

COMMUNITY DEVELOPMENT PLAN



TOWN OF NORFOLK

June 2004

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COMMUNITY DEVELOPMENT PLAN

FOR

NORFOLK, MASSACHUSETTS

Board of Selectmen
Planning Board

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I. INTRODUCTION

The Town of Norfolk has experienced significant growth in recent years. Its population increased by 13.9% during the 1990's, after increasing by 45.7% during the 1980's. This has placed significant stress on the Town's resources and ability to maintain services to support this growth.

The Town has already taken a number of steps to address its economic development, open space and recreation, transportation and housing needs. In response to the Master Plan completed in 1992, the Town adopted a mixed-use zoning district in order to encourage development of a traditional New England town center. It is also encouraging commercial development in the area of the Route 1A/Route 115 intersection. There are two other mixed-use districts for commercial development and age-restricted housing. Norfolk recently joined with other area towns to successfully seek designation as an Economic Target Area.

An Open Space and Recreation Plan for Norfolk was completed in 1996. With assistance of a state grant, it purchased the Lind Farm for open space in 1998. The Town completely revised its open space subdivision bylaw in 2002. An "Open Space Corridor Strategic Plan" was completed in 2003.

Regarding housing, the Town's B1 zoning district allows apartments on the upper floors of commercial buildings. The Zoning Bylaw also provides a density bonus of 10% for affordable housing and for using the open space subdivision option. One age-restricted housing development of 43 units is under construction and a second proposing 136 units (plus commercial space) is in the permitting process. In 2004, the Town approved a comprehensive permit development in the Town Center providing for 44 units of which 11 are affordable.

The Town also adopted the Community Preservation Act in 2001 providing a means of funding initiatives in open space, recreation, housing and historic preservation. The purpose of this Community Development Plan is to provide information on existing conditions in the areas of open and recreation, housing, and economic development as well as some recommendations for action. It will also serve as an update to the 1996 Open Space and Recreation Plan and as a first step toward an update of the 1992 Master Plan.

It begins with the update of the Open Space and Recreation Plan, followed by the housing element the economic development element and then a transportation element focusing on the area of the Route 1A/Route 115 intersection. The Putting It All Together section concludes by noting how the pieces fit together.

II. OPEN SPACE AND RECREATION PLAN

PLAN SUMMARY

This 2004 Open Space and Recreation Plan for Norfolk was prepared as the town continues to face rapid population growth as well as commercial and industrial development. This development adds stress on the region's natural resources as well as the character of the Town. This Plan contains the following major elements:

- A description of the public input utilized in developing the Plan;
- A demographic profile of the Town;
- A summary of recent growth trends;
- An environmental portrait of Norfolk
- An inventory of existing protected open space and recreation lands in Town;
- An analysis of open space and recreation needs;
- A statement of goals and objectives; and
- A five-year action plan.

Table 4 of the report presents land use changes from 1971 to 1999. From that table, it can be derived that Norfolk's 1970 population of 4,656 occupied 1,231 acres in 1971, or about .26 acres per person. Its 2000 population of 10,560 occupied 2938 acres in 1999. This is .28 acres per person, just slightly above the average in 1971. This is sharp contrast to many other towns, whose acres per person ratio have risen dramatically between 1971 and 1999. While the initial 1971 figure is somewhat higher than many other towns, the fact that the figure has not risen significantly indicates that land is being used relatively efficiently as the Town grows.

Among the recommended actions are the identification and ranking of key parcels to protect resources, acquiring additional parcels, increase public awareness of open space and recreation needs, establishing greenbelts along the Charles River and other water bodies and to increase recreation opportunities.

INTRODUCTION

Statement of Purpose

The purpose of this plan is to help ensure that the open space and recreation resources of Norfolk are protected as the Town continues to face development pressures as well as the impacts of sprawl. A previous open space plan was completed in 1996.

A common vision facilitates decision-making for everyone -- Town and State officials as well as developers and private landowners. This plan is intended to help provide that vision. It should also be noted that while this plan addresses the needs of Norfolk, natural and recreational resources do not end at Town boundaries. Efforts to coordinate open space and recreation planning with other towns in the region are also strongly encouraged. Coordination and cooperation in planning may lead to improved resource management and enhancement of recreational opportunities.

Prior Open Space and Recreation Planning Efforts

As noted above, Norfolk prepared a Master Plan in 1992 with an Open Space and Recreation element. It also completed an Open Space and Recreation Plan in 1996. While the Town had an open space subdivision provision in its Zoning Bylaw, that provision was completely rewritten in 2002. Two open space subdivisions had been approved under the previous bylaw and three have been granted special permits under the new bylaw to date. A fourth is in the permitting process.

In addition, an "Open Space Corridor Strategic Plan" was completed in 2003. This plan identifies critical parcels to be preserved, with a focus on linking the existing protected areas together.

Planning Process and Public Participation

This update essentially drew on the public input from the 1996 OSRP and 1992 Master Plan. Copies of the draft were provided to the Board of Selectmen and Planning Board for input. A public hearing was held on June 10, 2004 to solicit additional public input.

COMMUNITY SETTING

Regional Context

One of the most significant regional aspects affecting Norfolk is its location within the Charles River Watershed Area. The Charles River is the town line between Norfolk and Millis and Norfolk and Medfield. Several rivers and streams meander across Town and flow into the Charles River, including Stop River, Mill River, Stony Brook and Cress Brook. Norfolk shares major aquifers with Franklin, Medway, Millis and Wrentham.

Norfolk is within 30 mile of Boston, Providence and Worcester. A high percentage of residents commute to these areas. Norfolk is a member of the Metropolitan Area Planning Council (MAPC) and its Southwest Area Planning (SWAP) subregion.

The Town is traversed by two state highways. Route 1A crosses the southeast portion of town from Wrentham to Walpole. Route 115 runs from Route 140 in Foxboro through the center of Norfolk and into Millis. It terminates at Route 27 in n Sherborn. Main Street also links Norfolk with Walpole to the east and to Franklin and I-495 on the west.

Norfolk serves the region as host of the Stony Brook Nature Center, owned and operated by the Massachusetts Audubon Society. It also hosts a state prison complex.

History

The area that became the Town of Norfolk was first settled in the 1630's after the General Court approved a land grant for settlers who wanted to get away from Boston. The community developed around a few smaller settlements: North Parish, City Mills, Pondville and Highland Lake. Norfolk was incorporated as a town in 1870.

Manufacturing

Many mills were established in Norfolk during the 1800's and the industrial revolution. Saw mills, corn mills and a box factory were prominent fixtures in Highland Lake, City Mills and Stony Brook. The largest of these companies was American Felt Mills who employed between 100 and 150 people. The building is still in use to this day by Camger Chemical to manufacture paint and varnish.

The Norfolk Woolen Company, founded by Frances Ray, ran a shoddy (reworked wool made from rags) factory on Stony Brook from 1862 until 1932 when it went bankrupt. The Buckley and Mann Company had run a textile mill on Lawrence Street since 1901. The company closed its mill in 1994. The property was recently sold and an open space preservation subdivision for the site is in the permitting process.

A thread mill was owned and operated near City Mills by Dr. Nathaniel Miller. During the American Revolution, Dr. Miller, who ran the first hospital in Town, was one of the first doctors to inoculate soldiers and civilians against small pox.

By the 1700's the Blake family had built mills and a farm on Stony Brook. Solomon Blake was running a sawmill on the brook across from a 2½-story house he built in 1762. Blake sold the sawmill, dam and water rights to a cotton manufacturing company, partly owned by Benjamin and Daniel Blake – his sons, in 1814. The mill was improved and a cotton mill, box factory and washing machine works were all built in the area.

In 1959, Mrs. Bennet Bristol, a descendent of the Blake family who had purchased the Stony Brook property, gave 238 acres to the Massachusetts Department of Natural Resources to create the Bristol-Blake Reservation. In 1963, Mrs. Bristol bought the Enoch Blake home and gave it to the Massachusetts Audubon Society. The Society agreed to cooperate with the State in managing and protecting the property. While it is a conservation site today, for more than 250 years Stony Brook was a center of manufacturing and agricultural activities.

In 1848, a railroad was built which would provide transportation opportunities for manufacturing and agriculture to Norfolk. The addition of this new transportation further encouraged the founding of additional mills in the town.

Agriculture

Farms have long been a mainstay of Norfolk and the Town economy. Dairy, crops, and poultry have been a major industry in Pondville. The largest farm was the Weber farm, which included a restaurant that attracted people from all over for its duck dinners.

During the early 1900's a watercress farm on the Myrtle Street and Lake Street area of Cress Pond shipped watercress to New York on the railroad. Norfolk was a rural and agricultural town before the 1950's with only a small amount of manufacturing. As time passed both of these industries declined in favor of residential development. Farms were sold and developed into dozens of houses and this trend has continued for more than three decades.

As late as 1980 seven dairy farms were still operating, but by 1996 only one remained. A small amount of horse, sheep and vegetable farming has remained in the Town and contributes greatly to the rural character of Norfolk while representing only a fraction of the economy. While most of the existing farms are taxed under the benefits given under Chapter 61A, this does not guarantee that these lands will be protected from future development.

Real Estate Development

Created out of parts of the surrounding Towns of Franklin, Medway, Walpole and Wrentham, Norfolk was established on February 23, 1870. By the early 1900s Highland Lake was a recreation destination for Bostonians looking to spend the day in Norfolk courtesy of the railroad. Highland Lake's features, including a racetrack, dance hall, amusement park, baseball field, and skating rink in addition to the swimming and boating, made it an enjoyable escape for Norfolk's visitors.

The State acquired the land for Southwood (formerly Pondville) Hospital during World War I. The first use of the facility was to treat shell-shocked victims. Norfolk State Prison was built in 1927 and in the 1930s Cedar Junction Correctional Facility was built. The area around these facilities has continued to be open space for many years.

The Bay State Correctional facility opened in 1989 next to the Norfolk Prison. Norfolk received a \$2.8 million grant in exchange for this facility and used it to build a new town hall.

Population Characteristics

Population Growth

As Table 1 indicates, Norfolk experienced explosive growth throughout the 1970's and 1980's and experienced a sharp drop in growth during the 1990's. Still, Norfolk's 13.9% growth rate during the 1990's greatly exceeded the statewide rate of 5.5%.

TABLE 1

POPULATION GROWTH, 1970-2000

Year	Population	Absolute Change	Percentage Change
1970	4,656 ¹	NA	NA
1980	6,363 ²	1,707	36.7%
1990	9,270 ³	2,907	45.7%
2000	10,560 ⁴	1,290	13.9%

Source: 1970, 1980, 1990 and 2000 U. S. Censuses

¹ Includes prison inmate population of 906.

² Includes prison inmate population of 913.

³ Includes prison inmate population of 1,348.

⁴ Includes prison inmate population of 1,762.

Density

As Table 2 indicates, the average density in Norfolk increased from 314 persons per square mile in 1970 to 712 per square mile in 2000. This is lower than the average statewide density of 810 persons per square mile.

TABLE 2

POPULATION DENSITY 1980-2000 (persons per square mile)

Year	Norfolk	Massachusetts
1970	314	726
1980	429	732
1990	625	767
2000	712	810

Source: Computed by authors

It is important to note that average density is not necessarily an indicator of either the existence or quality of open space. Two towns with the same average density can have vastly different development patterns. One town could be developed into concentrated centers or villages surrounded by vast areas of open space, while the other could be characterized by low-density sprawl spread throughout its land area. This concept is further illustrated by the reduction in the

population of Boston from 1950 to 2000 while the suburbs grew substantially. The City of Boston reached its highest population in 1950 at 801,444. This population was accommodated on about 46 square miles (about 3 times greater than the land area of Norfolk). In 2000, Boston's population was 26% less at 589,141. If the 212,303 people who left Boston were resettled in the suburbs at a density of 1000 per square mile (about 50% greater than the current density of Norfolk), it would take 212 square miles, an area about fourteen times larger than the area of Norfolk, to accommodate them. Clearly, concentrating development in city, town and village centers is a key component of protecting and preserving open space.

Age

Table 3 presents the age breakdown for Norfolk for the years 1990 and 2000 as well as the projected breakdown for 2010 by the Massachusetts Institute for Social Research (MISER) at UMass-Amherst. It indicates that the Town of Norfolk's residents tend to be younger than the residents of the state as a whole. In 1990, 28.03% of Norfolk residents were under the age of 20 compared to 25.95% for the State. This gap is projected to increase by 2010.

At the other end of the scale, Norfolk had a lower percentage of its population age 65 years and older than the state, 5.46% vs. 13.56% in 2000. While both the Town and State indicate an increase in the 65+ age group from 1990 to 2000, this same group is projected to decline in the State as a whole but increase in Norfolk by 2010.

TABLE 3

**AGE 1990-2010
(By percent)**

	1990		2000		2010	
	Norfolk	MA	Norfolk	MA	Norfolk	MA
0-4	8.40%	7.00%	7.23%	6.26%	6.10%	5.67%
5-19	19.63%	18.95%	21.32%	20.14%	21.30%	19.45%
20-64	67.14%	60.50%	62.15%	60.01%	64.74%	62.27%
65+	4.84%	13.54%	5.46%	13.56%	7.91%	12.62%
Total	100.00%	100.00%	100%	100.00%	100.00%	100.00%

Sources: 1990 U. S. Census
MISER, 2003

Note: 1990 and 2000 percentages are from U.S. Census. 2010 percentages are projections by the Massachusetts Institute for Social and Economic Research.

Growth and Development Patterns

Patterns and Trends

Recent land use trends are illustrated in Table 4. The table indicates the acreage devoted to various land use categories as interpreted from aerial photographs by the Resource Mapping Project at the University of Massachusetts. The land use data is presented for 1971, 1985, and 1999. The table includes the absolute and percentage change between 1971 and 1985, 1985 and 1999 and the entire period of 1971 and 1999.

In 1971, the “developed” land in Norfolk (including recreation, residential, commercial, industrial, mining, urban open land, transportation, and waste disposal) totaled 1,791 acres or 18.2% of the total land area in Norfolk. The “undeveloped” area (including crop land, pasture, forestland, wetland, open land, water and woody perennial) totaled 8,062 acres, or 81.83 of the total. By 1985, the developed land had increased to 2,890 acres, a change of 1,099 acres. By 1999, the developed land totaled 3,549 acres – more than 36% of the Town's land area. Thus, developed land doubled from 1971 to 1999. Meanwhile, population increased by 127% (from 4,656 to 10,560) between 1970 and 2000.

Acreage devoted to commercial and industrial uses only increased by 48 acres during this period. Residential land area, however, increased by 1,706 acres. This increase accounted for almost all of the newly-developed land and half of the total developed land. Almost 40% of this increase in residential land (667 of the 1,706 acres) was in the category of low density residential (lots larger than ½ acre).

Thus, the 1970 population of 4,656 occupied a total of 1,231 acres in 1971, or about .26 acres per person. The 2000 population of 10,560 occupied 2,938 acres in 1999. This is .28 acres per person. In contrast to many communities, Norfolk has been relatively consistent (and moderate) in its land consumption as it develops. A 2003 Massachusetts Audubon study entitled “Losing Ground: At What Cost?” indicate acreage per resident rates ranging from .52 to 4.56 in some communities for development since 1991.

TABLE 4
LAND USE CHANGES, 1971-1999

LAND USE TYPE	1971	1985	CHANGE 1971-1985		1999	CHANGE 1985-1999		CHANGE 1971-1999	
	ACRES	ACRES	ACRES	PERCENT	ACRES	ACRES	PERCENT	ACRES	PERCENT
CROP LAND (AC)	459.86	383.79	-76.07	-16.54%	256.61	-127.18	-33.25%	-203.25	-44.2%
PASTURE (AP)	137.56	178.78	41.23	29.97%	143.73	-35.05	-19.60%	6.17	4.48%
FORESTLAND (F)	6285.40	5312.88	-972.52	-15.47%	4680.33	-632.55	-10.06%	-1605.07	-25.54%
INLAND WETLAND (FW)	518.92	518.92	0.00	0.00%	521.32	2.39	0.04%	2.39	0.46%
MINING (M)	111.72	122.65	10.93	9.78%	49.02	-73.63	-60.03%	-62.70	-56.12%
OPEN LAND (O)	394.18	296.62	-97.57	-24.75%	442.21	145.60	49.09%	48.03	12.18%
PARTICIPATION RECREATION (RP)	30.08	30.08	0.00	0.00%	30.08	0.00	0.00%	0.00	0.00%
SPECTATOR RECREATION (RS)	3.30	3.30	0.00	0.00%	0.00	-3.30	-100%	-3.30	-100%
WATER BASED RECREATION (RW)	0.00	0.00	0.00	n/a	0.00	0.00	n/a	0.00	n/a
MULTI-FAMILY RESIDENTIAL (RO)	0.00	4.18	4.18	n/a	4.18	0.00	0.00%	4.18	n/a
HIGH DENSITY RESIDENTIAL (R1)	0.00	0.00	0.00	n/a	0.00	0.00	n/a	0.00	n/a
MED. DENSITY RESIDENTIAL (R2)	400.74	1022.06	621.32	155.04%	1436.15	414.10	40.51%	1035.41	258.37%
LOW DENSITY RESIDENTIAL (R3)	830.92	1183.00	352.10	42.37%	1497.88	314.89	26.62%	666.96	80.27%
COMMERCIAL (UC)	45.47	54.47	9.00	19.79%	65.27	10.80	19.83%	19.81	43.57%
INDUSTRIAL (UI)	22.32	33.46	11.15	20.20%	50.83	17.37	51.91%	28.51	127.73%
URBAN OPEN -OR- PUBLIC (UO)	195.53	267.87	72.35	37.00%	268.88	0.85	0.31%	73.20	37.44%
TRANSPORTATION (UT)	112.28	112.28	0.00	0.00%	115.96	3.68	3.28%	3.68	3.28%
WASTE DISPOSAL (UW)	38.61	61.10	22.49	58.25%	35.04	-26.06	-42.65%	-3.57	-9.25%
WATER (W)	241.16	242.60	1.44	0.60%	231.52	-11.08	-4.57%	-9.64	-3.99%
WOODY PERENNIAL – ORCHARD (WP)	24.57	24.57	0.00	0.00%	23.76	-0.81	-3.23%	-0.81	-3.30%
TOTALS	9852.62	9852.61			9852.77				

Source: University of Massachusetts Resource Mapping Project (from Central Massachusetts Regional Planning Commission)

The biggest loss of undeveloped land was in the category of forestland, which decreased by 1,605 acres between 1971 and 1999. Pasture land actually increased during this period, peaking at the 1985 level, but still higher in 1999 (143 acres) than 1971 (138). Crop land was reduced by 203 acres, almost half of its 1971 total (459 acres).

Infrastructure

The most significant infrastructure elements in Norfolk are its transportation network, and water service. Each of these is discussed briefly below.

Norfolk is home to between 84 bridges and culverts and 76 miles of road including access to two major connector roads, Main Street and Route 115. These connector roads link Norfolk to Walpole, Franklin, Wrentham, Medfield, Millis and other communities as well as providing access to Routes 1, 1A and 95.

Besides roads, Norfolk is home to several other transit and pedestrian transportation facilities, including an MBTA rail station, an airport for small planes and a number of sidewalks. With parking for up to 500 vehicles, the MBTA is a very attractive commuting opportunity.

Norfolk's water system exists primarily through the town's two wells and private wells. According to the recent buildout analysis performed by MAPC, the current water use averages 920,856 gallons per day. At buildout, this is projected to increase to 1,648,753 gallons. The Town is pursuing development of a third well.

All sewer services in Norfolk are private, independent systems. A private small wastewater treatment plant serving the Town Center area has been approved. A second such system is being proposed to serve a 136-unit age-restricted housing development with commercial space.

Long-Term Development

The current trend in single-family housing development could negatively affect the rural character of the town. To counteract this possibility, the Town of Norfolk has enacted bylaws and regulations to protect the environment and open space.

The Earth Removal Bylaw was adopted in 1970 to limit the impact from the removal of soil, gravel, sand or loam by requiring a special permit issued by the Board of Selectmen. Minimum cutting and filling must be met in order to receive the permit. Not prohibited without a permit are operations of a farm, nursery or cemetery as well as removal of less than 500 yd³ for an approved road or constriction project, removal for Town of Norfolk purposes or associated with an existing single family residence.

Adopted in 1989, the Wetlands Protection Bylaw protects wetlands and bodies of water for their inherent benefits. The bylaw protects public and private water supply, groundwater, fisheries, and wildlife habitat. Also addressed are flood control, erosion and sedimentation control, storm damage prevention, water pollution prevention, aesthetics, agriculture and aquaculture. Exempt from this bylaw are existing public utilities, normal maintenance and emergency projects.

The Board of Health adopted the Underground Tank Bylaw (UTB) in 1981 to ensure that all tanks used to store liquids other than water underground were properly located. Tanks are not allowed in the Zone of Influence of a public water supply or below the groundwater level. Tanks must be made out of fiberglass if they are within four feet of high water or within 100 feet of surface water. To compliment the UTB, the State's Title 5 sanitation standards regulates septic systems.

Floodplain/Wetland Protection Districts were created in 1974 to prohibit alteration to flood levels during the predicted 100-year storm and to allow flood zones to continue to function as groundwater recharge areas, flood storage basins, wildlife habitat and open spaces available for recreation, education, and general welfare of Norfolk residents. Land intensive recreational uses include commercial golf courses, private clubs, and structures that would normally require special permit review by the Zoning Board of Appeals.

In 1992 the Watershed Protection District was created to protect the water supply in the Town of Norfolk. All land within 25 feet from the center of the watercourse and within 25 feet from the high water line of wetlands is included. Building within the 25-foot buffer, including construction landfills or facilities to store salt, petroleum or other hazardous materials is prohibited.

Also established in 1992 were the Aquifer and Water Supply and Interim Wellhead Protection Districts. Created to protect and preserve aquifers and areas of groundwater supplies for public drinking, these bylaws create zones identified on the "Aquifer and Water Resource Protection Map – Town of Norfolk" which may be amended as needed.

Norfolk and it's neighboring towns all face pressure from increased residential growth. Norfolk must diversify its tax base and acquire or protect open space to create a desirable community character.

Zoning bylaws were changed at the Town Meeting in November 1993 to attract new businesses to Norfolk as explored in the Master Plan. These changes made it easier to develop commercial property in the Routes 115 and 1A areas as well as the Town Center.

Two zoning changes adopted to preserve open space and the Town character were "Maximum Lot Coverage (Section H.1) and "Open Space Preservation (Section H.2). Section H.2 gives the planning board the authority, by special permit, to group smaller residential lots together to least at least 25% of the land as undeveloped open space. This alternative subdivision design allows for single family developments and saves open space at the same time. The bylaw was significantly amended in 2002 to put more emphasis on the quality of open space.

Zoning Section F.11, Site Plan Approval is required for any building other than a single family home. This is to ensure that any changes to the land are compatible to the environment.

The Shade Trees Act (M.G.L. c.87) and the Scenic Roads Act (M.G.L. c.40, Section 15c) help to maintain Norfolk's rural character. The Shade Trees Act states that a shade tree

(any tree with a diameter greater than 1.5 inches and one foot from the ground) shall not be cut by anyone other than the Norfolk Tree Warden without his written permission. The only exception to this is trees that endanger a person on a highway or to control pests such as Dutch Elm disease.

The Scenic Roads Act allows a non-numbered road to be designated as a “scenic road.” Thereafter any repair, maintenance, reconstruction or other work that involves the removal of stone walls or trees must be approved by the Planning Board. Most roads are designated as scenic roads, with the exception of Route 115 and Route 1A.

The buildout analysis completed in 2001 by the MAPC projected that there are an additional 3,009 developable acres in Norfolk This translates into 2,295 additional residential units, 6,816 additional residents (for a total buildout population of 17,276), more than 2.8 million square feet of commercial and industrial space, about 1,052 additional school children (for a buildout total of 2,846), an additional demand for water of 727,895 gallons per day (for a buildout total of 1.6 million gallons per day), and an additional 41 miles of roadway.

Figure 1 illustrates Norfolk’s zoning districts.

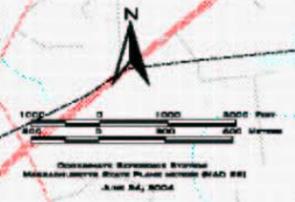
TOWN OF NORFOLK

FIGURE 1- ZONING



NORFOLK LAND AREA BY ZONING			
ZONECODE	ZONING DISTRICTS	AREA (SQ FT)	PERCENTAGE
R-1	RESIDENCE 1	80,784,848	18.83%
R-2	RESIDENCE 2	91,034,975	21.22%
R-3	RESIDENCE 3	170,435,946	39.73%
B-1	BUSINESS 1	4,259,640	0.99%
B-2	BUSINESS 2	371,329	0.09%
B-3	BUSINESS 3	334,952	0.08%
B-4	BUSINESS 4	490,060	0.11%
C-1A	COMMERCIAL 1A	4,431,307	1.03%
C-1B	COMMERCIAL 1B	8,025,038	1.87%
C-2	COMMERCIAL 2	2,506,270	0.58%
C-3	COMMERCIAL 3	346,654	0.08%
C-4	COMMERCIAL 4	6,114,035	1.43%
C-5	COMMERCIAL 5	41,772,994	9.74%
C-6	COMMERCIAL 6	3,991,983	0.93%
SO	STATE OR FEDERAL OWNED	14,114,279	3.29%
TOTAL		429,024,307	100%

- HYDRO**
- STREAMS
 - INTERMITTENT STREAMS
 - WATER BODIES
 - SEWAGE DISPOSAL POND
- ROADS**
- COLLECTOR
 - LOCAL
 - TRAINS



FUNDING PROVIDED BY THE DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT, THE EXECUTIVE OFFICE OF ENVIRONMENTAL AFFAIRS, THE DEPARTMENT OF ECONOMIC DEVELOPMENT, AND THE EXECUTIVE OFFICE OF TRANSPORTATION AND CONSTRUCTION, UNDER EXECUTIVE ORDER 418. PROJECT ADMINISTRATION PROVIDED BY THE METROPOLITAN AREA PLANNING COUNCIL.

ENVIRONMENTAL INVENTORY AND ANALYSIS

Geology, Soils and Topography

Norfolk's geology is a result of glacial activity that occurred most recently about 20,000 years ago. It consists of an uneven mass of bedrock covered with till or outwash material. The bedrock is generally less than 50 feet below the surface, but outcrops are not uncommon.

Figure 2 illustrates the soils of Norfolk. Most (about 56%) of the soils are sandy and gravelly soils (Hinckley-Windsor-Sudbury Association). These soils are good for a variety of development; residential, commercial or industrial and are especially good for developing new sources of groundwater as well as mining sand and gravel.

Norfolk is also home to large sections of Gloucester-Charlton-Acton (20%) and Muck-Whitman-Ridgebury-Scarboro (17%) soils. Gloucester-Charlton-Acton are moderately to well drained stony soils that are well suited for agriculture (once the stones are removed), recreation and woodland. Site characteristics may render them poorly suited for sewage disposal. Muck-Whitman-Ridgebury-Scarboro are poorly to very poorly drained mineral soils found along waterways and floodplains. They excel in recreation, wildlife and woodlands uses but are very limited in terms of residential, commercial and industrial development because of water saturation.

