Innocence, Churn-dasher	Houstonia caerulea	Wildflowers		<a href="#">SpeciesTree</a>
<a href="#">Orange Jewelweed, Spotted Touch-me- not</a>	Impatiens capensis	Wildflowers		<a href="#">SpeciesTree</a>
<a href="#">Oxeye-daisy, Marguerite</a>	Leucanthemum vulgare	Wildflowers		<a href="#">SpeciesTree</a>
Moneywort, Creeping Jenny	Lysimachia nummularia	Wildflowers		<a href="#">SpeciesTree</a>
<a href="#">Canada Mayflower, False Lily-of-the- valley</a>	Maianthemum canadense	Wildflowers		<a href="#">SpeciesTree</a>
<a href="#">Indian Pipe</a>	Monotropa uniflora	Wildflowers		<a href="#">SpeciesTree</a>
<a href="#">Ribgrass Plantain, Narrow-leaved Plantain, English Plantain</a>	Plantago lanceolata	Wildflowers		<a href="#">SpeciesTree</a>
Perennial Sow- thistle	Sonchus arvensis	Wildflowers		<a href="#">SpeciesTree</a>

<a href="#">Skunk-cabbage</a>	Symplocarpus foetidus	Wildflowers		<a href="#">SpeciesTree</a>
<a href="#">Common Dandelion</a>	Taraxacum officinale	Wildflowers		<a href="#">SpeciesTree</a>
<a href="#">Starflower</a>	Trientalis borealis	Wildflowers		<a href="#">SpeciesTree</a>
Palmate Hop-clover, Yellow Hop-clover	Trifolium aureum	Wildflowers		<a href="#">SpeciesTree</a>
<a href="#">Red Clover</a>	Trifolium pratense	Wildflowers		<a href="#">SpeciesTree</a>
<a href="#">White Clover</a>	Trifolium repens	Wildflowers		<a href="#">SpeciesTree</a>
Alder Genus	Alnus			<a href="#">SpeciesTree</a>
N/A	Arion			<a href="#">SpeciesTree</a>
Strawberry Genus	Fragaria			<a href="#">SpeciesTree</a>
Hawkweed Genus	Hieracium			<a href="#">SpeciesTree</a>
Mosses	Musci			<a href="#">SpeciesTree</a>
Sowbugs, Pillbugs	Oniscus			<a href="#">SpeciesTree</a>
N/A	Populus			<a href="#">SpeciesTree</a>
Buttercup Genus	Ranunculus			<a href="#">SpeciesTree</a>
Blackberry/Dewberry Genus	Rubus			<a href="#">SpeciesTree</a>
N/A	Sibbaldiopsis			<a href="#">SpeciesTree</a>
Goldenrod Genus	Solidago			<a href="#">SpeciesTree</a>
Sow-thistle Genus	Sonchus			<a href="#">SpeciesTree</a>
Trillium Genus	Trillium			<a href="#">SpeciesTree</a>
N/A	Typha			<a href="#">SpeciesTree</a>
Vetch Genus	Vicia			<a href="#">SpeciesTree</a>
Grape Genus	Vitis			<a href="#">SpeciesTree</a>

## **Appendix H**

### **Natural Heritage and Endangered Species Program**

### **Haverhill Animal, Plant, and Natural Communities Data**

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The species and natural communities of concern are incorporated within the tables on the following pages.

## ANIMALS – VERTEBRATES

### GROUP: Amphibians

English Name	Scientific Name	English Name	Scientific Name
American Toad	Bufo americanus	Pickerel Frog	Rana palustris
Bullfrog	Rana catesbeiana	Red-backed Salamander	Plethodon cinereus
Common Gray Treefrog	Hyla versicolor	Spring Peeper	Pseudacris crucifer
Dusky Salamander	Desmognathus fuscus	Wood Frog	Rana sylvatica
Green Frog	Rana clamitans		

### GROUP: Birds

English Name	Scientific Name	English Name	Scientific Name
American Black Duck	Anas rubripes	Eastern Towhee, Rufous-sided Towhee	Pipilo erythrophthalmus
American Crow	Corvus brachyrhynchos	Eastern Wood-Pewee	Contopus virens
American Goldfinch	Carduelis tristis	European Starling	Sturnus vulgaris
American Kestrel	Falco sparverius	Field Sparrow	Spizella pusilla
American Robin	Turdus migratorius	Gray Catbird	Dumetella carolinensis
American Woodcock	Scolopax minor	Great Black-backed Gull	Larus marinus
Bald Eagle	Haliaeetus leucocephalus	Great Blue Heron	Ardea herodias
Baltimore Oriole	Icterus galbula	Great Crested Flycatcher	Myiarchus crinitus
Bank Swallow	Riparia riparia	Green Heron	Butorides virescens
Barn Swallow	Hirundo rustica	Hairy Woodpecker	Picoides villosus
Barred Owl	Strix varia	Herring Gull	Larus argentatus
Belted Kingfisher	Ceryle alcyon	Hooded Merganser	Lophodytes cucullatus
Black-and-white Warbler	Mniotilta varia	House Sparrow	Passer domesticus
Black-capped Chickadee	Poecile atricapillus	House Wren	Troglodytes aedon
Blue Jay	Cyanocitta cristata	Indigo Bunting	Passerina cyanea
Bobolink	Dolichonyx oryzivorus	Killdeer	Charadrius vociferus
Brown Creeper	Certhia americana	Mallard	Anas platyrhynchos
Brown Thrasher	Toxostoma rufum	Martins	
Brown-headed Cowbird	Molothrus ater	Mourning Dove	Zenaida macroura
Canada Goose	Branta canadensis	Northern Cardinal, Red Cardinal	Cardinalis cardinalis
Chimney Swift	Chaetura pelagica	Northern Flicker, Yellow-shafted Flicker	Colaptes auratus
Chipping Sparrow	Spizella passerina	Northern Mockingbird	Mimus polyglottos
Cliff Swallow	Petrochelidon pyrrhonota	Northern Rough-winged Swallow	Stelgidopteryx serripennis
Common Grackle, Eastern Grackle	Quiscalus quiscula	Osprey	Pandion haliaetus
Common Yellowthroat	Geothlypis trichas	Pileated Woodpecker	Dryocopus pileatus
Double-crested Cormorant	Phalacrocorax auritus	Purple Finch	Carpodacus purpureus



