

TOWN OF DOVER

MASTER PLAN



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TOWN OF DOVER
2004 MASTER PLAN

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Summary

As envisioned in this Master Plan, Dover in the year 2025 will not be dramatically different from the Dover of today. It will still be a “rural suburb” - suburban in population, rural in infrastructure. Streets will continue to be laid out like irregular spokes on a wheel, intersecting at Dover Center. Zoning should encourage patterns of development that will consist primarily of low-density rural residential neighborhoods, while addressing Dover’s specific affordable housing concerns. The Town’s commercial and/or industrial areas will remain modestly confined to the Center area. The Town’s rural character will be preserved by Dover’s continued efforts to encourage and preserve stone walls, build roadways that reflect the appropriateness of their function, guard and enhance street trees, identify and encourage links between dedicated open space areas, and protect water resources.

The Master Plan envisions education and informational programs as the primary mechanisms for broadening its citizens’ knowledge of and relationship with the environment, conservation, recreation, agriculture, and disposition of land. Additionally, the Master Plan encourages regular review of the Zoning Bylaw, with special emphasis on density, groundwater protection, infrastructure growth, general health, safety and welfare. The Master Plan also suggests that multi-family housing and cluster-type zoning bylaws should be considered as possible Bylaw amendments. The Implementation Element identifies lead agencies for each effort or study as well as secondary and tertiary agencies. Where known, associated costs are included.

According to the 2004 Dover Town Census, Dover has approximately 6,085 residents or 3.6 persons per household. Within the Master Plan elements dedicated to Housing, Public Services and Facilities, and Natural and Cultural Resources, the impacts of future growth are discussed. This projected growth will impact the Public Services and Facilities element most significantly. This element focuses on Dover’s administrative facilities, schools, public safety - police and fire, social services, library, post office, cemetery, highways, and waste disposal. Each sub-element considers the projected population growth within its parameters for future needs. Notwithstanding population projections, the Master Plan continues to support competent volunteerism as an essential element of the Town’s governmental framework.

Dover’s strong commitment to volunteerism has helped to preserve the Town’s fiscal and financial viability. As a small, predominantly residential town, Dover is firmly dependent upon non-commercial tax revenues. The Master Plan acknowledges Dover’s continued desire to rely on a small governmental employee base as well as a volunteer Fire Department. This reliance is possible due to the commitment and dedication of its residents to community service.

As the Town continues to grow, the challenge for Dover will be to maintain its rural character. In conclusion, it is hoped that with planning and foresight Dover in 2025 will not be so very different from Dover in 2004.

I. GOALS AND VISION STATEMENT

This Master Plan provides guidelines for Dover's future through the year 2025. A master plan is a living document that incorporates new data and analyses, and constantly evaluates goals and objectives as years go by. The Master Plan's purpose is to provide clear, coherent policy for future decisions relating to land use, housing, economic/fiscal planning, natural resources, open space and recreation, municipal facilities/utilities/services, and vehicular and pedestrian circulation. It is designed to inspire implementation of its goals and objectives so that the community's vision of Dover is upheld through the year 2025. However, those goals and objectives will only be achieved to the extent the Town and its various boards, departments and commissions proactively implement the recommendations of this Master Plan.

Dover was first settled around 1635 and was a part of the Town of Dedham. Dover was known then as Springfield because it was a primarily farming community with open fields. It was incorporated as a town in 1836 and named in honor of the Springfield Parish's hometown in England.

Historically farming was Dover's principal industry, with hard work and pride of place highly valued. Although the Town has evolved into a rural/suburban community, scenery common to farming communities in New England (such as open pasture land, stands of white pine, birch, oak, and maple, old stone walls dividing properties, farm houses and barns) is still very much in evidence today. Dover's heritage and its country atmosphere are highly valued by its citizens and represent a strong undercurrent in the community's vision of the future.¹

Most properties in Dover rely exclusively on local wells for drinking water and almost entirely on septic systems for sewage disposal. The community's vision of the future calls for following practices that will not endanger our groundwater supply, such as maintaining a low overall density, high septic system test standards, and a small non-polluting industrial base. Protecting groundwater quality remains the paramount concern for planning and land use.

Due to the Town's desire to maintain low density and protect groundwater, it historically has not fostered significant industrial development. Consequently, the tax base is primarily residential. The Town also has a strong commitment to excellence in education. As a result, most of the tax base goes to the school system. This necessarily means that remaining resources must be wisely distributed to Town services, complemented by the core belief that our citizens will support and be an integral part of the Town services delivery system through volunteer work. Thus, the community's vision of the future includes significant citizen participation in the Town's governance.

Dover citizens expressed a number of these concerns at several planning forums held during 1993. In addition, their opinions were further sought through surveys conducted as part of the Principles and Values report and the drafting of the original Master Plan. The following goals emerged as critical to the quality of life of Dover residents:

- Preserving the purity and private ownership of our water supply

¹ Town of Dover Open Space and Recreation Plan, 2003 Update.

- Maintaining Dover as a rural town while encouraging neighborhoods
- Integrating town planning and management
- Protecting and enhancing Dover's natural environment
- Retaining a volunteer community
- Sustaining top quality education and community culture
- Managing population growth for fiscal and environmental health
- Incorporating affordable housing into the fabric of Town life

These themes are more specifically and thoroughly addressed in each of the Master Plan elements.

II. LAND USE

Introduction and Overview

Recent surveys and public forums have confirmed the nearly unanimous desire of Dover residents to follow rural patterns in order to protect the Town's precious water resources and to promote biodiversity (which supports as well as indicates healthy ecosystems, soils and groundwater). People choose to reside in Dover because it offers an oasis from the suburban development patterns of most surrounding towns. Here, instead of homogenized grid-like street patterns, Dover's streets follow a more spoke-like pattern, originating at the center of Town and extending outward as the lay of the land allows. With few exceptions, streets in Town are subordinate to the land and homes they serve, rather than the dominant feature of a subdivision or landscape. Extensive networks of bridle trails are interwoven throughout the Town, providing opportunities for informal individual, family and group recreation - horseback riding, snowshoeing, cross country skiing, and nature walking in a country environment.

Dover's ability to control its future, although limited, is fortified by state statutes that enable and shape the Town's local bylaws and subdivision rules and regulations. For example, Chapters 40A, 41 and 81 of the Massachusetts General Bylaw (first adopted in 1933), the Wetlands Protection Act, the Groundwater Protection Bylaw, Board of Health regulations, and other environmental protection measures, preserve much of Dover's valued natural resources. In addition, they protect the Town's private wells from development impacts and help to provide an adequate buffer for individual systems.

Accordingly, the Zoning Bylaw generally restricts new subdivision developments to one- or two-acre single family residential lots. This relatively low density zoning helps to protect the private wells on which most homes depend. Also, nearly 100% of Dover's houses depend on individual septic systems; there are no town sewers. This limits residential, commercial and industrial development to the natural carrying capacity of the land and water resources. To help protect the water table, conserve the extensive wetlands, and continue to promote a high quality of life, Dover also encourages the conservation of open space. Approximately one third of Dover's land is currently managed as open space by non-profit organizations and/or is naturally constrained against development. Citizen Survey results and Town Meeting votes indicate that land conservation is consistently and strongly supported as a high priority for the Town.

Regional Context

The Town of Dover is located approximately 16 miles west-southwest of Boston and forms part of the western boundary of Norfolk County. It consists of 15.3 square miles (9,792 acres) of area. The abutting towns are Wellesley and Needham to the north, Westwood to the east, Walpole and Medfield to the south, and Sherborn and Natick to the west.

Dover boundaries are the same today as they were in 1797. The western and northern boundaries are formed by the Charles River, except for a triangle of land in the

northwest comer (around Pegan Hill) that was separated from Dedham and given to Natick in 1650. The eastern boundary is a straight line that runs in a slight (approximately 10 degrees) angle in a northwest/southeast direction. The southern boundary runs from the southern terminus of the eastern boundary along County Street (Route 109) for about a mile. It then angles north for another mile and, finally, runs due west to a point on the Charles River just south of the Rocky Narrows Reservation.

Dover is a small town with substantial rural character. The Town Center is compact. It consists of the Town House, Police Station, Caryl School building, Charles River School, a market, coffee and sandwich shop, Post Office, gas station, day spa, antique shop, liquor store and a few commercial and medical offices. The majority of Dover's commercial, professional, and medical needs are met beyond its borders. Dover is also the site of the Massachusetts Horticultural Society headquarters, located at Elm Bank.

The Elm Bank aquifer located in the northernmost part of Town, is a significant regional resource. It is a high-yield aquifer to which four communities have rights: Dover, Natick, Needham and Wellesley.

Dover is also the site of Noanet Woodlands (owned by The Trustees of Reservations) and about half of Hale reservation (the other half is in Westwood.) Together these contiguous properties total about 1,800 acres in the two towns and draw visitors from much of eastern Massachusetts. Several other large tracts of open space in Dover, including Chase Woodlands, Centre St. Corridor, Medfield State Forest and Snow's Hill Reservation, provide further open space corridors for Dover residents' recreational use. In addition, Rocky Woods Reservation in Medfield and Pegan Hill Reservation in Natick both abut and have trails connecting to Dover open space properties. These reservations are all open to the public and have well-marked trails for walking, horseback riding and, in some cases, off-road biking. (Please see Section IV-Open Space and Recreation for more detail.)

In addition to preserving Dover's rural character, the goals of Dover's open space acquisition efforts are to conserve the current undeveloped land, thereby easing pressure on the groundwater table and the potability of the groundwater, to create green belts and wildlife corridors, which protect natural habitats and biodiversity, and to increase the land available for recreational and athletic use. To this end, the Town purchased the 62 acre Wylde property on Center St. in 2000, and a 35.8 acre parcel of the Medfield State Hospital land in 2003. Open space acquisition should continue to be a priority to preserve Dover's rural character and the purity of its groundwater resources.

History

Dover was first settled around 1635, and for many years was part of the town of Dedham (see Figures 1 and 2). Its history was recorded in Frank Smith's A History of Dover, Massachusetts, published in 1897. More recently, Richard Vara published Dover Days Gone By as part of Dover's contribution to the nation's bicentennial celebration of

1976. The Vara book catalogues the history of Dover and its environs from prehistoric Native American life through the 1970s.

Prior to its incorporation as a Town in 1836, the area was named Springfield because it was predominantly a farming community with open fields centered on the "bubbling springs" of Trout Brook. The Chairman of the Springfield Parish committee chose the name Dover in honor of his ancestral home in England.

Historically farming has been Dover's principal industry. Other industries, including lumbering for the shipbuilding industry, a grist mill, a nail factory, and an iron rolling business, were also developed. Little of Dover's industrial heritage is evident today. However, the remains of the Dover Union Iron Mill in Noanet Woodlands were reconstructed and are in excellent condition. It serves as a monument to the ingenuity of the Town's forebears in using water power to drive the machinery to create iron bars.

Aspects of Dover's farming heritage, including the work ethic and pride of place evidenced by farmers of yesteryear, are still evident in the rural quality of the Town today. Scenery common to farming communities in New England, (i.e., open pastures stands of white pine, birch, oak, and maple; old stone walls, farm houses and barns,) is still very much in evidence today. Dover's heritage and country atmosphere are highly valued by its citizens.

FIGURE 1

Population Characteristics

Population and Household Growth

As shown in Tables 1 and 2, the Town of Dover grew rapidly from 1940 to 1970. During this 30-year period, the Town more than tripled in size from 1,374 to 4,529. The biggest growth spurt occurred during the 1950s when the Town grew by 65%, an increase of more than 1,100 residents. Another 1,683 residents were added in the 1960s, for an increase of 59%. Growth slowed considerably in the 1970's and 1980's with population increasing about 4% each decade. Dover experienced another increase in its growth during the early 1990s with the addition of County Court, which caused the population to increase by about 8% from 1990 to 1993. The current resident population (Dover census year 2003) is 5907. Table 2 shows that population growth averages about 1% annually.

**TABLE 1
DOVER POPULATION GROWTH, 1950 TO 2003**

<u>Year</u>	<u>Population</u>	<u>Change</u>	<u>% Change</u>	<u>Avg. Annual</u>
1950	1722	348	25.3%	2.5%
1960	2846	1124	65.3%	6.5%
1970	4529	1683	59.1%	5.9%
1980	4703	174	3.8%	4%
1990	4915	212	4.5%	5%
2000	5874	959	19.5%	2.0%
2003	5907	33	6 %	N/A

Source: US Bureau of the Census, various years

TABLE 2
DOVER POPULATION AND HOUSEHOLD GROWTH 1993 to 2003

<u>Year</u>	<u>Population</u> <u>(Households)</u>		<u>Change</u>		<u>% Change</u>	
1993	5296	(1737)	N/A		N/A	
1994	5420	(1805)	124	(68)	2.3%	(3.9%)
1995	5585	(1812)	165	(7)	3.0%	(.4%)
1996	5621	(1832)	36	(20)	.6%	(1.1%)
1997	5730	(1851)	109	(19)	1.9%	(1.0%)
1998	5751	(1873)	21	(22)	4%	(1.2%)
1999	5771	(1873)	20	(0)	4%	(0%)
2000	5874	(1902)	103	(29)	1.8%	(1.6%)
2001	5914	(1912)	40	(10)	.7%	(.5%)
2002	5896	(1921)	-18	(9)	-.3%	(.5%)
2003	5907	(1924)	11	(3)	.2%	(.2%)
1993-2003		N/A	611	(119)	11.5%	(10.8%)
ANNUAL AVERAGE	N/A	N/A	N/A	N/A	96%	(1.1%)

N/A = Not Applicable

Population density in Dover has also increased significantly from 90 persons per square mile in 1940 to 385 persons per square mile in 2003. Still, Dover's population density is less than half that of the State as a whole, substantially lower than its MAPC sub-region as a whole (about one-fourth as great), and less than one-sixth that of the MAPC district as a whole. This attests to the significant open space and rural character that exists in Dover today.