There are also pockets of stony Scituate-Paxton-Essex soils found in 4% of the town. They are moderately well drained and best suited for agriculture and woodland because of their ability to hold moisture. Thus, these soils are poorly suited for residential, commercial and industrial development that require on-site sewage disposal because of this high permeability.

The very stony Hollis-Shapleigh is also found in a minority of the town (3%) and is best suited for wildlife and woodland because of the presence of shallow bedrock, limiting the prospects for development.

Norfolk consists of post-glacial low hills and open valleys and elevations ranging from 120 to 300 feet above sea level. The presence of the Charles River at the northern border provides surface draining via smaller tributaries.

Landscape Character

Norfolk offers a scenic landscape character that offers wooded landscape accentuated by farmlands and ponds. The Town has several farms including horse and vegetable as well as designated open space and conservation land to preserve its rural appearance. These elements provide a pleasant and productive environment in which to live and work.

In keeping with the rural character, the center of Town is being redeveloped and expanded with the overhead utilities being moved underground, the roadways reconstructed and two roundabouts installed. Also highlighting the renovations are improved sidewalks and pedestrian facilities. The public library is being expanded and

new commercial and residential development is about to begin in the area formerly known as the “moonscape.”

Norfolk’s many streams, brooks, ponds and wetlands provide wildlife and recreational opportunities. Canoeing and fishing are popular along the Charles River as well as Highland Lake and City Mills Pond. Stony Brook and the Bristol Blake Reservation provide access to hiking trails and as well as opportunities to observe wildlife habitats.

Water Resources

Figure 3 illustrates the surface waters of Norfolk. As discussed above, the Charles River has had an impact on the Town’s development and history. Entering Norfolk at Populatic Pond and flowing eastward, the entire Town drains into the Charles River or its tributaries, the Mill River and the Stop River.

The Mill River originates in Wrentham, flows through Lake Pearl as Eagle Brook and crosses the Wrentham-Norfolk line where the Mill River continues through City Mills Pond, Cress/Millers Brook and Coomeys Pond before connecting with the Charles River.

In east Norfolk, the Stop River begins near the border with Wrentham and runs by the Norfolk State Correctional Institute as well as Highland Lake and tributaries Stony Brook, Mann Pond Lateral and Prison Farm Lateral before entering Medfield and connecting to the Charles River.

That there are many bodies of water does not mean that they are all easily accessible and usable. The State Comprehensive Outdoor Recreation Plan (SCORP) gives high priority to inland waterway access and the expansion of water-based recreation. However, disparity exists; Populatic Pond has a boat ramp with on-street parking but City Mills Pond and Coomeys Ponds are owned by the Conservation Commission and are only intended for fishing and picnicking. Also owned by the Commission is a shorefront on Kingsbury Pond, and while Highland Lake is also publicly accessible, all other ponds are privately owned with public access prohibited.

Norfolk has a history of flooding with major floods in 1936, 1938, 1955 and 1968 with 1955 classified as a “rare flood” even greater than a 100 year event as two hurricanes arrived one after the other. Hurricane Connie deposited 2 inches of rain and Hurricane Diane added another 14.8 inches. March of 1968 brought another flood when heavy rain (5.5 inches) fell during a winter of heavy snowfall and already water-saturated soil and streams.

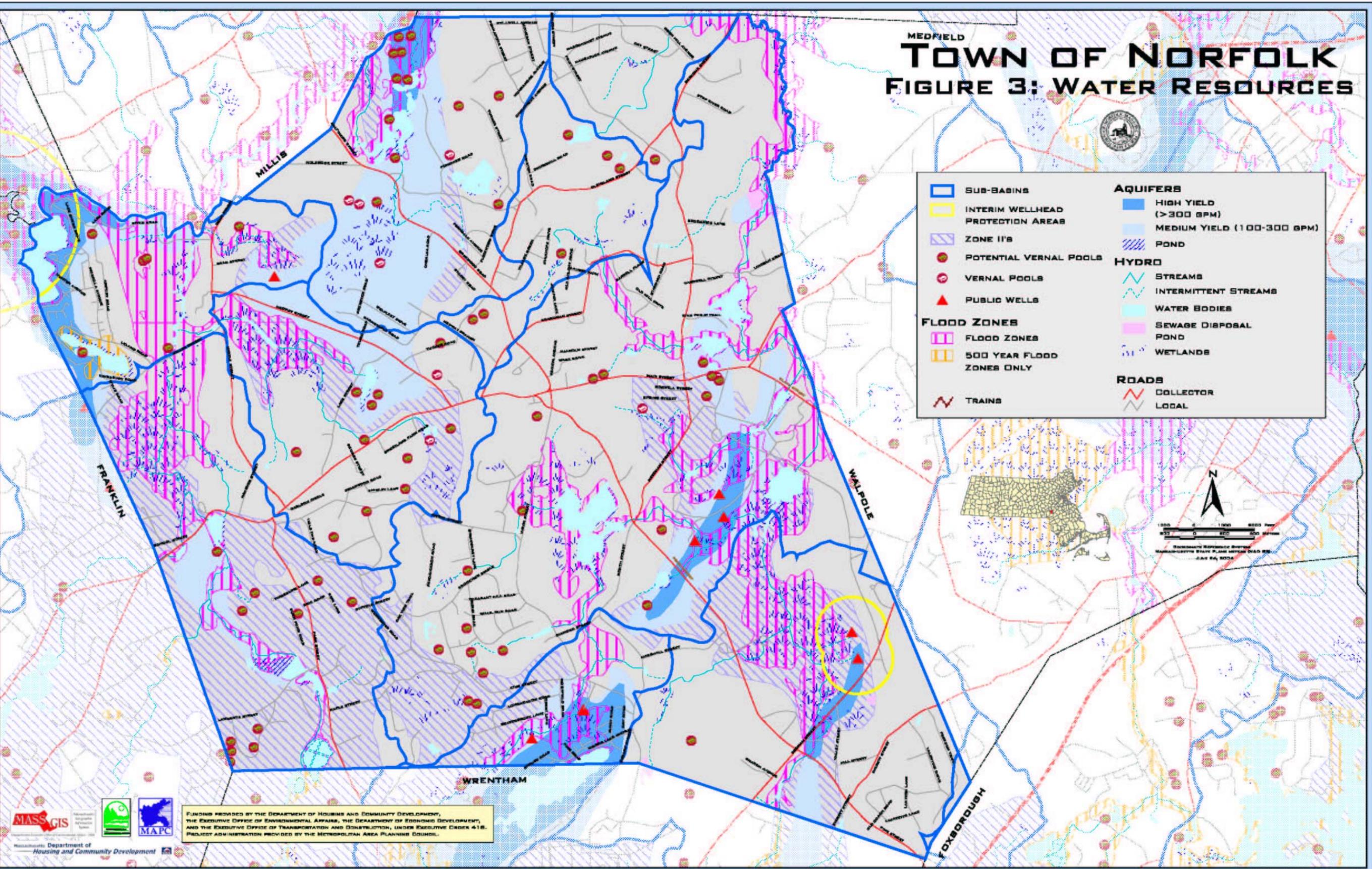
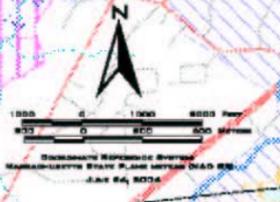
As a result of the intense flooding in the years above, the Army Corps of Engineers has studied the surrounding area and determined that extensive marshes, swamps and wet meadows surrounding the Charles River greatly reduce flooding in the communities nearby. This study led to Congress authorizing the “Charles River Natural Valley Storage Area” (Public Law 93-251) and allowing the Army Corps of Engineers to acquire 17 wetland areas totaling 8,103 acres.

Three of these areas are partially or entirely within Norfolk; Area G along the Charles and Stop Rivers, Areas K along the Stop River and Area L along the Mill River. Totalling

MEDFIELD
TOWN OF NORFOLK
FIGURE 3: WATER RESOURCES



SUB-BASINS	HIGH YIELD (>300 GPM)
INTERIM WELLHEAD PROTECTION AREAS	MEDIUM YIELD (100-300 GPM)
ZONE II'S	POND
POTENTIAL VERNAL POOLS	STREAMS
VERNAL POOLS	INTERMITTENT STREAMS
PUBLIC WELLS	WATER BODIES
FLOOD ZONES	SEWAGE DISPOSAL POND
500 YEAR FLOOD ZONES ONLY	WETLANDS
TRAINS	COLLECTOR
	LOCAL



FUNDING PROVIDED BY THE DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT, THE EXECUTIVE OFFICE OF ENVIRONMENTAL AFFAIRS, THE DEPARTMENT OF ECONOMIC DEVELOPMENT, AND THE EXECUTIVE OFFICE OF TRANSPORTATION AND CONSTRUCTION, UNDER EXECUTIVE ORDER 418. PROJECT ADMINISTRATION PROVIDED BY THE METROPOLITAN AREA PLANNING COUNCIL.

736.35 acres this land is preserved in its natural state for flood control, fish and wildlife management and passive recreation (bird watching, hiking, canoeing, fishing, cross-country skiing). Public access to these land is available through fees by the Corps which encourages the above passive recreation activities, but limits access due to the proximity of the Massachusetts Department of Corrections facility.

Figure 3 illustrates the Town's wells, aquifers, and the Zone II water supply protection areas. Norfolk's aquifers represent a significant resource of potential regional significance since they must be protected to guarantee a clean water supply in the years to come. Norfolk has 2 municipal wells, several Department of Corrections wells and Wrentham State School wells. The exceptional soil conditions make Norfolk's land area better than normal for aquifers. Both Franklin and Norfolk are looking to the Kingsbury Pond area as potential drilling sites for future wells because of the favorable soil conditions.

Figure 3 also illustrates the wetlands in Norfolk. As the map illustrates, wetlands are scattered throughout the Town, with heavier concentrations along the major waterways. Approximately 1,239 acres (12.5% of Norfolk's land area) have been identified as wetlands. These areas are protected under the Massachusetts Wetlands Protection Act (M.G.L. c.131, s.40). Norfolk also has its own wetlands protection bylaw. In addition, Norfolk's local Conservation Commission regulations provide protection for vernal pools that is not provided in the State law.

The Federal Emergency Management Agency has identified flood zones shown on Community Panel Number 255217C from August 19, 1985. As reported in Table 4, there was no net loss of wetlands in Norfolk in the period from 1971 to 1999.

Vegetation, Wildlife and Fisheries

Figure 4 illustrates the vegetation and wildlife of the Town. Norfolk's vegetation is dominated by deciduous forests. Upland Forests are typically dominated by red oak and shagbark hickory with hemlock and tend to appear in cleared land since the 19th century. Forested Wetlands are largely red maple near streams to water and include speckled alder, highbush blueberry, sweet pepperbush underbrush with elm, poplar and willow trees. Similarly the Scrub-shrub Wetlands have trees growing in saturated or standing water, these are usually willow, buttonbush, meadow sweet, hardhack and red-oiser dogwood. The Emergent Wetland is home to semi-woody plants growing in water up to eighteen inches deep including cattail, purple loosestrife, reed blue-joint, and sedge while Aquatic vegetation either floats or has roots on the bottom contains white water lily, bladderwort and duckweed.

The Eastern Box Turtle has been spotted in Norfolk and the Town is home to one of 29 breeding site in Massachusetts for the Great Blue Heron, recently removed from the Rare Animal List because of sites like this.

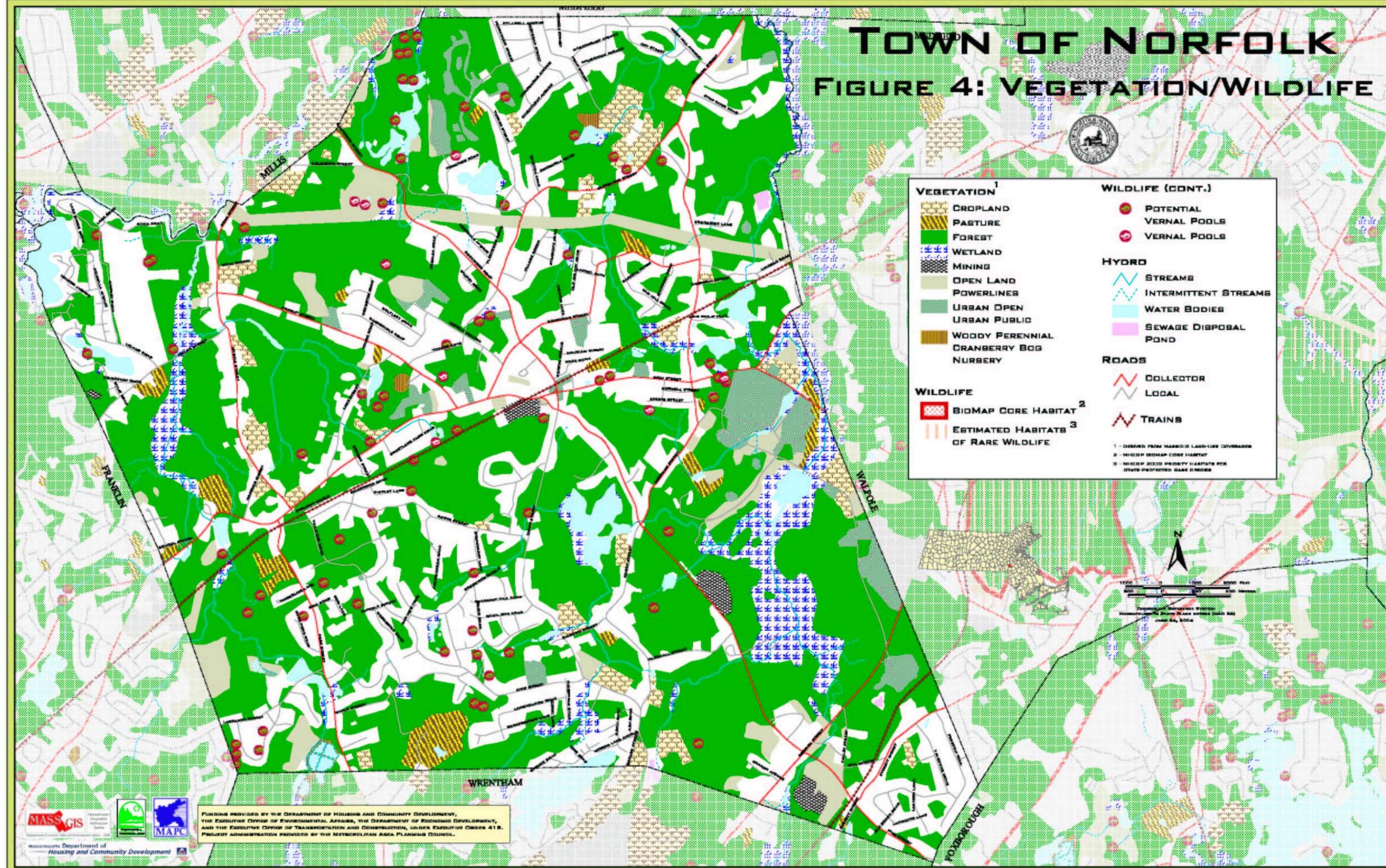
TOWN OF NORFOLK

FIGURE 4: VEGETATION/WILDLIFE



VEGETATION ¹		WILDLIFE (CONT.)	
	CROPLAND		POTENTIAL VERNAL POOLS
	PASTURE		VERNAL POOLS
	WETLAND		
	MINING		
	OPEN LAND		
	POWERLINES		
	URBAN OPEN		
	URBAN PUBLIC		
	WOODY PERENNIAL CRANBERRY BOG NURSERY		
	BIDMAP CORE HABITAT²		
	ESTIMATED HABITATS³ OF RARE WILDLIFE		
			STREAMS
			INTERMITTENT STREAMS
			WATER BODIES
			SEWAGE DISPOSAL POND
			COLLECTOR
			LOCAL
			TRAINS

¹ - DERIVED FROM MASSGIS LAND-USE COVERAGE
² - NHEEM BIDMAP CORE HABITAT
³ - NHEEM 2003 PRIORITY HABITAT FOR STATE-PROTECTED RARE SPECIES



FUNDING PROVIDED BY THE DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT, THE EXECUTIVE OFFICE OF ENVIRONMENTAL AFFAIRS, THE DEPARTMENT OF ECONOMIC DEVELOPMENT, AND THE EXECUTIVE OFFICE OF TRANSPORTATION AND CONSTRUCTION, UNDER EXECUTIVE ORDER 41B. PROJECT ADMINISTRATION PROVIDED BY THE METROPOLITAN AREA PLANNING COUNCIL.

Marshes, ponds, streams and wet meadows are home to black ducks and wood ducks, mallards, blue-winged teal and Canada goose. The Charles River is home to trout and wildlife game species include the grey squirrel, cottontail, woodcock, grouse, ring-necked pheasant and white tailed deer while other wildlife includes muskrat, mink, skunk, fox, beaver, otter and raccoon.

Scenic and Unique Environments

Norfolk's scenic environments are illustrated by Figure 5. Norfolk's character owes its attractiveness to its rural landscape. Norfolk is home to many "scenic" roads, roads that have been maintained for 50+ years and have homes that reflect that heritage and have some stone walls intact. In fact, except for Routes 115 and 1A, all roads in Norfolk built before 1986 are scenic roads. They are protected from unnecessary changes in development and allow people to continue enjoying the town as it was in an earlier time.

There are no State identified scenic areas in Norfolk. However, there are a number of locally significant areas including:

- City Mills Pond – A nine-acre pond near the Franklin side of town that is perfect for fishing and skating in the winter.
- Clark & West Streets – An antediluvian oak tree is situated amongst wetlands and the Stop River across from the prison
- Campbell Town Forest – Currently inaccessible woodland, it is located near the center of town and is a high priority of the Conservation Commission
- Kunde Conservation Land – Twenty acres of land donated in memory of Mrs. Kunde and located behind the H. Olive Day Elementary School, these woods and trails are easily accessible.
- Jane and Paul Newton's Farm – Located on Fruit Street, this farm specializes in vegetable, strawberry picking and raising a few sheep while running a small fruit and vegetable stand during the summer.
- Cranberry bog – Near Park Street and the Foley Dairy Farm and is situated among Norfolk's rolling hills.
- Union, King, and North Street – This corner overlooks a pastoral farmland.
- Charles River – Views of the water and access to canoeing and boating on Town-owned conservation land.
- Myrtle Street – Farmland owned by the Holmes family for generations, the field between Main and Myrtle Streets is hayed twice a year.
- Massachusetts Audubon Stony Brook and Bristol Blake Reservation – A large area of protected wetlands, water, and woods that is accessible to the public for hiking.
- Populatic Pond – A public boat ramp provides access to this 40-acre water feature, while the right-of-way to the ramp provides excellent views.
- Norfolk Trout Club/Upland Game Club – These provide wonderful views of the Charles River and have three trout ponds surrounded by woodland.
- Town Hill – A recently developed scenic landscape.

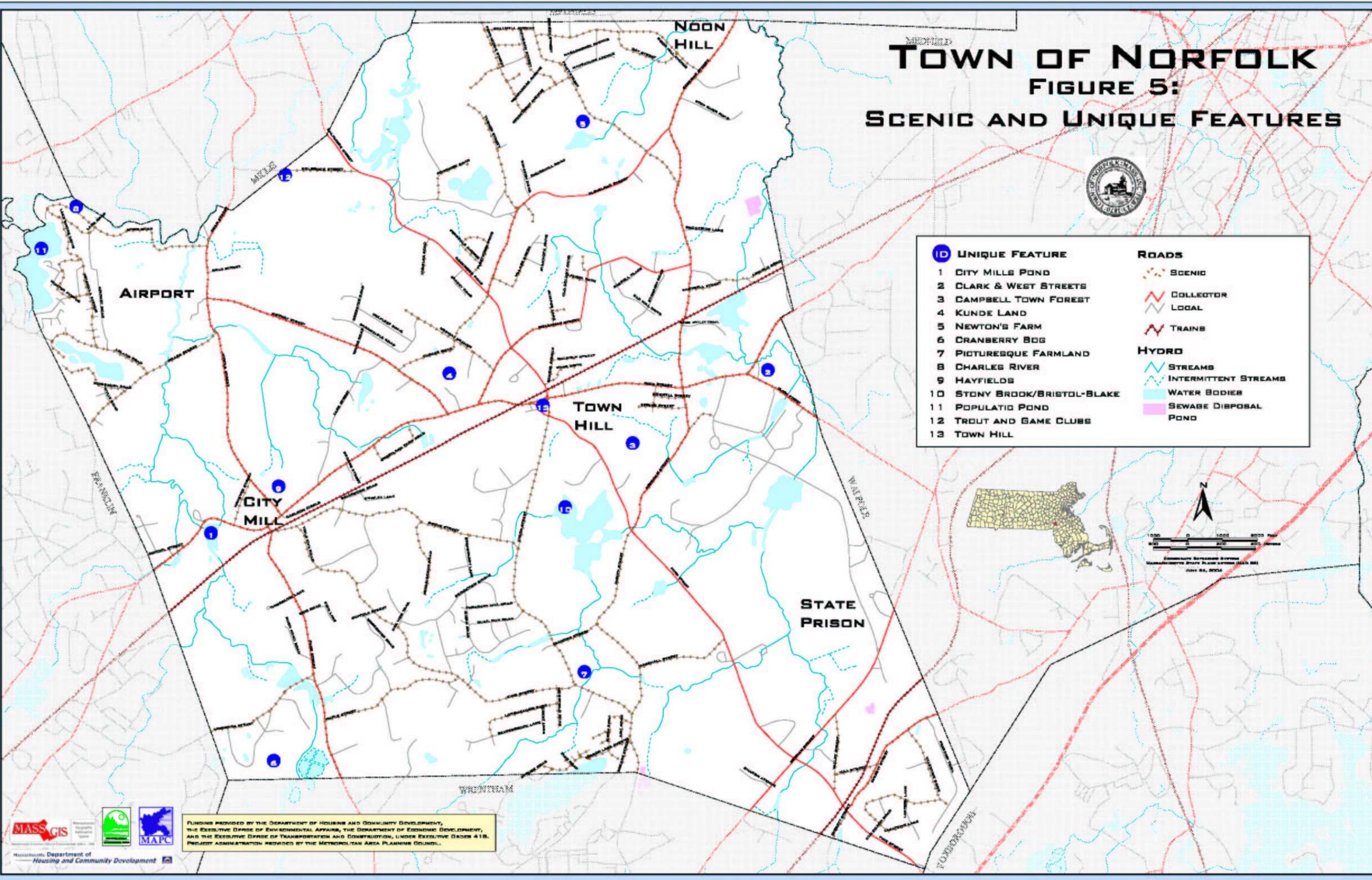
The area around Noon Hill is distinctive both as the highest elevation in Town but also in its home to pressurized springs which, according to the Massachusetts Division of water Resources, are the only circumstance in which water will appear to run uphill.

TOWN OF NORFOLK

FIGURE 5: SCENIC AND UNIQUE FEATURES



ID	UNIQUE FEATURE	ROADS	HYDRO
1	CITY MILLS POND	SCENIC	STREAMS
2	CLARK & WEST STREETS	COLLECTOR	INTERMITTENT STREAMS
3	CAMPBELL TOWN FOREST	LOCAL	WATER BODIES
4	KUNDE LAND	TRAINS	SEWAGE DISPOSAL POND
5	NEWTON'S FARM		
6	CRANBERRY BOG		
7	PICTURESQUE FARMLAND		
8	CHARLES RIVER		
9	HAYFIELDS		
10	STONY BROOK/BRISTOL-BLAKE		
11	POPULATIO POND		
12	TROUT AND GAME CLUBS		
13	TOWN HILL		



FUNDING PROVIDED BY THE DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT, THE EXECUTIVE OFFICE OF ENVIRONMENTAL AFFAIRS, THE DEPARTMENT OF ECONOMIC DEVELOPMENT, AND THE EXECUTIVE OFFICE OF TRANSPORTATION AND CONSTRUCTION, UNDER EXECUTIVE ORDER 418. PROJECT ADMINISTRATION PROVIDED BY THE METROPOLITAN AREA PLANNING COUNCIL.

Historic buildings in Norfolk, many of which predate the Town's incorporation in 1870 include two homes built in the 1600's, the Federated Church built in 1833; Grange Hall built in 1860 and the Town cemetery and crypt built in 1745 and 1750. Lake and Myrtle streets were built in the late 1600's and Town Hill is the site of Norfolk's first Town Hall.

Rare and Endangered Species

Table 5 lists the rare and endangered species in Norfolk as listed by the Natural Heritage and Endangered Species Program of the Massachusetts Division of Fisheries and Wildlife (DFW). The table shows that the Few-Fruited Sedge, Andrew's Bottle Gentian, and the Sweet Coltsfoot, three vascular plants, are endangered, and the Grass-Leaved Ladies'-Tresses is threatened. Three other species are listed as of "Special Concern," the Bridle Shiner, a fish, and the Spotted and Eastern Box Turtles.

This category means that these are native species which have been documented by biological research or inventory to have suffered a decline that could threaten the species if allowed to continue unchecked, or which occur in such small numbers or with such restricted distribution or specialized habitat requirements that they could easily become threatened within Massachusetts.

DFW has also designated both Priority Habitats and Estimated Habitats of Rare Wildlife in Norfolk. These are habitats that may be home to some of the rare and endangered species and thus are worthy of protection. The Priority Habitats are intended to inform the public about rare plant and animal species locations. The Estimated Habitats of Rare Wildlife show estimated habitats for all documented occurrences of rare wetlands wildlife within the last 25 years. Figure 6 presents the Estimated and Priority Habitats in Norfolk. Each of the areas shown is both a Priority and an Estimated Habitat.