Downy Woodpecker  
 Eastern Bluebird  
 Eastern Kingbird  
 Eastern Meadowlark  
 Eastern Phoebe  
 Eastern Screech-Owl

Picoides pubescens  
 Sialia sialis  
 Tyrannus tyrannus  
 Sturnella magna  
 Sayornis phoebe  
 Otus asio

Red-bellied Woodpecker  
 Red-breasted Nuthatch  
 Red-tailed Hawk  
 Red-winged Blackbird  
 Ring-billed Gull  
 Ring-necked Pheasant

Melanerpes carolinus  
 Sitta canadensis  
 Buteo jamaicensis  
 Agelaius phoeniceus  
 Larus delawarensis  
 Phasianus colchicus

**GROUP: Fish**

English Name	Scientific Name	English Name	Scientific Name
Alewife	Alosa pseudoharengus	Blueback Herring	Alosa aestivalis
American Shad	Alosa sapidissima	Sea Lamprey	Petromyzon marinus
Atlantic Salmon	Salmo salar		

**GROUP: Freshwater Fish**

English Name	Scientific Name	English Name	Scientific Name
American Eel	American Eel	Goldfish	Goldfish
Black Crappie	Black Crappie	Large-mouthed Bass	Large-mouthed Bass
Bluegill	Bluegill	Pumpkinseed Sunfish	Pumpkinseed Sunfish
Brook Trout	Brook Trout	Rainbow Trout	Rainbow Trout
Brown Bullhead	Brown Bullhead	Redfin Pickerel	Redfin Pickerel
Brown Trout	Brown Trout	Small-mouthed Bass	Small-mouthed Bass
Chain Pickerel	Chain Pickerel	Spottail Shiner	Spottail Shiner
Common Carp	Common Carp	Striped Bass	Striped Bass
Common Shiner	Common Shiner	White Catfish	White Catfish
Gizzard Shad	Gizzard Shad	White Perch	White Perch
Golden Shiner	Golden Shiner	White Sucker	White Sucker

**GROUP: Mammals**

English Name	Scientific Name	English Name	Scientific Name
American Beaver	Castor canadensis	Little Brown Bat	Myotis lucifugus
American Mink	Mustela vison	Meadow Jumping Mouse	Zapus hudsonius
Bobcat		Moose	Alces alces
Brown Rat, Norway Rat	Rattus norvegicus	Northern River Otter	Lutra canadensis
Common Muskrat	Ondatra zibethicus	Northern Short-tailed Shrew	Blarina brevicauda
Common Porcupine	Erethizon dorsatum	Red Fox	Vulpes vulpes
Common Raccoon	Procyon lotor	Red Squirrel	Tamiasciurus hudsonicus
Coyote	Canis latrans	Southern Flying Squirrel	Glaucomys volans
Domestic Cat	Felis catus	Striped Skunk	Mephitis mephitis

Domestic Dog	Canis familiaris	Virginia Opossum	Didelphis virginiana
Eastern Chipmunk	Tamias striatus	Vole	
Eastern Cottontail	Sylvilagus floridanus	Weasels	
Eastern Gray Squirrel	Sciurus carolinensis	White-footed Mouse	Peromyscus leucopus
Fisher	Martes pennanti	White-tailed Deer	Odocoileus virginianus
Hairy-tailed Mole	Parascalops breweri	Woodchuck, Eastern Marmot	Marmota monax
House Mouse	Mus musculus		

**GROUP: Reptiles**

English Name	Scientific Name	English Name	Scient Name
Brown Snake	Storeria dekayi	Northern Water Snake	Nerodia sipedon
Common Garter Snake	Thamnophis sirtalis	Painted Turtle	Chrysemys picta
Eastern Ribbon Snake	Thamnophis sauritus	Racer, Northern Black Racer race	Coluber constrictor
Milk Snake	Lampropeltis triangulum	Snapping Turtle	Chelydra serpentina

**ANIMALS –INVERTEBRATES**

**GROUP: Ants**

English Name	Scientific Name	English Name	Scientific Name
Allegheny (Red) Mound Ant	Formica exsectoides	Little Black Ant	Monomorium emarginatum
Carpenter Ants	Camponotus	Red Ants, Crater Ants, Mound Ants	Formica

**GROUP: Bees and Wasps**

English Name	Scientific Name	English Name	Scientific Name
A Green Metallic Bee	Augochlora	Honey Bee	Apis mellifera
Bald-faced Hornet	Dolichovespula maculata	Northern Paper Wasp	Polistes fuscatus
Bumble Bees	Bombus	Paper Wasp	Polistes dominulus
Eastern Yellowjacket	Vespula maculifrons		