Table 3 presents the amount of land in various land use categories in 1951, 1971, 1980, 1985, 1991 and 1999 (the most recent data available). It should be noted that the categories for each year are not strictly comparable. Moreover, the 1985 data is slightly different because the totals equal almost 100 acres less than the totals for other years. Nevertheless, this data provides a good sense of how land uses have changed over the years.

Table 3 also shows that the total number of acres for urban use (primarily residential) has almost quadrupled in the last twenty-five years, primarily at the expense of agricultural land, which is not surprising, but equally from wetlands, and to a lesser degree from forest. It is notable that Dover's "open lands" increased significantly from none in the 50's to almost 350 acres in 1991. However, our total wetlands have decreased by half.

TABLE 3
LAND USE CHANGES IN DOVER, 1951 TO 1999 (in acres)

Land Use Category	1951*	1971	1980	1985	1991	1999	% Change (1951 to 1999)
URBAN							
Commercial	22	20	20	26	17	17	18
Multi-Family	0	0	0	0	0	5	0
Residential	732	2372	2647	2553	2607	2786	252
Total Urban	754	2509	2792	2708	2624	2808	272
AGRICULTURE	1546	658	191	732	823	797	-48
OPEN LANDS	0	219	200	229	346	302	N/A
FOREST	7190	6208	5965	5876	5825	5719	-20
RECREATION	N/A	33	40	35	N/A	N/A	N/A
WETLANDS	480	451	451	399	259	251	-47

*Categories not strictly comparable to 1971, 1980 and 1985 data.
 Source: MAPC, 1986, 1996, 1999

FIGURE 2

Tables 4 shows that while the overall population density of Dover continues to increase, the density of residential acres is holding steady due to the development of new residential acreage at the expense of wetlands and forested land. Multifamily development would obviously accelerate density and, if it occurs on less easily developed lands (i.e. wetlands and lands in proximity to them), will have a significant impact.

**TABLE 4
DENSITY ON LAND USED FOR RESIDENTIAL PURPOSES, VARIOUS YEARS**

<u>Year</u>	<u>Population</u>	<u>Residential Acres</u>	<u>Persons Per Acre</u>
1951	1,811	732	2.5
1971	4,546	2372	1.9
1985	5,038	2553	2.0
1990	4915	2607	1.9
2000	5874	2786	2.1

Note: The 1951 and 1971 population figures were estimated by increasing the 1950 and 1970 figures by the average annual increase for the respective decades (from Table 1). The 1985 figure is from 1985 Town Census. 1990 and 2000 data was gathered from MAPC.

Lands of Conservation and Recreation Interest

The Town of Dover is very fortunate to have a significant number of landowners who have maintained their large properties in an undeveloped state. These private holdings, which include agricultural and recreational lands as well as forests, fields and meadows, supplement the public and private non-profit open space holdings and contribute significantly to Dover's character.

Such lands include privately-owned protected open space and conservation lands; recreation areas and facilities; Chapter 61, 61A and 61B lands; and other lands of conservation or recreation interest.

Protected Open Space and Conservation Lands

Dover has approximately 2,658.2 acres of protected open space owned in fee by governmental agencies or private, non-profit groups whose mission is the acquisition and holding of conservation lands. This represents approximately 27% of the Town's area of 15.31 square miles (9,876 acres). The Trustees of Reservations (TTOR) controls the largest portion of this (951.93 acres), followed by Hale Reservation, Inc. (626.04 acres) the Dover Conservation Commission (446.41 acres), the Dover Land Conservation Trust (DLCT) (347.6 acres), the State of Massachusetts (293.82 acres) and the US Army Corps of Engineers (92.75 acres). The Town of Dover owns an additional 222.52 acres.

In addition to the lands listed above, 417.55 acres (4.2% of the Town's land area) are protected from future development by conservation restrictions. With a conservation

restriction, some or all of the development rights that are inherent to a parcel of land are separated from the ownership of the land itself and held by a governmental entity or an organization dedicated to protection of open space. For example, if a farmer were to place a conservation restriction on his farm, he would still own the land, he could continue to farm it, and he could prohibit public access. However, the farmer would not be able to subdivide and develop the land. The terms of conservation restrictions may differ. In some cases, they may allow one additional house for a family member. In other cases, no additional development at all could occur. Conservation restrictions may be donated and can result in an income tax deduction for the owner,, and possibly a real estate tax reduction due to the reduced value of the remaining ownership rights to the property. Such land may also be bought and sold, but the conservation restriction remains with the land in perpetuity.

The largest holder of conservation restrictions in Dover is The Trustees of Reservations, with 202.94 acres. Other entities holding conservation restrictions include the Dover Land Conservation Trust (88.46 acres), the Conservation Commission (21.80 acres), and the US Army Corps of Engineers (92.35 acres, not including 86.12 acres of restrictions on Town and DLCT land).

Chapter 61, 61A and 61B Lands

Chapter 61, 61A, and 61B lands are privately owned properties used for forestry, agriculture and recreation purposes respectively. These designations refer to those sections of the Massachusetts General Laws that provide for a property tax reduction for lands in those uses if certain conditions are met. Among the conditions is the provision that before any lands that receive such tax breaks change use, the land must be offered to the Town at fair market value and recent tax abatements must be paid. The Town has 120 days to respond to such an offer before the property can be sold to another buyer. These conditions do not impede a landowner's ability to realize the highest value for his property.

There are a total of 692.23 acres of Chapter 61, 61A, and 61B properties in Dover as of 2003. The largest category is Chapter 61A (agricultural) lands, with 401.97 acres. There are 166.97 acres in Chapter 61 (forestry) lands, and 123.29 acres in Chapter 61B (recreation) lands. (See Figure 3.)

FIGURE 3

Growth and Development Patterns

Patterns and Trends

The Town of Dover has developed around a town center. The Town Center is the governmental, institutional, retail, social and service center of the Town. It is surrounded by residential development built at a density of one housing unit per half-acre. Surrounding this core, there is a corridor of one-acre zoning running from the south end of Town along the Walpole town line through the center to the north part of Town where it abuts Natick, Wellesley and Needham. Except for the corner of Town that abuts Natick and Sherborn (which is also zoned for one-acre house lots), the remainder of the Town is zoned for two-acre residential lots.

As discussed above, Dover's largest period of growth occurred in the 1950s and 1960s, and to a lesser degree in the 1940s. As recently as 1910, there were only 769 residents. This increased to 1,374 by 1940, when the heavy growth began. The 1970s and 1980s was a period of slow growth, averaging about .5% annually as the number of residents grew from 4,529 in 1970 to 4,915 in 1990. Today, we are experiencing slow, steady growth of about 1% per year. Recent multifamily development projects (proposed and approved) will significantly impact the Town's growth rate.

It should be noted that the population growth understates, to some degree, the impact of development on the Town because household size has declined. According to the US Census there were 1,487 households in 1980, and the number of persons per household was 3.2. By 1990, the number of households had increased to 1,643, an increase of 10% from 1980. Since the number of persons per household declined to 2.98, the population increase is lower than it would have been had household size remained constant. Furthermore, household size is projected to decline further to 2.90 in 2000 and to 2.81 in 2010.

With the exception of a 56-unit condominium project built under a comprehensive permit off Route 109, recent development has been mostly low-density. In many cases, lot sizes have been greater than the minimums established by zoning. One recent subdivision plan of 143+ acres off Centre Street in a two-acre zone proposed only 15 subdivision lots plus two Approval Not Required lots with frontage on existing streets. In the Francis Street Subdivision, which is located in the one-acre zone, seven of 16 lots are from 10% to 25% greater than the minimum, and one is about 50% greater. The remaining eight lots are at least double the minimum lot size, and two are about 11 and 25 acres respectively. This subdivision includes a restriction limiting the total number of lots to 16. Dover Pines Estates is also located in the one-acre zone. The seven lots range in size from 1.39 to 2.31 acres. Part of this phenomenon is explained by the inherent limitations imposed on septic system location on a smaller lot.

Infrastructure

With the possible exception of transportation, Dover has relatively few of the three infrastructure elements that substantially impact development - transportation, sewer and water. Each of these is discussed below.

Transportation -- Only one State Highway, Route 109 (County Street), runs through any part of Dover. Route 109 borders the southernmost part of Dover for a short distance. The major local roads, which generally radiate out from the Town Center to provide access throughout the Town as well as to adjacent towns, include Dedham, Walpole, Pine, Centre, Farm, and Main streets, as well as Springdale Avenue. In addition, Route 128 and Route 9 are readily accessible from Dover in neighboring Westwood, Needham, Wellesley, and Natick.

No commuter rail service exists within Town, but such service is available in the abutting towns of Natick, Wellesley, Needham and Walpole. A freight rail line currently traverses Dover.

Air service is available at Logan International Airport in Boston and TF Green Airport in Warwick, Rhode Island. Both Norwood Municipal Airport and Norfolk Airport are also readily accessible from Dover.

Many pedestrian and horseback riding trails are available in Dover. Some of these trails link with trails and/or destinations in adjacent towns.

Sewer -- Dover has no sewer system. This has been a factor in limiting growth as well as resulting in low density development. There are no plans to provide sewer service in Town.

Water -- Dover residents and off site providers rely primarily on local wells for their water supply. (MAPC, 1993.) Off site providers include the Town of Dover Water Department, the Dover Water Company, Dover Water Works, Springdale Farms, and Old Farm Road Trust, as well as the Natick and Medfield municipal water departments. The Appendix contains a map illustrating public water system service areas in Dover.

Long-Term Development Patterns

The primary land use control in Dover is the Zoning Bylaw. Figure 4 illustrates the current zoning districts in Town. The Zoning Bylaw provides for four residential districts (including one multi-family district which is an overlay district that has not been used to date). The three conventional districts have minimum lot sizes and frontages of one-half acre and 100 feet (R); one acre and 150 feet (R-1); and two acres and 200 feet (R-2). It also designates districts for business, medical-professional, and manufacturing uses. There is also an Official or Open Space District for public and semi-public non-profit uses such as park and recreation areas, public buildings, cemeteries, schools, churches, reservoirs, and open space reservations. In addition, there are two special purpose districts (which are overlay districts for flood plain protection [conservancy] and for protection of ground water, natural conditions, wildlife, etc.).

Dover adopted a General Bylaw in 1993 that created Groundwater Protection Districts (Figure 5). Various activities are regulated and prohibited in these districts. Groundwater Protection District 1 (GW-1), which includes aquifer areas with the capability of supplying municipal water for Dover and/or adjacent towns, is very restrictive. Some municipal wells are already located in this district. Groundwater Protection District 2 (GW-2), which includes the remainder of the Town, is less restrictive than GW-1 but still protective of water sources. Wellhead Protection (WP) areas, which are the areas immediately surrounding public wells, have the most stringent restrictions.

The Conservation Commission administers the Massachusetts Wetlands Protection Act, and the Town of Dover Wetlands Protection Bylaw. A part-time Executive Assistant aids the Commission in its enforcement and administrative duties. It should be noted that the Dover Wetlands Protection Bylaw contains provisions (such as setback distances for structures and disturbances in the buffer zones) that are more stringent than the Massachusetts Wetlands Protection Act. Dover also has a Conservancy District that includes most of the wetlands in Town. The Rivers Act, enacted by the Legislature in 1996, extends protection to lands within 200 feet of rivers and streams. This law is also administered by the Conservation Commission. The Board of Health, with the assistance of a health agent, enforces the provisions of Title V of the State Sanitary Code regarding the design and installation of septic systems and alternative waste disposal systems. The Dover Board of Health also has its own regulations, which are more stringent than Title V.

Land at Risk of Development

There are still a significant number of relatively large, open and potentially buildable parcels still existing. These parcels include Noanet Woodlands and the Hale Reservation which dominate the eastern portion of Dover. There is no guaranty, especially in the case of Hale Reservation, that the land will remain as “open space” since both parcels could revert to residential use under existing zoning provisions. Dover cannot assume that it will have as much open space as it presently enjoys without continued, vigilant open space conservation efforts.