TABLE 5**RARE AND ENDANGERED SPECIES**

SCIENTIFIC NAME.....	COMMON NAME.....	TAXONOMIC CLASS.....	STATE RANK	FEDERAL RANK
NOTROPIS BIFRENATUS	BRIDLE SHINER	Fish	SC	
CLEMMYS GUTTATA	SPOTTED TURTLE	Reptile	SC	
TERRAPENE CAROLINA	EASTERN BOX TURTLE	Reptile	SC	
CAREX OLIGOSPERMA	FEW-FOOTED SEDGE	Vascular Plant	E	
GENTIANA ANDREWSII	ANDREWS' BOTTLE GENTIAN	Vascular Plant	E	
PETASITES FRIGIDUS VAR PALMATUS	SWEET COLTSFOOT	Vascular Plant	E	
SPIRANTHES VERNALIS	GRASS-LEAVED LADIES' -TRESSES	Vascular Plant	T	

Source: <http://www.state.ma.us/dfwele/dfw/nhesp/townt-u.htm>

T = Threatened

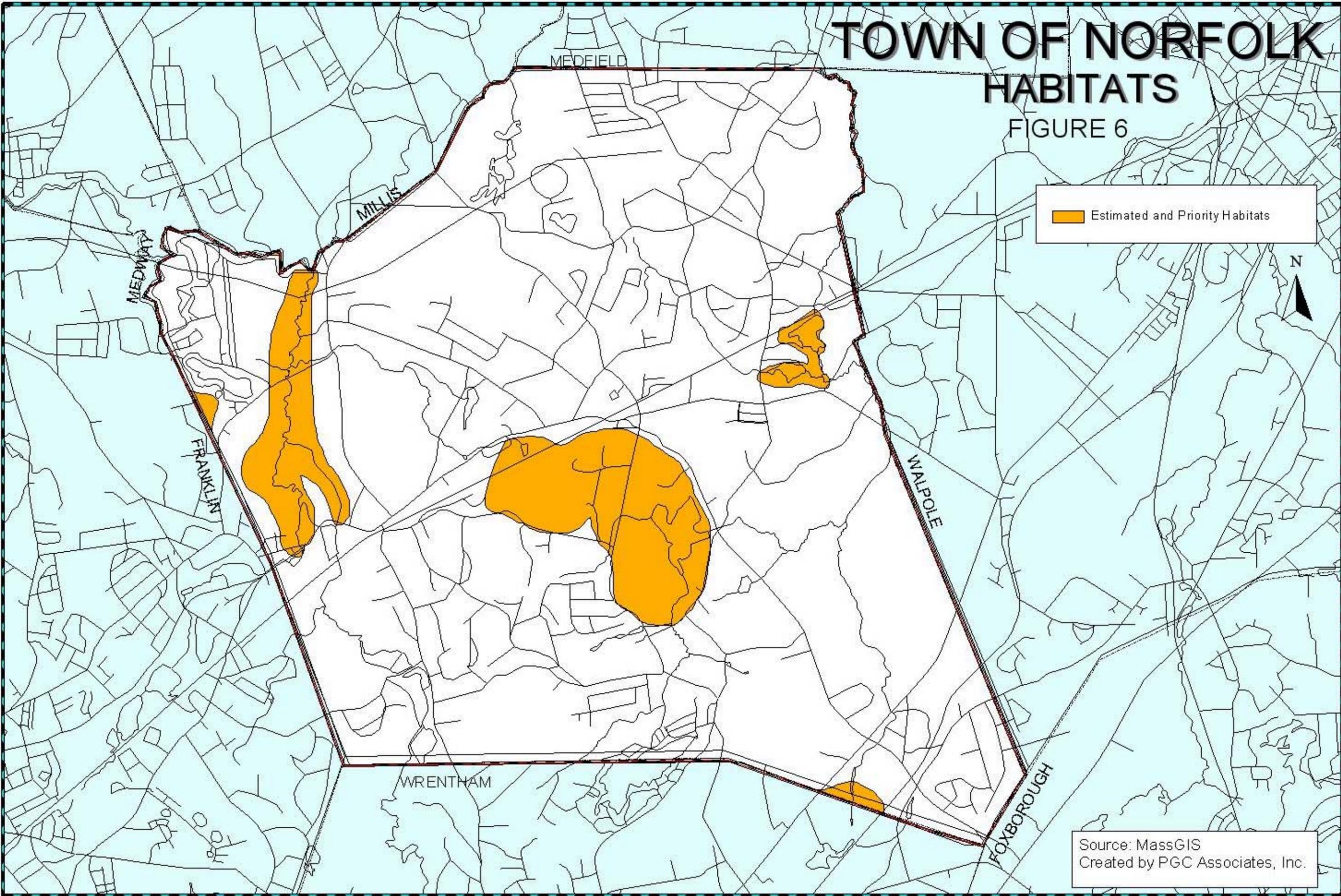
SC = Special Concern

E = Endangered

TOWN OF NORFOLK HABITATS

FIGURE 6

Estimated and Priority Habitats



Source: MassGIS
Created by PGC Associates, Inc.

Environmental Challenges

For the most part, the environmental challenges listed in the 1996 Open Space and Recreation Plan (including the hazardous waste sites, landfill, and chronic flooding) have been addressed. However, some challenges remain.

One serious issue is the adequacy of domestic water supply. Norfolk's capacity is limited and recent population growth and other factors have strained the system. However, a new well is being developed which will alleviate those problems.

Stormwater is another issue. The Town is moving forward in implementing EPA's Phase II stormwater management guidelines that will result in improvements of both the quantity and quality of stormwater that is returned to the ground while reducing flooding hazards as well.

Norfolk has no Town sewer system. However, the Town aggressively enforces Title 5 requirements to protect ground water. In addition, the Town has approved a private small wastewater treatment plant to accommodate denser commercial and residential development in the Town Center. A second private treatment plant is being proposed to serve an age-restricted housing development of 136 units with a commercial component in the C-4 mixed-use district in the northern part of town.

Contamination from an on-site sewer treatment facility at the former Southwood Hospital site has delayed redevelopment of that site. However, efforts have progressed to clean up the contamination and ready the site for a new development project.

INVENTORY OF LANDS OF CONSERVATION AND RECREATION INTEREST

Inventory of Protected Open Space

Figure 7 illustrates the protected and recreational open space in Norfolk. Table 6 lists the protected open space.

Norfolk's two municipal wells, Gold Street Well (off Medway Street) and Spruce Street Well (near Mirror Lake) are both classified as protected conservation lands. In the search for a site for a third well, locations along the Mill River are being considered, this would add to the currently 65 acres of protected land under the Water Department.

The Army Corps of Engineers controls 311 acres in fee and about 500 acres in easement in Norfolk, mainly for flood control, as part of the Charles River Natural Valley Storage Area. This land is located in three areas: Area G along the Stop River by the Walpole line; Area K near the Stop River by the Wrentham line; and Area L along the Mill River by the Franklin line. While public recreation is encouraged in Areas G and L, it is discouraged in Area K because of its proximity to the Correctional facility.

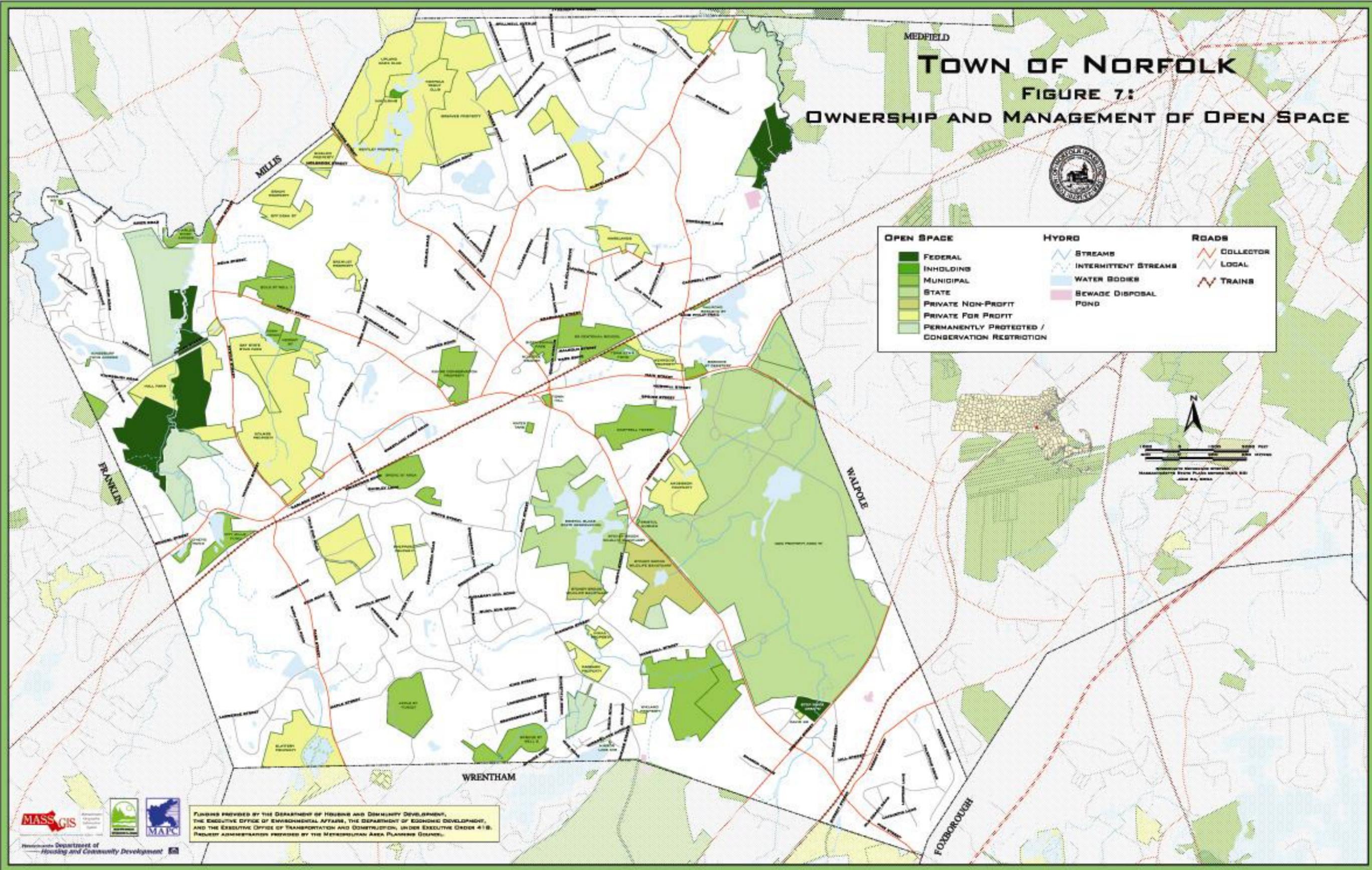
Massachusetts' Department of Environmental Management runs the Bristol Blake Reservation. The 139 acre area is made up of Stony Brook Pond and surrounding wetlands with walkways and activities coordinated by the Nature Center. An additional 103 acres next to the Bristol Blake Reservation are owned by the Massachusetts Audubon Society, which is open to the public (for a fee).

Public and Private Recreation Facilities

A variety of recreational opportunities exist in Norfolk. While conservation land is usually also available for some recreation activities (hiking, bird-watching, etc.), recreation land here is defined as areas devoted and used primarily for one or more specific recreation uses that require:

- A large portion of the site;
- Man-made facilities or significant alteration of the natural landscape; and
- Intensive maintenance.

Examples of recreation facilities include parks and playgrounds, schoolyards, country clubs/golf courses, campgrounds, beaches, picnic areas, etc. Such facilities can be publicly or privately owned and accessible.



PLANS PROVIDED BY THE DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT, THE EXECUTIVE OFFICE OF ENVIRONMENTAL AFFAIRS, THE DEPARTMENT OF ECONOMIC DEVELOPMENT, AND THE EXECUTIVE OFFICE OF TRANSPORTATION AND CONSTRUCTION, UNDER EXECUTIVE ORDER 418. PARCEL ADMINISTRATION PROVIDED BY THE METROPOLITAN AREA PLANNING COUNCIL.



TABLE 6
PROTECTED OPEN SPACE

SITE #	LOCATION/ DESCRIPTION	ASSESSOR'S MAP/LOT #	AREA (Acres)	MANAGER	EXISTING USES
TOWN OF NORFOLK					
1	Main/Comey's Pond	2-3-3	6.00	Conservation Commission	Waterfront access
2	Kingsbury Pond Access	3-7-5	0.01		
3		3-9-10	0.01		
4		4-11-15	0.01		
5		4-11-20	0.01		
6		4-11-21	0.01		
7		4-11-22	0.01		
8	Populatic	4-17-ROW	0.20		Waterfront and boat ramp access
9	River Rd/ Charles River Access	4-27-4	0.31		Waterfront access
10		4-27-6	0.23		
11		4-30-1	7.10		
12	River Rd/ Charles River Access	5-25-ROW	0.70		Waterfront access
13		5-25-2	0.67		
14		5-25-3	0.25		
15		5-25-2.8	0.25		
16		5-25-6	0.21		
17		5-26-1	0.23		
18		5-26-4	0.11		
19		5-26-8	0.18		
20	Maple St Forest	6-62-200	36.40		
21	City Mills Pond	7-3-11	15.10		
22	329 Main St.	7-40-1	0.62		
23	Grove Street Area	8-41-7	20.00		
24	Off Medway St.	9-37-50	8.00		
25	Medway St	9-37-56	8.68		
26	Mirror Lake Ave	12-62-67	0.23		
27	32 Mirror Lake Ave.	12-62-70	0.17		
28	Kunde Conservation Land	14-47-1	15.80		
29	Campbell Forest	14-57-75	0.30		
30		14-57-73	42.07		
31		74 & 78 Pond St. (Lind Farm)	19-69-15		25.50
32	19-69-54		1.00		
33	19-69-59		64.15		
34	North/Bristol Corner	20-72-4	0.30		
35	Main/Town Pond	22-56-34	7.40		
36	RR Centennial School	22-53-41	4.59		
37	RR Seekonk St	22-95-19	1.26		
38	43 Noon Hill Ave.	24-55-88	1.60		
CONCOM SUB-TOTAL			269.67		

TABLE 6
PROTECTED OPEN SPACE
(Continued)

SITE #	LOCATION/ DESCRIPTION	ASSESSOR'S MAP/LOT #	AREA (Acres)	MANAGER	EXISTING USES
TOWN OF NORFOLK (Continued)					
39	Miller Street Well	2-6-29	7.63	Water Department	Well
40		3-6-56	5.85		
41	Gold Street Well	9-32-17	32.39		
42		9-32-31	6.89		
43		9-32-013	5.02		
44		9-36-2	2.65		
45		9-36-13	19.89		
46	Spruce Street Well	12-62-207	11.54		
47		12-62-235	22.82		
	WATER DEPT SUB-TOTAL		114.68		
COMMONWEALTH OF MASSACHUSETTS					
1	184 Union St.	12-62-12	18.30	Wrentham State School	Well
2	North St.	13-60-38	139.08	Dept. of Conservation and Recreation	Passive Recreation
	SUB-TOTAL		157.38		
UNITED STATES					
1	Miller St.	3-6-31	90.61	U.S. Army Corps of Engineers	Flood control
2	Myrtle St.	3-6-32	145.00		
3	Miller St.	3-6-42	10.45		
4	Miller St.	4-12-12	25.37		
5	Dedham St.	19-72-32	8.43		
6	Seekonk St.	23-76-23	17.21		
7	Miller St.	223	14.00		
	SUB-TOTAL		311.07		
MASSACHUSETTS AUDUBON SOCIETY					
1	North St.	13-60-36	16.00	Mass. Audubon	Stony Brook Nature Center
2	153 North St.	19-71-20	3.91		
3	108 North St.	20-60-31	1.20		
4	North St.	20-71-21	47.70		
5	North St.	20-71-27	36.00		
6	Marshall St.	20-71-33	8.94		
	SUB-TOTAL		113.75		

Source: Assessor's Office, 2004

Table 7 lists the public and private recreation facilities in Norfolk. Again, it should be noted that this list is derived primarily from the list in the 1996 Open Space and Recreation Plan and Assessors records. Also, the table does not include those properties listed as Chapter 61B lands in the next section. Some or all of those properties may more appropriately be listed as recreation facilities in this section.

The 2.7-acre Kid's Place on Boardman Street is managed by the Recreation Commission and was developed through fundraising and donations. In addition to benches, a gazebo, and picnic table, there are swings, slides, bridges, a sandbox, a seesaw and more. Other public recreation lands include fields at the Freeman Centennial School, King Philip North Junior High School and Wrentham State School. While these are less accessible because of school activities, and the latter two requiring permits, the Freeman School's Recreation Department also allows use of its gyms and cafeteria during non-school hours. The high demand for fields is also a limiting factor on availability.

In 1994, the Legislature transferred 21 acres of undeveloped land on Pond Street to the Town of Norfolk following a surplus by the Massachusetts Department of Corrections. This land has been developed into a recreation facility with play fields, ball fields, 2 tennis courts, a basketball court, a picnic area, and a walking/jogging trail.

Table 7 indicates a total of 509.47 acres of recreation land. These facilities consist primarily of the airport, the school facilities, vacant lots, and two playgrounds.

TABLE 7**PUBLIC AND PRIVATE RECREATION FACILITIES**

NAME	LOCATION	AREA (Acres)	EXISTING USES/FACILITIES
PUBLIC RECREATION AREAS			
King Philip Regional School	18 King St.	35.60	Fields
Olive Day School	232 Main St.	24.84	Fields
Pond Street Recreation Area	33 Pond St.	20.83	Fields, courts, etc.
Kids Place	4 Boardman St.	2.70	Playground equipment
Freeman-Centennial-School	Boardman St.	50.20	Fields
Bicentennial Park	77 Rockwood St.	8.20	Fields
TOTAL PUBLIC RECREATION ACREAGE		142.37	
PRIVATE RECREATION AREAS			
Norfolk Trout Club	Baltimore Street	87.30	Game Club
Upland Game Club	Baltimore Street	139.90	Game Club
Fore Kicks	Pine Street	24.32	Indoor fields/courts, golf
TOTAL PRIVATE RECREATION ACREAGE		367.10	
TOTAL RECREATION ACREAGE		509.47	

Source: Assessor's Office

Chapter 61, 61A and 61B Properties

In order to encourage the preservation of certain activities and land uses (namely forestry, agriculture, and recreation), the laws of the Commonwealth of Massachusetts allow a property tax break for these land uses. In return for this tax break, the property owners who take advantage of it must make the parcel available for purchase by the Town in which it is located before it may be sold on the open market or its use changed. Since towns often do not have the available funds to purchase these parcels, the law does not provide much protection. However, to the extent that the tax break may help keep the land use economically feasible, it does provide some incentive to continue the land use rather than make the land available for development. Named after the section of state law that allows this, Chapter 61 land is that which is used for forestry or woodlands, Chapter 61A land is used for agriculture, and Chapter 61B land is used for recreation.

Chapter 61 Forest Lands require a minimum of ten acres under a State Forester certified 10-year management plan. The owner must refile every ten years or the land will be removed from this classification. A reduced property tax is payable every year the property is managed under Chapter 61.

Farm land classified as Chapter 61A requires five contiguous acres used for agriculture or horticulture including animals, fruits, vegetables and forest products while grossing a minimum of 500 dollars in sales income during the previous two years. Application must be renewed by the Town Board of Assessors every year and will result in a reduced property tax.

According to Chapter 61B, private recreation land must have a minimum of five acres set aside as wild or maintained for wildlife habitat or used for recreation by the public and non-profit groups. Applications must be filed and renewed every year by the Board of Assessors to be considered for this designation and reduced property tax status.

Table 8 lists the Chapter 61, 61A and 61B lands in Norfolk. As the table shows, there is a total of 475.97 acres of land in this program. Forestry land accounts for almost a quarter, at 107.24 acres. Agricultural land totals 355.6 acres. Land used for recreational purposes amounts to 13.13 acres.

Other Lands of Conservation or Recreation Interest

Table 9 lists several properties in Town that may be important to the Town for reasons of conservation or recreation (or for preserving Town character). All of these properties are not appropriate for consideration as conservation or recreation property. Criteria such as the sensitivity of the environment, proximity to other important conservation or recreation lands, scenic views, habitat, etc. should be applied to focus and narrow and/or prioritize this list.

TABLE 8**CHAPTER 61, 61A, AND 61B LANDS**

LOCATION	ASSESSOR'S MAP/BLOCK/LOT #	AREA (Acres)
CHAPTER 61		
Lawrence St.	6-1-5	9.50
Park St.	6-1-7	23.00
Toils End Rd.	7-45-8	8.41
King St.	7-46-170	36.01
Myrtle St.	8-37-56	12.59
Dean St.	9-32-104	6.50
Turner St.	16-34-228	11.23
Total Chapter 61		107.24
CHAPTER 61A		
47 Fruit St.	16-34-194	22.12
25 Fruit St.	23-34-213	25.19
18 Fruit St.	23-55-75	10.40
River Rd.	4-13-50	168.00
Main St.	7-39-6	4.56
Myrtle St.	8-6-17	1.00
15 Hanover St.	8-6-19	1.18
Myrtle St.	8-6-36	0.82
95 Holbrook St.	10-32-75	17.21
North St.	12-61-18	6.12
River Rd.	4-27-7	0.18
Myrtle St.	9-30-2	3.40
Main St.	8-40-4	5.20
72 Myrtle St.	9-37-18	12.20
79 Holbrook St.	10-32-5	1.60
Baltimore St.	10-33-2	15.90
Union St.	12-61-21	5.40
River Rd.	4-13-44	2.20
38 Fruit St.	16-55-69	33.00
River Rd.	4-13-49	4.70
Myrtle St.	9-12-3	15.22
Total Chapter 61A		355.6
CHAPTER 61B		
Everett St.	25-89-1	13.13
Total Chapter 61B		13.13
TOTAL CHAPTER 61,61A, 61B LANDS		
475.97		

Source: Norfolk Assessor's Office

TABLE 9

OTHER LANDS OF CONSERVATION OR RECREATION INTEREST

ASSESSOR'S MAP /LOT #	OWNER*	STREET	ACREAGE
19-67-1	Wrentham State School	Shear & North	8.00
19-69-3		North Street	46.00
19-72-3	Dept. of Corrections	Pond St.	814.08
21-79-1		Main St.	18.00
22-73-7		Seekonk St.	0.16
22-76-49		Seekonk St.	67.92
23-76-47		Seekonk St.	7.93
14-41-27	Town of Norfolk	28 Union St.	1.29
9-32-16		Medway Branch	14.24
9-32-31		Gold St.	6.89
9-32-103		17 Gold St.	5.02
9-36-13		Medway St.	19.89
2-6-69		Off School St.	7.63
3-6-56		Miller St.	5.85
3-7-1		60 Miller St.	6.80
12-61-223		Ridgefield Rd.	1.26
12-62-235		Beaverbrook Rd.	22.82
19-69-28		Sharon Ave.	8.47
14-56-32		32 Main St.	1.55
15-32-27		27 Tucker Rd.	50.49
15-32-28		28 Tucker Rd.	2.60
18-69-3		North St	46.00
7-6-3	Private	Main Street	102.00
4-13-50	Private	Leland/River Road	168.00
2-3-1	Private	1 Main (Coomey Pond Area)	23.70
7-42-2	Private	Park Street	42.86
6-2-14	Private	Lawrence Street	31.6
8-37-14	Private	Main Street	108.7
7-39-6	Private	Main	4.53
TOTAL ACREAGE OF INTEREST			1304.38

Source: Assessor's Office, 2001

*Land Use Codes 130, 390 and 440 = Developable
 131 and 441 = Potentially Developable

Private Tax Exempt Land has some protection, though less than public land. Because the land is privately owned, even though it is tax exempt, the owners have the right to sell or develop the land for other uses as they see fit. Private “Protected” Land may have protection because of vistas or scenic landscapes that provide public benefits. Even if the property is not open to the public it may offer open space and recreational benefits to a targeted population.

Agricultural Preservation Restrictions, wetland restrictions and watershed restrictions provide protection from development. Such easements have been granted to Warelands Farm on Boardman Street and a wetland parcel on Sherwood Street as well as 170 acres of US Army Corps of Engineers flood land. Some of these classifications as less-than-fee interest are granted perpetually while others may be for twenty or fewer years.

The Department of Corrections’ Massachusetts Correction Institute controls over 1,000 acres of land, much of it open. Norfolk needs to have a plan in place to respond to the State should it decide to develop this parcel further.

Opportunity Areas may prevent themselves and the community could expand its public space. Corporate holdings, closing landfills or the Department of Corrections facility all could become available as open space in the future.

COMMUNITY VISION

Description of Process

The Open Space and Recreation Goals listed below are derived from the 1996 Open Space and Recreation Plan, the 2001 Growth Policy Statement, and from a public hearing held on June 10, 2004. Additional input was received from the Planning Board, Conservation Commission, Recreation Commission, and Board of Selectmen following their review of a draft version of the goals.

Statement of Open Space and Recreation Goals

The following are the goals of this Open Space and Recreation Plan:

1. Identify, preserve and protect the historic, cultural and natural resources that contribute to the character of the Town.
2. Protect and enhance the quality of Norfolk's surface and ground water as source municipal and private drinking water and for wildlife and recreation use.
3. Increase environmental awareness among all sectors of the community.
4. Enhance public access to and use of existing conservation lands where appropriate, and establish continuous greenbelts, especially along waterways.
5. Improve and increase recreational opportunities in Norfolk.
6. Ensure that resources are sufficient to sustain the future needs of residents and businesses.

These goals are expanded with a set of objectives for each in Section 8, Goals and Objectives, of this report.

NEEDS ANALYSIS

This needs analysis section is a compilation of needs derived from several sources. It includes input from the Growth Policy Statement of the 2001 Growth Management Project, the 2000 Statewide Comprehensive Outdoor Recreation Plan (known as “Massachusetts Outdoors 2000!”) prepared by the Division of Conservation Services (DCS) of the Executive Office of Environmental Affairs (EOEA), the 2004 Water Assets Study (also prepared for EOEA by Earthtech) as well as previous Town studies, and the data assembled in the Community Setting, Environmental Inventory and Analysis, and Inventory of Lands of Conservation and Recreation Interest sections of this report.

Resource Protection Needs

As the Community Setting section made clear, growth is proceeding steadily in Norfolk. In addition to negative impacts on natural resources (wildlife habitat, water recharge areas, etc.), this development has impacted the character of the town by eliminating scenic views and transforming rural roadways into suburban collector roads. The need to conserve natural resources (especially water resources) and to preserve community character creates a need to acquire additional open space and to develop policies and regulatory measures that protect natural resources.

The 2001 Buildout Analysis by EOEA estimated that Norfolk has 3009 additional developable acres. The residential and commercial development that could result would increase water demand from about 920,857 gallons per day in 2000 to 1,648,752 gallons per day at buildout. The Water Assets Study points out that this potential future demand is 145% of the current state-regulated annual withdrawal level for the Norfolk Water Department and the Massachusetts Correctional Institute combined (1.14 million gallons per day). It also represents 87% of the approved daily volume (1.89 million gallons per day).

The Water Assets Study also discusses the potential new well. It presents a map of the Potential Public Water Supply Protection Areas, which includes the existing and proposed Norfolk Town wells. These areas need to be a high priority for protection. Protection includes regulatory measures as well as acquisition.

Figure 6 presents the Estimated and Priority Habitat areas of Norfolk, and Figure 3 presents water resources. These areas are also in need of protection, though most of them are already fairly well protected either through regulatory means (e.g. the Aquifer, Water Supply and Interim Wellhead Protection District) or as protected private or public open space. However, the maps indicating the extent of the districts are in need of updating.

In 2003, a study entitled “Open Space Corridor Protection Strategic Plan” was prepared for the Norfolk Planning Board. This study identifies 14 key areas, categorized into “high,” “medium” and “low” priority, that contribute to the Town’s

character. The parcels also have the potential to provide critical links between other already-protected open space areas. The links will help maintain wildlife corridors while also providing the possibility of developing a trail system between and among the open space areas.

Community Needs (Recreation)

The goals of the Growth Policy Statement include “Preserve the natural environment to maintain wildlife habitat, as well as environmental, recreation and aesthetic value,” and “Accommodate the needs of diverse lifestyles throughout the life cycle range.” The objectives under these goals include promoting open space subdivisions, enhancing passive recreational opportunities and acquiring land for future schools and other Town services and facilities.

The demand for recreation facilities has grown significantly in the region. There is always a need for additional recreation facilities for youths, in particular, but for all ages generally. There is a need to acquire additional land for fields and other active recreation opportunities.

The 2000 SCORP ranks the ten most needed or desired facilities statewide as (1) swimming; (2) walking; (3) road biking; (4) playground activity; (5) tennis; (6) golf; (7) hiking; (8) mountain biking; (9) basketball; and (10) baseball. In the Southeastern region, of which Norfolk is a part, the highest-ranked needs were (1) road biking; (2) swimming; (3) walking; (4) golfing; (5) hiking and (6) playground activity.

As mentioned above, links among current and/or future open space and recreation facilities are needed both within the town and between the town and surrounding region. Such links promote wildlife migration (thus allowing greater biodiversity) as well as provide opportunities for passive recreation for humans.