**GROUP: Beetles**

English Name	Scientific Name	English Name	Scientific Name
Click Beetle	Melanotus	Nine-spotted Lady Beetle	Coccinella novemnotata
Green Ground Beetle	Chlaenius sericeus	Predaceous Diving Beetles	Dytiscidae
Japanese Beetle	Popillia japonica	Woodland Ground Beetle	Pterostochine

**GROUP: Butterflies and Moths**

English Name	Scientific Name	English Name	Scientific Name
American Copper	Lycaena phlaeas	Eastern Tiger Swallowtail	Papilio glaucus
American Snout	Libytheana carinenta	Long Dash	Polites mystic
Black Swallowtail	Papilio polyxenes	Monarch	Danaus plexippus

Cabbage White	Pieris rapae	Mourning Cloak	Nymphalis antiopa
Clouded Sulphur	Colias philodice	Silver-bordered Fritillary	Boloria selene
Common Ringlet	Coenonympha tullia	Silvery Blue	Glaucopsyche lygdamus
Eastern Tiger Swallowtail	Papilio glaucus		
<b>English Name</b>	<b>Scientific Name</b>	<b>English Name</b>	<b>Scientific Name</b>
Artichoke Plume Moth	Platyptila carduidactyla	Gypsy Moth	Lymantria dispar
Cecropia Moth	Hyalophora cecropia	Tent Caterpillar Moths	Lasiocampidae
Eastern Tent Caterpillar Moth	Malacosoma americanum	Woolly Bear Caterpillar Moth	Isia isabella
<b>GROUP: Dragonflies &amp; Flies</b>			
<b>English Name</b>	<b>Scientific Name</b>	<b>English Name</b>	<b>Scientific Name</b>
Eastern Pondhawk	Erythemis simplicicollis	Spangled Skimmer	Libellula cyanea
Emerald Spreadwing	Lestes dryas		
<b>English Name</b>	<b>Scientific Name</b>	<b>English Name</b>	<b>Scientific Name</b>
American Horse Fly	Tabanus americanus	House Fly	Musca domestica
Black Flies	Simulium	Mosquitoes	Culex
Crane Flies	Tipula	Mosquitoes	Culicidae
Crane Flies	Tipulidae	Progressive Bee Flies	Exoprosopa
Deer Fly	Chrysops callidus		
<b>GROUP: Earthworms, Centipedes and Millipedes</b>			
<b>English Name</b>	<b>Scientific Name</b>	<b>English Name</b>	<b>Scientific Name</b>
Centipedes	Chilopoda	Earthworms	Lumbricus
Centipedes	Scutigera	Millipedes	Diplopoda
<b>GROUP: Crustaceans</b>			
<b>English Name</b>	<b>Scientific Name</b>	<b>English Name</b>	<b>Scientific Name</b>
Appalachian Brook Crayfish	Cambarus bartonii		
<b>GROUP: Insects, Spiders And Ticks</b>			
<b>English Name</b>	<b>Scientific Name</b>	<b>English Name</b>	<b>Scientific Name</b>
Aphids	Aphis	Green Stinkbug	Acrostemum hilare
Backswimmer	Notonecta	Mayflies	Ephemeroptera
Caddisflies	Trichoptera	Meadow Spittlebug	Philaenus spumarius
Carolina Locust	Dissosteira carolina	Northern Field Cricket	Gryllus pennsylvanicus
Common Silverfish	Lepisma saccharina	Scarlet-and-green Leafhopper	Graphocephala coccinea
Crickets	Gryllidae	Small Eastern Milkweed Bug	Lygaeus kalmii
European Earwig	Forficula auricularia	Squash Bug	Anasa tristi
European Praying Mantis	Mantis religiosa	Stink Bugs	Pentatomidae

German Cockroach	Blatella germanica	Subterranean Termite	Reticulitermes flavipes
Grasshoppers	Acrididae	Water Striders	Gerris
Green Lacewing	Chrysoptera arnia		
<b>English Name</b>	<b>Scientific Name</b>	<b>English Name</b>	<b>Scientific Name</b>
American House Spider	Achaeearanea tepidariorum	Daddy Long-legs	Leiobunum
Black-and-yellow Argiope, Garden Spider	Argiope aurantia	Funnel-web Grass Spider	Agelenopsis naevia
Brown Daddy-long-legs	Phalangium opilio	Nursery Web Spider	Pisaurina mira
Brown Dog Tick, Wood Tick	Dermacentor variabilis		
<b>GROUP: Lichen</b>			
<b>English Name</b>	<b>Scientific Name</b>	<b>English Name</b>	<b>Scientific Name</b>
Lichens	Symbiosis between Fungi and Algae		
<b>English Name</b>	<b>Scientific Name</b>	<b>English Name</b>	<b>Scientific Name</b>
<b>GROUP: Mosses</b>			
<b>English Name</b>	<b>Scientific Name</b>	<b>English Name</b>	<b>Scientific Name</b>
Haircap Moss	Polytrichum	Tree Mosses	Climacium
Sphagnum Moss, Peat	Sphagnum		
<b>GROUP: Mushrooms (Fungi)</b>			
<b>English Name</b>	<b>Scientific Name</b>	<b>English Name</b>	<b>Scientific Name</b>
Artist's Polypore, Artist's Conk	Ganoderma applanatum	Giant Puffball	Langermannia (Calvatia) gigantea
Birch Polypore	Piptoporus betulinus	Oyster Mushroom	Pleurotus ostreatus
Boletes	part of Basidiomycetes	Russula Genus	Russula
False Turkey-tail	Stereum ostrea	Sulphur Shelf Polypore, Chicken Mushroom	Laetiporus sulphureus
Fawn Mushroom, Deer Mushroom	Pluteus cervinus		
<b>GROUP: Snails</b>			
<b>English Name</b>	<b>Scientific Name</b>	<b>English Name</b>	<b>Scientific Name</b>
Air-breathing Snails	Heliosoma	Slugs	Limax
Freshwater Snail	Promenectus exacuus		
<b>GROUP: Worms</b>			
<b>English Name</b>	<b>Scientific Name</b>	<b>English Name</b>	<b>Scientific Name</b>
Freshwater Leech	Erpobdella		
<b>PLANTS</b>			
<b>GROUP: Aquatic Plants</b>			
<b>English Name</b>	<b>Scientific Name</b>	<b>English Name</b>	<b>Scientific Name</b>
Pondweed Genus	Potamogeton		