The type of land most vulnerable to development is the large parcel held in single ownership. In many cases, such vulnerability is owing to circumstances beyond a landowner's control. In recent years, for example, both land values and estate tax rates have increased significantly. These changes have made it increasingly difficult for families to hold onto their land and pass it along to future generations (Small, 1990). It is not uncommon for land traditionally handed from generation to generation within a family to now be sold for development to help pay estate taxes.

FIGURE 4

FIGURE 5

Dover needs a conservation education program, tailored to its specific needs and circumstances, and designed to benefit both residents and Town finances. The Town population has a point at which the Town has been called upon to increase its support of recreational space. Growth and change are inevitable; but within that context, most Town residents want Dover's defining characteristics - rural atmosphere, biodiversity, human scale, open space, and wetlands to be well maintained, protected, and enhanced.

Draft Buildout Scenario for Dover

In 1997, a buildout estimate was prepared by the Town Planner. At that time, the buildout scenario was undertaken without reference to plans currently before the Planning Board, which may or may not exist for any piece of property. No estimate of buildout on a given property is to be construed as an endorsement of that level of density.

There are three single family residential districts in Dover as well as one multi-family overlay district. The vast majority of future development will take place in the two-acre zoning area. There will also be a significant amount of building in the one-acre zone. There will be negligible building in the areas zoned for less than one acre.

Assumptions:

- Each large lot will be subdivided to the extent allowed by the zoning district and retain its existing house. All adjacent lots in the same ownership are considered as one entity for these purposes;
- The streams and wetlands shown on the Assessors Maps are used to estimate the number of houses which could be built on a given site. Maps provide the sole source for stream and wetland information;
- Cul-de-sacs are prohibited. However, their use in the development of large parcels of land is contemplated;
- There will be technologies for septic disposal that will allow development in areas currently not developed due to poor soil conditions; and
- There will be wells dug to service these additional houses.

The estimates are based on the properties listed on each Assessors Map. Each Map and Lot number is referenced, and a total estimate of the number of houses that could be built appears below. It must be emphasized that no attempt has been made to test these assumptions in the field. A glance at the Assessors Maps demonstrates the lots in subdivisions created in one- and two-acre zones conform remarkably well to zoning requirements. Thus, in the absence of on the ground knowledge, and with the understanding that these are best guesses, we feel comfortable in making these estimates.

The estimated total of remaining buildable lots for all Assessors Maps as of April 2004 is 515 to 537 house lots. To this number we add as yet unbuilt but already approved subdivision lots, resulting in an approximate total of 560 lots. This number,

however, does not include lots that currently have one house but potentially could have more, in keeping with zoning constraints. Also not accounted for are "teardowns" where one modest house might be razed and the lot reconfigured for one or more larger houses. In addition, the buildout does not estimate for control for residential developments constructed with benefit of a Comprehensive Permit. All of these scenarios would result in a significantly higher buildout estimates.

Land Use Recommendations

- Engage a professional to complete a more thorough buildout scenario, taking into account health, environment, safety, zoning and private restriction requirements.
- Retain a consultant to perform a town-wide groundwater analysis involving appropriate Town Committees and Boards to evaluate groundwater quality, risks from current and future development, and strategies for protecting the Town's groundwater resources in the future.
- Complete a systematic legal and technical review of all Town bylaws to evaluate their efficacy and to ensure that the bylaws adequately support groundwater protection in light of anticipated buildout, use of density in conjunction with open space preservation, and maintenance of Dover's rural character.
- Maintain and expand the use of the Dover Geographic Information System (GIS) to make it available to and integrated with all appropriate Town offices. Evaluate a budget in terms of staffing, hardware and software needs. Consider consolidating the process under one town agency, and incorporating it into the Town planning process.
- Initiate a comprehensive study by the Park and Recreation Commission of how best to enhance and utilize our underused natural recreational features – e.g. the Charles River for canoeing, fishing, picnicking and other social outings. Dover trails should be monitored for additional, compatible non- equestrian uses, such as hiking, snow- shoeing and cross-country skiing, extensions of trails for birdwalks and other nature study, etc., through land use planning, protection, habitat management, and discreet enhancements.
- Establish permanent programs in habitat management, ecological restoration, open space enhancement for recreational purposes, and nature study. These programs will involve schools, scouts, agricultural and conservation organizations, and citizen volunteers, in practical activity of maintaining our protected land and water resources. These programs will educate us all concerning the benefits, for ourselves and our neighbors, of open space, conservation land, and biodiversity.

III. HOUSING

History

Dover in 1873 consisted of 645 people living in 127 homes. All but six of these residences were farms, so we can speculate that our citizens were greatly outnumbered by their livestock. The average family size was 5 persons.

We are more populous today, but still a small town made up mostly of single-family residences. Happily, we still see animals grazing in some of our fields.

**TABLE 5
Growth in Total Population and Homes in Dover, 1950- 2003**

<u>Year:</u>	<u>1950</u>	<u>1960</u>	<u>1970</u>	<u>1980</u>	<u>1990</u>	<u>2000</u>	<u>2003</u>
Population:	1,722	2,750	4,529	5,000	5,144	5,874	5,907
# Homes:	381	810	1,268	1,460	1,672	1,902	1,924
Ratio:	3.4:1	3.4:1	3.6:1	3.4:1	3:1	3:1	3:1

In FY 2003, the percentage of taxes collected from the different property categories was as follows:

<u>Property Category</u>	<u>% of Taxes</u>
Residential	97.7863
Commercial	0.7710
Utilities/Industrial	0.2408
Personal Property	0.8414

(Assessors Office, 2003)

At present, Dover is able to support itself with its primarily residential tax base. The Town provides an excellent education for its children and a high quality of protective services. As population increases, Dover will face a challenge. With new development, demands on the budget have increased and will continue to increase, placing upward pressure on tax rates, as evidenced by various Proposition 2-1/2 overrides presented at recent Town meetings. In the extreme, increased development could trigger the need to construct municipal water and sewer services, saddling Town residents with both long term debt (for capital costs) and additional service fees. Increasing tax rates make Dover less affordable for those long-term residents who are less affluent. Various goals and objectives in this Master Plan anticipate a slow pace of housing development. Slow growth in population will limit the demand for additional services, reducing pressure on tax rates and keeping the Town affordable to its middle class.

Current Zoning:

As a primarily residential community, Dover has only limited areas zoned to allow commercial, manufacturing-industrial and medical uses; Dover has three single-family residential zoning districts, which collectively comprise approximately 90 percent of its area:

- R: Single Family Residential, 1/2-acre lots;
- R-1: Single Family Residential, 1-acre lots; and
- R-2: Single Family Residential, 2-acre lots.

The Open/Official Zone, though its designation might otherwise suggest, is not permanently protected from residential development. Under Section 185-40 of our Bylaw, the owner of O-zoned land may opt-out of the O-zone classification and develop that land in accordance with the zoning standards of the adjacent residential zone without the need for rezoning through Town Meeting. Accordingly, much of Dover's rural character depends on the continued dedication of owners of O-zoned property (currently comprising 529.52 acres) to maintaining that property in its present undeveloped state. This issue was most recently highlighted by the sale of the St. Stephen's Priory to Boston College in 2004, which is comprised of over 70 acres of O-zoned property abutting the Charles River. A decision by a non-profit owner, such as the Dominican Friars or the Hale Reservation (which owns most of the open land abutting Powisset Street), to develop land for residential uses in order to secure operational or endowment funds, could greatly reduce in one transaction the Town's open space inventory and the rural appearance of Dover.

In addition to satisfying dimensional requirements, lots in various residential zones must also meet minimum frontage requirements. Various Town Meetings have approved the increase of frontage requirements so that the creation of new "pork chop" lots is no longer permitted, although lots existing as of the dates of the various Town Meeting votes, may be exempt. Current dimensional requirements are as follows:

- R: Single Family Residential, 100 feet;
- R-1: Single Family Residential, 150 feet; and
- R-2: Single Family Residential, 200 feet.

The few homes located in the Business, Medical-Professional, and Manufacturing Districts almost all follow the zoning regulations of the "R: Single Family Residential" district. The Town's Multi-Family Housing bylaw authorizes the construction of affordable multi-family housing units in any zone, if approved by 2/3 vote at Town Meeting. This is described in greater detail in Section D (Affordable Housing). Certain "grandfathered" accessory apartments are permitted in any zone. See Section E ("Apartments in a Single Family Zone") for more detail.

Access to residential lots must be through separate driveways, as codified by Town Meeting vote in May, 2002. (See Section G, *infra*.) However, shared driveways in existence as of that date may continue to be used.

Development

Subdivision of land for development may occur in Dover under three models: Approval Not Required (ANR); subdivision; or comprehensive permit.

ANR development is permitted by state statute whenever a landowner can demonstrate to the Planning Board that the proposed lots have met the applicable dimensional requirements, have sufficient frontage on an existing road and that the access to the lot is not illusory (e.g., barred by a cliff or wetlands). If the Planning Board does not affirmatively approve a valid ANR application within 21 days, it is deemed approved under state law. ANR approval does not mean that a lot is buildable, only that it meets the dimensional requirements and has the requisite frontage and access. The Building Inspector, the Board of Health and the Conservation Commission ultimately determine whether or not buildings may be erected on such lots through reference to applicable state statutes, building codes, and Town bylaws and regulations. The Conservation Commission will be involved if work is proposed in wetlands or riverfront areas, or related buffer zones.

Where proposed lots lack adequate frontage to satisfy zoning standards, landowners may create a subdivision road to provide additional frontage. Approval of this form of subdivision development takes a longer time than the ANR process. Dover's subdivision rules are detailed and impose a variety of construction standards to ensure that new subdivision layouts are consistent with public safety and local aesthetics. The open space and recreational goals and objectives of this Master Plan are enhanced by the fact that developers are encouraged, but not required, to propose grants of open space and trail easements when they submit subdivision plans. The Planning Board may grant waivers for some of the requirements of the subdivision rules when it finds that the waivers are consistent with the public interest. As with the ANR process, no construction of a building may occur without the approval of the Building Inspector and other Town boards with jurisdiction.

The third alternative involves the controversial comprehensive permit process under Chapter 40B. This process is described in more detail in the "Affordable Housing" section below. In brief outline, Chapter 40B creates a single municipal permitting process through the Zoning Board of Appeals for residential projects that will offer 25% of the proposed units at prices affordable to buyers earning 80% of the medium income. (Although other Town boards may comment on a proposed project, municipal zoning bylaws will be overridden to the extent that the need for affordable housing is determined to be paramount in that particular municipality.)

The vast majority of single family housing in Dover is built by private developers and sold at market rate. A buildout analysis under our current zoning structure estimates that approximately 560 single family homes may still be built under current zoning and other applicable land-use and environmental controls. See Element II, "Land Use" for a more detailed discussion.

Affordable Housing

The present pattern of market-driven development in Dover produces almost no “affordable housing.” According to data collected by the Massachusetts Department of Housing and Community Development, as of 2000, only 0.75 percent of the housing units in Dover qualified as affordable under state criteria. Dover’s available affordable housing stock falls behind that found in abutting towns like Natick (5.1 percent), Needham (3.7 percent), Sherborn (2.4 percent), and Wellesley (4.6 percent). According to the 2000 United States Census data, the median sales price for a home in Dover (and the abutting towns) is more than six times the state median household income. The absence of affordable housing in Dover is not intentional. On the contrary, surveys indicate that many Dover residents want to provide affordable housing, particularly for senior citizens. Some residents want to similarly accommodate certain families, such as those of the Town’s civil servants and children of existing residents.

Under state law, affordable housing may be developed in either of two ways. In one way, a private developer may take advantage of Chapter 40B of the Massachusetts General Laws, known as the “Anti-Snob” zoning law, which creates a consolidated approval process before the Zoning Board of Appeal. To qualify, at least 25 percent of the proposed units must be affordable to persons earning no more than 80 percent of the median income, either for sale or rent. These projects must qualify for state or federal housing subsidies, and private developers must agree to some limits on their return on the project. Through the ZBA, local boards provide comments on the proposed project. The ZBA may then deny, approve or approve the proposed projects with conditions. Developers may appeal the denial or conditions of approval to the Housing Appeals Committee (HAC) of the Department of Housing and Community Development. If less than 10 percent of the municipality’s housing stock meets the affordability criteria (or is growing by less than 0.75 percent a year), the HAC will determine that the need for affordable housing in that municipality outweighs its interest in enforcing any zoning and certain other land use controls that render the project uneconomic. Chapter 40B projects are generally developer-initiated, and typically offer local government and neighboring landowners little opportunity to have input on the design or siting of the project. As an example, one private developer alone proposed the following projects in 2004: 256 units on 30 acres in Marshfield, 306 units on 23 acres in Marlborough, and 447 units on 24 acres in Peabody.