It should be noted that recreation facilities in Town have expanded significantly in recent years. Town Hill has been reconstructed, the Pond Street Recreation Center has been completed, the Library (which serves as a cultural facility) is being expanded, and the private Fore Kicks facility provides indoor soccer, basketball and other sports as well as a 9-hole par 3 golf course.

Management Needs

As discussed above under Resource Protection Needs, compact development is a means of more efficiently using land to accommodate growth while protecting natural resources. Important steps to amend zoning bylaws and other measures have been taken in the town. However, additional measures to encourage compact, sustainable development remain an important management need.

The recently revised open space development bylaw has resulted in at least four subdivisions being constructed or planned in this manner. The age-restricted

provision has also encouraged two developments so far that provide denser housing units with open space and/or recreational opportunities integrated into the design.

A comprehensive permit approved by the Town will provide 44 units of housing within the Town Center that will facilitate development of mixed uses that have 24-hour activity, while using significantly less land space than conventional single-family housing.

In addition, as growth continues, water resources are being strained. Growth results in more water use while also increasing the amount of impervious surface. Recent policy changes at the state level to encourage more recharge of stormwater into the ground and more decentralized (rather than centralized) wastewater treatment facilities will help improve the situation to some degree.

While the need to protect aquifer and recharge areas is important, educational and regulatory measures to encourage conservation and recharge of stormwater and wastewater are also major components. A public education campaign could include a web site, slide show, cable TV video, presentations to civic groups, etc. Information on existing open space and its functions as well as desired expansions of the system could be included.

Another need is public access to already-protected open space. Facilities such as parking, signs, and trails coupled with improved public awareness would result in greater use and appreciation of our natural resources. There is a need for awareness among the citizens of Norfolk where existing protected open space is located and what recreational opportunities are offered there. Second, there is a need for improved facilities (including features that permit usage by elderly and handicapped persons in compliance with the Americans with Disabilities Act (ADA) requirements) to allow for increased usage by the public.

OPEN SPACE AND RECREATION GOALS AND OBJECTIVES

The goals and objectives listed below represent an expansion of the goals listed in the Community Vision section. Some of the objectives may appear under more than one goal. They represent more specific, generally measurable, steps that can be taken to advance then goals.

GOAL 1: Identify, preserve and protect the historic, cultural and natural resources that contribute to the character of the Town.

Objectives:

- Identify key parcels of land which are most important for protecting natural resources and wildlife corridors
- Identify key parcels of land which are most important for protecting historic landscapes and/or community character
- Develop a system of prioritizing parcels for potential acquisition
- Encourage/promote the incorporation of open space into new development plans, especially by the use of the open space subdivision bylaw
- Acquire additional conservation and open space lands. Encourage donations of open space by landowners.
- Establish an Open Space and Recreation Plan Implementation Committee to coordinate among Town Boards and Commissions, and contact land owners
- Increase public awareness of the value of open space, and encourage citizen input.
- Preserve historically significant buildings and sites

GOAL 2: Protect and enhance the quality of Norfolk's surface and ground water as sources of municipal and private drinking water and for wildlife and recreation use.

Objectives:

- Acquire/protect additional water resources for recreation and protection of municipal water supply sources
- Maintain communication with neighboring towns to protect water resources which cross town borders
- Increase public awareness re: use of pesticides, fertilizers and other chemicals as well as septic systems

GOAL 3: Increase environmental awareness among all sectors of the community

Objectives:

- Increase public awareness of important habitat areas
- Establish/expand environmental awareness programs in the schools
- Encourage environmental education for all ages on Town-owned lands
- Increase visibility and public access to conservation lands as appropriate through signage
- Use media such as a web site and/or cable access TV to increase public awareness of open space and recreation facilities, issues and potential actions.
- Use surveys, public meetings and other means to encourage input from residents
- Establish a committee with responsibility for environmental awareness

GOAL 4: Enhance public access to and use of existing conservation lands where appropriate, and establish continuous greenbelts, especially along waterways

Objectives:

- Develop management plans for each conservation parcel
- Increase visibility and public access to conservation lands as appropriate through signage
- Establish/expand greenbelts along the Charles River and other water bodies as well as other corridors as appropriate.

GOAL 5: Improve and increase recreational opportunities in Norfolk

Objectives:

- Inventory and evaluate available conservation and recreation funding programs.
- Provide well-balanced recreation and conservation opportunities
- Investigate further use of Town property for passive and/or active recreation
- Provide all neighborhoods with appropriate recreation, park and/or playground facilities.
- Establish a cost-effective maintenance schedule for municipal recreation and conservation facilities.
- Use reliable and durable equipment when developing or redeveloping parks and playgrounds.
- Establish a historic district and historic preservation bylaw.
- Protect scenic roads.

FIVE YEAR ACTION PLAN

The following chart lists the Goals and Objectives from the preceding section in a format that identifies the recommended lead agency or organization for each objective, other organizations which may need to be involved, potential implementation mechanisms, and a general schedule during which each objective should be implemented or acted upon. Figure 8 presents, in a general manner, those areas of town with the highest priority to be targeted for acquisition and/or protection based on environmental resources, or proximity to a major stream or currently protected open space.

It should be noted that the “Putting It All Together” section of this document briefly discusses several potential mechanisms for implementing the recommendations of this Open Space and Recreation Plan as well as the Housing, Economic Development and Transportation Plans.

TOWN OF NORFOLK ACTION PLAN



PROPOSED ITEMS		ROADS	
	LINKS		COLLECTOR
	CONSERVATION/ RECREATION LANDS OF INTEREST		LOCAL
OPEN SPACE			TRANS
	FEDERAL	HYDRO	
	INHOLDING		STREAMS
	MUNICIPAL		INTERMITTENT STREAMS
	STATE		WATER BODIES
	PRIVATE NON-PROFIT		SEWAGE DISPOSAL POND
	PRIVATE FOR PROFIT		
	PERMANENTLY PROTECTED / CONSERVATION RESTRICTION		

FIGURE 8

0 1000 2000 Feet
0 500 1000 Meters

Copyright: Esri/MapInfo/DeLorme
Massachusetts State Plane (NAD83/11482 ES)
JAN 84, NDC4



FUNDING PROVIDED BY THE DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT,
THE EXECUTIVE OFFICE OF ENVIRONMENTAL AFFAIRS, THE DEPARTMENT OF ECONOMIC DEVELOPMENT,
AND THE EXECUTIVE OFFICE OF TRANSPORTATION AND CONSTRUCTION, UNDER EXECUTIVE ORDER 418.
PROJECT ADMINISTRATION PROVIDED BY THE METROPOLITAN AREA PLANNING COUNCIL.

FIVE-YEAR ACTION PLAN SUMMARY

GOALS/OBJECTIVES	LEAD AGENCY	OTHER AGENCIES	IMPLEMENTATION MECHANISMS	SCHEDULE
GOAL 1: Identify, preserve and protect the historic, cultural and natural resources that contribute to the character of the Town.				
Identify key parcels most important for protecting natural resources and wildlife corridors	Open Space Committee	Conservation Commission, Planning Board, Selectmen, Community Preservation Committee	Appoint special committee; Develop ranking system	2004-2007
Identify key parcels of land which are most important for protecting historic landscapes and/or community character	Planning Board	Conservation Commission, Planning Board, Selectmen, Community Preservation Committee	Develop ranking system Flexible zoning	2004-2007
Develop a system of prioritizing parcels for potential acquisition	Community Preservation Committee	Conservation Commission, Planning Board, Selectmen,	Use models from other towns Use survey results	2004-2005
Encourage/promote the incorporation of open space into new development plans, especially by the use of the open space subdivision bylaw	Planning Board		Flexibility in Rules and Regulations Density bonus already in place	2004-2009
Acquire additional conservation and open space lands. Encourage donations of open space by landowners	Community Preservation Committee	Conservation Commission, Planning Board, Selectmen, Open Space Committee	Community Preservation Funds Provide information about tax benefits	2004-2009

(Continued)

FIVE-YEAR ACTION PLAN SUMMARY (Continued)

RECOMMENDATION	LEAD AGENCY	OTHER AGENCIES	IMPLEMENTATION MECHANISMS	SCHEDULE
Establish an Open Space Committee to coordinate among Town Boards and Commissions, and contact land owners	Selectmen	Conservation Commission, Planning Board, Community Preservation Committee	Selectmen Establish Relevant Boards/Commissions Appoint Representatives	2004
Increase public awareness of the value of open space, and encourage citizen input	Open Space Committee		Survey, Web site Slide show/video, Maps, Cable TV, Brochure, Signage,	2004-2009
Preserve historically significant buildings and sites	Historical Commission	Community Preservation Committee	Historic District Bylaw	2004-2009
GOAL 2: Protect and enhance the quality of Norfolk's surface and ground water as sources of municipal and private drinking water and for wildlife and recreation use				
Acquire/protect additional water resources for recreation and protection of municipal water supply sources	Water Department	Community Preservation Committee Conservation Commission, Planning Board	Water Supply/Aquifer Protection Districts, Phase II Stormwater rules, Purchase, Open Space Subdivisions, Transfer of Development Rights	2004-2009
Maintain communication with neighboring towns to protect water resources which cross town borders	Water Department	Selectmen, Community Preservation Committee Conservation Commission, Planning Board	Water Supply/Aquifer Protection Districts, Phase II Stormwater rules, Purchase, Open Space Subdivisions, Transfer of Development Rights	2004-2009

(Continued)

FIVE-YEAR ACTION PLAN SUMMARY (Continued)

RECOMMENDATION	LEAD AGENCY	OTHER AGENCIES	IMPLEMENTATION MECHANISMS	SCHEDULE
Increase public awareness re: use of pesticides, fertilizers and other chemicals as well as septic systems	Open Space Committee	Water Department Board of Health	Survey, Web site Slide show/video, Maps, Cable TV, Brochure, Signage	2004-2009
GOAL 3: Increase environmental awareness among all sectors of the community				
Increase public awareness of important habitat areas	Open Space Committee	Conservation Commission	Survey, Web site Slide show/video, Maps, Cable TV, Brochure, Signage	2004-2009
Establish/expand environmental awareness programs in the schools	School Committee	Open Space Committee Mass. Audubon	Survey, Web site Slide show/video, Maps, Cable TV, Brochure, Community Education	2004-2009
Encourage environmental education for all ages on Town-owned lands	Open Space Committee	Mass. Audubon	Community Education	2004-2009
Increase visibility and public access to conservation lands as appropriate through signage	Open Space Committee	Selectmen, Conservation Commission	Signage for land identification and parking areas, web site information	2004-2009
Use media such as a web site and/or cable access TV to increase public awareness of open space and recreation facilities, issues and potential actions	Open Space Committee	Recreation Commission Conservation Commission	Web site Slide show/video, Maps, Cable TV, Brochure	2004-2009

(Continued)

FIVE-YEAR ACTION PLAN SUMMARY (Continued)

RECOMMENDATION	LEAD AGENCY	OTHER AGENCIES	IMPLEMENTATION MECHANISMS	SCHEDULE
Use surveys, public meetings and other means to encourage input from residents	Open Space Committee	Selectmen, Planning Board, Conservation Commission	Survey, Web site Slide show/video, Maps, Cable TV, Brochure, Signage, Public Meetings	2004-2009
Establish a committee with responsibility for environmental awareness	Selectmen	Open Space Committee, Conservation Commission, Board of Health, Planning Board	Selectmen Establish, Relevant Boards/Commissions Appoint Representatives	2004
GOAL 4: Enhance public access to and use of existing conservation lands where appropriate, and establish continuous greenbelts, especially along waterways				
Develop management plans for each conservation parcel	Conservation Commission	Open Space Committee, Selectmen	Develop policies specific to resources at each site	2004-2007
Increase visibility and public access to conservation lands as appropriate through signage	Open Space Committee	Selectmen, Conservation Commission	Signage for land identification and parking areas, web site information	2004-2009
Establish/expand greenbelts along the Charles River and other water bodies as well as other corridors as appropriate	Open Space Committee	Selectmen, Conservation Commission, Community Preservation Committee, Planning Board	Community Preservation Funds, Open Space Subdivision Bylaw, Donations, Easements	2004-2009

(Continued)

FIVE-YEAR ACTION PLAN SUMMARY (Continued)

RECOMMENDATION	LEAD AGENCY	OTHER AGENCIES	IMPLEMENTATION MECHANISMS	SCHEDULE
GOAL 5: Improve and increase recreational opportunities in Norfolk				
Inventory and evaluate available conservation and recreation funding programs	Recreation Commission	Selectmen, Conservation Commission, Planning Board, Community Preservation Committee	State Self-Help and Urban Self-Help Programs, Community Preservation Funds	2004-2009
Provide well-balanced recreation and conservation opportunities	Open Space Committee	Recreation Commission, Conservation Commission, Selectmen, Community Preservation Committee	Community Preservation Funds	2004-2009
Investigate further use of Town property for passive and/or active recreation	Open Space Committee	Recreation Commission, Conservation Commission, Selectmen, Community Preservation Committee	Community Preservation Funds	2004-2009
Provide all neighborhoods with appropriate recreation, park and/or playground facilities.	Recreation Commission	Selectmen, Planning Board, Community Preservation Committee	Open Space Subdivision bylaw, Proposed state legislation allowing set-aside of subdivision land for playgrounds, Community Preservation Funds	2004-2009
Establish a cost-effective maintenance schedule for municipal recreation and conservation facilities	Highway Department	Recreation Commission, Conservation Commission, Selectmen	Establish committee to evaluate present policies and make recommendations for changes	2004-2009

(Continued)

FIVE-YEAR ACTION PLAN SUMMARY (Continued)

RECOMMENDATION	LEAD AGENCY	OTHER AGENCIES	IMPLEMENTATION MECHANISMS	SCHEDULE
Use reliable and durable equipment when developing or redeveloping parks and playgrounds	Recreation Commission	Selectmen	Establish durability and reliability as criteria when purchasing equipment	2004-2009
Establish a historic district and historic preservation bylaw	Historical Commission	Selectmen	Bylaw	2005-2006
Protect Scenic Roads	Planning Board	Tree Warden	Scenic Road Act	2004-2009

III. HOUSING

INTRODUCTION

This housing plan is intended to serve as an update to the Housing element of the 1992 Master Plan. It includes a profile of housing statistics and trends in Norfolk, a supply-demand gap analysis, a statement of goals and objectives, recommendations for the location (including a housing suitability map) and types of new housing, and recommendations for actions and strategies for accomplishing housing goals.

A public hearing was held on June 10, 2004 the draft report to solicit input and comment on the goals and objectives and recommendations. Comments were also be solicited from other Town boards, commissions and departments.

The Housing Plan has been prepared in coordination with an Open Space and Recreation Plan, Transportation Plan for the Routes 1A/115 area and an Economic Development Strategy as part of a Community Development Plan prepared under Executive Order 418.

CURRENT CONDITIONS AND TRENDS

This section presents an inventory of Norfolk's current housing stock in terms of numbers and types of housing. It also presents recent housing growth in Norfolk and surrounding towns.

Inventory

Table 10 is a breakdown of the types of housing units in Norfolk compared with Massachusetts as a whole. In 2000, there were a total of 2681 housing units in Norfolk. As the table indicates, the vast majority of Norfolk housing units (93.3%) are detached single-family homes. Another 0.9% are attached single-family homes and 2.0% are duplex units. Only 3.8% (109 units) of Norfolk's housing units are in buildings with 3 or more units. This is a typical mix for a suburban community. It should also be noted that, according to the 2000 U.S. Census, 92.3% of the housing units in Norfolk are owner-occupied and 7.7% are renter-occupied.

By contrast, in the state as a whole, only 52.4% of housing units were single-family detached units. Thirty one percent of housing units in the state were structures with 3 or more units. In Massachusetts, 61.7% of housing units are owner-occupied while 38.3% are renter-occupied.

The age of Norfolk's housing stock is presented in Table 11. As would be expected for a community that has experienced growth in recent years, 16.14% of Norfolk's housing units were constructed from 1990 through March 2000. During this same period, only 8.3% of the housing stock in the state was constructed. Furthermore, while 55.6% of the state's housing stock was constructed prior to 1960, only 26.0% of Norfolk's housing was constructed prior to that date. Again, this is to be expected as Norfolk experienced moderate growth in the 1960's. Growth accelerated substantially in the 1970's and 1980's before moderating somewhat in the 1990's.

TABLE 10**TYPES OF HOUSING IN NORFOLK AND MASSACHUSETTS,
2000**

Unit Type	Norfolk		Massachusetts	
	Number	Percentage	Number	Percentage
Single Family - Detached	2,668	93.3	1,374,479	52.4
Single Family – Attached	26	0.9	104,129	4.0
Duplex	58	2.0	304,501	11.6
3 or 4 Units	63	2.2	299,416	11.4
5 to 9 Units	46	1.6	156,135	6.0
10 to 19 Units	--	--	113,697	4.3
20 or more Units	--	--	244,892	9.3
Mobile Homes	--	--	24,117	0.9
Boat, RV, Van, etc.	--	--	623	--
TOTAL	2,861	100.0	2,621,989	100*

*Numbers may not add to 100% due to rounding

Source: 2000 U.S. Census

TABLE 11**AGE OF HOUSING UNITS IN NORFOLK AND MASSACHUSETTS, 2000**

Year Built	Norfolk		Massachusetts	
	Number	Percentage	Number	Percentage
1999-March 2000	56	2.0	24,461	0.9
1995-1998	155	5.4	87,730	3.3
1990-1994	250	8.7	106,216	4.1
1980-1989	776	27.1	292,701	11.2
1970-1979	569	19.9	336,814	12.8
1960-1969	311	10.9	314,855	12.0
1940-1959	274	9.6	553,514	21.1
1939 or before	470	16.4	905,698	34.5
TOTAL	2,861	100.0	2,621,989	100.0*

*Numbers may not add to 100% due to rounding

Source: 2000 U.S. Census

Table 12 presents the number of rooms in housing units in Norfolk and Massachusetts. Only 30.4% of units in Norfolk have 6 or fewer rooms compared to 68.7% of units in all of Massachusetts. Conversely, 69.6% of housing units in Norfolk have 7 or more rooms versus only 31.4% in Massachusetts as a whole.

The 2000 U.S. Census indicates that the median number of rooms is 7.7 in Norfolk while it is 5.5 in Massachusetts. Not surprisingly, the average household size in Norfolk is 3.08 compared to 2.51 in Massachusetts as a whole. It is interesting to note, however, that the average household size of owner-occupied units in Norfolk is 3.17 compared to 2.72 for owner-occupied units in Massachusetts. However, for renter-occupied units, the average household size is only 2.12 in Norfolk, while for Massachusetts it is 2.17 (See Table 13).

Housing Occupancy

In Norfolk, 92.3% of housing units are owner-occupied and 7.7% are renter-occupied. As would be expected in a growing community, 29.3% of households moved into their current unit between 1995 and March 2000 (U.S. Census).

The vast majority (2,413 or 85.6%) of the 2,818 households in Norfolk are families. Of these families, 1,423 (50.5%) have children under 18, and 2,200 are married couples. There are 405 non-family households, of which 304 are individuals living alone.

The homeowner vacancy rate is 0.3% (Statewide rate is 0.7%). The rental vacancy rate is 0.9% (Statewide rate is 3.5%).

Recent and Projected Growth

Between 1990 and 2000, Norfolk's population grew from 9,270 to 10,460, an increase of 12.8%. This was the sixth-highest increase in the 11-town SouthWest Area Planning (SWAP) subregion of the Metropolitan Area Planning Council (MAPC) area. Table 14 presents the population growth in the SWAP region between 1990 and 2000. During the same period, the population growth in the state as a whole was 5.5%, and the MAPC area grew only 4.9%.

Table 15 presents 2 projections of population growth through 2010, broken down by age cohort. One projection was prepared by the Massachusetts Institute for Social and Economic Research (MISER) at the University of Massachusetts in December 2003, and the other was completed by MAPC in March of 2003.

The differences in the projections by age group are noteworthy. Both projections indicate a decline in those less than ten years old and an increase in those aged 10-19, and those over 65. The MISER projection indicates substantially fewer residents in their 20's and more in their 30's than the MAPC projection. MISER also indicates substantially fewer persons in their 40's, 50's and early 60's than MAPC, but more over 65.

TABLE 12**NUMBER OF ROOMS IN NORFOLK AND MASSACHUSETTS, 2000**

Room	Norfolk		Massachusetts	
	Number	Percentage	Number	Percentage
1	--	--	52,726	2.0
2	30	1.0	124,481	4.7
3	103	3.6	254,740	9.7
4	139	4.9	388,408	14.8
5	281	9.8	502,111	19.2
6	318	11.1	479,951	18.3
7	425	14.9	334,349	12.8
8	782	27.3	240,039	9.2
9 or more	783	27.4	245,184	9.4
Median	7.7	--	5.5	--

Source: 2000 U.S. Census

TABLE 13**AVERAGE HOUSEHOLD SIZE IN NORFOLK AND MASSACHUSETTS,
2000**

Average Household Size	Norfolk	Massachusetts
Overall	3.08	2.51
Owner-occupied units	3.17	2.72
Renter-occupied units	2.12	2.17

Source: 2000 U.S. Census

TABLE 14**POPULATION GROWTH IN SWAP REGION 1990-2000**

RANK	TOWN	1990	2000	PERCENT CHANGE	ABSOLUTE CHANGE
1	Hopkinton	9,191	13,346	45.2	4,155
2	Franklin	22,095	29,560	33.8	7,465
3	Medway	9,931	12,448	25.3	2,517
4	Wrentham	9,006	10,554	17.2	1,548
5	Dover	4,915	5,558	13.1	643
6	Norfolk	9,270	10,460	12.8	1,190
7	Holliston	12,926	13,801	6.8	875
8	Milford	25,355	26,799	5.7	1,444
9	Sherborn	3,989	4,200	5.3	211
10	Millis	7,613	7,902	3.8	289
11	Bellingham	14,877	15,314	2.9	437
	SWAP	124,253	144,384	16.2	20,131
	MAPC	2,922,934	3,066,394	4.90	143,460
	Massachusetts	6,016,425	6,349,097	5.5	332,672

Source: MAPC, 2001

TABLE 15**POPULATION PROJECTIONS TO 2010, BY AGE COHORT**

AGE GROUP	2000 U.S. CENSUS	2010 MAPC¹	2010 MISER²
0-4	764	759	687
5-9	880	639	687
10-14	801	856	967
15-19	570	915	750
20-24	305	662	497
25-29	474	554	590
30-34	875	427	689
35-39	1,235	781	846
40-44	1,278	1,318	1,096
45-49	1,049	1,378	1,124
50-54	803	1,131	1,015
55-59	544	888	838
60-64	305	996	618
65-69	200	326	377
70-74	158	167	204
75-79	120	80	151
80-84	52	32	88
85+	47	45	74
TOTAL	10,460	11,955	11,298

Sources:

¹Metropolitan Area Planning Commission projection, March 17, 2003

²Massachusetts Institute for Social and Economic Research, UMass-Amherst, projection made in December 2003.

The number of building permits for new housing units in Norfolk and its six abutting towns during the period of 1997-2002 is presented in Table 16. As the table indicates, Norfolk issued a total of 207 building permits for single-family houses, an annual average of 35 over the six-year period. There were no permits issued for multiple family units. (It should be noted, however, that a 43-unit multi-family age-restricted development has been approved and the first building permits for that project were issued in 2003).

Projected Buildout

In 2001, the Massachusetts Executive Office of Environmental Affairs contracted to perform a “buildout analysis” for every city and town in the state. The results of the Norfolk buildout analysis, based on current zoning estimated that there is a potential for a total of 5,156 housing units (an increase of 2,295 from the 2000 total of 2,861). This would result in a buildout population of 17,276 acres, an increase of 65% over the 2000 level. To accommodate this growth, an additional 3,009 acres of land would be developed.

HOUSING AFFORDABILITY

This section presents house values and rent levels in 2000, and examines the housing supply-demand gap. It also includes a discussion of Norfolk’s existing affordable housing stock.

House Values and Rent Levels

Table 17 presents the median housing unit value and median rent for Norfolk and its abutting towns in 1990 and 2000, as reported in the U.S. Census. The table indicates that Norfolk has the second (after Medfield) highest median housing unit value among its neighbors. It also has the fourth highest median rent, and the second highest rate of increase from 1990 to 2000.

Table 18 presents a breakdown of the values of owner-occupied units in Norfolk in 2000, as well as the percentage of income necessary for monthly mortgage payments and other selected monthly costs. Table 19 presents the same information for renters. Housing is generally considered affordable when it requires less than 30% of its occupants’ income. These tables indicate that 19.2% of homeowners and 18.8% of renters devoted 30% or more of their income to housing in 2000.

TABLE 16**BUILDING PERMITS IN NORFOLK AND ABUTTING TOWNS, 1997-2002.****SINGLE FAMILY**

Town	Year						Total	Average
	1997	1998	1999	2000	2001	2002		
Norfolk	34	29	40	35	31	38	207	35
Foxborough	58	53	41	44	28	33	257	43
Franklin	322	349	111	86	68	65	1,001	167
Medfield	45	41	24	44	14	18	186	31
Medway	78	53	63	57	65	38	354	59
Millis	17	15	26	28	20	26	132	22
Walpole	65	104	71	72	81	75	468	78
Wrentham	49	104	29	81	53	56	372	62
Total	668	748	405	447	360	349	2,977	496

MULTIPLE FAMILY¹

Town	Year						Total	Average
	1997	1998	1999	2000	2001	2002		
Norfolk								
Foxborough	8					6	14	2
Franklin	4			2	8	98	112	19
Medfield			4	3	3		10	2
Medway				6	29		35	6
Millis								
Walpole								
Wrentham								
Total	12	0	4	11	40	104	171	29

Source: Massachusetts Institute for Social and Economic Research, UMass-Amherst, web site www1.miser.umass.edu/datacenter/housing

¹Includes duplexes, 3-4 unit structures and 5 or more unit structures.

TABLE 17**MEDIAN HOUSING UNIT VALUES AND RENTS, NORFOLK AND SURROUNDING TOWNS, 1990 AND 2000**

TOWN	MEDIAN HOUSING UNIT VALUE			MEDIAN RENT LEVELS		
	1990	2000	Percent Change	1990	2000	Percent Change
Norfolk	\$225,000	\$271,700	20.76	\$545	\$752	37.98
Foxborough	\$170,700	\$220,600	29.23	\$665	\$801	20.45
Franklin	\$167,800	\$227,100	35.34	\$562	\$677	20.46
Medfield	\$240,900	\$358,700	48.90	\$662	\$756	14.20
Medway	\$175,300	\$233,000	32.92	\$518	\$720	39.00
Millis	\$178,700	\$204,200	14.27	\$781	\$822	5.25
Walpole	\$189,200	\$245,700	29.86	\$694	\$820	18.16
Wrentham	\$176,600	\$236,400	33.86	\$588	\$695	18.20

Source: MAPC, 2003

TABLE 18**NORFOLK VALUES AND PERCENTAGE OF INCOME NEEDED FOR HOUSING FOR OWNER-OCCUPIED UNITS, 2000**

2000 Value			PERCENTAGE OF INCOME		
Range	Number	Percent	Range	Number	Percent
Less than \$50,000	--	--	Less than 15%	821	33.6
\$50,000-\$99,999	18	0.7	15-19.9%	500	20.4
\$100,000-\$149,999	103	4.2	20-24.9%	326	13.3
\$150,000-\$199,999	359	14.7	25-29.9%	309	12.6
\$200,000-\$299,999	1,036	42.3	30-34.9%	208	8.5
\$300,000-\$499,999	803	32.8	35% or more	261	10.7
\$500,000-\$999,999	128	5.2			
\$1,000,000+	--	--			
Median	\$271,700		Median monthly cost	\$1,593	

Source: U.S. Census

TABLE 19**NORFOLK RENTS AND PERCENTAGE OF INCOME NEEDED FOR RENTS, 2000**

2000 Value			PERCENTAGE OF INCOME		
Range	Number	Percent	Range	Number	Percent
Less than \$200	38	18.8	Less than 15%	47	23.3
\$200-\$299	13	6.4	15-19.9%	4	2
\$300-\$499	--	--	20-24.9%	19	9.4
\$500-\$749	43	21.3	25-29.9%	69	34.2
\$750-\$999	66	32.7	30-34.9%	--	--
\$1000-\$1499	30	14.9	35% or more	38	18.8
\$1500+	--	--	Not Computed	25	12.4
No cash rent	12	5.9			
Median	\$752				

Source: U.S. Census

The Supply-Demand Housing Gap

Table 20 presents the median sales price of housing units in Norfolk from 1990 through July 2003. As the table indicates, the median sales price of single family houses more than doubled during that time period.