**GROUP: Ferns and Fern Allies**

<b>English Name</b>	<b>Scientific Name</b>	<b>English Name</b>	<b>Scientific Name</b>
Bracken Fern	<i>Pteridium aquilinum</i>	Marginal Wood-fern	<i>Dryopteris marginalis</i>
Christmas-fern	<i>Polystichum acrostichoides</i>	New York Fern	<i>Thelypteris noveboracensis</i>
Cinnamon-fern	<i>Osmunda cinnamomea</i>	Ostrich-fern	<i>Matteuccia struthiopteris</i>
Field-horsetail, Common Horsetail	<i>Equisetum arvense</i>	River-horsetail, Water-horsetail	<i>Equisetum fluviatile</i>
Ground-pine, Princess-pine, Tree-clubmoss	<i>Lycopodium obscurum</i>	Royal Fern	<i>Osmunda regalis</i> var. <i>spectabilis</i>
Hay-scented Fern	<i>Dennstaedtia punctilobula</i>	Sensitive Fern	<i>Onoclea sensibilis</i>
Interrupted Fern	<i>Osmunda claytoniana</i>	Southern Ground-cedar, Fan-clubmoss	<i>Diphasiastrum digitatum</i>
Maidenhair-fern, Northern Maidenhair	<i>Adiantum pedatum</i>	Staghorn Clubmoss, Running Clubmoss, Common Clubmoss	<i>Lycopodium clavatum</i>

**GROUP: Grasses, Sedges and Rushes**

<b>English Name</b>	<b>Scientific Name</b>	<b>English Name</b>	<b>Scientific Name</b>
Annual Bluegrass, Low Speargrass	<i>Poa annua</i>	Phragmites, Common Reed	<i>Phragmites australis</i>
Common Timothy	<i>Phleum pratense</i>	Reed Canary-grass	<i>Phalaris arundinacea</i>
Corn, Maize	<i>Zea mays</i>	Tall or Large Crab-grass	<i>Digitaria sanguinalis</i>
Junegrass, Kentucky Bluegrass	<i>Poa pratensis</i>	Timothy	<i>Phleum pratense</i> ssp. <i>pratense</i>
Timothy	<i>Phleum pratense</i> ssp. <i>pratense</i>		

**GROUP: Tree and Shrubs**

<b>English Name</b>	<b>Scientific Name</b>	<b>English Name</b>	<b>Scientific Name</b>
American Beech	<i>Fagus grandifolia</i>	Northern Arrow-wood, Smooth Arrow-wood	<i>Viburnum dentatum</i> var. <i>lucidum</i>
American Bittersweet, Waxwork	<i>Celastrus scandens</i>	Norway Maple	<i>Acer platanoides</i>
American Chestnut	<i>Castanea dentata</i>	Norway Spruce	<i>Picea abies</i>
American Elm, White Elm	<i>Ulmus Americana</i>	Oriental Bittersweet, Asian or Asiatic Bittersweet	<i>Celastrus orbiculata</i>
American Holly	<i>Ilex opaca</i>	Pagoda-dogwood, Alternate-leaved Dogwood	<i>Cornus alternifolia</i>
American Yew, Canada Yew, Ground-hemlock	<i>Taxus canadensis</i>	Paper-birch, Canoe-birch	<i>Betula papyrifera</i>
Apple	<i>Malus pumila</i>	Pear	<i>Pyrus communis</i>
Atlantic White Cedar	<i>Chamaecyparis thyoides</i>	Pennsylvania Blackberry, Highbush Blackberry	<i>Rubus pensilvanicus</i>
Balsam-fir	<i>Abies balsamea</i>	Pignut, Pignut-hickory	<i>Carya glabra</i>
Basswood, Whitewood, American Linden	<i>Tilia americana</i> var. <i>americana</i>	Pin-oak	<i>Quercus palustris</i>