Alternatively, Chapter 40B authorizes the Board of Selectmen to propose affordable housing projects through the “local initiative program.” This approach enables the Dover Housing Partnership, a committee appointed by the Board of Selectmen, to make recommendations to the Board for the development of affordable housing. The advantage of “local initiative” programs under Chapter 40B is that the Dover Housing Partnership has great flexibility to structuring, designing and siting the projects before recommending them to the Board of Selectmen. If the Town approves of the project and supports it with funding, the Housing Partnership can undertake the development through a non-profit corporation, or even through the Town itself if the Selectmen and the citizens agree.

Section 185-42 of the Zoning Bylaws, entitled Multi-family Residential Districts, provides an alternative to Chapter 40B for promoting affordable housing. Under this Bylaw, any multi-family project must be approved by a 2/3 vote at Town Meeting, and also pose additional procedural hurdles which do not exist in the State statute. Housing developed under the Town

bylaw also may not be credited by the State when it determines how much of the Town's housing is "affordable." To date, no projects have been proposed under this bylaw. The Master Plan accordingly recommends that the Town pursue affordable housing programs through the mechanism provided by the State statute, and/or evaluate revisions to Section 185-42 to render it a more effective tool for creating affordable housing in Town.

In the past several years, several private developer Chapter 40B projects have been presented to Town Boards for review. Those projects have demonstrated that the Chapter 40B process can be time-consuming, contentious, often litigious, and, therefore, resource intensive. While some private developers may be willing to work with the Town boards to design projects that respect municipal land use controls, other developers are less conciliatory. Additional private developer Chapter 40B projects for Dover are in the pipeline and promise to continue this trend. Chapter 40B remains a very controversial statute, particularly for suburban and rural towns like Dover, as evidenced by the more than 60 bills presently pending in the General Court to repeal or reform Chapter 40B.

Much of this controversy springs from the highly inefficient manner in which Chapter 40B creates affordable units and its statutory authorization to ignore additional local land use and zoning requirements. For example a private developer erected a large condominium project, known as County Court, on Tisdale Drive (off Route 109) in Dover. While that project created 17 affordable units, the Town now must bear the expense of the additional 39 market rate units the developer was entitled to develop. Unless a developer is required by his financing source (typically a state or federal housing subsidy program) to make the restrictions permanent (generally, only a 10-20 year restriction is required), he cannot be compelled to do so under Chapter 40B. However, such restrictions may be voluntarily negotiated. The possible loss of affordable units due to lapse of affordability restrictions is troubling. A Town could lose the original affordable units yet remain burdened with the impacts of a multi-unit project with potentially no affordable units.

Unless multi-unit projects are permanently restricted as affordable they do little to help a Town achieve the goal of 10% affordable housing. For example, the County Court development consists of 56 units, creating an immediate need in the Town for an additional 5.6 affordable units (10% of 56). Accordingly, the Town only achieved a net gain of 11.4 affordable units (17 affordables minus the new need for 5.6 units). Once the affordability restriction expires on those 17 units, another 19 affordable units (17 affordable units to be replaced, plus 10% of 17 now market-rate units) will have to be built to keep pace with the Chapter 40B under this type of developer-initiated affordable housing. Dover would need to add a large number of units to the Town, mandate to reach the goal of 10% affordability. Ironically most of the new units, built in a quest for affordability, would be market-rate.

The Master Plan strongly advocates that, whenever possible, the Town pursue Local Initiative Projects to create affordable housing and subsidize those projects. Local initiative projects, supported by local funding, permit the creation of affordable housing without significant development of market rate units. In the short term, it costs more. In the long term, the Town will be spared the costs associated with dense development (i.e., higher taxes).

A locally-initiated project differs from a developer-initiated project in several respects.

First, with Town financial and/or political participation, all (or most) of the units can be designed to be affordable. This results in less dense development of the Town and more efficiently achieves Chapter 40B's 10 percent threshold. Second, because the Town sponsors the project, its design is more likely to take into account the project's impact on the natural environment and aesthetics of a particular site. Third, a substantial vote in favor of contributing financial support, land or other assistance to this type of local initiative development is required. This process is healthy for a community and supports the view that most residents were satisfied with the political process. Fourth, the project will be designed for and driven by the Town's needs, rather than a developer's profit.

Dover's desire to have affordable housing is not inconsistent with its goals to maintain a rural character. It is also not inconsistent with its goal of assuring neighboring landowners that their wells will be kept safe and that their property values will not be adversely affected by higher density projects. In order to achieve these goals, however, the Town must remain willing to contribute its resources, land and money, to make small, sensitively-designed, affordable housing projects a reality.

Other Tools for Creating Affordable Housing

As the Town continues to evaluate how to increase its affordable housing inventory in a manner consistent with its other land-use objectives, several other tools should be evaluated. The first is so-called cluster zoning, which allows for the clustering of units at higher densities than permitted as-of-right, in return for the provision of other public benefits (typically, dedicated open space). One model of cluster zoning is density-neutral, allowing no more units on the site than allowed under zoning (i.e., five units on ten acres in a two-acre zone), but allowing those units to be clustered together to increase the amount of contiguous open or recreational space. Another model allows for a density bonus (e.g., seven units on ten acres in a two-acre zone) where some public benefit, such as affordable housing units or public access open space, is provided. A number of cities and towns in Massachusetts have adopted cluster zoning bylaws to address various local needs like affordable housing or additional open space. It is recommended that a cluster zoning bylaw be further evaluated to determine its utility for encouraging additional affordable housing and/or publicly accessible open space in Dover.

Another tool, more typical in more densely developed areas, is inclusionary zoning. This tool requires that projects over a certain size provide a set percentage of affordable housing units. In some instances, this obligation can be satisfied through a financial contribution to an affordable housing fund used to subsidize affordable housing projects. Given the limited number of larger (20+ units) projects in Dover, this tool may have limited application in Dover.

A third tool is the Community Preservation Act. This statute allows municipalities to impose a surcharge of up to three percent on the real estate tax levy, which funds can then be used for open space acquisition, historic preservation, recreational use or community housing. A Community Preservation Committee develops a plan for using the funds and presents specific funding recommendations to Town meeting for approval. To date, 58 cities and towns have adopted the Community Preservation Act. Some like Cambridge (\$1.5 million), Amherst (\$130,000), Bedford (\$400,000) and Westford (\$325,000) have used those funds to subsidize affordable housing projects. Other towns, like Weston (\$3.5 million), North Andover (\$2.4

million), Boxford (\$3 million) and Duxbury (\$1.7 million) have used these funds to acquire open space.

At the 2002 Town Meeting, the Community Preservation Act was presented for adoption, but was not approved. It is recommended that the Community Preservation Act be further evaluated as a tool to subsidize affordable housing projects in Dover, particularly through local initiative projects the Town could pursue itself under Chapter 40B.

Apartments in a Single-Family Zone

Section 185-43 of the zoning bylaws presently prohibits apartments in any house built after December 31, 1984. However, apartments are permitted in houses built before 1985 provided: (a) they do not exceed the lesser of 25% of the floor area of the house or 900 square feet; (b) a special permit is granted by the Zoning Board of Appeals; (c) the owner lives in the main part of the house or in the apartment, and: (d) other technical requirements are met.

The Master Plan recommends that the Town review this bylaw to see if it is consistent with current needs. For example, Dover residents may want to provide accommodations for aging parents or children starting families. Additionally, aging citizens may want to rent their homes, maintaining apartments for themselves, or may want caretakers to live in the apartment. Finally, working parents may want to provide housing for an *au pair*. It is difficult to justify permitting such accommodations only in houses built prior to 1985 on either planning or social policy grounds.

Under Chapter 40B, all rental units count as affordable housing for the purposes of achieving the 10 percent threshold. The current bylaw precludes (absent a variance) the construction of rental units attached to any houses constructed after 1985, which comprise a significant percentage of the residential units in town. Thus, these post-1985 houses cannot support accessory apartments that would help the Town meet the Chapter 40B mandate. Second, there may be a number of non-conforming accessory apartments currently in use that are not being counted towards the Town's Chapter 40B threshold because their owners are unwilling to disclose the existence of those nonconforming apartments to the Town.

All of these considerations support a re-evaluation of how accessory apartments should be regulated.

Preservation of Historical Structures and the Demolition Review Process

At present Dover does not have an historic district. To date, only one home, the Benjamin Caryl House, maintained by the Dover Historical Society, meets historic preservationist standards. (See below, Element V, "Natural and Cultural Resources.")

In 1996, Town Meeting approved a Demolition Review Bylaw which was expanded in the 2002 Town Meeting to add additional protections. All houses constructed prior to 1929 fall within its purview. The Bylaw requires the Building Inspector to give notice to the Historical Commission whenever a permit is sought to demolish a structure. If the Commission determines that the structure is of historical significance, a one year moratorium is imposed before demolition may commence. During this one year period, the Commission may conduct hearings

and consider alternatives, such as relocating the building to another site, without cost to the owner.

Shared Driveways

For many years, Dover took the view that its zoning bylaws prohibited the use of a single driveway for two or more residences, subject to grandfathering for certain “shared driveways.” In 2001, the Planning Board prepared an article for 2002 Town Meeting which authorized shared driveways only if (a) it was demonstrated that the lot which would have been benefited from the shared drive would have supported its own drive, and (b) that the shared drive would be desirable for the Town, by involving less paving and preserving scenic vistas. The 2002 Town Meeting approved a floor amendment which prohibited shared driveways altogether, even when the result would be additional paving and destruction of scenic views.

The debate over the property of shared driveways continues today. In 2003 the Planning Board was asked to support an amendment to the shared driveway bylaw. The Board declined to do so. In light of this recent Town Meeting decision, the Master Plan no longer contains a recommendation for the limited use of shared driveways, even with strong development restrictions as were contained in the rejected article.

Smart Growth/Sustainable Development

The Office of Commonwealth Development (OCD), created by Governor Romney has broad policy-making authority over the environmental, housing, transportation and energy secretariats in Massachusetts. Pursuant to its mandate, OCD has developed a set of smart growth/sustainable development principles intended to guide policy-making and infrastructure investment by those four agencies. With respect to housing, OCD’s principles seek to dramatically increase the number of housing starts in Massachusetts, particularly affordable housing. New housing construction will be encouraged in three areas that allow for coordination with other smart growth/sustainable development principles: public transportation hubs, under-utilized industrial/commercial properties, and town centers. Only one of these is directly applicable to Dover: its town center. This suggests that significant housing projects, particularly higher density Chapter 40B projects, proposed to be located outside Town center do not conform to OCD’s smart growth/sustainable development principles. It also suggests that the Town needs to evaluate the extent to which it is willing to tolerate a higher density environment in its Town center as part of promoting the development of affordable housing.

From a sustainable development perspective, the Town should evaluate how to preserve open space more efficiently when faced with larger subdivision projects. One alternative that warrants further study is the use of Open Space Residential Design (OSRD), which is a variation on cluster development. Resource values on a parcel are studied and used to designate open space on the site before lot lines are set and roads and houses are sited. Standard dimensional requirements are waived to maximize the amount of contiguous undisturbed area and, if approved through a special permit, a density bonus may be awarded if the project meets certain standards of habitat protection or other open space objectives. While use of OSRD might not lead to the designation of large parcels of open space, it could still minimize the impacts to open

space from the development of large parcels and allow for construction of subdivision projects that maintain a rural look and feel.

Housing Recommendations

- Support the Housing Partnership with Town resources so that it may develop small affordable housing projects which do not intrude unnecessarily on the environment or on the property values of nearby landowners.
- Revisit Section 185-43 of the Zoning Bylaws to determine whether Dover should allow accessory apartments in residences constructed after 1985.
- Review the current Section 185-40 of the Bylaw to determine if restrictions on residential development should be imposed in the event that Open Space use is discontinued.
- Evaluate additional planning tools for promoting the development of affordable housing outside of the context of private Chapter 40B projects (and consistent with Town land use and environmental controls), including:
 - cluster zoning;
 - inclusionary zoning; and
 - the Community Preservation Act.
- Develop and implement procedures to create and maintain an accurate inventory of Dover's affordable housing stock (including all rental units) for reporting to the Department of Housing and Community Development.
- Revise the Town's Multi-Family Housing bylaw to encourage development of multi-unit affordable housing projects with local, rather than Chapter 40B, approval.
- Evaluate other means of increasing the flexibility of the zoning bylaws in a way that would encourage the construction of affordable housing that respects the Town's rural character.
- Evaluate the use of Open Space Residential Design to enhance the quantity and quality of open space that may be protected in connection with residential subdivision projects.