Table 21 indicates the increase in median family income between 1989 and 1999, and an estimate for 2003. Median family income in Norfolk rose from \$69,137 in 1989 to \$92,001 in 1999, an increase of 33%.

Furthermore, the U.S. Department of Housing and Urban Development (HUD) estimates that the median family income for the Boston, MA-NH Primary Metropolitan Statistical Area (PMSA) increased from \$68,772 in 1999 to \$80,800 in 2003. If this increase of 17.5% is applied to Norfolk's 1999 median family income of \$92,001, we can estimate Norfolk's 2003 median family income to be \$108,101. Using this estimate, the total increase in median family income from 1989 to 2003 is 57%. This is far below the 98.5% increase in the median sale price of housing units (and the 109% increase in median sale price of single family homes) from 1990 to 2003.

The difference is even more dramatic in recent years. While HUD estimates that median family income rose 17.5% from 1999 to 2003, the median sales price of single-family homes increased 48%. The increase in median sales price of all housing units increased by more than 50%.

Nevertheless, a Norfolk family with the estimated 2003 median family income of \$108,101 can afford the median sales price of a single-family home of \$407,000. Assuming 5% down (\$20,350) and a mortgage of \$386,650 at 7% interest over 30 years results in a monthly payment of \$2572.39. This equals an annual cost of \$30,869, well within 30% of the median family income of \$108,101 (\$32,430). However, the median family income and median sales price mask the impacts of housing costs on households at the low and high ends of the income scale.

Low income households are defined as those whose income is 50% or less of the region's median income. For the Boston metropolitan area, that means households with incomes of \$40,400 or less (50% of the 2003 median income of \$80,800). Moderate income households are those with incomes between \$40,400 and \$64,640 (80% of median). Middle income households have incomes between \$64,640 and \$121,200 (150% of the median). Thus, Norfolk's median income falls in the middle income category. However, as the following tables demonstrate, there are housing needs in all three groups, but especially the low and moderate income categories.

TABLE 20
MEDIAN SALES PRICE, 1990-2003

YEAR	SINGLE FAMILY HOUSES		CONDOMINIUMS		ALL SALES	
	NUMBER	PRICE	NUMBER	PRICE	NUMBER	PRICE
2003	69	\$407,000	0	--	101	\$407,000
2002	131	\$379,900	0	--	201	\$370,000
2001	103	\$370,000	3	\$192,500	157	\$370,000
2000	160	\$310,000	0	--	208	\$310,000
1999	154	\$275,000	1	--	198	\$270,000
1998	117	\$258,600	1	--	169	\$247,000
1997	139	\$235,275	2	--	203	\$228,000
1996	138	\$242,250	0	--	181	\$227,500
1995	157	\$212,000	1	--	174	\$205,450
1994	179	\$210,000	0	--	218	\$204,825
1993	177	\$185,000	1	--	243	\$173,000
1992	170	\$195,000	0	--	226	\$169,900
1991	121	\$183,000	0	--	177	\$188,000
1990	103	\$195,000	0	--	159	\$205,000

Source: The Warren Group, 2003

¹January through July only

TABLE 21
MEDIAN FAMILY INCOME IN NORFOLK

INCOME		
1989 ¹	1999 ¹	2003 ²
\$69,137	\$92,001	\$108,101

Source: U.S. Census

¹As reported in 1990 and 2000 U.S. Census for previous year

²The U.S. Department of Housing and Urban Development has estimated that median family income increased in the Boston, MA-NH Primary Metropolitan Statistical Area by a factor of 1.75 between 1999 and 2003. Applying this factor to Norfolk's 1999 median family income produces this estimate for 2003.

Table 22 presents a more detailed analysis of housing affordability by income categories. It illustrates the number of housing units available to households at various income levels, using data from the 2000 U.S. Census. The median household income in Norfolk in 1999 was \$92,001 (compared to \$55,183 to in the Boston, MA-NH PMSA).

As Table 22 illustrates, there were 349 households (12% of total households) in Norfolk that could afford a house costing no more than \$137,500 in 2000. Only 95 houses were valued at that level or below. The gap is partially made up by the 127 rental units affordable to these income levels. However, that still means that only 222 housing units (7.7% of total housing units) were affordable to this group that equals 12% of households.

Table 22 seems to indicate that there is a surplus of housing serving the next two income categories. While there are 238 households in the income range of \$35,000 to \$49,999, there are 351 homes and 48 rental units (499 total housing units) affordable to this group. Similarly, there are 552 households with incomes from \$50,000 to \$74,999, while 1,008 houses and 15 apartments are affordable to this group. This phenomenon in the middle-income categories can be partially explained by the fact that 19.2% of homeowners (469 households) and 18.8% of renters (38 households) are spending more than 30% of their income on housing. Thus, they are living in these middle-income units but spending more than what is considered an “affordable” percentage of their income on housing. In some instances, of course, the houses were purchased several years ago, prior to the more recent rapid increase in value.

A portion of the phenomenon can also be explained by the fact that there are 1,683 households with incomes (\$75,000+) sufficient to afford houses costing \$393,750 and up. However, there are only 931 such units. Therefore, the rest of the households live in lower cost housing and can spend lower percentages of their income on housing. As illustrated in Tables 18 and 19, 1,372 households (1,321 homeowners and 51 renters) spend less than 20% of their income on housing.

Furthermore, it should be noted that housing is a regional issue. As noted above, the median household income of the Boston, MA-HN PMSA is only 60% of Norfolk’s.

Chapter 40B

Another measure of affordability is the Town’s status under Chapter 40B of the Massachusetts General Laws. Under this statute, towns whose housing stock includes less than 10% of affordable housing have little control over housing developments that do not conform to the Town’s Zoning Bylaw if such projects provide that at least 25% of the units are affordable as defined by the state.

The Chapter 40B inventory maintained by the Massachusetts Department of Housing and Community Development classifies 84 housing units in Norfolk as subsidized out of a total of 2,861, or 2.95%. Norfolk would need a total of 310 subsidized housing units (an additional 226 units) to reach 10% if no more market rate units were developed.

If the previous five-year average of 35 new housing units per year were to continue for the next five years, Norfolk would need to develop a total average of nearly 50 affordable units per year for the next 5 years in order to reach the 10% threshold.

TABLE 22

NORFOLK HOUSING SUPPLY-DEMAND GAP

HOUSHOLD INCOME LEVEL	PERCENT OF HOUSEHOLDS	NUMBER OF HOUSEHOLDS	AFFORDABLE PURCHASE PRICE¹	NUMBER OF HOMES AT AFFORDABLE PRICE²	AFFORDABLE RENTAL LEVEL³	NUMBER OF AFFORDABLE RENTAL UNITS²	TOTAL UNITS
Less than \$10,000	3.0	85	\$38,850	--	\$250	44	44
\$10,000-\$14,999	1.2	33	\$58,800	3	\$375	7	10
\$15,000-\$24,999	5.3	149	\$98,700	15	\$625	22	37
\$25,000-\$34,999	2.9	82	\$137,500	77	\$875	54	131
\$35,000-\$49,999	8.4	238	\$195,300	351	\$1,250	48	399
\$50,000-\$74,999	19.6	552	\$294,000	1,008	\$1,875	15	1,023
\$75,000-\$99,999	21.4	603	\$393,750	438	\$2,500		438
\$100,000-\$149,999	19.3	545	\$592,200	450	\$3,750		450
\$150,000-\$199,999	6.9	196	\$789,114	43	\$5,000		43
\$200,000 +	12.0	339	\$789,114+	62	\$5,000+		62
TOTALS	100	2,882	--	2,447	--	202⁴	2,649⁴

Source: U.S. Census and derived by author

¹Based on 30% income, 5% down payment and a 30-year loan at 7% interest

²Figures have been interpolated based on 2000 U.S. Census figures

³Based on 30% of income

⁴Including 12 units for which no rent was paid. U.S. Census reported a total of 2,816 occupied housing units in 2000, so these figures slightly understate actual numbers.

Existing Affordable Housing Stock

As stated above, the Town currently has 84 units of affordable housing according to DHCD. This housing consists of units managed by the Norfolk Housing Authority, including the following:

Hillcrest Village, Rockwood Road	64 units for elderly and disabled
Pine Knoll, Arnold Road	20 family units
Total	84

Hillcrest Village was completed in 1975 and Pine Knoll was completed in 1991. Hillcrest Village currently has a waiting list of 6-12 months (depending on whether applicants need a first floor apartment). Pine Knoll has a waiting list of 2-3 years, further illustrating the demand for affordable housing in Norfolk.

Norfolk currently has an approved under Chapter 40B. That project consists of 44 condominium units. Of this number, 11 are affordable. This project will increase Norfolk’s number of affordable housing units to 95.

HOUSING GOALS AND OBJECTIVES

In this section, the housing goals and objectives of the 1992 Master Plan and the 2002 Growth Management Project are reviewed, then the actions taken that address housing are briefly summarized. Finally, a new set of goals and objectives is proposed.

Goals and Objectives of 1992 Master Plan and 2002 Growth Management Project

The 1992 Master Plan included four major housing goals as follows:

- Create several residential development areas within existing zoning districts that would permit a higher density of housing units of smaller unit size better suited for youthful and elderly lifestyles
- Locate affordable housing at a ratio of at least 10% of all new single-family homes by the year 2000, and continue to increase such housing to reach compliance with state regulations to improve upon existing low percentages of affordable housing.
- Protect critical natural resources and restrict these sensitive areas from intensive residential development including “comprehensive permit” uses that could be imposed by State mandate.
- Have a process within the Town bylaws that works with any developer seeking a comprehensive permit, and designate areas of Town best suited for such projects.

Among the objectives (or “Recommendation/Policies”) of the Master Plan for these goals were to adopt a zoning bylaw for age-restricted housing at a higher density than conventional single family homes and to identify areas suitable for small apartments (near business areas) for young people. Other recommended policies include support of the Norfolk Housing Authority in its efforts to initiate and complete future housing programs, consider the feasibility of accessory apartments by special permit, protect critical resource areas by reducing density near them, establish a Housing Partnership, and designate areas of Town best suited for housing.

The goals and objectives of the 1992 Master Plan recognize that protecting critical resources and providing for diverse housing needs are not mutually exclusive. On the contrary, it promoted a set of actions that help address both.

The most relevant housing goal from the 2002 Growth Management Project is as follows:

- Accommodate the needs of diverse lifestyles throughout the life cycle range

The accompanying objectives were to “Provide a diversity of housing types (including age-restricted, assisted living, townhouses, and apartments) to accommodate all age groups,” and “Consider methods of encouraging additional affordable housing.” In addition, the Growth Management Project included the objective to support adoption of the Community Preservation Act.

Town Actions Since Adoption of 1992 Master Plan and 2002 Growth Management Project

Norfolk has taken several actions addressing the issue of housing since adoption of the 1992 Master Plan. These actions include adoption of zoning bylaw amendments providing for age-restricted housing, apartments in the Town Center, a density bonus for affordable housing in subdivisions and to provide for open space subdivisions, and adoption of the Community Preservation Act. In addition, the Town has approved a Chapter 40B comprehensive permit project in the Town Center. Each of these measures is discussed below.

Age-Restricted Housing- In the early 1990’s, the Town adopted a Zoning Bylaw amendment that provided for age-restricted housing as part of a mixed use zoning district in the area of Holbrook Street and Route 115. More recently, the Town created a second mixed-use district that allows age-restricted housing as well. These zoning districts allow greater density (up to 3 units per acre) for housing units restricted to persons 55 years of age or older, and it encourages mixed uses (including limited commercial development). Such developments are authorized through a special permit granted by the Planning Board. One 43-unit project was granted a special permit by the Planning Board in 2002 and is currently under construction. A second development of 136 units plus some commercial development is currently in the approval process.

Apartments in Town Center – In an attempt to provide housing for young people, the town amended its Zoning Bylaw to allow one-bedroom apartments within its Town Center on the upper floors of commercial buildings. A conceptual plan for such apartments was approved by the Planning Board. However, the developer who presented the conceptual plan later proposed a stand-alone condominium project of 36 units. Working with the Town, this became 44 units that are better integrated into the commercial aspects of the Town Center to more closely achieve the Town’s goal of mixed-use development.

Density Bonus For Affordable Housing – The Town amended its Zoning Bylaw to provide up to a 10% density bonus for housing developments that included affordable housing. To date, no developers have taken advantage of this provision.

Adopt/Amend Open Space Preservation Subdivision Bylaw – The Town adopted and then amended an open space preservation development bylaw to help protect critical resources. Three subdivisions, totaling 58 housing units have been approved under this provision, preserving approximately 40 acres of open space. The bylaw also allows a 10% density bonus above the “yield” as demonstrated in a conventional subdivision plan.

Adoption of Community Preservation Act – Norfolk adopted the Community Preservation Act (CPA) in 2002. The Act imposes a surcharge of 3% on property taxes and qualifies the Town to receive matching funds from a document-recording fee levied at the Registry of Deeds. A minimum of 10% of the revenues (including match) generated from this legislation must be dedicated to producing affordable housing (at least 10% each must also be used for open space and historic preservation respectively, and recreation is an eligible expenditure as well).

Establish Chapter 40B Comprehensive Permit Process – While no formal process has been established in any bylaw, the Town (as discussed above) has worked with a developer on the design and composition of a Chapter 40B project. The Town established a series of “roundtable” meetings with representatives from several Town boards and commissions. The meetings have not focused solely on the project itself, but also the impacts and interactions of the project vis-à-vis other developments in the newly developing Town Center as well.

Updated Goals and Objectives

Based on existing conditions and actions taken since the 1992 Master Plan and the 2002 Growth Management Project was adopted, Norfolk’s housing goals and objectives are refined and updated as follows. Some objectives advance more than one goal.

Goal 1 Create several residential development areas that would permit a higher density of housing units of smaller unit size better suited for youthful and elderly lifestyles. – This goal is already well on its way to being achieved, as the B-1 zoning

district provides for one-bedroom apartments and the C-4 and C-6 districts provide for age-restricted housing which is being pursued. The following objectives will help advance this goal further:

- Consider incentives for developing one-bedroom apartments designed to appeal to young people in the Town Center
- Encourage additional higher density housing adjacent to the B-1 district. Septic issues would need to be resolved.
- Consider “transferring” development rights from land the Town may purchase elsewhere in Town to the Town Center area.
- Consider an “accessory apartment” bylaw.
- Encourage a more diverse housing stock that includes a greater mix of apartments, duplexes, townhouses, senior housing, units for the disabled, etc. to serve the diverse and changing needs of Town residents.

Goal 2 Promote affordable housing at a ratio of at least 10% of all new dwelling units in private developments, and continue to increase such housing by adding to the public housing stock so that 10% of total housing stock is affordable. – As discussed above, the Town would need to build about 250 affordable units over the next 5 years in order to achieve this goal. The following objectives will result in progress toward this goal:

- Consider increasing incentive for affordable housing in private developments or adopt an inclusionary zoning bylaw.
- Consider using CPA funding for one or more additional public housing developments.
- Consider an accessory apartment bylaw.
- Increase the number of housing units affordable to those households with less than 50% of median family income.
- Identify areas where residential growth is encouraged, and encourage mixed uses where appropriate.
- Develop a program and schedule for increasing the number of affordable housing units to a minimum of 10% of total housing units.

Goal 3 Protect critical natural resources and restrict these sensitive areas from intensive residential development. – The essence of this goal is to encourage housing development where it is most appropriate and where it advances Town goals while discouraging and/or preventing it where it impacts resources. Objectives to advance this goal include:

- Use CPA funding to purchase sensitive areas
- Consider “transferring” development rights of such areas to areas and/or projects where greater density is desired.
- Encourage compact development to reduce infrastructure and service needs, and protect the environment, while creating a sense of community.

Goal 4 Protect commercial areas in order to maximize economic development potential and fiscal stability. – The Town has three residential zoning districts and three mixed-use districts where commercial and housing uses are both permitted. However, the Town wishes to maintain an appropriate balance and does not want its limited commercial development opportunities to be displaced by constructing housing instead of commercial uses on land zones for commercial uses. The following objectives will advance this goal:

- Oppose housing proposed to be located strictly in commercial areas (unless part of a mixed-use development).
- Ensure that housing in mixed use zoning districts is appropriately balanced with commercial uses or fulfills a major housing need.

Goal 5 Develop a Town policy for working with developers seeking a comprehensive permit, and designate areas of Town best suited for such projects. – As stated above, the Town wishes to encourage housing in appropriate areas (such as near the Town Center or other commercial area and where existing infrastructure is in place to support it) and discourage it from inappropriate areas (such as environmentally sensitive areas and commercial areas). This document designates areas where additional housing may be encouraged below. The following objectives will help advance this goal:

- Formulate a policy indicating locations, quantities and types of housing that would be encouraged and agree to support a Local Initiative Project under Chapter 40B that conforms to the policy.
- Use CPA funding to purchase sensitive areas.
- Consider “transferring” development rights of such areas to areas and/or projects where greater density is desired.

Locations/Quantities of New Housing

This section identifies general location for new housing in Norfolk. The preferred locations for new housing are generally those areas with existing infrastructure (including primarily transportation, Town water service and some form of commercial development. This suggests that new housing should be located near existing or emerging centers or villages. Therefore, the following are preferred locations:

- Town Center (B-1 district) area. – Apartments on upper floors within the district, other types of housing within ½ mile of the district.
- Holbrook Street/Route 115 area – Consider expanding the C-4 district.
- Route 1A (C-6 district) – Age-restricted/mixed uses.
- Along Main Street and Route 115 – Except near sensitive areas

It is difficult to project a number of apartments that may be built within the B-1 district. However, a conceptual plan prepared a developer for the newly developing part of the

Town Center assumed 30 apartments as part of that project. A 44-unit (11 affordable) condominium project has been approved for the B-1 district. In addition, a 49-unit subdivision adjacent to the B-1 district has been approved and is under construction.

One logical possible expansion of the C-4 district would be to rezone the area directly across the street from the current district (and site of 2 projects) and extending to the Millis Town line and Route 115. This area is approximately 23 acres in size and could accommodate about 69 units (at the allowed density of 3 units per acre.). In addition, there about 25 additional acres within the existing district that could accommodate another 75 units.

The C-6 district encompasses more than 80 acres. An age-restricted project in that area could accommodate up to 240 additional units.

The number of housing units that could be developed along the Main Street and Route 115 corridors is also highly uncertain without a detailed analysis of the available properties. Several of the parcels in this area are environmentally sensitive and or contribute to the aesthetic character of Norfolk and it would be preferable that any future development preserve these parcels.

Housing Strategies

This section presents several strategies for addressing the housing needs of Norfolk. Those strategies with the highest priority are those that are part of an approach to accomplish multiple objectives for community development that are compatible with the goals of the 1992 Master Plan as well as this Community Development Plan. In addition, the overachieving goal of these strategies is to result in the Town's achieving and maintaining a level of 10% of its housing stock as affordable in compliance with Chapter 40B.

These strategies are as follows:

- **Encourage additional age-restricted housing**
The 43-unit Pin Oaks development is under construction and the first residents are moving in. The adjacent 136-unit development is going through the approval process. There is interest in an additional development at the former Southwood Hospital site. A portion of the Local Initiative Program comprehensive permit located in the B-1 district will be age-restricted. These developments help address the demand for senior housing created by the aging baby boomer generation while also providing fiscal stability for the Town. The Town should consider expanding the C-4 district as well as consider whether additional age-restricted housing would be desirable near the Town Center.
- **Continue to encourage development of a mixed-use Town Center**
The original concept plan for development of a portion of the Town Center included 36 apartments above commercial space, in accordance with zoning. These are no

longer part of the plan. The town should continue to explore ways to encourage the inclusion of such apartments in future developments in the Town Center.

- **Adoption of inclusionary zoning bylaw**

Several towns in Massachusetts have developed “inclusionary” zoning bylaws, in which a certain percentage of housing units (typically 10%) in new developments must be affordable. In some cases, they allow a payment to an affordable housing fund in lieu of providing the affordable units.

- **Develop additional public housing**

As delineated above, the Norfolk Housing Authority already operates 84 units of affordable housing serving families, and senior citizens and handicapped individuals. Since the housing supply-demand gap illustrates a significant shortage of housing for those with less than 50% of median household income, additional subsidized affordable rental housing should be considered by the Norfolk Housing Authority.

- **Develop criteria for Local Initiative Program (LIP) projects**

In order to encourage additional private sector development of affordable housing and to maintain additional control of potential Chapter 40B projects, the Town should adopt criteria by which it would evaluate proposed Chapter 40B projects and decide which to support. Such criteria could include location, design, density, amenities, percentage of affordable units, infrastructure issues, etc.

- **Review/Revise Affordable Housing Development Provision of Zoning Bylaw**

The current provision of the Zoning Bylaw (Section H.3) that provides density bonuses for affordable housing has never been used by a developer. This provision needs to be reviewed and possibly revised in order to make it more attractive to developers. Currently, the provision only provides a density bonus for the affordable housing units themselves. In addition, it requires affordable units to be single family dwellings. It may be more attractive if it allowed multi-unit buildings designed to look like comparable single family homes in the neighborhood. Also, consideration should be given to applying the bonus provision to multi-family dwellings (age-restricted) as well as single-family homes.

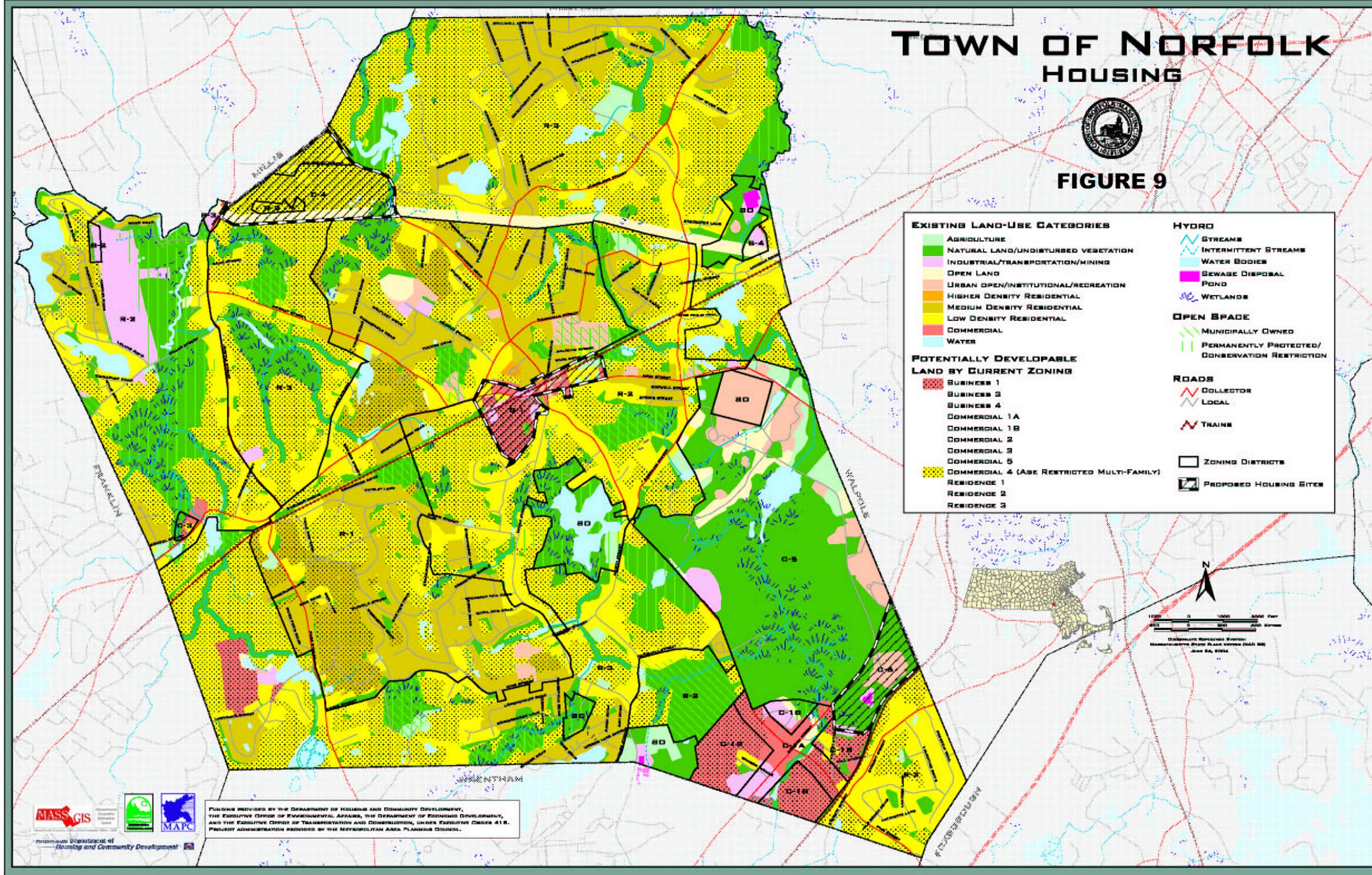
Figure 9 highlights the areas of focus for new housing development. The areas highlighted are not intended to be exclusive, but rather the areas most suited to new housing development

TOWN OF NORFOLK HOUSING



FIGURE 9

EXISTING LAND-USE CATEGORIES		HYDRO	
	AGRICULTURE		STREAMS
	NATURAL LAND/UNDISTURBED VEGETATION		INTERMITTENT STREAMS
	INDUSTRIAL/TRANSPORTATION/MINING		WATER BODIES
	OPEN LAND		SEWAGE DISPOSAL POND
	URBAN OPEN/INSTITUTIONAL/RECREATION		WETLANDS
	HIGHER DENSITY RESIDENTIAL	OPEN SPACE	
	MEDIUM DENSITY RESIDENTIAL		MUNICIPALLY OWNED
	LOW DENSITY RESIDENTIAL		PERMANENTLY PROTECTED/ CONSERVATION RESTRICTION
	COMMERCIAL	ROADS	
	WATER		COLLECTOR
POTENTIALLY DEVELOPABLE LAND BY CURRENT ZONING			LOCAL
	BUSINESS 1		TRAINS
	BUSINESS 3		ZONING DISTRICTS
	BUSINESS 4		PROPOSED HOUSING SITES
	COMMERCIAL 1A		
	COMMERCIAL 1B		
	COMMERCIAL 2		
	COMMERCIAL 3		
	COMMERCIAL 4		
	COMMERCIAL 5 (AGE RESTRICTED MULTI-FAMILY)		
	RESIDENCE 1		
	RESIDENCE 2		
	RESIDENCE 3		



FUNDING PROVIDED BY THE DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT, THE EXECUTIVE OFFICE OF ENVIRONMENTAL AFFAIRS, THE DEPARTMENT OF ECONOMIC DEVELOPMENT, AND THE EXECUTIVE OFFICE OF TRANSPORTATION AND CONSTRUCTION, UNDER EXECUTIVE ORDER 41R. PROJECT ADMINISTRATION PROVIDED BY THE METROPOLITAN AREA PLANNING COUNCIL.