Bayberry, Wax-myrtle, Candleberry	<i>Myrica pensylvanica</i>
Big-toothed Aspen	<i>Populus grandidentata</i>
Black Ash	<i>Fraxinus nigra</i>
Black Birch, Sweet Birch, Cherry-birch	<i>Betula lenta</i>
Black Elderberry, Common Elderberry	<i>Sambucus canadensis</i>
Black Huckleberry	<i>Gaylussacia baccata</i>
Black Locust	<i>Robinia pseudoacacia</i>
Black Oak	<i>Quercus velutina</i>
Black Raspberry, Blackcap	<i>Rubus occidentalis</i>
Black Spruce	<i>Picea mariana</i>
Black Walnut	<i>Juglans nigra</i>
Black Willow	<i>Salix nigra</i>
Boxelder, Ash-leaf Maple	<i>Acer negundo</i>
Bristly Dewberry, Running Dewberry, Swamp-dewberry	<i>Rubus hispidus</i>
Burning Bush, Wahoo	<i>Euonymus atropurpurea</i>
Bush-honeysuckle	<i>Diervilla lonicera</i>
Choke-cherry	<i>Prunus virginiana</i>
Common Blackberry, Sow-teat Blackberry, Allegheny Blackberry	<i>Rubus allegheniensis</i>
Common Buckthorn	<i>Rhamnus cathartica</i>
Common Greenbrier, Catbrier, Bullbrier	<i>Smilax rotundifolia</i>
Common Juniper, Pasture-juniper	<i>Juniperus communis</i>
Common Lilac	<i>Syringa vulgaris</i>
Crack-willow, Brittle Willow	<i>Salix fragilis</i>
Downy Shadbush, Downy Serviceberry	<i>Amelanchier arborea</i> var. <i>arborea</i>
Eastern Hemlock	<i>Tsuga canadensis</i>
Eastern Red Cedar	<i>Juniperus virginiana</i>
English Elm, Lock-elm	<i>Ulmus minor</i>
European Beech	<i>Fagus sylvatica</i>

Pitch-pine	<i>Pinus rigida</i>
Poison-ivy, Climbing Poison-ivy	<i>Toxicodendron radicans</i>
Red Ash (hairy form); Green Ash (glabrous form)	<i>Fraxinus pennsylvanica</i>
Red Maple	<i>Acer rubrum</i> var. <i>rubrum</i>
Red Oak	<i>Quercus rubra</i> var. <i>rubra</i>
Red Osier	<i>Cornus sericea</i>
Red Raspberry	<i>Rubus idaeus</i>
Sassafras	<i>Sassafras albidum</i>
Scarlet Oak	<i>Quercus coccinea</i>
Scotch Pine	<i>Pinus sylvestris</i>
Shagbark-hickory	<i>Carya ovata</i>
Sheep-laurel, Lambkill, Wicky	<i>Kalmia angustifolia</i>
Silver Maple	<i>Acer saccharinum</i>
Slippery Elm, Red Elm	<i>Ulmus rubra</i>
Small-leaved Linden, Small-leaved Lime (in England)	<i>Tilia cordata</i>
Smooth Sumac	<i>Rhus glabra</i>
Speckled Alder	<i>Alnus incana</i> ssp. <i>rugosa</i>
Spicebush	<i>Lindera benzoin</i>
Staghorn-sumac	<i>Rhus hirta</i>
Striped Maple, Moosewood	<i>Acer pensylvanicum</i>
Sugar-maple	<i>Acer saccharum</i>
Swamp White Oak	<i>Quercus bicolor</i>
Swamp-azalea, Swamp-honeysuckle	<i>Rhododendron viscosum</i>
Swamp-rose	<i>Rosa palustris</i>
Sweet Fern	<i>Comptonia peregrina</i>
Sweet Gale	<i>Myrica gale</i>
Sweet Pepper-bush, White Alder, Coast White Alder	<i>Clethra alnifolia</i>
Sycamore, Buttonwood	<i>Platanus occidentalis</i>

European Larch	Larix decidua	Sycamore-maple	Acer pseudoplatanus
Fire-cherry, Pin-cherry, Bird-cherry	Prunus pensylvanica	Tamarack, American Larch	Larix laricina
Flowering Dogwood	Cornus florida	Tree-of-heaven	Ailanthus altissima
Glossy Alder-buckthorn, Smooth Alder-buckthorn, European Alder-buckthorn	Rhamnus frangula	Trembling Aspen, Quaking Aspen, Quiver-leaf	Populus tremuloides
Gray Birch	Betula populifolia	Tulip-tree, Tulip-poplar, Yellow Poplar	Liriodendron tulipifera
Hackberry, Northern Hackberry, Sugarberry	Celtis occidentalis	Weeping Willow	Salix babylonica
Highbush-blueberry	Vaccinium corymbosum	White Ash	Fraxinus americana
Hop-hornbeam, Ironwood	Ostrya virginiana	White Mulberry	Morus alba
Horse-chestnut	Aesculus hippocastanum	White Oak	Quercus alba
Ironwood, Musclewood, Blue Beech, Hornbeam	Carpinus caroliniana	White Pine	Pinus strobus
Japanese Barberry	Berberis thunbergii	White Spruce	Picea glauca
Japanese Honeysuckle	Lonicera japonica	Wild Plum, Hedge-plum	Prunus americana
Large Pussy-willow	Salix discolor	Wild Raisin, Witherod	Viburnum nudum var. cassinoides
Low Sweet Blueberry, Late Sweet Blueberry, Lowbush-blueberry	Vaccinium angustifolium var. angustifolium	Winterberry, Black Alder	Ilex verticillata
Maple-leaf Viburnum, Dockmackie, Flowering Maple	Viburnum acerifolium	Wintergreen, Checkerberry, Teaberry, Mountain-tea	Gaultheria procumbens
Meadowsweet	Spiraea alba var. latifolia	Witch-hazel	Hamamelis virginiana
Mountain-laurel	Kalmia latifolia	Witch-hobble, Hobble-bush, Moosewood, Tanglewood	Viburnum lantanoides
Multiflora Rose	Rosa multiflora		