IV. ECONOMIC DEVELOPMENT

Introduction and Overview

Until relatively recently (perhaps the 1940s), Dover's economy was focused locally - i.e. most people lived and worked in Town. An 1873 source listed 127 homes, of which 121 were farms, describing the rural model of living and working at home on one's own land, or in buildings on one's own land (e.g. blacksmiths, mills, etc.). Eighty-five years later, the 1958 Eliot Report described Dover's business sector as:

“...two or three dairy farms, the E.H. Hodgson & Co. (modular homes) factory..., three stores, three filling stations and a garage. There are stables with riding horses for rent, and some of the farm properties sell chickens, eggs, hay, and vegetables, but commercial farming operations are steadily declining, or being replaced by “estates” with some farm income.”²

In the 1950s the Planning Board investigated the possibility of attracting “clean, noiseless” industry to Dover to broaden the tax base; their study found that the “attributes of a good industrial location were all missing in Dover - proximity to a main artery of travel and transportation, plentiful public water supply, large quantities of electric power at low rates, sewerage or other disposal facilities for wastes, and a labor pool.” Needless to say, those attributes are still valid, and still lacking, today.

Today's inventory of businesses and services confirms the decline in commercial farming noted in the 1958 Plan. The dairy farms are gone. With the exception of a sheep farm, a vegetable cooperative, and a riding stable, all farming and riding establishments are hobby-related - perhaps income-producing, but essentially non-commercial.

Dover's services and supplies are thus provided by and purchased from neighboring suburban towns, which offer a diverse complement of businesses and services owing to their having the populations and infrastructures to support commerce and industry. The main deterrents to local commercial/industrial development have been and continue to be the local road system; competition from well-supplied neighboring towns; a small population, and a lack of large-scale water and sewer systems. State regulatory programs controlling septic and industrial well water, discharge to ground water and surface waters, and the withdrawal of groundwater combined with Dover's Groundwater Protection Districts Bylaw and Health Regulations, also constrain the siting of large businesses or services here.

Nonetheless, a number of small businesses are finding their niches within these constraints, providing necessary services and consumer goods based in the Business and Industrial Districts. Businesses include the following: a small bank, coffee/sandwich shop; two realtors; a drop-off laundry and dry-cleaning establishment; a small grocery store; a liquor store; an antique store; a house renovator and cabinet maker, a health spa, several law offices; two gas stations/automobile repair shops; and a custom-built home

² *Eliot Report*, 1958, pg. 18

countertop contractor. The current use of the Caryl School Building includes day-care, and private recreational and educational services. Additionally, a number of low-impact home businesses provide a wide variety of services – i.e. dentists, consultants, etc.

Current Business Medical-Professional and Manufacturing-Industrial Districts

Dover’s Business, Medical-Professional and Manufacturing-Industrial districts are limited to a few sites at or near the Town Center (see Figure 6). At present, there is no discernible need or pressure to expand these districts. The Medical/Professional District is located on Springdale Avenue abutting the Whiting Road Business District. One building is currently zoned for medical and professional offices. There are two manufacturing districts in Town: one is the site of the former train station, on Dedham Street; the other is Lot #14 on Assessors Map #12, and is used as an automobile service station and residence.

Fiscal and Financial Analysis

Dover taxes businesses at the same rate as residential properties (currently \$9.01/\$1000). Business property value, however, is assessed differently - on the basis of income (Assessors Office, 2003). In FY 2003 the percentages of taxes collected from the different property categories were as follows:

TABLE 6
Property Tax Distribution

Property Category	% of Taxes	
	1997	2003
Residential	97.7863	98.1468
Commercial	0.8900	.7710
Utilities/Industrial	0.2002	.2408
Personal Property	1.123	.8414

(Assessors Office, 2003)

Dover’s nearly total dependency on residential property taxes for municipal revenue is viable financially because real estate values are high and governmental costs are low - held down by the less-developed character of rural infrastructure, and by the Town’s dependence on volunteers or on-call staff rather than salaried professionals to provide government and public services. Without a commercial industrial tax base and ongoing residential growth maintaining Dover’s financial viability is a strategic challenge. As Dover grows, so does our need for services. From fiscal years 1991 through 1998, tax revenues increased 43%, from \$7.66 million to \$10.95 million. In addition, Proposition 2 1/2 overrides have been necessary to help us make ends meet.

Table 7
Overrides Authorized at Town Meeting (in thousands of dollars)

Fiscal year	Override
1991	\$266,713
1992	\$385,424
1993	\$141,897
1994	\$120,758
1995	\$201,023
1996	\$0
1997	\$0
1998	\$0
1999	\$0
2000	\$0
2001	\$0
2002	\$0
2003	\$0
(Assessors Office, 2003)	

Education accounts for 56.6%, of the total budget. Increased school enrollments, have been influential in driving our budgets upward (for description of new schools see section 7). Chapter 40B which encourages higher density development can increase the demand on town services without the commensurate tax revenue.

Our goal is to preserve Dover’s rural character and quality of life. The following recommendations will help achieve this goal.

Economic Development Recommendations

- Analyze existing and proposed developments for fiscal (both revenue and cost), demographic and all other impacts.
- Work with Town departments, boards and committees to identify in advance points at which increases in the costs of Town services will occur.
- Establish, protect and encourage community farms and their contributions to the Town’s economy, biodiversity and rural character.
- Strictly enforce regulations to guard against any commercial activity which would adversely affect Dover’s aquifer and endanger our water supply.
- Expand earned-income capabilities through fees fines, and rentals (e.g. of school and other public space during summers and vacation periods, and of office and other space on the Caryl School property).
- Institute systems for identifying and recruiting new volunteers to serve in Town government.

V. NATURAL AND CULTURAL RESOURCES

Introduction and Overview

Dover's "Natural and Cultural Resources" include all the vestiges and products of its natural and cultural history that its residents use or can use to enrich life in this community. Town policies and strategies for protection and management of these resources are guided by the belief that these resources are intertwined. It is fundamental that policies in these areas regard Dover's natural and cultural resources not separately, but as interdependent and mutually reinforcing - historically, at present, and very likely in the future.

Natural Resources Inventory

Outstanding natural resources in Dover include the following:

Land

Dover's topography is highly variegated. Its lowest point is 90 feet above sea level, where Dover, Westwood, Needham, and Dedham meet. Its highest points are 449 feet at Snow Hill, 442 feet at Cedar Hill just south of the Medfield line, and 410 feet at Powissett Peak; 410 feet at Pegan Hill, just over the South Natick line. At slightly lower elevations are Strawberry Hill, at 391 feet, Juniper Hill at 315 feet and Oak Hill at 375 feet.

Water (See Figure 7)

Dover lies within the watersheds of both the Charles River and the Neponset River.

Proceeding down the Charles River from the Medfield line are the following streams: Otter Brook, running through the Medfield State Hospital property from Juniper Hill to the Charles River; several small streams taking runoff from the Saltonstall property; Fisher Brook, with three main branches from the east and west sides of Juniper Hill and east of Glen Road; Wight Brook, draining St. Stephen's Priory and neighboring properties; several unnamed small streams draining Elm Bank and neighboring properties; Trout Brook, by far the largest drainage area, covering one-third of the Town; Clay Brook and minor streams; Noanet Brook, which is the second major drainage area from the Medfield corner north to the Charles River at Willow Street, including much of the Noanet Woodlands; Powissett Brook, flowing from Worthington Pond and draining much of the Hale Reservation in Westwood and Wilsondale Street to the Charles River one thousand feet west of the Chestnut Street Bridge. Streams in the southern part of Town include Mill Brook, flowing southeasterly from Strawberry Hill; Tubwreck Brook from Cedar Hill; and another Mill Brook draining into Medfield, south of Juniper, Oak and Snow Hills.

Approximately 10 % of Dover's 10,600 acres, consist of ponds and rivers (107 acres) and swamps (990 acres).

Natural Resources Conservation

Agencies and Organizations Responsible

In addition to the nearly 1,100 acres that are bodies of water or undevelopable wetlands subject to regulation by both State and local Federal agencies, another 417.55 acres are protected from development by various restrictions. As a result, nearly one-third of the Town's total area is currently protected or undevelopable open space - such a high percentage of protected space is extraordinary among Boston suburbs.

Federal, State and Town agencies, and private organizations, responsible for the protection/preservation of our natural resources include the U.S. Army Corps of Engineers, the Commonwealth of Massachusetts' Division of Conservation and Recreation, the Dover Conservation Commission, the Park and Recreation Department, the Open Space Committee, the Dover Land Conservation Trust, The Trustees of Reservations (TTOR), the Valley Landowners' Association, the Norfolk Hunt Club, and Hale Reservation.

Public-benefit acquisitions of land are sought as donations, or at prices below fair market value, by the Town or a Town agency, or by private transactions between landowners and a private land trust.

Public Conservation: The Conservation Commission, Park and Recreation Department and Open Space Committee

The Conservation Commission is at the forefront of land protection in Town. Among its goals are the preservation and protection of wetlands and open space areas in Dover, protection of the water supply, and conservation and enhancement of Dover's open space areas for maximal biodiversity and recreational use, while enhancing the Town's rural character and quality of life for Dover residents. In furtherance of these objectives both the Conservation Commission and the Selectmen can hold conservation easements, which may be placed on land for a term of years or in perpetuity, resulting in preferential tax treatment for the encumbered real estate.

The Conservation Commission also enforces the Wetlands Protection Act, M.G.L. ch. 131, § 40, and works as needed with the Selectmen to enforce Dover's Groundwater Protection Districts Bylaw.

At Town Meetings held from 1995 through 2000, the Conservation Commission successfully sponsored requests to add \$85,000 to its fund for current or future conservation land maintenance and acquisition (Town Reports, 1995-2000).

Dover's Park and Recreation Department maintains small plots in Town Center, at least one building, and all Town-owned open space, such as public parks, which are held passively for recreational use.

The Advisory Group on Open Space Acquisitions (AGOSA) was established by the Selectmen in 1992 to systematically study and evaluate potential sites for new open space land acquisitions by the Town. They have developed the criteria for acquisition of parcels cited above and have done a great deal of preliminary work.

In 1995, AGOSA was disbanded and the Board of Selectmen appointed the Open Space Committee with the mission to develop an Open Space and Recreation Plan for the Town. The plan was submitted to the Executive Office of Environmental Affairs in July, 1997. In compliance with the current 2003 state laws the Dover Open Space Committee submitted an updated open space & Recreation Plan to Massachusetts Executive Office of Environmental Affairs. This plan is particularly thorough and has been conditionally approved through December 2008. The 2003 Updated Executive Summary is included in the Appendix. In June, 1997, the Board of Selectmen made the Open Space Committee responsible for the identification and acquisition of open space lands in Dover.

Criteria for Town Conservation of Land and Surface Waters:

The following criteria were developed by AGOSA and are now utilized by the Open Space Committee to evaluate properties for acquisition by public or private groups in Town:

Watershed Protection:

- Geologically important properties as potential groundwater sources; priority here would be given to GW1 properties;
- Brook and riverfront properties as protective of riparian areas; and
- Wetlands which may have no residential development potential, but may be desirable for groundwater protection.

Linkages:

- Privately held parcels connecting protected (either by government agencies or private land trusts) open space properties;
- Wildlife corridors and areas helping to sustain ecological balance and biological diversity; and
- Privately held parcels adjacent to and enhancing protected open space properties.

Recreation:

- Privately held parcels which current owners have allowed to be used for personal and family recreation such as hiking, horseback riding, cross-country skiing, etc; and
- Properties suitable for organized recreational use, as may be recommended by the Park and Recreation Commission.

Historical Importance:

- Property significant to Dover’s history, or containing significant material remains (not necessarily buildings).

Natural Interest:

- Viewscapes or parcels with environmentally significant features.

Agricultural Interest or Potential:

- Open fields are crucial to biodiversity, and agricultural activity should be encouraged wherever possible.

Further Guidelines after Parcels are Evaluated:

Properties throughout Dover, and local concerns regarding them, should be considered; every neighborhood has its favorite open space and all neighborhoods should be respected;

Financial considerations to be taken into account include: initial acquisition and management costs in relation to public benefit either as open space or for civic use; and

All proposals should be evaluated in terms of short, medium, and long term value to the Town.

Private Land Conservation Organizations:

The Dover Land Conservation Trust (DLCT), a non-profit organization funded entirely by private donations, owns more than 347 acres, nearly all in Dover, and holds conservation restrictions on an additional 21.8+ acres. The DLCT maintains these lands in a natural state for the enjoyment of all.

The Trustees of Reservations (TTOR) is a statewide non-profit organization dedicated to preserving properties of exceptional scenic, historic and ecological value. TTOR acquires lands in fee or by conservation restrictions. TTOR typically will not accept land unless it is accompanied by a maintenance endowment. Currently TTOR owns 951.93 acres in Dover and holds an additional 202.94 acres with conservation restrictions.

Approximately 36 of the 188 acres at Elm Bank have been leased to the Massachusetts Horticultural Society, which has committed to invest \$10 million toward restoring and landscaping these grounds for horticultural displays and demonstrations. Dover is proud to host such a distinguished facility and cultural resource.

In 1932 landowners and residents founded The Valley Landowner’s Association for the purpose of maintaining the trails and roads on private land in the Dover-Sherborn-Medfield-Millis areas. Land is kept open and cleared for riders, walkers and nature lovers, as well as for fire fighting equipment. These generous landowners have helped promote appreciation of

Dover's countryside by allowing benign public use of their land, and by preserving the rural and open atmosphere of the Town.