IV. ECONOMIC DEVELOPMENT

INTRODUCTION

This Economic Development Plan is intended to serve as an update to the Economic Development element of the 1992 Master Plan. It includes a current economic profile that documents number and types of jobs that currently exist in Norfolk as well as unemployment, demographic information, an inventory of major employers, industrial and commercial assessments, and an assessment of the commercial/industrial real estate market. The report also includes a projection of future job creation, identifies areas with potential for future economic development opportunities, and an update of economic development goals and objectives.

The Economic Development Plan has been prepared in coordination with an Open Space and Recreation Plan, and a Housing Plan as part of a Community Development Plan. It is prepared under Executive Order 418.

CURRENT ECONOMIC PROFILE

This section presents information on the current status and trends regarding economic development in Norfolk

Employment and Unemployment

Table 23 illustrates employment trends in Norfolk from 1990 through 2001. As the table illustrates, the number of jobs in Norfolk increased from 2,373 in 1990 to 3,197 in 2001, an increase of 34.7%. During the same period, the average annual wage increased from \$23,405 to \$37,016, a 58.2% increase. The number of establishments increased from 204 to 260. Total annual payroll more than doubled, from \$55.5 million to more than \$118 million.

The economic sector with the most growth was Government, which increased 130%, from 758 in 1990 to 1744 in 2001. In 2001, the Government sector accounted for well over half the jobs in Norfolk. Transportation, Communication and Public Utilities (TCPU) also grew significantly (from 92 to 238 jobs), Wholesale and Retail Trade increased from 188 to 395, Construction declined then rose again to 149 jobs in 2001 and Agriculture, Forestry and Fisheries grew from 20 to 51 jobs.

Surprisingly, the biggest decline occurred in Services, which dropped from 918 in 1990 to 521 in 2001. Manufacturing declined from 153 to 72. Finance, Insurance and Real Estate stayed exactly even at 27 jobs.

Table 24 indicates the growth of the labor force in Norfolk from 1990 to 2001. While Table 23 presents the jobs located within Norfolk, Table indicates the employment status of Norfolk residents, wherever their jobs may be located. The labor force in Norfolk increased about 15%, from 4205 in 1990 to 4838 in 2001. This is consistent with the

TABLE 23
EMPLOYMENT AND WAGES AND ESTABLISHMENTS IN NORFOLK
1990-2001

Year	Total Annual Payroll	Avg. Annual Wage	Establishments	Total Employment	Agriculture Forestry Fishing	Government	Construction	Manufacturing	TCPU	Trade	FIRE	Services
1990	\$55,538,956	\$23,405	204	2,373	20	758	117	153	92	288	27	918
1991	\$55,616,248	\$24,340	195	2,285	20	790	91	133	97	286	25	843
1992	\$55,896,939	\$24,943	181	2,241	20	804	82	69	123	252	24	867
1993	\$70,654,621	\$28,228	190	2,503	22	903	85	53	223	243	29	945
1994	\$69,614,688	\$28,048	200	2,482	21	918	88	37	241	269	28	880
1995	\$76,081,361	\$28,105	225	2,707	22	991	99	48	216	309	33	989
1996	\$78,655,844	\$28,950	228	2,717	20	977	90	89	202	310	30	999
1997	\$94,950,151	\$32,373	226	2,933	conf	1,244	95	102	173	311	27	960
1998	\$111,09,5688	\$33,788	233	3,288	22	1,550	116	106	192	313	26	963
1999	\$109,608,462	\$34,664	235	3,162	27	1,607	135	91	242	302	24	734
2000	\$112,982,558	\$37,251	245	3,033	43	1651	172	84	248	313	27	495
2001	\$118,338,554	\$37,016	260	3,197	51	1744	149	72	238	395	27	521

TCPU = Transportation, Communication and Public Utilities
 FIRE = Finance, Insurance and Real Estate
 conf = data suppressed due to confidentiality

Source: Commonwealth of Massachusetts, Division of Employment and Training (ES-202 Series)

TABLE 24
LABORFORCE, EMPLOYMENT AND UNEMPLOYMENT IN NORFOLK, 1990-
2001

Year	Labor force	Employment	Unemployment	Unemployment Rate	Statewide Rate
1990	4,205	3,991	214	5.1%	6.0%
1991	4,225	3,938	287	6.8%	9.1%
1992	4,335	4,028	307	7.1%	8.6%
1993	4,414	4,207	207	4.7%	6.9%
1994	4,551	4,338	213	4.7%	6.0%
1995	4,485	4,298	187	4.2%	5.4%
1996	4,521	4,383	138	3.1%	4.3%
1997	4,688	4,548	140	3.0%	4.0%
1998	4,734	4,619	115	2.4%	3.3%
1999	4,846	4,736	110	2.3%	3.2%
2000	4,806	4,706	100	2.1%	2.6%
2001	4,838	4,721	117	2.4%	3.7%

Note: Employment within this data series is measured by place of residence, rather than by place of employment as in the ES-202 Series.

Source: Commonwealth of Massachusetts, Division of Employment and Training (Local Area Unemp Statistics).

increase in population (12.8%) during that time period. Table 24 indicates that the unemployment rate in Norfolk increased until 1992, then declined steadily through 2001. It also indicates that the unemployment rate in Norfolk has consistently been below the statewide average.

It should be noted that Table 24 illustrates official adjusted average figures for the years shown. More recent data for December 2003 indicate that Norfolk's labor force had increased to 5054 (an additional 4.5% from 2001) and that the unemployment rate (not seasonably adjusted) was 4.2% compared to a statewide rate of 5.4%.

Table 25 presents a list of the major industries in Norfolk. It illustrates the number of employees and the average weekly wage of each in the United States, Massachusetts and Norfolk. Only those industries with employees in Norfolk are included. This is a listing of private sector jobs. It does not include government jobs, which are the majority in Norfolk, as shown in Table 23.

It should also be noted that, in some industries, the average annual wage in Norfolk can differ greatly from state and national wages. This is especially true for industries in which there are few employees in Norfolk, since a few extreme results can skew the average. Nevertheless, the table does provide information on the types of industries that exist in Norfolk and how the average wage compares to similar industries elsewhere.

Table 26 presents the jobs and wages by industry as reported in the last quarter of 2001. In this table the industries are separated into "goods producing" and "services producing" industries. Due to the small number of establishments and/or employees in each industry, much of the information is masked due to reasons of confidentiality.

Table 26 reveals that the "goods producing" industry with the most employment in Norfolk is Specialty Trade Contractors. It indicates that there 34 employers with a total of 111 employees in 2001. Other significant industries were Agricultural Services with 15 employers and 55 employees and General Building Contractors with 17 employers and 27 employees.

The largest "service producing" industries include Eating and Drinking Places (9 employers and 204 employees), Health Services (9 employers, 182 employees), Wholesale Trade – Durable Goods (15 employers and 75 employees), Miscellaneous Repair Services (4 employers and 58 employees) and Engineering and Management Services (22 employers and 54 employees). It should be noted that while Local and

**TABLE 25
EMPLOYMENT AND WAGES BY INDUSTRY, 2000**

Industry Title	National		State		Norfolk	
	Average Weekly Wage	Employment	Average Weekly Wage	Employment	Average Weekly Wage	Employment
Agricultural Production- Crops	361	575,089	412	3,112	314	3
Agricultural Services	391	1,099,308	512	19,026	611	40
General Building Contractors	737	1,503,533	923	28,198	1,121	42
Heavy Construction, Ex. Building	784	890,630	1,054	15,858	519	1
Special Trade Contractors	675	4,228,820	868	86,187	915	129
Furniture and Fixtures	577	555,252	671	4,815	853	14
Chemicals and Allied Products	1,296	1,031,486	1,641	17,804	777	34
Industrial Machinery And Equipment	1,035	2,110,949	1,480	62,349	904	15
Transportation Equipment	1,025	1,851,143	1,175	16,809	605	20
Miscellaneous Manufacturing Industries	638	391,491	743	16,647	292	1
Local and Interurban Passenger Transit	396	472,391	433	22,253	425	215
Trucking And Warehousing	627	1,841,556	736	25,817	576	27
Transportation Services	680	465,623	816	11,174	883	5
Communications	1,115	1,658,869	1,201	35,160	465	1
Wholesale Trade-durable Goods	958	4,189,230	1,360	108,030	1,057	32
Wholesale Trade-nondurable Goods	809	2,813,389	939	69,690	1,247	7
Building Materials & Garden Supplies	484	1,011,768	574	21,430	615	16
Food Stores	338	3,476,619	363	95,781	299	14
Automotive Dealers & Service Stations	589	2,407,760	673	45,449	392	15
Furniture And Homefurnishings Stores	543	1,128,602	612	26,949	576	9
Eating And Drinking Places	233	8,131,907	281	199,953	216	202
Miscellaneous Retail	416	3,075,184	478	94,723	710	16

TABLE 25
EMPLOYMENT AND WAGES BY INDUSTRY, 2000

(Continued)

Industry Title	National		State		Norfolk	
	Average Weekly Wage	Employment	Average Weekly Wage	Employment	Average Weekly Wage	Employment
Depository Institutions	798	2,029,708	1,035	60,523	419	16
Security And Commodity Brokers	2,832	754,290	2,704	51,239	1,013	3
Insurance Agents, Brokers, & Service	858	758,674	977	20,359	1,041	7
Real Estate	650	1,504,698	893	32,092	584	2
Hotels And Other Lodging Places	389	1,881,479	461	36,070	115	1
Personal Services	349	1,246,550	382	33,516	631	10
Business Services	695	9,860,302	1,061	278,399	696	78
Auto Repair, Services, And Parking	494	1,230,314	564	28,384	477	28
Miscellaneous Repair Services	618	366,168	686	7,720	810	36
Amusement & Recreation Services	454	1,773,891	503	34,349	200	15
Health Services	671	10,073,937	721	325,149	585	183
Legal Services	1,153	1,011,616	1,255	29,851	710	6
Educational Services	605	1,739,084	749	108,168	742	35
Social Services	362	2,798,772	423	89,203	289	40
Membership Organizations	442	1,094,138	430	27,361	638	4
Engineering & Management Services	1,057	3,440,457	1,434	131,564	837	48
Private Households	254	420,468	276	14,483	291	10
					Total Employment	1,380
Average wage for all industries	679		866		587	

Source: Commonwealth of Massachusetts, Division of Employment and Training (MassStats, <http://massstats.detma.org>).

TABLE 26
MAJOR INDUSTRIES IN NORFOLK, 2001

SIC Code	Industry	Employers	Employment	Avg. Weekly Wage
Goods Producing Industries in Quarter Ending December, 2001				
1	Agricultural Production-crops	***	***	***
7	Agricultural Services	15	55	1,054
15	General Building Contractors	17	27	1,155
16	Heavy Construction, Ex. Building	***	***	***
17	Special Trade Contractors	34	111	853
25	Furniture And Fixtures	***	***	***
28	Chemicals And Allied Products	***	***	***
35	Industrial Machinery And Equipment	***	***	***
37	Transportation Equipment	***	***	***
39	Miscellaneous Manufacturing Industries	***	***	***
Total for Goods Producing Industries:		74	276	879.43

(Continued)

TABLE 26
MAJOR INDUSTRIES IN NORFOLK, 2001
(Continued)

SIC Code	Industry	Employers	Employment	Avg. Weekly Wage
Service Producing Industries in Quarter Ending December, 2001				
41	Local And Interurban Passenger Transit	***	***	***
42	Trucking And Warehousing	6	29	658
47	Transportation Services	***	***	***
48	Communications	***	***	***
50	Wholesale Trade-durable Goods	15	107	947
51	Wholesale Trade-nondurable Goods	***	***	***
52	Building Materials & Garden Supplies	3	16	571
54	Food Stores	3	7	388
55	Automotive Dealers & Service Stations	4	19	308
56	Apparel And Accessory Stores	***	***	***
57	Furniture And Homefurnishings Stores	***	***	***
58	Eating And Drinking Places	9	204	228
59	Miscellaneous Retail	6	31	498
60	Depository Institutions	3	16	449
62	Security And Commodity Brokers	***	***	***
64	Insurance Agents, Brokers, & Service	5	7	836
65	Real Estate	***	***	***
72	Personal Services	3	9	993
73	Business Services	23	75	826
75	Auto Repair, Services, And Parking	8	29	507
76	Miscellaneous Repair Services	4	59	768
79	Amusement & Recreation Services	***	***	***
80	Health Services	9	182	638
81	Legal Services	4	10	1,374
82	Educational Services	***	***	***
83	Social Services	6	48	256
86	Membership Organizations	***	***	***
87	Engineering & Management Services	22	54	1,359
88	Private Households	14	15	364
Total for Service Producing Industries:		165	1,197	597.43
Total For All Industries:		239	1,473	650.27

*** indicates suppressed due to confidentiality

Source: Commonwealth of Massachusetts, Division of Employment and Training (MassStats, <http://massstats.detma.org>).

Interurban Transit Services is not shown due to confidentiality reasons, other sources have indicated more than 200 employees in that industry.

The industries with the highest average weekly wage include Legal Services at \$1374, Engineering & Management Services at \$1359, General Building Contractors at \$1155, and Agricultural Services at \$1054. The industries with the lowest average weekly wages are Eating and Drinking Places at \$228, Social Services at \$256, Automotive Dealers and Services at \$308, Private Households at \$374, and Food Stores at \$388.

The total number of jobs in the “high income” categories (more than \$1000 per week in 2001) is 146 out of 1473 total jobs reported. While the wages (and number of jobs) is not shown for every industry, it is reasonable to conclude that approximately 90% of the jobs in Norfolk are held by low and moderate income persons.

Industrial and Commercial Assessments

Table 27 presents the assessed values for residential, commercial, industrial and personal property in Norfolk for fiscal years 1990 through 2004. The table indicates that both residential and commercial properties have more than doubled in value between 1990 and 2004, while the value of industrial properties have declined and personal property has increased by about 70%.

An examination of trends since 2001 present a more positive picture for commercial and industrial development. Since 2001, residential value has increased by 45% (from \$782,429,215 to \$1,135,582,780. Commercial value has increased 167% (from \$20,541,580 to \$44,519,120) during this same time period. Industrial and personal property values stayed about the same. Thus, non-residential property values declined from 7.3% of the total in 1990 to 5.1% in 2001 and a low of 4.9% in 2002 and 2003, but began to climb again in 2004 to 5.5% of the total.

Table 28 provides further evidence of increased commercial activity in Norfolk since 2001. It presents total new growth (that is, the amount of increased assessed property values that is due to new construction rather than simply appreciation of existing properties) for fiscal years 1992 through 2004. Generally, the percentage of new growth that consisted of nonresidential development was in the single digits throughout the 1990’s. However, since 2001, the percentage has been well into double digits and the total value of new growth has been substantially higher as well.

Commercial and Industrial Real Estate Market

Since Norfolk is not located on a major transportation route such as Route 128 or I-495, and has a relatively small population base (10,460 in 2000 U.S. Census), it is not a major market for commercial and industrial development. However, its assets include a commuter rail station in the Town Center, two intersecting state highways (Routes 1A and 115), a growing population with a high median family income (\$92,001 in 1999

TABLE 27
COMMERCIAL AND INDUSTRIAL ASSESSMENTS
FISCAL YEARS 1990-2004

YEAR	RESIDENTIAL	COMMERCIAL	INDUSTRIAL	PERSONAL PROPERTY	TOTAL	PERCENT RESIDENTIAL	PERCENT NON- RESIDENTIAL
1990	547,629,600	21,781,692	14,810,200	6,395,999	590,617,491	92.7	7.3
1991	558,794,400	21,030,004	14,995,300	7,354,855	602,174,559	92.8	7.2
1992	492,230,480	16,477,997	10,609,300	8,585,309	527,903,086	93.2	6.8
1993	502,420,680	16,648,010	10,609,300	8,974,187	538,652,177	93.3	6.7
1994	513,210,800	16,333,900	10,609,400	9,454,377	549,608,477	93.4	6.6
1995	519,208,100	14,608,200	8,394,600	9,021,819	551,232,719	94.2	5.8
1996	529,484,200	14,829,200	8,397,100	9,192,269	561,902,769	94.2	5.8
1997	562,834,200	16,105,100	8,626,800	9,264,648	596,830,748	94.3	5.7
1998	594,297,600	17,739,700	8,474,300	9,633,136	630,144,736	94.3	5.7
1999	599,497,200	16,887,700	8,341,100	9,510,306	634,236,306	94.5	5.5
2000	670,290,500	18,520,400	9,171,900	9,387,435	707,527,335	94.8	5.2
2001	782,429,215	20,541,580	11,168,500	10,551,680	824,838,780	94.9	5.1
2002	863,742,215	25,681,585	8,728,700	9,960,252	908,260,752	95.1	4.9
2003	997,694,500	30,119,200	8,228,400	10,055,782	1,046,235,082	95.1	4.9
2004	1,135,582,780	44,519,120	10,567,800	10,859,505	1,201,670,905	94.5	5.5

Source: Department of Revenue, Division of Local Services, Municipal Data Bank, <http://www.dls.state.ma.us/mdm.htm>

TABLE 28**PERCENTAGE OF TOTAL NEW GROWTH REPRESENTED BY
RESIDENTIAL AND NON-RESIDENTIAL GROWTH
FISCAL YEARS 1992-2004**

YEAR	TOTAL NEW GROWTH	RESIDENTIAL PERCENTAGE OF NEW GROWTH	NONRESIDENTIAL PERCENTAGE OF NEW GROWTH
1992	5,872,121	73.44	26.56
1993	11,714,896	91.48	8.52
1994	13,559,216	92.89	7.11
1995	18,143,843	94.21	5.79
1996	12,498,300	93.43	6.57
1997	13,292,200	95.45	4.55
1998	9,854,800	89.61	10.39
1999	10,691,800	95.66	4.34
2000	14,995,100	96.02	3.98
2001	13,903,200	81.32	18.68
2002	22,297,000	87.88	12.12
2003	23,738,900	84.18	15.82
2004	26,068,300	84.98	15.02

Source: Department of Revenue, Division of Local Services, Municipal Data Bank,
<http://www.dls.state.ma.us/mdm.htm>

compared to a metropolitan Boston level of \$68,772 according to the 2000 U.S. Census), and available land zoned for commercial and industrial uses.

The changes in assessed values document recent interest in commercial and industrial development in Norfolk. There are two areas of Town with important commercial development potential. These are the area around the intersection of Routes 1A and 115, (the C-1 zoning district) and the Town Center (B-1 zoning district).

There are several recent examples of actual development and/or interest in these areas. In the C-1 district, Jofran constructed a 120,000 square foot furniture assembly building in 2000 and is currently expanding it to 200,000 square feet. Fore Kicks built an indoor recreation facility of 85,000 square feet plus a nine-hole executive golf course in 2001. Colonial Woodworkers completed a fence and other wood and vinyl products assembly and sales facility in 2004. A landscaper's headquarters is under construction and a small office building (4875 square feet) plus a self-storage facility (28,800 square feet) were approved in 2003. Other new development includes an expansion of a cabinet shop (completed in 2001) and a new auto body shop (currently in the approval process). In addition, a two-building office complex was proposed, then withdrawn in 2003, and the Planning Board has had multiple pre-submission meetings with developers regarding two different commercial subdivisions within the C-1 district.

In the Town Center, Phase I and Phase II of a major commercial subdivision were approved and most of the infrastructure has been installed. Phase I was sold to a major developer who is moving rapidly toward beginning construction of that phase with a supermarket, variety store and other commercial uses. Also, site plans for the expansion and redevelopment of a service station and a vacant commercial building have recently been approved. A site plan for expansion of the Town library was also approved in 2004 and construction is expected to begin in Spring, 2004.

It should be noted that a small commercial development associated with an age-restricted housing development in the C-4 district (generally, in the area of Holbrook Street and Route 115) is also in the approval process. The C-4 district allows mixed uses, but it does not have the potential to become a significant commercial center on the order of the B-1 and C-1 districts.

In summary, while not a major commercial center, Norfolk appears to have a healthy commercial real estate market, and its economic development goals are in view of being achieved.

POTENTIAL FUTURE JOB CREATION

Currently, there is a total of approximately 143.39 acres of commercially developed land in Norfolk, with 663,431 square feet of building space erected on it, according to Assessors' records. This includes land within the business and commercial zoning districts, as well as mixed uses or non-conforming uses that may be located in residential districts. It does not include government facilities or land.

As shown in Table 26 above, there were 1473 private sector jobs in Norfolk. With 663,431 square feet of business and commercial space, that averages to about 1 job per 450 square feet of space.

As mentioned above, there are two major areas in Norfolk with significant potential for job creation. These are the B-1 and C-1 zoning districts. These two areas already account for almost all of the economic activity in Norfolk, and they both also have sufficient area for significant expansion of activity. In addition, both areas provide for a variety of uses that provide job opportunities for low, moderate and middle income individuals.

The potential for future job creation of each of these areas is presented below.

Town Center (B-1 District)

Table 29 presents the existing development in the B-1 district (including private sector development plus the U.S. Postal Service). Since the data is from Assessors' records and is parcel-based, rather than company-based, the categories may not accurately reflect all the tenants in multi-tenant buildings. The table indicates that there is currently 97,878 square feet of space on 9.87 acres. This represents a floor area ratio (FAR) of .227. That is, total building space equals about 22.7% of the land area in the developed parcels.

The Assessors' records also indicate that there are 37.36 undeveloped acres in 25 separate parcels. However, the largest undeveloped parcel (13.57 acres) is planned to be used for residential development. That leaves about 23.79 acres remaining to be developed commercially. If the remaining parcels are developed to the same level as the existing development in the B-1 district, approximately 235,238 square feet of additional business and commercial space (.227 FAR x 23.79 acres x 43,560 square feet per acre) could be developed in the B-1 district.

Using the ratio of 1 job per 450 square feet of space, that means that employment could increase by 523 jobs. As demonstrated, assuming a similar mix of jobs as already exists, about 90% of these, or 470 jobs, would be serve low and moderate income persons.

TABLE 29**EXISTING DEVELOPMENT IN THE B1 DISTRICT**

LAND USE	CODE	NUMBER OF FIRMS	LAND AREA (acres)	BUILDING AREA (Square feet)
Facilities Providing Building Materials, Hardware, Farm Equipment, etc.	321	1	2.08	3620
Discount Stores	322	3	2.24	40,021
Eating and Drinking Establishments	326	1	0.98	2492
Gasoline Service Stations – Providing Engine repair or Maintenance Services	334	1	0.37	3003
General Offices	340	1	1.16	9384
Medical Office Buildings	342	1	1.25	24,463
Property Used for Postal Services	350	1	1.46	3446
Building for Manufacturing Operations	400	1	0.34	25,180
TOTALS		10	9.87	97,878

Computed by authors from Assessors' Data, 2004

Route 1A/115 (C-1 District)

Table 30 presents the existing private sector development in the C-1 district. The table indicates that there is currently 456,966 square feet of space developed on 92.15 acres. This results in an FAR of .114. It is typical for automobile-oriented development along a highway to be less intensively developed than a Town Center. However, this is somewhat below typical densities for the region, which are generally in the range of .15 to .20. Therefore, for purposes of this analysis, it will be assumed that the existing commercial space is somewhat underdeveloped, and an FAR of .15 will be used to estimate development on the parcels that are currently vacant.

There are 135.58 acres in 48 undeveloped parcels. An FAR of .15 would result in an additional 885,879 square feet of commercial space. At 1 job per 450 square feet, this would result in 1969 additional jobs. Again, about 90%, or 1,772, of the new jobs would serve low and moderate income individuals.

Table 31 presents a breakdown of the type of potential new commercial space that might be developed in the C1 district. It assumes that the new space would be developed in the same proportion as the existing development, with the exception that both the Forekicks indoor recreation facility and the radio transmission facility have been excluded since they are unique facilities unlikely to be duplicated.

TABLE 30**EXISTING DEVELOPMENT IN THE C1 DISTRICT**

LAND USE	CODE	NUMBER OF FIRMS	LAND AREA (acres)	BUILDING AREA (Square feet)
Other Storage, Warehouse and Distribution Facilities	316	12	44.22	218,473
Discount Stores	322	3	2.38	22,535
Eating and Drinking Establishments	326	3	3.71	28,482
Automotive Supplies Sales and Service	331	1	1.06	5660
Auto Repair Facilities	332	3	2.64	11,822
Fuel Service Areas	333	1	.79	1530
Other Motor Vehicle Sales and Services	338	2	2.00	10,440
General Offices	340	5	5.40	39,344
Indoor Recreation Facilities	377	1	24.24	81,210
Building for Manufacturing Operations	400	3	4.31	30,682
Warehouses for Storage of Manufactured Products	401	1	.71	5000
Radio Transmission Facilities	433	1	.69	1788
TOTALS		36	92.15	456,966

Computed by authors from Assessors' Data, 2004

TABLE 31**POTENTIAL DEVELOPMENT IN THE C1 DISTRICT**

LAND USE	CODE	PERCENT OF EXISTING DEVELOPMENT	POTENTIAL BUILDING AREA (Square feet)
Other Storage, Warehouse and Distribution Facilities	316	58.4%	517,353
Discount Stores	322	6.0%	53,153
Eating and Drinking Establishments	326	7.6%	67,326
Automotive Supplies Sales and Service	331	1.5%	13,288
Auto Repair Facilities	332	3.2%	28,348
Fuel Service Areas	333	.4%	3543
Other Motor Vehicle Sales and Services	338	2.8%	24,805
General Offices	340	10.5%	93,017
Building for Manufacturing Operations	400	8.2%	72,642
Warehouses for Storage of Manufactured Products	401	1.3%	11,516
TOTALS		100%*	885,879*

Computed by authors from Assessors' Data, 2004

*Totals do not equal sum of line items due to rounding

ECONOMIC DEVELOPMENT GOALS AND OBJECTIVES

In this section, the economic development goals and objectives of the 1992 Master Plan and the 2002 Growth Management Project are reviewed, then the actions taken that address economic development in response to those previous efforts are briefly summarized. Finally, a new set of goals and objectives are proposed.

Economic Goals and Objectives from 1992 Master Plan and 2002 Growth Management Plan

The 1992 Master Plan included four major economic development goals as follows:

- Encourage development within Business/Commercial zones of Town and encourage this development to fit the retail, commercial and employment needs of the Town.
- Specific non-residential zoning districts should allow a “district” sewerage program and/or storm drainage program. This condition should allow these areas to develop 100% of their geographic areas within the current bylaw criteria for bulk and use.
- Analyze the appropriateness of mixed land uses, including institutional and apartment style residential land uses, in specific commercial/business zones which might create a demand for a variety of services and job opportunities.
- Create a real estate marketing program within Norfolk to streamline communications between private land development enterprises and municipal boards, departments and commissions.