**GROUP: Wildflowers**

English Name	Scientific Name	English Name	Scientific Name
Asparagus	Asparagus officinalis	Queen Anne's Lace, Wild Carrot	Daucus carota
Birdsfoot-trefoil	Lotus corniculatus	Ragweed	Ambrosia artemisiifolia var. artemisiifolia
Bird-vetch, Cow-vetch, Tufted Vetch	Vicia cracca	Red Clover	Trifolium pratense
Bittersweet Nightshade, Bittersweet	Solanum dulcamara	Red Clover	Trifolium pratense var. pratense
Black-eyed Susan, Yellow Daisy	Rudbeckia hirta var. hirta	Ribgrass Plantain, Narrow-leaved Plantain, English Plantain	Plantago lanceolata
Bladder-campion	Silene vulgaris	Rue-anemone	Thalictrum thalictroides

Bluets, Quaker Ladies, Innocence, Churn-dasher	<i>Houstonia caerulea</i>	Skunk-cabbage	<i>Symplocarpus foetidus</i>
Broad-leaved or Common Cat-tail	<i>Typha latifolia</i>	Slender Stinging Nettle	<i>Urtica dioica</i> ssp. <i>gracilis</i>
Bull-thistle, Common Thistle	<i>Cirsium vulgare</i>	Solomon's Seal	<i>Polygonatum pubescens</i>
Canada Mayflower, False Lily-of-the-valley	<i>Maianthemum canadense</i>	Spreading Dogbane, Pink Dogbane	<i>Apocynum androsaemifolium</i>
Canada Mayflower, False Lily-of-the-valley	<i>Maianthemum canadense</i> var. <i>canadense</i>	Starflower	<i>Trientalis borealis</i>
Cardinal-flower	<i>Lobelia cardinalis</i>	Stout Blue-eyed Grass	<i>Sisyrinchium angustifolium</i>
Celandine, Swallow-wort	<i>Chelidonium majus</i>	Striped Pipsissewa, Spotted Wintergreen	<i>Chimaphila maculata</i>
Cleavers, Spring-cleavers	<i>Galium aparine</i>	Tall Buttercup, Common Buttercup, Meadow-buttercup	<i>Ranunculus acris</i>
Colic-root, Star-grass	<i>Aletris farinose</i>	Tall Meadow-rue	<i>Thalictrum pubescens</i>
Common Cow-wheat	<i>Melampyrum lineare</i> var. <i>lineare</i>	Tiger-lily	<i>Lilium lancifolium</i>
Common Dandelion	<i>Taraxacum officinale</i>	True Forget-me-not	<i>Myosotis scorpioides</i>
Common Milkweed	<i>Asclepias syriaca</i>	Turnip, Chinese Cabbage, Field-mustard	<i>Brassica rapa</i>
Common Mullein, Common Flannel-plant, Flannel Mullein, Velvet Plant	<i>Verbascum thapsus</i>	Virginia Creeper, Woodbine	<i>Parthenocissus quinquefolia</i>
Common Plantain, Dooryard Plantain, White Man's Foot	<i>Plantago major</i> var. <i>major</i>	Virginia Water-horehound, Floodplain Water-horehound	<i>Lycopus virginicus</i>
Common Speedwell, Gypsyweed	<i>Veronica officinalis</i>	White Clover	<i>Trifolium repens</i>
Common Stitchwort, Meadow—stitchwort, Field-stitchwort	<i>Stellaria graminea</i>	White Water-lily, Fragrant Water-lily	<i>Nymphaea odorata</i> ssp. <i>odorata</i>
Creeping Buttercup, Spotted Buttercup	<i>Ranunculus repens</i>	Whorled Loosestrife	<i>Lysimachia quadrifolia</i>
Cypress-spurge	<i>Euphorbia cyparissias</i>	Wild Balsam-apple, Prickly Cucumber	<i>Echinocystis lobata</i>
Daisy-fleabane, Whitetop, Sweet Scabious	<i>Erigeron annuus</i>	Wild Calla, Water-arum	<i>Calla palustris</i>
Dame's Rocket	<i>Hesperis matronalis</i>	Wild Geranium, Spotted Crane's Bill	<i>Geranium maculatum</i>
Dandelion	<i>Taraxacum officinale</i> ssp. <i>officinale</i>	Wild Heal-all, American Heal-all, Self-heal	<i>Prunella vulgaris</i> ssp. <i>lanceolata</i>
Doll's Eyes, White Baneberry	<i>Actaea pachypoda</i>	Wild Sarsaparilla	<i>Aralia nudicaulis</i>
Dwarf Cinquefoil, Running Five-fingers	<i>Potentilla canadensis</i>	Wild Violet, Northern White Violet	<i>Viola macloskeyi</i> ssp. <i>pallens</i>