The Norfolk Hunt Club, founded on March 2, 1896, has the use of land belonging to the Warden Farm Trust for as long as the Club continues to exist. These holdings account for a significant amount of open space in Dover and neighboring Medfield.

Conservation of Groundwater:

This is the highest priority for public policy in Dover, confirmed explicitly as such by the Master Plan and CPV Surveys. The main instrument of our water resource protection program is our comprehensive Groundwater Protection Bylaw. Most Dover homes are dependent on private wells for water, and almost 100% rely on individual septic systems for waste disposal. The protection of the former from the latter is a town wide concern. While we recognize that the technology of above-ground waste disposal is rapidly improving in ways that will mitigate threats to wells, we believe it will be some years before Dover can relax its vigilance on this matter, and in any case we shall still be concerned about other threats to our groundwater supply.

The analysis that follows will discuss water in three categories: *Groundwater*; *Surface Waters*; and *Public Water Supply*.

Groundwater

Owing to our special concerns about water purity, Dover in some instances has set higher standards for septic system construction and density, in both new construction and building additions, than the State Title V guidelines (State Environmental Code, 310 CMR 11.00). The Town will continue to enforce the Groundwater Protection Districts Bylaw.

Within the next 25 years, more technologically advanced septic systems may produce very clean effluents, though they may only be practical as package or shared septic systems which will require cooperative maintenance by several homeowners. Currently, Dover has one package septic system, located at the Regional High School. Future acceptance of state-of-the-art septic systems based on their improved effluent water quality will have to be weighed against the advantages of current types. However, homeowners need to be aware of their workings and remember to inform future owners about the intricacies of the system or coordinate the maintenance of such systems.

Dover must protect its groundwater from the toxic chemicals often used in today's fertilizers and pesticides, as well as from contamination by underground fuel tank leakage and road salt. Dover's Transfer Station currently collects used paint for swap and oil for refining. The Town also participates with Medfield and Sherborn in a Household Hazardous Waste Collection Day. As of April 1, 1993, the State has mandated that towns dispose of grass clippings in environmentally responsible manners. Currently, Dover composts leaves and Christmas trees.

In 1982, Dover passed a bylaw prohibiting new installations of underground fuel tanks, and mandating that old underground tanks be replaced with above-ground models within 20 years, or by the year 2002. Unfortunately, it is often difficult to accurately determine the

number, location and condition of the remaining tanks. The Board of Health is increasing its efforts to monitor this situation.

Refer to Sec. 8, Circulation, Existing Conditions, Automotive Traffic, Roadways for discussion of road salt.

Public Water Supply

For complete discussion on this subject see Section VII, Page 6.

Cultural Resources:

Historic Preservation

The current inventory list of Dover's Cultural Resources includes significant archeological and historic sites, buildings and structures dating back to the Native American and Colonial periods (see Appendix for Inventory List). To help conserve our heritage, Dover has one historical preservation institution: the Dover Historical Society (DHS) DHS is a private organization, open to public membership. The Society's mission is to preserve, collect, and share the cultural and material history of the town. It has detailed listings of more than 150 historic Dover houses and buildings and is currently cooperating with the Dover Historical Commission in a joint house marker program. The Society's headquarters is located in the Sawin Museum, which focuses on Dover local history and archeology as well as collect and conserve significant material culture and historical data. The Society also maintains and interprets the two town-owned historic properties: the Caryl House (1777), the home of the Reverend Benjamin Caryl, Dover's first minister from 1762 to 1811, and the Flisher Barn (1777).

Formal Education

The Dover public schools constitute an independent school district which, when combined with the Sherborn school district, forms a Union Superintendency District, pursuant to M.G.L. ch. 71, §61 as allowed under M G.L. Ch. 71, § 61. This statute allows the Union to jointly hire a Superintendent. The Chickering School is the only public elementary school in Town. The Middle and High schools are located on the border of the two Towns. Dover also has one private elementary school in the center of town, the Charles River School, serving children from pre-kindergarten through the eighth grade. There are a number of private pre-school programs including a Montessori program in houses throughout the Town.

Other Cultural Resources

A major cultural resource, currently in the early development stage, is a branch of the venerable Massachusetts Horticultural Society, located on 36 acres of the 188-acre Elm Bank Estate, now owned and managed by the Commonwealth's DCR. This involves a \$10 million investment by the Society in the restoration and further creation of major year-round demonstration gardens and educational programs, as well as significant renovation of the main buildings on the estate. It attracts large numbers of visitors and tourists to Dover, not just from our neighboring communities but from all over the Commonwealth, New England, and the

nation. Due to the fact that the facility is located at the extreme northern periphery of Town, and public access routes are primarily from Route 16 in Wellesley, the impact on Dover's infrastructure and commercial center is not significant - certainly specific police protection will be required. Dover is extremely fortunate to host so significant and civilized a cultural resource, and we hope its horticultural impact will be widespread throughout Town.

The Dover Town Library, which has been slightly expanded and made accessible to the physically challenged, also serves as a site for community meetings and cultural programs and exhibits. With the completion of these enhancements, the facility should be adequate - through the year 2020. This is especially likely given in the economizing impacts of electronic telecommunications on information storage and retrieval, as well as on book and multimedia publication. The library became a full member of the Minuteman Library Network in 1997 which allows residents access to the collections of 40 other public and college libraries in the system. Items from these libraries are delivered to the Dover Town Library through the Metrowest Region delivery system.

There are five places of religious worship in Town. The Church of the Most Precious Blood (Roman Catholic), the Dover Church (an inter-denominational church with primary affiliation with the United Church of Christ and also in full standing in the Unitarian Universalist Association), and St. Dunstan's Episcopal Church, are all located near the center of Town. St. Stephen's Priory located on Glen Street was put up for sale in February 2004 by the Dominican Fathers and was purchased by Boston College in November 2004. There are approximately 77 acres of open land with wooded trails and Charles River frontage. Although BC, currently plans to use the existing property and buildings for retreats and conferences this does not guarantee that the amount of open space will remain the same indefinitely. The Amazing Grace Prayer Community (Community of the Crucified One) is located on Centre Street and is also used by special interests and clubs. These include garden clubs, Boy Scouts, Girl Scouts, a business association, sports and human service organizations, an American Legion Post, a Lions Club, Newcomers/Oldcomers, Alcoholics Anonymous, Students Against Drunk Driving, and others.

An older resource that contributes to cultural life in Dover is the Dover Foundation, which was formed in 1947 "to promote neighborliness, cooperation and good feelings among the citizens of Dover by means of community effort...-...." Its main purpose is to raise funds for student scholarships and community projects through yearly theatrical productions and an annual giving appeal.

The growing ethnic diversity of our population is a potentially valuable cultural resource coming into being. We will need to learn how to realize this potential (in the schools, for example), but the rewards will certainly be worth the effort.

Another cultural resource with tremendous development potential is Dover Cable TV. Properly developed, as part of its continuing evolution it could be used as a continuous forum or town common, whereby any individual or group of Dover citizens could record and share information, experiences and inquiries with others in Town. Additionally, the Town has developed a WEB site which makes pertinent local information readily available. Some see this as a way of making our common citizenship more personal, and at the same time more of a

shared experience, as a way of making the entire Town a kind of “virtual neighborhood.” Currently the Town is considering merging with Sherborn.

Policies and Strategies for Protection and Management of Natural Resources

Dover residents have always valued its rural character, open spaces, biodiversity, and bodies of water. As residential and commercial development has increased, so has the need to protect these natural resources, and thus the need to formulate explicit policies for their protection and management.

The best indicator of the health of natural resources is their biodiversity - the variety of plant and animal species they support. Certain wild species are noted for their adaptability to suburban environments - raccoons, woodchucks, opossums, skunks, squirrels, chipmunks, and, in rural suburbs like ours, deer. When natural predators are absent, as they are in most suburbs, their populations grow to excessive proportions, which produces other excesses or imbalances in the ecosystem - e.g. decline of certain plant species owing to excessive grazing, or excessive growth of parasites such as deer ticks, or spread of diseases such as rabies, that can harm human communities. The health of an ecosystem is strongest when it steadily supports the largest number of different species, with no destabilizing imbalances among them. When any one population grows excessively, imbalances and disorders multiply as each one produces others.

One natural resource which all residents of Dover depend on to a very significant degree is the groundwater. If the Town maintains maximal biodiversity, it can go a long way toward ensuring that the quality of the groundwater is not compromised.

Because plant and animal communities are interdependent, a key to biodiversity is the variety of habitats in a given area. The greater habit variety Dover maintains the greater the degree of biodiversity here. Less critical, though still influential for biodiversity, is the quantity (as distinct from the variety) of open space, and its linkage in such a way that borders may be freely crossed by borderline species, and animals needing larger ranges may roam freely with less danger to themselves and to people.

Open space management should not encompass more than a hands-off preservation of the impenetrable thickets of weedy, partially dead and diseased white pines that have overgrown much of Dover’s former farmland, while we wait for nature to carry out ecological restoration. Rather, what Dover needs conservation- active management of the land and water, working with natural processes to restore, over a long period of time, fully diversified northern temperate ecosystems. For example, if the Town judiciously plants native species of trees, shrubs and perennial wildflowers now, our descendants will be able to enjoy Dover as a species-rich natural park. The educational value of this policy for all present and future generations our citizens and children, would be a major benefit.

As Dover’s population increases, the extent and variety of natural habitats and their interconnectedness decreases, thus increasing stress on, and reducing, total biodiversity. Human impacts on natural resources can and should be minimized through careful planning and management, to retain as much of the quantity and variety of natural habitats and their

interconnectedness and, thus, total biodiversity. Maintaining and preserving should be the cardinal principal for the protection and management of Dover's natural resources.

Dover's human residents can and should also manage their immediate environments for greatest health, which is to say greatest biodiversity. Lawns and gardens are also natural habitats, and landowners need to exercise restraint with pesticides, fertilizers and other artificial aids, and to learn and realize the benefits of organic methods.

Natural And Cultural Resources Recommendations

- Institute biodiversity as a prime value of Town planning and management. Create an ecosystem map of Dover and a census of species diversity. Indicate areas of optimal biodiversity and those being managed for increased biodiversity. Develop and implement strategies of habitat management to increase long-term biodiversity.
- Ensure that the Open Space Committee is adequately budgeted to effectively carry out the educational part of its mission with materials and events spreading the word about the values of land donations, conservation easements, use restrictions, other forms of protection, such as land trusts.
- Promote school curricula, Scouting programs, and the establishment of a 4H Club Chapter in Dover that teach rural skills and values.
- Develop a procedure to use, where appropriate, the “Betterment Bill” (M.G.L. ch. 111 Sec. 127B½, added by Chapter 60, Sec. 116 of the Acts of 1994) to fund the removal of residential environmental hazards.
- Formulate a distinct set of policies regarding the Town’s acquisition and management of bodies of water and riparian conservation.
- Continue to expand the use of Dover Cable television to advertise, record and broadcast cultural events in Town.
- Promote organic horticulture and agriculture among landowners.
- Promote the development of connections between open space areas (see also Element VI).
- Research methods, policies and regulations to reduce the use of chemical fertilizers, pesticides and road salt.

VI. OPEN SPACE AND RECREATION

Preface

The Dover Open Space Committee, appointed by the Board of Selectmen, prepared the Open Space and Recreation Plan (OSRP), which was approved by the Executive Office of Environmental Affairs in August, 1997, effective through the year 2002. The OSRP was updated by the Open Space Committee in 2003, and state approval of the update is pending. The Open Space Committee includes members of the Conservation Commission, the Dover Land Conservation Trust and the Planning Board. The 2003 Dover Open Space and Recreation Plan is adopted by reference and provides the foundation for this Master Plan element and directional goals toward which the Town can progress (see Section VI, Goals and Objectives of the OSRP). The OSRP enables Dover to efficiently recognize all lands of conservation and open space importance. In addition, it identifies parcels of land that would enhance and complement the existing protected lands in Town. The recommendations contained herein are designed to supplement the 5-Year Action Plan in the OSRP.

Introduction and Overview

Rapid population growth increasingly stresses open space, natural resources and the rural character of the Town. Moreover, as Dover's rural character becomes more distinct among neighboring suburbs, the Town is increasingly sought-out for recreational purposes by citizens of other towns seeking respite from "suburbia."

Consequently, Dover needs to plan for and secure the most viable network of open space parcels within its boundaries and between Dover and adjacent towns. As the OSRP stresses, public education is a key component of open space stewardship and sensible development practices. The Town also needs to regulate the management of, and everyone's use of, open space - both to promote its enjoyment and appreciation, and to increase and protect biodiversity and the potability of groundwater. These efforts should be implemented as soon as possible through all appropriate measures - beginning with further acquisitions and conservation easements and restrictions, and extending to use regulations and fees to support the increased management necessary to protect these precious natural resources from being ruined by excessive or irresponsible use.