In addition, two of the goals for the Town Center were to:

- Inspire a village center retail shopping complex in lieu of the “moonscape” and MBTA access road
- Develop a social, cultural, aesthetically pleasing and functional Town Center, and to focus on the peripheral improvements needed to complete a functional Town Center.

The Growth Management Project includes a Growth Policy Statement with the following goals:

- Encourage the development of the Town Center in a manner that provides goods and services as well as social interaction
- Expand the tax base to ensure fiscal capacity to provide a high quality of services
- Ensure that resources are sufficient to sustain the future needs of residents and businesses

The Growth Policy Statement also emphasizes that the Town Center should develop as a traditional, pedestrian-oriented New England Town Center containing a mix of goods and services and configured to encourage social interaction. It also states that it should

become more unified in function and appearance as it develops over time. The Growth Policy Statement also states that the C-1 district should continue to develop as a major commercial and industrial center.

Updated Economic Development Goals and Objectives

As indicated in the above discussions, substantial progress has been made toward achieving the economic development goals of Norfolk's 1992 Master Plan and 2002 Growth Management Report. Therefore, those goals and objectives only need to be refined to reflect current conditions and prospects as follows:

Goal 1 Encourage maximum business and commercial development and redevelopment within the B-1 Town Center zoning districts to fit the retail, professional, commercial, employment and social needs of the Town. While much activity has occurred toward achievement of this goal, much also remains to be done to take advantage of new opportunities. The following objectives will help advance this goal further:

- Continue to encourage transformation of the “moonscape” into a traditional New England Town Center with mixed uses as envisioned in the 1992 Master Plan and B-1 zoning district principles.
- Ensure that both public and private infrastructure necessary to support development is provided. This includes, but is not limited to vehicular links between Liberty Lane and Boardman Street (at Main Street) and possibly a loop connecting Liberty Lane to the roundabout at Meetinghouse Road, parking adequate to support the desired level of development, adequate water, sewer and drainage capacity, and adequate pedestrian amenities.
- Work with the MBTA to move its commuter rail station westward, both to be closer to the majority of its parking and to eliminate the stopping of trains across Rockwood Street.
- Continue to promote design standards pertaining to building location and design, landscaping, parking, lighting, etc. that are compatible with a traditional New England Town Center.
- Evaluate methods of integrating the established areas of the Town Center with the newly developing areas.

Goal 2 Encourage maximum business and commercial development in the C-1 Route 1A/Route 115 area to provide needed services and increase the tax base of the Town. As discussed above, this area is already the site of a wide variety of businesses, including retail, restaurants, professional offices, auto repair shops, headquarters for landscaping/construction-related businesses and other uses. The following are objectives for this goal:

- Continue to encourage development of this area as envisioned in the 1992 Master Plan

- Ensure that both public and private infrastructure necessary to support development is provided. This includes roadway improvements (Implementation of the Route 115 reconstruction project as well as continuing development of the frontage road system and other intersection, roadway, sidewalk and parking improvements), drainage, water and sewer improvements.
- Identify regulatory and financial mechanisms to support continued development in the area.

Goal 3 Identify innovative regulatory and financial mechanisms that can be used to encourage and support business and commercial development. The Town was recently part of a regional effort to become eligible to designate Economic Target Areas, which allows the Town to negotiate Tax Increment Financing agreements with certain new businesses. This can provide a property tax breaks for businesses, but more importantly can make them eligible for a tax credit from the State. Also, a District Improvement Financing program has been approved by the State that allows infrastructure improvements to be financed by the tax revenue from new development made possible by the improvements. Objectives to help achieve this goal include:

- Designate specific areas as Economic Target Areas. The most likely area is the C-1 district, but the B-1 district may be considered as well.
- Evaluate and monitor the District Improvement Financing program and determine whether and how it may offer opportunities for Norfolk.
- Identify and explore financial and regulatory mechanisms, including grant programs, that help provide infrastructure or otherwise support business and commercial development.

Goal 4 Establish a program to promote business and commercial development in Norfolk The Town formerly had an Economic Development Committee to help promote and attract business development. Consideration should be given to re-establish this Committee. Objectives related to this goal include the following:

- Produce a development guide for businesses that documents the permits needed and the processes to be followed for establishing or locating a business in Norfolk.
- Review the permitting requirements to identify any opportunities for streamlining.
- Identify possible infrastructure needs and explore means of implementing them
- Work with existing businesses to identify needs.

ECONOMIC DEVELOPMENT STRATEGIES

This section presents several strategies for promoting economic development in Norfolk. Those strategies with the highest priority are those that achieve multiple objectives for community development and are compatible with the goals of the 1992 Master Plan as well as this Community Development Plan. Figure 10 highlights the areas that are the focus of economic development activities.

The strategies are as follows:

- **Evaluate and pursue grant and other funding for infrastructure improvements in the B-1 and C-1 districts**

The need to provide an additional grade-separated crossing of the railroad tracks in the Town Center has already been established. The exact nature of the crossing needs to be determined and funding sources pursued. Most likely a combination of sources will be necessary. Sources that should be considered include state programs such as Public Works Economic Development (PWED), Community Development Action Grant (CDAG) and the Ready Resource program. Another source that should be considered is the new District Improvement Financing program. The Route 115 reconstruction project should also continue to be aggressively pursued. The project will ensure that the entire corridor between the C-1 and B-1 districts is improved, but most importantly the intersection of 1A and 115 will be upgraded to accommodate the increased traffic that will be generated by increased development in the C-1 district.

- **Re-establish an Economic Development Committee**

An Economic Development Committee (EDC) could help promote business development in Norfolk. The EDC would generally be primarily responsible for implementing the goals and objectives listed above. Some of the specific tasks it could be charged with include preparing a development guide to assist businesses in navigating the permitting process, help determine opportunities for streamlining the process, identifying additional infrastructure needs, establishing relationships with existing businesses to help determine needs and serving as liaison with businesses interested in locating in Norfolk.

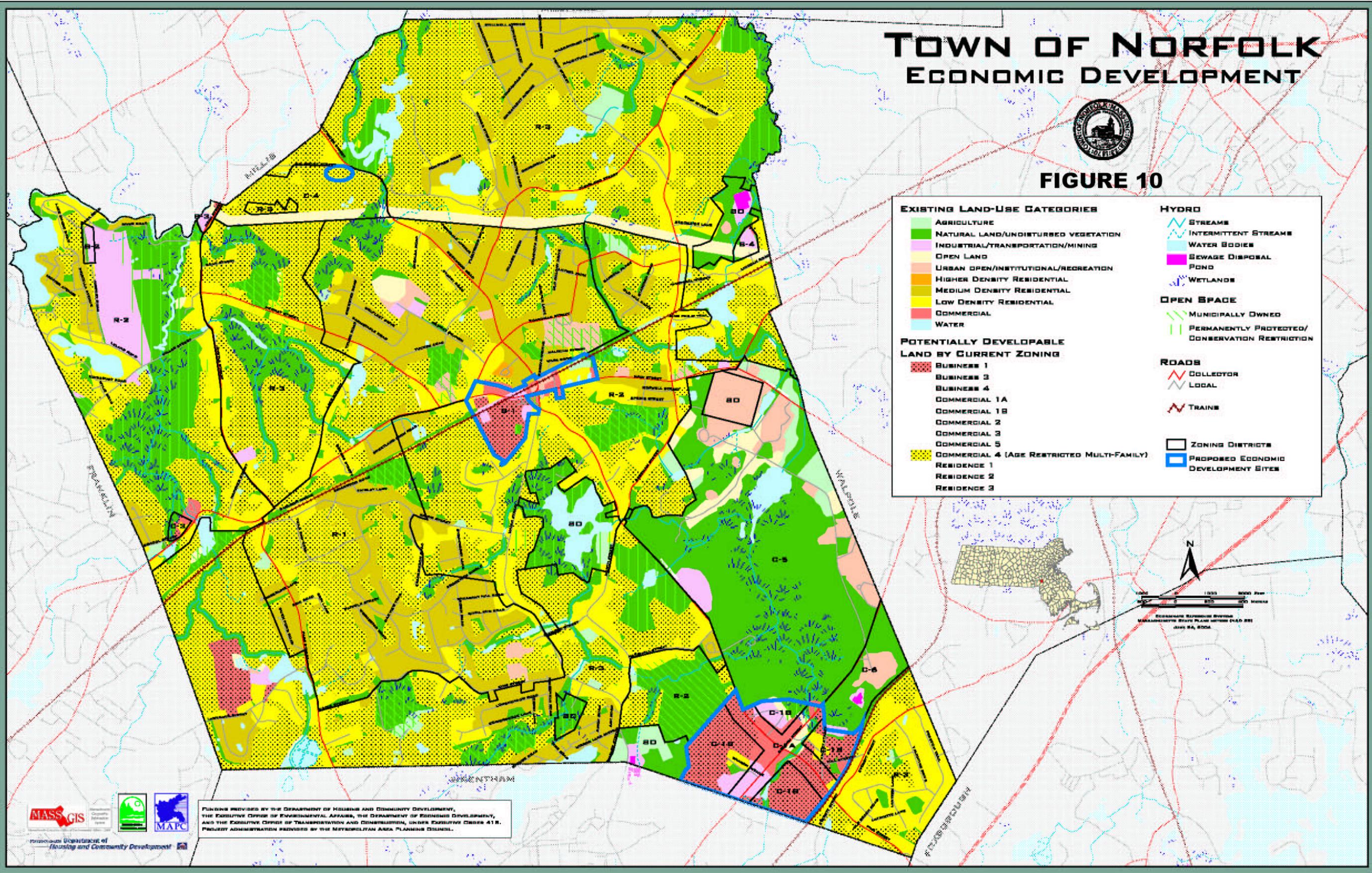
- **Designate Economic Target Area**

Now that Norfolk has been designated as part of a regional Economic Target Area, it has the ability to designate specific areas of Town where it can negotiate Tax Increment Financing agreements with eligible businesses allowing them to receive a tax credit from the state. The obvious areas are the C-1 and B-1 districts. Designating the areas and negotiating the agreements could be another task for the Economic Development Committee.

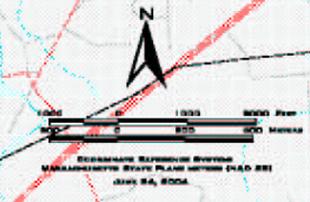
TOWN OF NORFOLK ECONOMIC DEVELOPMENT



FIGURE 10



EXISTING LAND-USE CATEGORIES		HYDRO	
	AGRICULTURE		STREAMS
	NATURAL LAND/UNDISTURBED VEGETATION		INTERMITTENT STREAMS
	INDUSTRIAL/TRANSPORTATION/MINING		WATER BODIES
	OPEN LAND		SEWAGE DISPOSAL POND
	URBAN OPEN/INSTITUTIONAL/RECREATION		WETLANDS
	HIGHER DENSITY RESIDENTIAL		
	MEDIUM DENSITY RESIDENTIAL		
	LOW DENSITY RESIDENTIAL		
	COMMERCIAL		
	WATER		
POTENTIALLY DEVELOPABLE LAND BY CURRENT ZONING		OPEN SPACE	
	BUSINESS 1		MUNICIPALLY OWNED
	BUSINESS 2		PERMANENTLY PROTECTED/ CONSERVATION RESTRICTION
	BUSINESS 3		
	BUSINESS 4		
	COMMERCIAL 1A		
	COMMERCIAL 1B		
	COMMERCIAL 2		
	COMMERCIAL 3		
	COMMERCIAL 4 (AGE RESTRICTED MULTI-FAMILY)		
	RESIDENCE 1		
	RESIDENCE 2		
	RESIDENCE 3		
ROADS		ZONING DISTRICTS	
	COLLECTOR		ZONING DISTRICTS
	LOCAL		PROPOSED ECONOMIC DEVELOPMENT SITES
	TRAINS		



FUNDING PROVIDED BY THE DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT, THE EXECUTIVE OFFICE OF ENVIRONMENTAL AFFAIRS, THE DEPARTMENT OF ECONOMIC DEVELOPMENT, AND THE EXECUTIVE OFFICE OF TRANSPORTATION AND CONSTRUCTION, UNDER EXECUTIVE ORDER 418. PROJECT ADMINISTRATION PROVIDED BY THE METROPOLITAN AREA PLANNING COUNCIL.

V. TRANSPORTATION

INTRODUCTION

As discussed above, the Town of Norfolk has two major areas of commercial activity. One is the Town Center (consisting essentially of the B1 zoning district), and the other is the Route 1A/Route 115 commercial district (consisting of the C1 zoning district). Due to pending major commercial developments and the road reconstruction project of the main roads in the Town Center, major traffic studies for that area have been done. Also, as already mentioned, a major road reconstruction project is underway which will accommodate both through and local traffic needs in the area for the next several years.

The Route 1A/Route 115 area (“C1 district”) has also experienced commercial growth in recent years, and significant additional growth is anticipated. Substantial vacant land remains in the area and several developers have expressed interest in pursuing additional development projects. Traffic studies have been done for individual projects in the area, a 25% design has been completed for Route 115 through the C1 district and on to the Town Center, and Norfolk County Engineers have taken traffic counts in the area. The pending growth created the need to begin to consolidate this information and to analyze the area as a whole in terms of the traffic impacts of additional commercial development.

The purpose of this study is to examine existing conditions, identify recent and pending commercial development, perform a reconnaissance study, and to make recommendations (both physical and regulatory) to mitigate increased traffic.

The roadway limits of the study area include:

- Route 1A (Dedham Street) from the Wrentham town line to the Walpole town line
- Route 115 (from the former railroad right of way on the south to the limits of the C1 district to the north.)

The following are brief definitions of terminology used in this report:

AM Peak Hour = Morning hour when traffic is heaviest, usually between 7:00-9:00 A.M.

PM Peak Hour = Evening hour when traffic is heaviest, usually between 4:00- 6:00 P.M.

FAR = Floor Area Ratio

CURRENT CONDITIONS AND TRENDS

Traffic Counts

Traffic volume data was obtained from previous studies conducted in the area. These studies include:

- Norfolk County Engineering Department studies conducted in 1992 and October 1999
- Traffic Impact Assessment for Colonial Woodworkers, Inc. Project, Pine Street, by Gillon Associates, August 2002
- MassHighway data, Route 1A, Walpole at Norfolk Town Line, 1993- 2002
- Personal observation, May, 2004

Norfolk County Engineers had taken traffic counts at a point on Route 115 just north of the Route 1A intersection in January 1992. They also took counts at a similar location in September 1999. Both counts were done for 48-hour periods and while one ran from Wednesday to Friday and the other from Thursday to Saturday, both covered the Thursday PM and Friday AM peak hours for this location. The results of these counts are as follows:

	Thursday. PM Peak*		Percent Change	Friday AM Peak#		Percent Change
	1/1992	9/1999		1/1992	9/1999	
Northbound	329	353	7.3%	237	286	20.7%
Southbound	247	296	19.8	319	361	13.2%
Total	576	649	12.7	556	647	16.4%

*Between 5 and 6 PM

#Between 7 and 8 AM

As the table indicates, traffic on Route 115 increased 19.7% in the southbound direction during the PM peak, and 20.7% in the northbound direction during the AM peak over the 7-year period. These figures indicate an average annual increase of nearly 3% per year.

The Gillon Associates traffic assessment did not measure volumes in the same location of Route 115 so are not comparable to those of Norfolk County Engineers. However, their study, done just south of the Route 1A intersection in 2002, found weekday PM peak hour volumes to be 450 for the northbound lane and 347 for the southbound lane. The AM peak counted 349 northbound and 352 southbound. The Gillon Associates used an average annual increase in traffic of 1.8% based on a sample of locations within MassHighway District 5.

MassHighway has a traffic count station on Route 1A at the Norfolk/Walpole town line, just east of the study area. Total daily traffic counts from that station are as follows:

Year	<u>1993</u>	<u>1994</u>	<u>1996</u>	<u>1997</u>	<u>1999</u>	<u>2000</u>	<u>2002</u>
Count	8500	9000	10,200	9600	9500	10,200	9800

As these figures indicate, traffic has varied along this route over the years rising from 8500 in 1993 to peaks of 10,200 in 1996 and 2000, but declining to 9800 in 2002. This represents an overall increase in total traffic of 15.3% from 1993 to 2002, or an average annual increase of about 1.5%.

In addition to the reports referenced above, new traffic observations were made periodically from April 08, 2004 to May 18, 2004 between the hours of 7:00 to 9:00 AM and 4:00 to 6:00 PM. Traffic counts were recorded for the Route 1A/Route 115 intersection on Tuesday May 11, 2004, Friday, May 14, 2004 and Tuesday, May 18, 2004. The four highest consecutive 15-minute intervals were selected to identify the peak hours. The weekday morning peak occurred between 7:30 and 8:30 AM and the evening peak between 4:30 and 5:30 PM.

The 2004 existing peak hour traffic counts and directional flows are presented in Figures 11 and 12. Traffic operations are considerably heavier on Route 1A and Route 115 during both the morning and afternoon peak hours. A noteworthy degree of directionality was observed during both peak periods. During the AM peak hour the majority of the vehicles, via thru and turning movements, traveled north (east) bound on Route 1A and south (east) bound on Route 115. Conversely, in the afternoon, the south (west) bound lane of Route 1A was the heaviest traveled and the volumes on Route 115 were balanced with no directionality shown.

These observations found AM peak hour traffic heading northbound on Route 115 just north of the Route 1A intersection to be 315. This represents an increase of about 10% from the Norfolk County Engineers 1999 peak AM counts (286), or about 2% per year. The southbound count at this location was 396, an increase of about 9.7% from the 1999 Norfolk County Engineers figure. During the PM peak hour, the northbound traffic at this point was

The northbound AM peak hour traffic on Route 115 just south of Route 1A was 343, slightly lower (by 6 vehicles) than the count found by Gillon Associates in 2002. However, the southbound AM peak hour traffic at this location totaled 410, an increase of 16.4% from the 2002 count of Gillon Associates.

The 2004 PM peak hour traffic on Route 115 just north of 1A was found to be 396 heading northbound and 398 heading southbound. The 1999 Norfolk County Engineers found these to be 353 northbound and 296 southbound. This represents an increase of about 12% northbound and 34% southbound, or about an average annual increase of 2% and 6% respectively over the five-year period.

South of the Route 1A intersection the 2004 counts for the PM peak hour were 437 heading northbound and 395 southbound. These compare with the 2002 Gillon Associates counts of 450 northbound and 347 southbound. Thus, the northbound count is about 3% below the 2002 count, while southbound had an increase of about 14%.

FIGURE 11

AM PEAK HOUR VOLUMES

ROUTE 1A/ROUTE 115 INTERSECTION

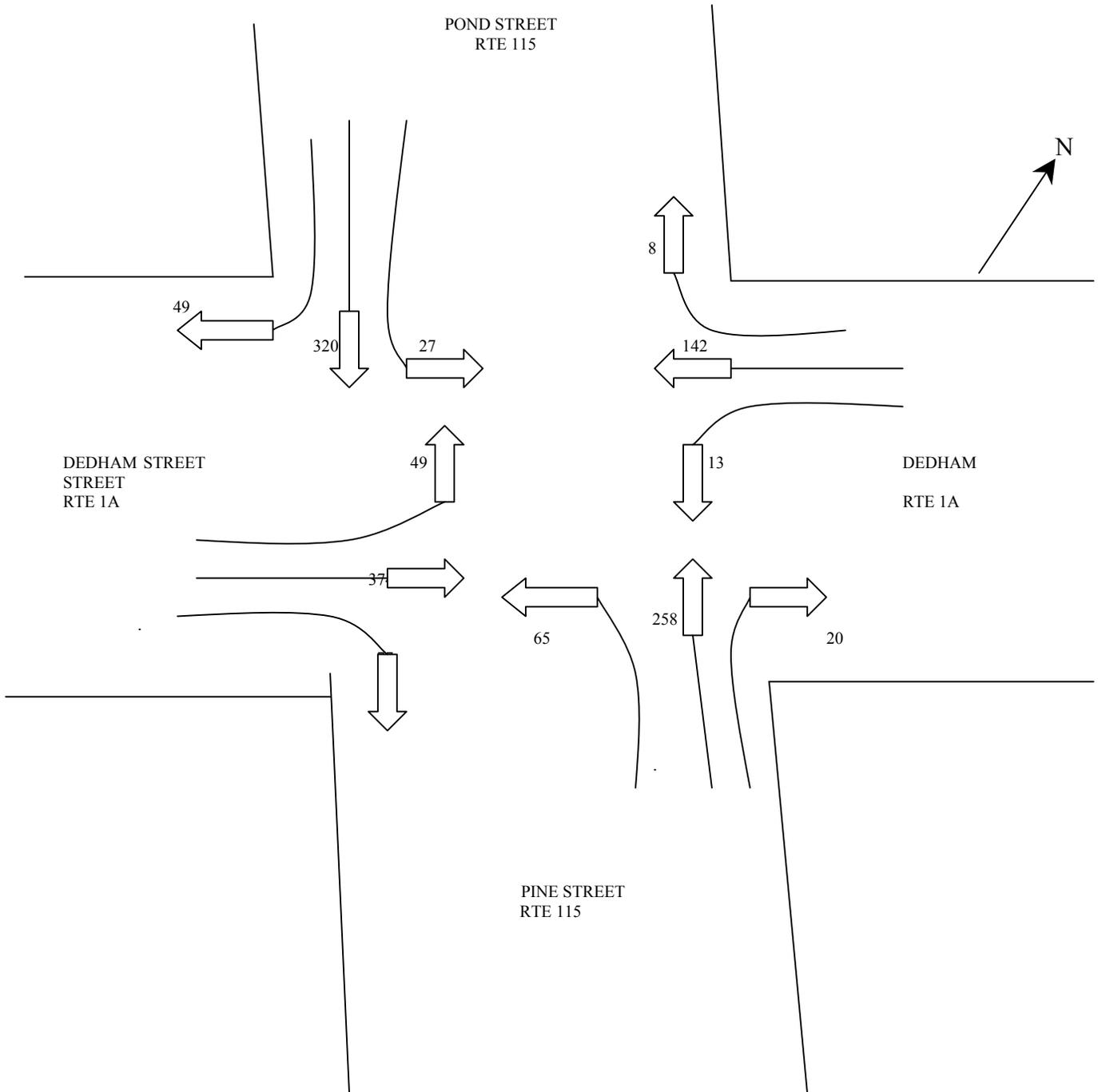
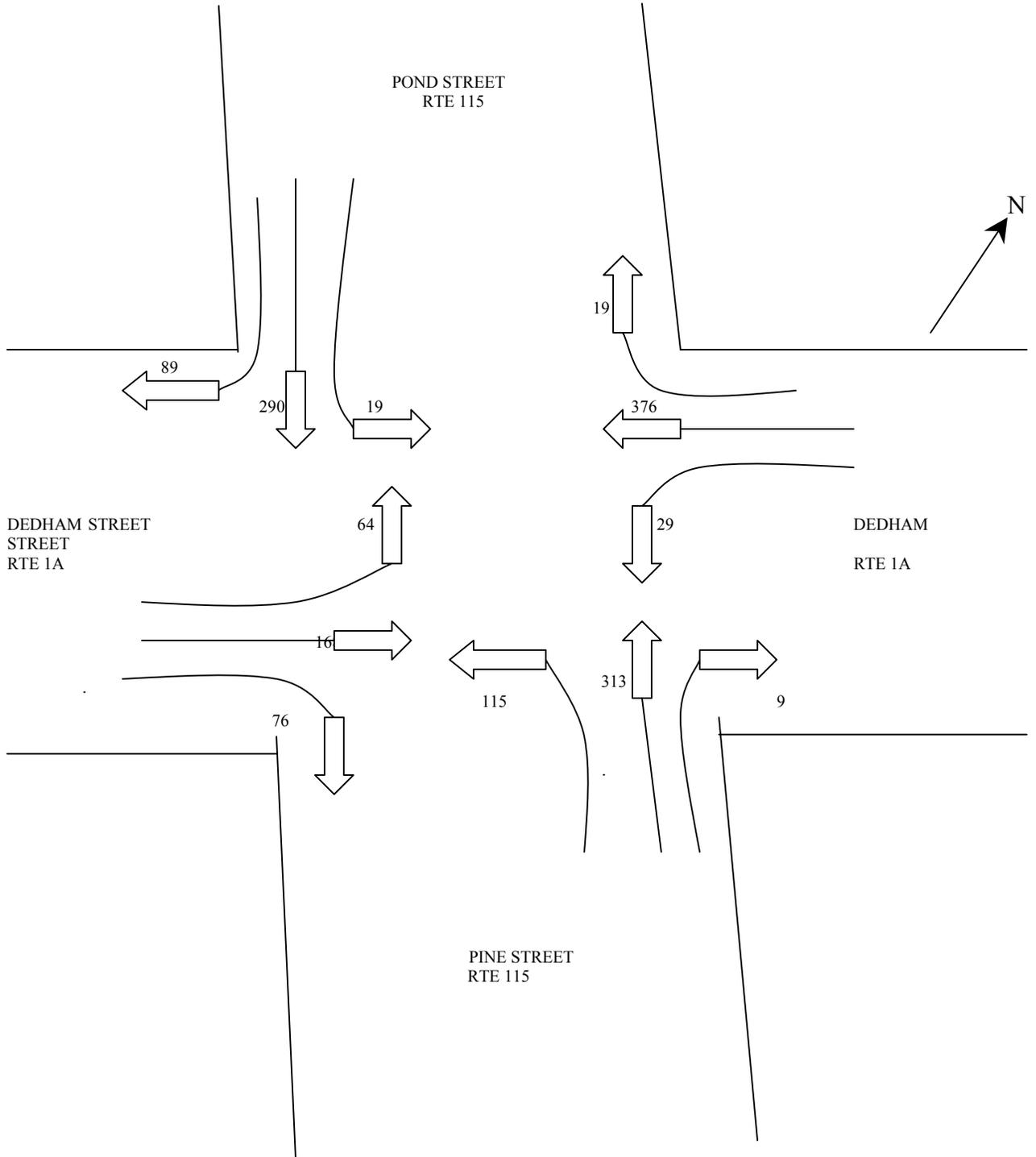


FIGURE 12

PM PEAK HOUR VOLUMES

ROUTE 1A/ROUTE 115 INTERSECTION



In summary, the May 2004 total AM peak hour traffic at the Route 1A/Route 115 intersection is 1402. The PM peak hour traffic is 1567.

Crash Rates/

Crash rate data for the Route 1A/Route 115 intersection and adjacent areas was obtained from the Town of Norfolk Police Department and the Central Transportation Planning Staff (CTPS). The data, which covers 1998 to May 2004, were analyzed for frequency and was summarized for the study area at large. The accident totals per intersection can be seen in Figure 13.

Routes 115/1A is not on the State of Massachusetts' list of the top thousand crash sites. State wide, it ranks 8720 out of around 50,000. Based on the above referenced data, a total of 16 accidents were recorded in the study area. As might be expected, the location with the highest number (11) of crashes recorded was the intersection of Routes 1A/115. It should also be noted that a considerable number of minor crashes occurred on private commercial sites throughout the study but mainly at points along Route 1A. These were primarily attributed to interior parking and circulation issues. These crashes were not included in the totals shown in Figure 13, which only included those that occurred within the ROWs.