Evening Lychnis, White Champion, White Cockle	<i>Silene latifolia</i> ssp. <i>Alba</i>	Winter-cress, Yellow Rocket	<i>Barbarea vulgaris</i>
False Solomon's Seal	<i>Maianthemum racemosum</i>	Wood-anemone, Wind-flower	<i>Anemone quinquefolia</i>
Field Garlic, Scallions	<i>Allium vineale</i>	Woodland Jack-in-the-pulpit, Indian Turnip	<i>Arisaema triphyllum</i> ssp. <i>triphyllum</i>
Field-pussytoes	<i>Antennaria neodioica</i> ssp. <i>Petaloidea</i>	Yarrow	<i>Achillea millefolium</i> var. <i>millefolium</i>
Flowering Spurge	<i>Euphorbia corollata</i>	Yellow Iris, Water-flag	<i>Iris pseudacorus</i>
Gill-over-the-ground, Ground-ivy	<i>Glechoma hederacea</i>	Yellow Rattle	<i>Rhinanthus minor</i>
Glossy Shinleaf, Round-leaved Shinleaf, Glossy Pyrola, Round- leaved Pyrola	<i>Pyrola americana</i>	Yellow Star-grass	<i>Hypoxis hirsuta</i>
Golden Alexanders	<i>Zizia aurea</i>	Yellow Water-lily, Bullhead-lily, Spatterdock	<i>Nuphar variegata</i>
Grape-hyacinth	<i>Muscari botryoides</i>	Yellow Wild Indigo, Rattleweed, Horsefly-weed	<i>Baptisia tinctoria</i>
Green Shinleaf, Greenish-flowered Shinleaf, Green Pyrola, Greenish- flowered Pyrola	<i>Pyrola chlorantha</i> var. <i>chlorantha</i>	Alder Genus	<i>Alnus</i>
Horse-nettle, Bull-nettle, Sandbrier	<i>Solanum carolinense</i>	Arrowhead Genus	<i>Sagittaria</i>
Indian Cucumber-root	<i>Medeola virginiana</i>	Blackberry/Dewberry Genus	<i>Rubus</i>
Indian Pipe	<i>Monotropa uniflora</i>	Bur-reed Genus	<i>Sparganium</i>
Jack-in-the-Pulpit	<i>Arisaema triphyllum</i>	Buttercup Genus	<i>Ranunculus</i>
Japanese Knotweed, Japanese or Mexican Bamboo	<i>Polygonum cuspidatum</i>	Catalpa Genus	<i>Catalpa</i>
King-devil, Meadow Hawkweed	<i>Hieracium caespitosum</i>	Crabapple Genus	<i>Malus</i>
Late Blue Cohosh	<i>Caulophyllum thalictroides</i> var. <i>thalictroides</i>	Goldenrod Genus	<i>Solidago</i>
Lily-of-the-valley	<i>Convallaria majalis</i>	Goosefoot Genus	<i>Chenopodium</i>
Marsh-marigold, Cowslip	<i>Caltha palustris</i>	Grape Genus	<i>Vitis</i>
Moneywort, Creeping Jenny	<i>Lysimachia nummularia</i>	Hawkweed Genus	<i>Hieracium</i>
Mouse-ear Hawkweed	<i>Hieracium pilosella</i>	Hawthorn Genus	<i>Crataegus</i>
Narrow-leaved Cat-tail	<i>Typha angustifolia</i>	Mosses	<i>Musci</i>
Nodding Trillium	<i>Trillium cernuum</i> var. <i>cernuum</i>	N/A	<i>Agrimonia</i>
Northern Blue Flag, Wild Iris, Poison-flag	<i>Iris versicolor</i>	N/A	<i>Arion</i>
Orange Day-lily	<i>Hemerocallis fulva</i>	N/A	<i>Philadelphus</i>
Orange Hawkweed, Devil's	<i>Hieracium aurantiacum</i>	N/A	<i>Populus</i>

Paintbrush			
Orange Jewelweed, Spotted Touch-me-not	Impatiens capensis	N/A	Sibbaldiopsis
Oxeye-daisy, Marguerite	Leucanthemum vulgare	N/A	Sorbus
Palmate Hop-clover, Yellow Hop-clover	Trifolium aureum	N/A	Typha
Partridge-berry, Twinberry, Two-eyed Berry	Mitchella repens	Slime Molds	Myxomycota
Perennial Sow-thistle	Sonchus arvensis	Sowbugs, Pillbugs	Oniscus
Philadelphia Fleabane, Pink Fleabane	Erigeron philadelphicus	Sow-thistle Genus	Sonchus
Pickering-weed	Pontederia cordata var. cordata	St. John's-wort Genus	Hypericum
Pink Lady's Slipper, Moccasin-flower	Cypripedium acaule	Strawberry Genus	Fragaria
Pokeweed, Pokeberry, Poke	Phytolacca americana	Trillium Genus	Trillium
Poor-man's Pepper, Wild Peppergrass	Lepidium virginicum	Vetch Genus	Vicia
Purple Loosestrife, Spiked Loosestrife	Lythrum salicaria	Yellow-eyed-grasses	Xyridaceae