Protection of the cultural landscape is another important open space and recreation consideration (overlapping with the Natural and Cultural Resources element of this Plan). The OSRP specifically supports the preservation of agricultural uses and historic sites. Additionally, Dover should promote low-impact recreational activities by individuals or families (as distinct from organized teams and large groups), that require minimal institutional or physical structures or alteration of the natural landscape.

Of course, some of Dover's "open space" consists of playing fields for organized athletics. In 1978, the Park and Recreation Commission developed a "Dover Recreation Plan" which, although never officially adopted by Town Meeting, defined basic elements and guidelines for decisions regarding Dover's open space and recreation land use. The OSRP cites substantial upgrading and maintenance; "universal access" to facilities; adequate outdoor and

indoor facilities; and the provision of recreational programs for diverse needs as keys to the continuing adequacy and success of local recreational facilities and programs.

Organized Athletics

Town-sponsored organized athletic programs are administered by the Dover Parks and Recreation Commission, involving all age groups from pre-kindergarten on, at the following facilities: Caryl School, Caryl Park, Chickering School and Playing Fields, Dover-Sherborn Regional Schools and Playing Fields; Channing Pond; Riverside Drive Boat Landing, Bridge Street Boat Landing and the Charles River School (See Figures 8 - 16). The Town also uses three facilities in the Town of Sherborn; Fessenden Field, Jameson Field and Laurel Farm.

At the 2003 Annual Town Meetings of Dover and Sherborn, voters authorized the Dover-Sherborn Regional District to purchase 35.8 acres of undeveloped land adjacent to the Regional High School, formerly part of the Medfield State Hospital, from the Commonwealth of Massachusetts. The Regional School Committee set a goal of raising approximately one third of the purchase price of \$780,000 from private donations, the remaining two thirds to be shared by the two towns. The Regional School Committee plans to develop 6 to 10 acres of the property into four playing fields. These fields are expected to meet the school's foreseeable future needs, and should relieve the pressure generated by rapidly expanding non-school active recreation. The traditional free use of the fields by non-school recreational activities however, may have to be reconsidered.

Dover is part of the DCR Region of the State Comprehensive Outdoor Recreation Plan (SCORP). The plan was completed in 1988 and updated in 2000. Dover's needs are reflective of the needs of the region. The top four issues for the DCR Region identified in the SCORP are: Development and expansion of water-based recreation facilities; Development and expansion of trail corridors; Provision of recreational day care programs; and Development and expansion of wetland recreation.

In 1996, Dover and Sherborn conducted a recreation survey. This survey revealed a strong interest in creating paths (including multi-use recreation paths that would be available for hiking, horseback riding, cross-country skiing, etc.), providing a year-round swimming facility, and establishing a community center.

As the Town continues to grow and change, recreation programs need to be adjusted to meet the multiple needs of all age groups. For example, the Town has recently introduced Boys and Girls Lacrosse. Consequently, the Town may need more property to support its future recreation needs (i.e. for athletic fields). Attention should be directed to developing programs for the handicapped. As Dover continues to improve its recreation programs attention should be directed to maintaining existing parks, fields and facilities, as well as continuing in its efforts to provide universal access.

Open Space and Recreation Lands

Approximately 27% of Dover's total land acreage is protected open space. Three-quarters of Dover's population actively gets out into the natural environment. Major passive recreational sites in Town include: Hale Reservation (1,806 acres total, 626 acres in Dover, the

rest in Westwood); Noanet Woodlands (591 acres - the former Amelia Peabody property), owned and managed by The Trustees of Reservations (TTOR); The Centre Street Corridor (approximately 272 acres) owned and managed by the Dover Conservation Commission; Elm Bank (182 acres of state park land); Snow Hill Reservation (112 acres) owned and managed by the Dover Land Conservation Trust (DLCT). There are also substantial private properties in Dover (and in neighboring Medfield) that remain undeveloped under private trust with the Norfolk Hunt Club; and many green-belt open space corridors connecting many publicly and privately owned open land parcels. Open space holdings are maintained as conservation lands through outright ownership, conservation restrictions and other tax reduction based measures. The OSRP provides greater detail on these conservation mechanisms and on the breakdown of holdings and ownership.

Most of the larger passive recreation sites are protected by law from future development, except for the Hale Reservation. As noted in the Housing element, the O Zone, in which Hale Reservation is located, provides no protection from future development. The DLCT plays an increasingly prominent role in the conservation of land locally. The DLCT actively pursues the purchase and protection of critical conservation land throughout the Town with considerable success. The DLCT's first acquisition was the Snow Hill Reservation, which abuts Conservation Commission owned property. These properties provide more than 169 acres of contiguous land with trails for both walking and horseback riding.

Two significant parcels of open space have been acquired by the Town, and thereby preserved, since the 1998 Master Plan was adopted. At a Special Town Meeting in October 2000, the voters approved the purchase of the 62 acre Wylde property on Centre Street for \$4.3 million. A private fund raising drive offset about 30% of this cost. This wooded parcel with an existing trail network adds significantly to the Conservation Commission's Centre Street Corridor, and provides an excellent area for public access and parking on Centre Street. The 35.8 acre parcel acquired by the Dover-Sherborn Regional School Committee in 2003 (see Section C above) also provides a very attractive place for passive recreation, as well as playing fields. The land is partially large open hay fields, and partially wooded. The Regional School Committee plans to allow public access to all of the property provided it does not interfere with school activities.

Dover has a significant trail system and continues to expand it through land acquisition. Unfortunately, some former public access trails have been lost. There is a crucial need to review deeds and other documents in an effort to verify those public trail easements that do exist and to map and document them to ensure continued availability for Town use. The Open Space Committee's efforts in this area are ongoing. A Trails Committee was formed in 2003 to provide more consistent maintenance of trails on Town owned property.

In addition to the public trail network, there is a network of trails on private land. Access to these trails is dependent on the goodwill of landowners, who tend to discourage widespread publicity about their trails. Therefore, these trails should not be included on any public trail maps.

Dover's numerous bridle trails serve an active legacy and are protected through the Subdivision Rules and Regulations. It is essential that the Town retain maintain and enhance

these trails for horseback riding purposes, through ownership, conservation easements, covenants and restrictions.

Dover has exhibited a preference for local solutions to open space acquisition. Voters rejected participation in the state Community Preservation Act at the 2002 annual Town Meeting. This program would have provided matching state funds for open space acquisition and other municipal purposes, such as affordable housing and historic preservation. The concern of those opposed to participation was primarily that collection of local tax money in advance of identifying a specific project would possibly lead to unwise expenditures. It is estimated that in four years (2003 through 2006) Dover would have collected \$1.6 million in state funds under this rejected program. A Community Preservation Committee develops a plan for using funds and presents specific funding recommendations to Town meeting for approval. To date, 58 cities and towns have adopted the Community Preservation Act. Some communities, such as Weston, (3.5 million), North Andover (2.4 million), Boxford (\$3 million) and Duxbury (\$1.7 million) have effectively leveraged these funds to acquire open space.

Open Space and Recreation Recommendations

- Educate owners of large parcels of land about options for the disposition of their land that may be beneficial to the Town as well as to landowners.
- Continue the efforts of the Open Space Committee and Trails Committee to develop strong volunteer programs for enhancing Dover's recreation space. Citizen volunteers particularly interested in natural parks and biodiversity conservation might be mobilized to carry out this activity. It would be beneficial to involve scouts, students and interested and knowledgeable adults in this effort.
- Acquire additional lands for conservation, recreation and other municipal needs.
- Increase public awareness of open space and conservation resources and issues.
- Link open space and recreation sites to each other and to recreational areas.
- Develop and/or improve both indoor and outdoor recreation areas to provide a wide range of year-round activities.
- Review the current Zoning Bylaw to consider whether the Open and Official Zone (O Zone) effectively protects open space permanently.
- Continue to research and protect existing trail corridors.
- Review the question of whether the existing permanently protected open space is sufficient to protect key resources such as ground water quality.
- Explore overlay districts to reduce loss of open space.
- Research and inventory lands currently considered to be permanently protected open space, to identify titles and other restrictions preserving open space.

VII. PUBLIC SERVICES AND FACILITIES

Overview

The 2003 Dover Town Report noted 1,924 households and a total population of 5,907 persons. The population included 1793 persons aged 1 through 17 and 943 persons aged 60 or more. The average age of our population was 37.3 years and the average median annual income was \$141,818.

If population growth continues at the steady rate experienced since 1950, by the year 2020 it will reach 7,350 persons in 2,450 households averaging about 3 persons per household. This would be 36% more homes and 37% more people spread over 23 years with average yearly increases of 26 homes and 77 people. The build-out estimate was arrived at by counting, under present zoning and land use regulations, the existing undeveloped acreage in Dover less wetlands and other land not suited for housing.

Dover residents have highly rated the quality of the Town's services (Town Wide Master Plan Survey, October 1993). This is a tribute to the professionalism and dedication of the people performing those services. Dover residents participate in maintaining the quality of the Town's services by voting the necessary tax dollars for salaries and related support facilities and equipment. Equally important, residents participate and demonstrate an interest in the Town's government by volunteering their time. This type of local participation in government is critical to preserving the small town atmosphere and rural character of the community.

Based on the build out estimate in Section 2, an estimated population increase of 30% from 1995 to 2020 is used as the basis for recommendations in this section. Without the Town providing new services, such a population increase may result in an equivalent percentage increase for some services in the future. In order to benefit the residents of Dover, public services and facilities must be in place when needed. Certain services can be expanded relatively rapidly to keep track with a constantly growing population. Other services and facilities demand lead time ahead of the actual implementation and should be sized to minimize overall Town expenses over their expected useful life. Currently, a substantial portion of Dover's annual expenditures goes toward local services. Direct and overhead expenses related to Services and Facilities composed virtually the entire amount of the FY 2003 Town budget of almost 18 million dollars.

Services and Facilities

Town Administrative Facilities

The Town administration offices are conveniently located at the Town House in the center of Dover. Despite the completion of Town House renovations in 2000, population growth will demand an increase in Town administrative personnel and additional space. The Park and Recreation Commission and the Council on Aging currently occupy space in the Caryl School Building. Town government has become much more complex since the days when the Town House was built in 1922, owing in part to the increase in population and physical development of the Town, but also to general increases in responsibilities and accountabilities at all levels of

government, including State reports and paperwork requirements. Town administrative staff (excluding emergency services, Schools and Cemetery) in 2004 consisted of 35 (16 full-time, 19 part-time) employees, amounting to just under 25 full-time equivalent (FTE) employees, most of whom are located in the Town House. These professionals support the various decision-making volunteer committees, most of whom also use the Town House.

Elementary School

Excellence in education is one of Dover's highest priorities. In 2003, education costs made up 56.6 % of the budget. Public elementary education of Dover's children from kindergarten through Grade 5 is the responsibility of the Dover School Committee. The elementary school population is 610 (Sept 2003). All elementary education is provided at the newly constructed Chickering School (grades K-5).

If the average class size of 20 is retained, and assuming no significant change in curriculum in grades K-5, then a need for approximately 10 new classroom teachers is indicated by 2020. *Does anybody know where this information came from? I received information from Perry Davis on the projections and they indicate an actual slight decline in the enrollment. Changing educational needs in the future 15 years, such as technology and methods of instruction should be ascertained as an important factor in expansion.

The Dover School Building Needs Committee was established and funded by the 1997 Annual Town Meeting to plan for additional space. The new building was completed and opened in September 2001. This new school is expected to provide adequate facilities through 2020. The move of grades 4 and 5 to the new Chickering School made Caryl School available for other uses or other tenants and community groups (See Part 12 below.)

Dover-Sherborn Regional Schools

The responsibility for the secondary education of Dover's school children rests with the Dover-Sherborn Regional School District Committee. Grades 6-8 are handled by the Regional Middle School and grades 9-12 by the Regional High School. The enrollment peaked in 1975 at 1,212 students and reached a low in 1989 of 576. It has since climbed steadily to the level of 1032 Dover-Sherborn secondary school students in grades 6-12 (4/15/04).

Over the past several years, the rate of growth of Dover's high school population tracks that of Dover's public schools. If this trend continues and the trend is similar in Sherborn, the regional school population will likely increase by 40- 50% by the year 2020. The Regional Middle School was sized for between 500 and 600 students in 24 classrooms, and the regional high school for between 700 and 1000 students in 40 classrooms. The combined capacity at the regional schools would be between 1250 and 1600 students, depending primarily on whether classroom size is 20 or 25 students per teacher.

Although expansion at the Regional Schools was not needed, there was increasing concern with the age and adequacy of the buildings. A Facilities Planning Committee was formed by the Regional School Committee in 1998, and the two Town Meetings authorized a \$240,000 study in 1999. \$2.8 million was authorized by the two Town Meetings in 2000 to construct a waste water treatment facility and develop architectural drawings for a new Middle

School building and renovation of the existing High School. In 2001, two Town Meetings authorized \$33.8 million for construction and renovation. The new Middle School was completed and opened in 2003 and the High School was moved into the old Middle School building while renovation of the High School is in progress. The Regional Schools are near completion of the renovations that were approved by Town Meeting in 2001. The renovations that include the High School, Lindquists Commons, gymnasiums, new waist water treatment plant, new fire prevention system, update the tennis court, new and update of athletic fields, landscaping improvements and a new middle school. The renovations are the result of education specifications (a formula set by the state) based on anticipated increase in enrollments.