Right of Way (ROW) and Pavement Widths

The existing ROW and pavement widths for the primary streets (Route 1A and Route 115) were examined throughout the study area. Route 1A maintains a ROW width of 48'± and a pavement width of 24'-25'± for the entire length included in the study area. The Route 115 ROW layout decreases in width from 58' to 48' from the east side of Route 1A to the west side respectively and the pavement width fluctuates from 22' to 25.'

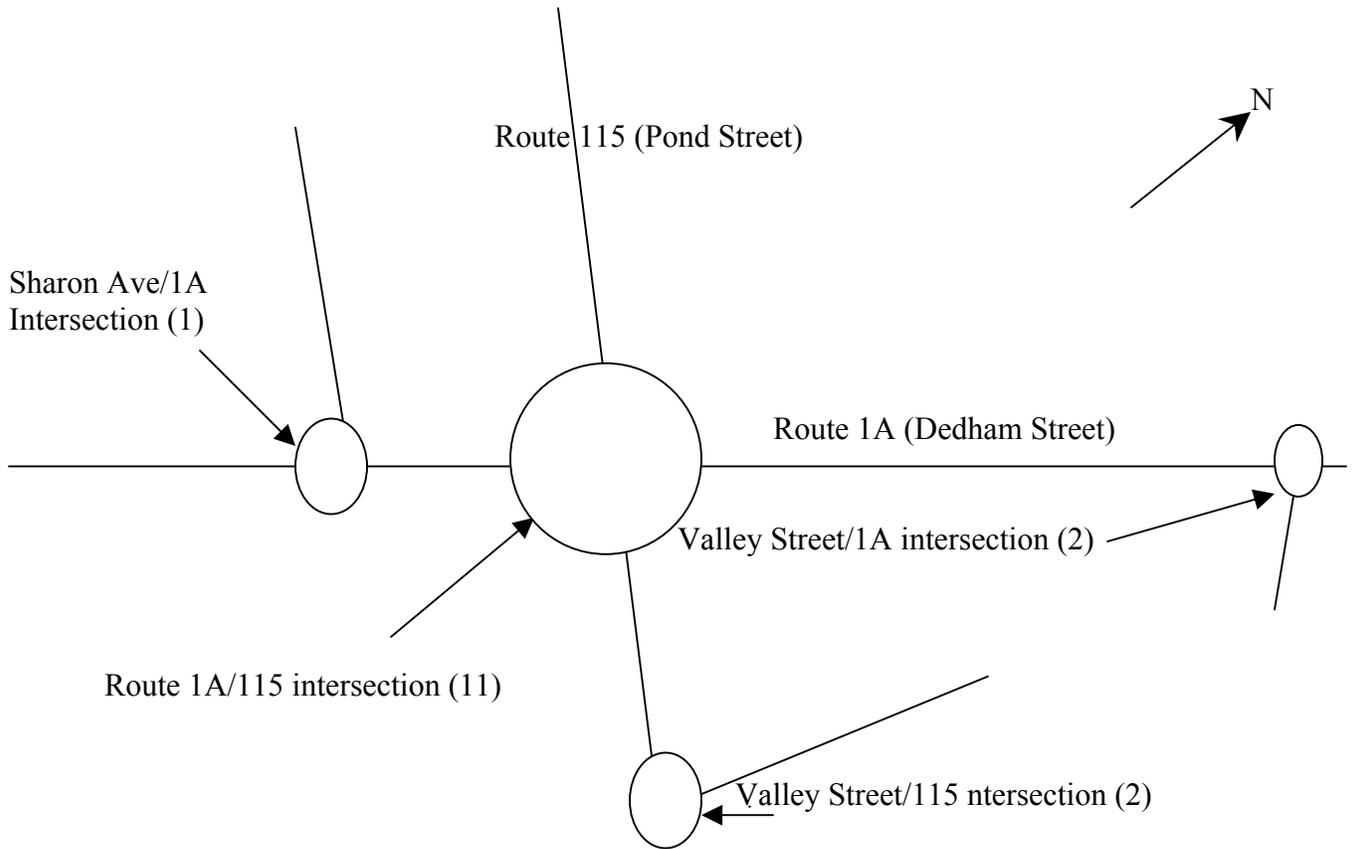
Intersection Operations

An operational and design analysis was conducted at the Route 1A/Route 115 intersection using the methodology in the *2000 Highway Capacity Manual* (HCM), published by the Transportation Research Board. The HCM presents methods for analyzing capacity for a broad range of facilities. The capacity analysis procedures are generally used to estimate existing traffic carrying abilities, to include bicycle and pedestrian flows, and to plan and design improvements to accommodate the same. In this case, the procedures for signalized intersections were used to assess the capacity issues created by physical space and time allotments for traffic movements. Further, the findings below highlight the factors impacting the capacity of the Route 1A/Route 115 area, relative to the base conditions for intersection approaches (travel widths, curb parking, etc.), roadway conditions (number of lanes, lane and shoulder widths, availability of exclusive turn lanes at intersections, etc.), and traffic conditions (vehicle types and directional flows).

FIGURE 13

CRASHES DURING PERIOD 1998- MAY, 2004

ROUTE 1A/ROUTE 115 INTERSECTION AND VICINITY



Sources: Norfolk Police Department
Central Transportation Planning Staff

Several capacity and service issues were noted while observing the intersection, all of which are either a result of existing road conditions or reoccurring traffic conditions. The following are the major problem conditions identified during the study that was performed with particular emphasis on the Route 1A/Route 115 intersection:

- Pedestrian and bicycle accommodations are non-existent. There aren't any sidewalks on either street and the current shoulder widths of the streets are inadequate for cyclists and joggers;
- Tractor-trailers utilize the curbs/shoulders along Pond Street for parking while visiting the convenience store at the corner of 1A and 115. This occurred several times during the study observation periods listed above. This limits motorists ability to make the right –turn onto 1A from Pond Street/Route 115 East Bound and it adversely impacts traffic flows and safety when these heavy vehicles reenter the traffic stream;
- The travel ways, specifically the approach lanes, are not wide enough to allow vehicles approaching the intersection to travel thru without maneuvering around the preceding vehicle delayed in making the left-turn. Such maneuvering impairs the visibility of on coming vehicles attempting left-turning movements (most notably on 1A);
- Visual queues occur when heavier/wider vehicles are attempting left hand turning movements at the intersection;
- Vehicles frequently use the off street area of the southwest quadrant of the intersection as a cut through to avoid the traffic light and perceived delays. This off street area is also used for queuing of u-turned vehicles.

Pedestrian and Bicycle Facilities

A reconnaissance performed on the study area showed that pedestrian and bicycle facilities are non-existent within the study area. However, at least one cyclist was observed traversing the intersection during each observation period.

RECENT AND PENDING COMMERCIAL DEVELOPMENTS

Table 32 presents the existing private sector development in the C1 district. The table indicates that there is currently 456,966 square feet of space developed on 92.15 acres. This results in an FAR of .114. It is typical for automobile-oriented development along a highway to be less intensively developed than a Town Center. However, this is somewhat below typical densities for the region, which are generally in the range of .15 to .20. Therefore, for purposes of this analysis, it will be assumed that the existing commercial space is somewhat underdeveloped, and an FAR of .15 will be used to estimate development on the parcels that are currently vacant.

There are 135.58 acres in 48 undeveloped parcels. An FAR of .15 would result in an additional 885,879 square feet of commercial space. At 1 job per 450 square feet, this would result in 1969 additional jobs. Table 33 presents a breakdown of the type of

potential new commercial space that might be developed in the C1 district. It assumes that the new space would be developed in the same proportion as the existing development, except that both the Forekicks indoor recreation facility and the radio transmission facility have been excluded since they are unique facilities unlikely to be duplicated.

**TABLE 32
EXISTING DEVELOPMENT IN THE C1 DISTRICT**

LAND USE	CODE	NUMBER OF FIRMS	LAND AREA (acres)	BUILDING AREA (Square feet)
Other Storage, Warehouse and Distribution Facilities	316	12	44.22	218,473
Discount Stores	322	3	2.38	22,535
Eating and Drinking Establishments	326	3	3.71	28,482
Automotive Supplies Sales and Service	331	1	1.06	5660
Auto Repair Facilities	332	3	2.64	11,822
Fuel Service Areas	333	1	.79	1530
Other Motor Vehicle Sales and Services	338	2	2.00	10,440
General Offices	340	5	5.40	39,344
Indoor Recreation Facilities	377	1	24.24	81,210
Building for Manufacturing Operations	400	3	4.31	30,682
Warehouses for Storage of Manufactured Products	401	1	.71	5000
Radio Transmission Facilities	433	1	.69	1788
TOTALS		36	92.15	456,966

Computed by authors from Assessors' Data, 2004

**TABLE 33
POTENTIAL DEVELOPMENT IN THE C1 DISTRICT**

LAND USE	CODE	PERCENT OF EXISTING DEVELOPMENT¹	POTENTIAL BUILDING AREA (Square feet)
Other Storage, Warehouse and Distribution Facilities	316	58.4%	517,353
Discount Stores	322	6.0%	53,153
Eating and Drinking Establishments	326	7.6%	67,326
Automotive Supplies Sales and Service	331	1.5%	13,288
Auto Repair Facilities	332	3.2%	28,348
Fuel Service Areas	333	.4%	3543
Other Motor Vehicle Sales and Services	338	2.8%	24,805
General Offices	340	10.5%	93,017
Building for Manufacturing Operations	400	8.2%	72,642
Warehouses for Storage of Manufactured Products	401	1.3%	11,516
TOTALS		100% ¹	885,879 ¹

Computed by authors from Assessors' Data, 2004

¹Totals do not add to exactly 100% or total building area due to rounding

Future peak hour trip generation information for this new development (those for which comparable land use codes could be found in the ITE Trip Generation Manual) is detailed in Table 33. As the table demonstrates, the increased development in the C1 district would add 1,543 vehicles to the 2004AM peak hour traffic of 1402. This would more than double it to 2,925. The PM peak hour traffic would increase from 1,567 in 2004 to 3,518. This analysis is conservative because it does not include all of the potential commercial buildout (848,670 vs. the total of 885,879 square feet), and it does not include the increase in pass-through traffic.

It is not possible to predict a timetable as to when the 885,879 square feet will be developed. However, approximately 300,000 square feet have been developed in the area over the past four years. If that pace continues, the C1 district will be built out within 12 years. Furthermore, this analysis does not include the former Southwood Hospital site. This site includes more than 80 acres. An age-restricted residential development had been proposed for the site, but it is zoned for mixed uses.

Figure 14 presents an aerial view of the C-1 district showing existing development as well as vacant land. The boxes in green indicate recent buildings constructed with the area of the buildings noted beside the box. Proposed commercial subdivisions are indicated in orange. Proposed physical improvements are also noted on this figure.



TOWN OF NORFOLK
ORTHOGRAPH OF C-1 ZONING DISTRICT



MASS GIS
 MA Department of Transportation
 MAFC

FUNDING PROVIDED BY THE DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT, THE EXECUTIVE OFFICE OF ENVIRONMENTAL AFFAIRS, THE DEPARTMENT OF ECONOMIC DEVELOPMENT, AND THE EXECUTIVE OFFICE OF TRANSPORTATION AND CONSTRUCTION, UNDER EXECUTIVE ORDER 418. PROJECT ADMINISTRATION PROVIDED BY THE METROPOLITAN AREA PLANNING BOARD.

PROPOSED COMMERCIAL SUBDIVISIONS SET
 DATE OF RECORDATION: 12/15/2011

FIGURE 14

TABLE 34**FUTURE ADDITIONAL VEHICLE TRIP GENERATION**

Development (LUC Code#)	Size (Square Feet)	Weekday Peak Hours		Saturday Peak Hour
		AM Total	PM Total	
Warehousing 150	517,353	295	315	62
Discount Store 815	53,153	280	288	402
Restaurant 931	67,326	374	607	728
General Office 710	93,017	144	139	38
Manufacturing 140	72,642	57	55	20
Auto Parts Service 943	13,288		59	87
Fuel Service 944	3,543	302*	375*	
Auto Care 942	28,348	91	113	
TOTALS	848,670	1543	1951	1337

*#From ITE Trip Generation Manual***Assumes 24 fueling positions*

RECOMMENDATIONS

Physical Improvements

Route 115, from Route 140 in Foxboro through to the center of Norfolk is currently on the TIP and is designed at the 25% level. This preliminary design incorporates a few roadway improvements that will enhance the operational and safety aspects of the Route 1A/Route 115 intersection. However, as pointed out below, a few other improvements need to be incorporated into the planning process. The following improvements are planned and are included in the 25% design drawing:

- Installation of sidewalks to the northern side of Route 115;
- Addition of granite and bituminous curbing to both the northern and southern sides of Route 115 respectively;
- Increasing of the shoulder widths to five feet on both sides of Route 115 thru the intersection with Route 1A.
- Improve the Valley Street intersection by eliminating the acute angle and establishing a 90-degree intersection.

Once constructed, the above referenced improvements will enhance pedestrian and cyclist safety.

It is hereby recommended that the following additional improvements be considered. The first set of recommendations are operational measures that can be implemented in the near term ahead of the roadway reconstruction. This is followed by a set of recommendations to be incorporated into the Route 115 design and/or to be considered for improvements to Route 1A.

Operational (Short Term 1-3 yrs)

- Further analyze and adjust/develop signal phasing and timing arrangements as needed;
- Adopt measures to prohibit trucks from parking within ROW along Pond Street (Route 115); e. g., signage, traffic safety monitoring, widening of pavement and striping for right-turn movements;
- Install signage and/or physical barriers, at the southwest corner of the Route 1A/115 intersection to discourage cut thru movements.

Design (Long Term 3-10 yrs)

- Further analyze whether potential increased traffic will require widening at the approaches to the Route 1A/Route 115 intersection to accommodate exclusive left turning lanes;
- Protect the left-turn movement from 115 (Pine Street) onto 1A and from 1A onto 115 (Pond Street) by installing new signalization if necessary;

- Widen travel ways to provide joint thru and right-turn lanes on the approaches to the Route 1A/115 intersection;
- Add painted and striped crosswalks to all four directional travel ways to improve pedestrian safety.
- Construct sidewalks on both sides for the entire .7-mile stretch of 1A included in the study area and on the south side to the Walpole town line (This is especially important if the former Southwood Hospital site is developed as age-restricted housing or as a commercial or mixed-use site).
- Determine whether additional right-of-way is necessary to accommodate turning lanes at the Route 1A/115 intersection

Additionally, the Town through the local approval process should attempt to secure additional right-of-way from developers in the study area and pursue land acquisitions from owners of vacant property throughout the district. Such land acquisitions would assist in providing the necessary right-of-way widths for future roadway improvements. Based on the current widths, a ROW expansion may be needed along Route 1A and along the Pond Street portion of Route 115 to accommodate future turn lanes and sidewalks.

Regulatory Measures

In addition to physical improvements, a number of regulatory measures need to be considered that could impact the total traffic in the area, how it is managed and the pace at which it might increase. These regulatory measures include the C1 zoning district frontage road requirement, impact fees, and District Improvement Financing. Each of these is discussed below.

C1 District Frontage Road Requirement

The C1 zoning district requires that properties developed along Rote 1A and Route 115 provide a frontage road along the front of the lot and connecting with adjacent lots. The purpose of this requirement is to reduce the number of curb cuts in the area and to provide a means of access among abutting properties without the need for vehicles to use the two state-numbered routes.

Now that development in the area is progressing, it may be time to reevaluate the frontage road requirement. On the one hand, its impact on the main roads needs to be analyzed. If the concept is successful in removing sufficient traffic from Routes 1A and 115, some of the physical improvements recommended above (such as turning lanes and road widening) may not be necessary. On the other hand, there may be a need for flexibility in the frontage road requirement in order to avoid connecting adjacent, but incompatible land uses. If such flexibility is adopted, it should include a provision to preserve the option of a frontage road connection in the future when the adjacent land uses change.

Impact Fees

Many of the physical improvements recommended above can be included in the Route 115 reconstruction project to be funded through state and/or federal funds. Other improvements will not be included in that project because they involve solely Route 1A or local streets. Many states provide for impact fees to be assessed on development projects to finance improvements that become necessary in the vicinity of the new development. While off-site mitigation can be required of development projects to reduce direct impacts of the project, impacts fees generally are assessed on a pro rata basis to development projects to finance infrastructure projects that will benefit the new development in general, but will also benefit other developments in the area.

Impact fees are currently not generally allowed in Massachusetts, unless specifically authorized by the Legislature (such as on Cape Cod). However, a proposed land use reform act would change that and specifically authorize impact fees. This tool should be explored further as a means of financing needed improvements.

District Improvement Financing

In 2003, the legislature passed and the Governor signed, legislation allowing District Improvement Financing. This legislation provides a means of using the increased tax revenue resulting from new development to finance infrastructure projects without which the new development would not be possible.

The prime objective of this program is generally to provide major infrastructure improvements that are lacking in an area and are needed to attract specific business development that is highly sought by the Town. It is not intended to make relatively minor improvements to existing roadways.

VI. PUTTING IT ALL TOGETHER

Synthesis

The “Statement of Purpose” section of the Open Space and Recreation Plan component of this report, asserts “A common vision facilitates decision-making for everyone.” This declaration is even more relevant when considered in the context of the entire Community Development Plan rather than just the Open Space and Recreation element.

The Open Space and Recreation Plan identifies critical resources in need of protection. Therefore, new housing and economic development should not take place in a location or in a manner that will hurt those resources.

As Figure 15, “Putting It All Together” illustrates, the primary areas of focus for additional housing and economic development efforts help further the goals of open space preservation. The areas targeted for new housing and economic development efforts are those in close proximity to existing development, while the areas targeted for open space protection are sensitive lands that need protection and/or lands that form links between already-protected open space areas.

Furthermore, the areas targeted for housing are in areas that will do more than address the housing need. It will reinforce the existing commercial districts, provide pedestrian linkages, and promote social interaction to reinforce a “community” milieu.

Next Steps

In addition to the specific recommendations listed within each of the sections of this document, there are several overarching steps that should be pursued by the Town. These include the following:

- **Update Master Plan**
This document forms the basis for a major update of the 1992 Master Plan. It provides the data necessary to update the open space and recreation, housing, and economic development elements. It also provides a significant amount of the data needed to update the natural and cultural resources, transportation and town center elements. The information in this document should be subjected to additional input from the public and Town officials and the effort expanded to include all the elements of a master plan.
- **Update Open Space and Recreation Plan**
While this document includes a virtually new Open Space and Recreation Plan, that portion of the document should also be subjected to additional input from the public and Town officials prior to submission to the Division of Conservation Services for approval. In addition, the handicapped accessibility portion of the plan also needs to be updated.

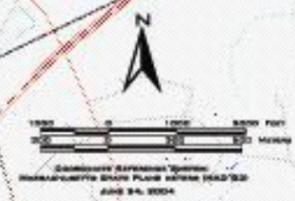
TOWN OF NORFOLK

PUTTING IT ALL TOGETHER



ZONING DISTRICTS	HYDRO
EXISTING LAND-USE CATEGORIES	STREAMS
AGRICULTURE	INTERMITTENT STREAMS
NATURAL LAND/UNDISTURBED VEGETATION	WATER BODIES
INDUSTRIAL/TRANSPORTATION/MINING	WETLANDS
OPEN LAND	WASTEWATER DISPOSAL POND
URBAN OPEN/INSTITUTIONAL/RECREATION	OPEN SPACE
HIGHER DENSITY RESIDENTIAL	MUNICIPALLY OWNED
MEDIUM DENSITY RESIDENTIAL	PERMANENTLY PROTECTED/CONSERVATION RESTRICTION
LOW DENSITY RESIDENTIAL	ROADS
COMMERCIAL	COLLECTOR
WATER	LOCAL
POTENTIALLY DEVELOPABLE LAND BY CURRENT ZONING	TRAINS
BUSINESS 1	PROPOSED ITEMS
BUSINESS 3	LINKS
BUSINESS 4	PROPOSED HOUSING SITES
COMMERCIAL 1A	CONSERVATION/RECREATION LANDS OF INTEREST
COMMERCIAL 1B	PROPOSED ECONOMIC DEVELOPMENT SITES
COMMERCIAL 2	
COMMERCIAL 3	
COMMERCIAL 4 (AGE RESTRICTED MULTI-FAMILY)	
RESIDENCE 1	
RESIDENCE 2	
RESIDENCE 3	

FIGURE 15



FUNDING PROVIDED BY THE DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT, THE EXECUTIVE OFFICE OF ENVIRONMENTAL AFFAIRS, THE DEPARTMENT OF ECONOMIC DEVELOPMENT, AND THE EXECUTIVE OFFICE OF TRANSPORTATION AND CONSTRUCTION, UNDER EXECUTIVE ORDER 418. PROJECT ADMINISTRATION PROVIDED BY THE METROPOLITAN AREA PLANNING COUNCIL.

- **Pursue Mixed Use Town Center District**
The Town has made significant progress in creating a new Town Center. Efforts should continue to advance that goal. In particular, infrastructure issues need to be identified and addressed.
- **Pursue Affordable Housing**
A number of potential affordable housing initiatives have been identified. The Town needs to continue its efforts to expand housing opportunities. Substantial progress has been made with the approval of a Chapter 40B project. Expanding housing opportunities in the new Town Center will achieve multiple goals, of which addressing housing is one.
- **Continue To Promote Economic Development**
The Town's commercial development has expanded in recent years. However, more needs to be done. The Economic Target Area designation can be a valuable tool for encouraging additional economic growth.

Potential Implementation Mechanisms

The ability to implement recommendations is the key to any plan. A combination of financial and regulatory measures is needed. Some of these potential measures that could be useful are discussed below:

Financial

Land is very expensive to acquire. It is very difficult for municipalities to raise the funds needed for fee simple purchase. Similarly, subsidized housing and infrastructure to support economic development is also difficult to finance even when such investments may be cost-effective in the long run. It may be somewhat easier to raise the funds for necessary improvements when they are part of a coordinated plan with goals supported by the public.

Some possible financial mechanisms that can be used to finance the recommendations include:

Community Preservation Act – As discussed above, Norfolk has adopted the Community Preservation Act and has added a property tax surcharge of 3% for the purposes of open space, recreation, historic preservation and affordable housing. A minimum of 10% of the funds raised must be spent on each the areas of open space, historic preservation and affordable housing. The remaining 70% is available for any of the three as well as recreation. Thus, a dedicated source of funding is in place that can be used to address the open space, recreation and housing recommendations. It can be used in combination with some of the other mechanisms listed below. The CPA is probably the single most effective tool available to implement the recommendations of this Plan.

Bonding Capacity – As bonds for previously funded capital improvements (schools, water projects, etc.) are paid off, some or all of that bonding capacity could be available for additional projects. For example, if \$100,000 per year of bonding capacity were to become available, it could finance (at 7% interest) a \$700,000 project over 10 years or a \$1.06 million project over 20 years. CPA funds can also be bonded for eligible projects.

Debt Exclusion – Similarly, without waiting for other bonds to be paid off, the Town could seek voter approval to create new bonding capacity by excluding a specified amount from the limits of Proposition 2 ½. For example, if the voters approved a debt exclusion of \$1,000,000 for a project, the specific amount needed to finance the purchase (including principal and interest) would be raised by increasing property taxes beyond the limit imposed by Proposition 2 ½. When the purchase was fully paid for, the authority to increase taxes would automatically expire and the property tax rate would revert to what it would have been had there not been a debt exclusion.

State/Federal Grants – State and federal grants are available for open space purchases, recreation projects, housing, and economic development. Among the programs available is the Self-help Program of EOEAs' Division of Conservation Services. It will reimburse communities for up to 90% of the cost of acquiring conservation land. The federal Land and Water Conservation Fund (administered by the Division of Conservation Services) will fund up to 50% of the cost of acquiring or developing recreation land. While this program has not been fully funded in recent years, there is renewed interest in this it and more funds should be available in the future. The Department of Food and Agriculture administers the Agricultural Preservation Restriction Program, which purchases the development rights of farmland. The Department of Fisheries, Wildlife and Environmental Law Enforcement administers the Non-Game Tax Fund, which uses voluntary contributions from a state income tax form check off to purchase the habitats of endangered species.

The federal Community Development Block Grant program, administered by the Massachusetts Department of Housing and Community Development (DHCD) is a potential funding source. While not available for open space purchases, it can be used for infrastructure improvements that can facilitate park development.

The PWED (Public Works Economic Development) program is available to fund infrastructure projects that promote economic development. It could be appropriate for improving infrastructure in the Town Center.

And finally, the federal Transportation Efficiency Act for the 21st Century (TEA-21, or its successor the Safe and Flexible Transportation Efficiency Act known as SAFTEA) encourages the development of alternative modes of transportation, especially bicycle paths through old railroad rights-of-way and other corridors. It also encourages enhancement of transportation corridors through the addition of decorative sidewalks, street lights, street furniture, etc.

Tax Benefits –Tax benefits can be used to encourage land owners to donate land or easements to the Town or to a land trust. Individual circumstances vary widely, but such donations can result in income tax deductions, reduction or avoidance of capital gains and/or estate taxes, and avoidance of future property taxes. In some cases the donations can be structured so as to not change the landowners current use of his land.

Regulatory

Regulatory measures can complement financial mechanisms to enhance a Town’s ability to acquire land and enhance community development and character. Some regulatory measures with potential to aid implementation of this Community Development Plan include the following:

Flexible Zoning/Transfer of Development Rights –Flexible zoning is essentially an overlay zoning district which, while maintaining the same density as the underlying zoning district, allows variations from the dimensional requirements (lot sizes, setbacks, frontages) in order to design a new development so that it minimizes environmental impact and/or results in protected open or recreation space for the general public. Norfolk’s open space preservation development and age-restricted provisions are examples of flexible zoning. When combined with transferable development rights, it can be a powerful tool for protecting open space while achieving other goals such as providing affordable housing and enhancing community character.

The “community character” that people want to preserve is often based on development patterns that are presently no longer allowed according to current zoning by-laws. A flexible zoning by-law has the potential to preserve open space and natural resources, provide recreation lands, preserve and enhance community character, and reduce infrastructure and service maintenance costs. Furthermore, in a time of limited public resources, it utilizes private resources to achieve a public benefit.

A flexible zoning by-law that includes transfer of development rights would work in a manner similar to an open space development by-law but in an expanded capacity. Just as the open space development by-law allows higher density on one portion of a parcel in order to preserve open space on another portion of the parcel (but without changing the overall density allowed for that parcel by the underlying zoning district), a flexible zoning by-law would allow higher density on some parcels in return for the purchase of development rights from another (not necessarily adjacent) parcel.

Criteria would be established to determine whether a particular parcel qualifies to relinquish/receive development rights to/from another parcel. Potential criteria for a “donor” parcel would include current use in agriculture, proximity to existing open space, environmental sensitivity (containing or adjacent to important habitat, wetlands, waterways, floodplains, water resource district, etc.), serving as a scenic resource or located on a scenic roadway, lacking sewer service, etc.

Criteria for “recipient” parcels would include easy access to sewer and water service, proximity to roadways capable of handling the additional traffic, location outside a water resource district, location that allows a vehicular and pedestrian link between already developed areas, proximity to a “village center” or other area of commercial or institutional use, and a location that allows a development plan with a minimum environmental impact.

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