#### Rare/Endangered Species

E = Endangered T = Threatened SC = Special Concern WL = Watch List

<b><u>Taxonomic Group</u></b>	<b><u>Common Name</u></b>	<b><u>Scientific Name</u></b>	<b><u>MESA Status</u></b>	<b><u>Most Recent Observation</u></b>
Amphibian	Blue-spotted Salamander	Ambystoma laterale	SC**	2004
Amphibian	Four Toad Salamander	Hemidactylium scutatum	SC**	
Bird	American Bittern	Botaurus lentiginosus	E**	
Bird	Least Bittern	Ixobrychus exilis	E **	1992
Dragonfly	A Clubtail Dragonfly	Stylurus spiniceps	T *	2004
Dragonfly	Cobra Clubtail	Gomphus vastus	SC*	2004
Dragonfly	Scarlet Bluett	Enallagma picyum	T***	2001
Dragonfly	Umber Shadowdragon	Neurocordulia obsoleta	SC*	2004
Fish	Atlantic Sturgeon	Acipenser oxyrinchus	E**	
Fish	Shortnose Sturgeon	Acipenser brevirostrum	E****	2007
Mussel	Brook Floater (Swollen Wedgemussel)	Alasmidonta varicosa	E*	Historical
Mussel	Eastern Pondmussel	Ligumia nasuta	SC**	1992
Mussel	Tidewater Mucket	Leptodea ochracea	SC*	1992
Mussel	Yellow Lampmussel	Lampsilis cariosa	E*	1866
Reptile	Blanding's Turtle	Emydoidea blandingii	T**	2006
Reptile	Wood Turtle	Glyptemys insculpta	SC**	2005
Snail	New England Siltsnail	Cincinnati winkleyi	SC**	
Vascular Plant	A Pondweed	Potamogeton vaseyi	E*	1973
Vascular Plant	Arborvitae, Northern White Cedar	Thuja occidentalis	E**	2001
Vascular Plant	Butternut, White Walnut	Juglans cinerea	WL	
Vascular Plant	Eaton's Beggar-ticks	Bidens eatonii	E*	2004
Vascular Plant	Estuary Pipewort	Eriocaulon parkeri	E*	
Vascular Plant	Great Laurel, Rhododendron	Rhododendron maximum	E***	2001
Vascular Plant	Indian Paintbrush	Castilleja coccinea	H*	Historical
Vascular Plant	Long's Bulrush	Scirpus longii	T**	
Vascular Plant	New England Blazing Star	Liatris scariosa var. novae-angliae	SC*	1932
Vascular Plant	Red Pine	Pinus resinosa	WL***	2001
Vascular Plant	River-birch, Red Birch	Betula nigra	WL***	2001
Vascular Plant	River Bulrush	Bolboschoenus fluviatilis	SC**	
Vascular Plant	Saline Sedge	Carex recta	E**	
Vascular Plant	Round-leaved Shadbush, New England Serviceberry	Amelanchier sanguinea	SC***	2001
Vascular Plant	Silverling	Paronychia argyrocoma	E**	
Vascular Plant	Spiked False Oats	Trisetum spicatum	E*	1914
Vascular Plant	Sweet Bay, Swamp-bay, Sweetbay Magnolia	Magnolia virginiana	E***	2001
Vascular Plant	Water Marigold	Megalodonta beckii	WL**	

Vascular Plant      Wild Black Currant      Ribes americanum      WL\*\*\*      2001

**\* Massachusetts: Natural Heritage and Endangered Species Program 7/15/2007**

**\*\* Massachusetts: Natural Heritage and Endangered Species Program – BioMap and Living Waters: Core Habitat**

**\*\*\* Massachusetts Biodiversity Days: 2000-2001**

**\*\*\*\* Also Listed as Endangered under Federal Endangered Species Act**

**Natural Communities\***

Estuarine Intertidal: Brackish Tidal Marsh

Estuarine Intertidal: Freshwater Tidal Marsh      Critically Imperiled

Estuarine Intertidal: Salt Marsh      Vulnerable

Small-River Floodplain Forest      Imperiled

**\* Natural Heritage & Endangered Species Program - BioMap and Living Waters: Core Habitat**

Town	Taxonomic Group	Scientific Name	Common Name	MESA Federal Status	Status	Most Recent Observation
HAVERHILL	Amphibian	Ambystoma laterale	Blue-spotted Salamander	SC		2004
HAVERHILL	Bird	Ixobrychus exilis	Least Bittern	E		1992
HAVERHILL	Bird	Haliaeetus leucocephalus	Bald Eagle	E	T	2004
HAVERHILL	Dragonfly / Damselfly	Gomphus vastus	Cobra Clubtail	SC		2004
HAVERHILL	Dragonfly / Damselfly	Neurocordulia obsoleta	Umber Shadowdragon	SC		2004
HAVERHILL	Dragonfly / Damselfly	Stylurus spiniceps	A Clubtail Dragonfly	T		2004
HAVERHILL	Fish	Acipenser brevirostrum	Shortnose Sturgeon	E	E	1991
HAVERHILL	Mussel	Alasmidonta varicosa	Brook Floater (Swollen Wedgemussel)	E		Historic
HAVERHILL	Mussel	Lampsilis cariosa	Yellow Lampmussel	E		1866

HAVERHILLMussel	Leptodea ochracea	Tidewater Mucket	SC	1992
HAVERHILLMussel	Ligumia nasuta	Eastern Pondmussel	SC	1992
HAVERHILLReptile	Glyptemys insculpta	Wood Turtle	SC	2005
HAVERHILLReptile	Emydoidea blandingii	Blanding's Turtle	T	2006
HAVERHILLVascular Plant	Potamogeton vaseyi	A Pondweed	E	1973
HAVERHILLVascular Plant	Trisetum spicatum	Spiked False Oats	E	1914
HAVERHILLVascular Plant	Liatris scariosa var. novae-angliae	New England Blazing Star	SC	1932
HAVERHILLVascular Plant	Bidens eatonii	Eaton's Beggar-ticks	E	2004