Police

In 2004, the authorized strength of the Dover Police force was sixteen persons, consisting of one chief, four sergeants and eleven patrol officers. Four part-time special officers augmented this permanent force, each coveting a weekend day shift once per month. The police department includes one additional administrative person handling payroll, billing and general office work. That person also performs matron duties when necessary. The size of the force is increased by need and requests for service, not upon ratio of officers to citizens. Animal control, for which the Dover Police Department is responsible, is currently a part-time function.

The Town's police control center continues to be the conduit in providing services related to law enforcement, public service calls, fire and emergency medical services. As the population grows, significant increases in the Town's police work stem directly from increased commercial activities in Dover and surrounding communities, related transportation patterns, and growth in transient traffic. Accordingly, incidents have increased approximately 25% since 2000. Although part of this increase may be attributable to improved record keeping on the part of the Police Department, while the balance of the increase is more than likely related to the previously stated reasons. At this time however the personnel resources of the Police Department are sufficient to handle the present volume of activity as well as moderately anticipated increases in service demands.

Renovation and expansion of the Protective Agencies Building (see Figure 16) at a cost of \$990,000 was approved at the 1998 Annual Town Meeting.

Social Services

Increasingly, Dover encounters problems related to elderly needs, substance abuse, domestic violence and juvenile questions that are best resolved by social service. At present, the Dover Police Department is addressing some of these issues as mentioned above. A number of State agencies, medical facilities, civic organizations, and churches are available to provide assistance. Support at the local level includes Reach Out, a community-based human service organization focused mainly on prevention of alcohol and drug abuse. The Police Department runs the D.A.R.E. program that educates children about the dangers of drugs. The Council on Aging helps seniors lead healthy and productive lives. The Peer Counseling program in the High School seeks to provide support and guidance to students.

The Town of Dover lacks a community center that might help to provide a structured gathering place for various groups of people. A social worker could perform the function of a liaison person on social issues or problems that arise, and could identify the best resources available for the problem. Such a person could coordinate programming among various agencies and departments as well as intervene in domestic abuse, elder abuse and juvenile cases. Another option would be to try to organize services by creating a Dover Community Foundation which would respond to human service needs through fundraising, programming and working with existing services to strengthen and support them.

Fire Department

The Dover Fire and Rescue Department is a “call” department, meaning that the firefighters and EMTs are paid by the hour when they are called into action. Staff consists of 65 part-time and local firefighters and EMTs, including the Chief, Deputy Chief, Captain, and three Lieutenants. Additionally, eight employees are on the workforce of the Highway and Park and Recreation Departments, which makes them familiar with the Town and its equipment. In 2003, 615 fire and ambulance incidents were reported. Morale and leadership of the department are excellent, and there is a waiting list for volunteers.

As the Town reaches its projected build out, the number of incidents will grow, as will the fire inspection work load. Maintaining Dover’s “call” status well into the future is a high priority. The impacts necessarily associated with a constantly increasing population can be partially mitigated by improved fire prevention, including in-home construction, household fire extinguishers and sprinkler systems.

For a discussion of water supply for fire fighting, see Part 13 below.

Library

The newly renovated library, opened on March 27, 1996, includes a separate level for children’s circulation, handicapped access, an improved public meeting room, and more space for library users. The library became a full member of the Minuteman Network which allows residents access to 35 other libraries in the system. Items from these libraries can be delivered to the Dover Town Library through the Eastern Region delivery system. The Library is rated by a national ranking system and currently ranks second in the state within its population of other towns its size. The library has done an excellent job of managing technological change and providing access to computers and the Internet. Open hours during evenings and weekends are currently limited. Library space should be adequate through the year 2020.

Cemetery

In 1992, the cemetery was enlarged as a result of the Town’s acquisition of the 7 acre Young property. Once subdivided and developed, this new land should provide approximately 1400 new burial sites. Additionally, there are 100 available sites on the existing cemetery grounds. Presently, there are approximately 30 demands for sites per year. There is adequate space beyond 2020. The present cemetery acreage should be sufficient through the year 2020.

Highways

Currently, the Highway Department is responsible for the maintenance of 73 miles of street. Approximately 50% of these streets are heavily traveled, such as Centre Street and Dedham Street. Dover's roads will experience heavier usage due to population increases in Dover and adjacent towns. The increase in traffic is discussed further in Section 8. The Highway Department has a workforce of 7, and 4 additional part-time workers to handle snow removal. It currently operates 14 vehicles for road maintenance and repair. This equipment is located at the Town Garage in the center of Town. With the workload increasing over the next 25 years, the Highway Department roster is forecast to stay at the current number of workers through 2020. Vehicle requirements are expected to also stay at the current number of units. The recently constructed Town Garage will meet the Town's needs through the year 2020.

Waste Disposal

The Dover Transfer Station sorts and compacts the Town's solid wastes for recycling and disposal. The current facility, built in 1987 when the landfill closed, houses two compactors with provision for a third. It is used every day of the week; three days by residents when it is manned by two permanent part-time employees, and the remaining days when it is used by our local hauler. It has had a 2-person staff since 1987 when Dover had 1,621 homes. Currently, non-recyclables are transferred to an incinerator in Millbury at a cost of \$82.02 a ton. Recyclables are sold at a modest profit.

Looking forward, Dover's contract with Millbury is due to expire in 2007. The Town is already dangerously close to the contractual limits for waste. If it exceeds these limits the Town will be financially penalized.

For many years, the average total waste generated per home in Dover has been 1.5 tons per year. Using a projected growth figure of 2,450 homes, the 2462 tons of solid waste shipped to Millbury in 2003 will increase more than 26% to 3675 tons by 2020. Assuming that the Town continues to divert the same percentage of its waste stream into recyclables, the physical facility will be adequate for the Town's solid waste needs through 2020 with the purchase of a third compactor.

Recycling is the Town's best defense against increasing disposal costs. In 2003, Dover recycled over 818 tons of materials. In 2004, the Town purchased one hundred new compost bins. Additional roll-offs will probably be required to house recyclables as they come on line. In addition, an increasing number of vendors require the product to be delivered in baled form. In 1996, the Dover Recycling Committee applied for and received a grant from the Department of Environmental Protection (DEP) to facilitate production and distribution of the *What Dover Recycles* flyer. In 1997 the DEP report card awarded Dover an A for its recycling results.

For many years, the Town has offered all households free pickup of food waste or garbage. The Town contracts with a farm that raises pigs to collect the garbage for pig feed. In effect this is a form of town-subsidized recycling. Currently, a minority of households take advantage of this service. At the 2002 Annual Town Meeting, under line item 433 of the Town Budget, the Warrant Committee proposed to eliminate this service, arguing that it was unfair for

all town citizens to pay for a service that benefits a minority. The Board of Health spoke against the proposal, saying that the actual net cost of the service is quite small, and is offset by the reduced tonnage disposed at the Transfer Station. The Board of Health also pointed out that the alternative, disposal of garbage in septic systems via garbage grinders (used by many Dover households), has an adverse effect on groundwater. The proposal was defeated in a voice vote.

Underutilized Facilities

The Town has two underutilized buildings: the former Caryl School, the findings from that committee have been discussed at a public meeting and presented to the Board of Selectman for their consideration.

At the 2002 Annual Town Meeting, the Selectmen and the Caryl School Reuse Committee put forward a detailed proposal for conversion of the Caryl School for senior housing and mixed community use. The proposal was defeated in a voice vote. The Selectmen have continued to use the building, renting space to regular tenants, as well as to community groups and individuals on an ad hoc basis.

There is a committee currently studying the future use of the Caryl School. The findings from that committee have been discussed at a public meeting and presented to the Board of Selectman for their consideration.

Municipal Water Supply

Recent history has indicated the vulnerability of our ground water supply. The Town's limited public water supply in the center of Town, the Church Street well, was declared contaminated by gasoline constituents in 1991. The state Department of Environmental Protection allowed the Town to use water from Springdale Farms subdivision well for a few years but required that the Town find another source of water by 1995. In 1994, the Town signed a three-year contract with the Dover Water Company to supply water to the Town Center. This contract has been renewed until 2007. (See Appendix for Public Water Systems map.) The Church Street Well still has traces of contaminants according to the Water Superintendent.

Since 1992, there has been interest in finding a large new source of water for the Town, to provide for future drinking water needs and to improve fire fighting capability. At the 1993 Annual Town Meeting, a proposal to build a large diameter pipeline to connect the Natick municipal water system to the center of Dover, supported by a majority of the Selectmen and the Warrant Committee, was put forward. Opponents expressed concern that this would be using Dover tax revenue to build the infrastructure for undesirable higher density development. Opponents also expressed concern that the proposal would make a significant fraction of the Town dependent on an outside entity for water supply. Since Dover would have no control over this outside source, the long term ability to keep costs low and quality high would be questionable. Opponents also asserted that such dependency on an outside source of water could also lead to a need to eventually become part of the MWRA. The proposal was defeated by a wide margin.

Since 1993, the Selectmen have appointed three water study committees, but they have not been able to agree on a promising new source. In 1995, Town Meeting appropriated \$35,000

for the exploration of a new site for a municipal well field, but the exploration did not find a cost effective site.

The current arrangements for potable water supply in the center of the Town appear adequate. The quantity of water for fire fighting has been studied many times. Hydrants from abutting communities protect some peripheral areas of the Town. Methods for improved firefighting need to be continually reassessed in the light of improved technology and strategy. The neighboring Town of Sherborn has adopted a system of permanent small storage ponds, with unpressurized “dry hydrants”, distributed throughout the town, and this has lowered their fire insurance rates. The new Chickering School was built with an underground water storage tank for fire protection, and this strategy could be used to protect other large structures. In 2003, the Conservation Commission began studying the possibility of deepening Channing Pond on Springdale Avenue, with the dual objectives of providing increased water for fire protection and better habitat for aquatic animals.

Public Services and Facilities Recommendations

- The construction of two new schools and renovation of the High School should provide adequate facilities through 2020.
- The Dover Police force and its facilities should be adequate through 2020.
- Gather refined police statistics in order to evaluate the need for a Town social worker.
- Poll residents to evaluate the desire for a more organized approach to human services.
- Gather detailed statistics with respect to domestic violence, including child, spouse and elder abuse.
- Consider expanding the hours of operation during evenings and weekends. (of what)
- Assess the feasibility of purchasing a baler and/or hauling vehicle. (do we need a different one or a new one)
- Assess additional manpower needs for the future.(where)
- Educate citizens about the availability and benefits of free garbage pickup.
- Continue to study the future use or disposition of the former Caryl School, and broaden its charge to include the Park and Recreation building on Whiting Road.
- The present Town House space should be evaluated to determine whether it will be sufficient through the year 2020. Continue to assess methods and strategies for improved fire fighting without resort to a high capacity water infrastructure

VIII. CIRCULATION ELEMENT

Overview

This section of the plan is the result of research into existing conditions involving the movement of people from place to place within and through Dover, and includes a broad proposal for improvement of current circulation shortcomings. It is intended to be consistent with the overall goals established by the general Dover Master Plan to reduce dependence on automobile transportation, traffic congestion and environmental pollution, as well as provide pedestrian and bicycle access to the Town center, Town recreational facilities and open space.

While Dover's circulation, pollution and congestion problems are less evident than those of more densely populated areas, they are perhaps even more serious because of our desire to protect and improve our environmentally sensitive land by preserving its established rural character, and no opportunities public transit solutions.

This circulation report is designed to illuminate Dover residents as to existing and future transportation problems, propose appropriate goals and suggest both short- and long-term solutions that will maintain our rural infrastructure.

Existing Conditions

Automotive Traffic

Roadways

As with many other communities, several of Dover's roads radiate from the Town Center (Figure 17). There is one State highway within Dover: Route 109 (County Street), which forms the southern border of the Town with Walpole for a distance of one mile.

Dover roads are of widths and alignments typical of a small town, and are in good condition as a result of a continuing maintenance program.

Subdivision rules and regulations have recently changed the required width of roadways in new developments to keep them in line with that of the older roads. The Scenic Road rules and regulations have given the Town the ability to help maintain the rural character of our historic roads.

Snow and ice removal is a very serious ecological matter because of the need to protect Dover's aquifers. Salt-treatment and road drainage has contaminated a few private wells. In order to address this concern, the Selectmen commissioned a Snow and Ice Control Materials Study Committee in October 2003, which reported its findings in February 2004. The committee found that no consensus has been reached among scientists and policymakers on what concentration of sodium in drinking or ground water would pose a health risk to the public or adversely affect the environment. It also found that it was difficult to quantify any adverse effect of road salt use, other than in the extreme cases of contaminated wells. The committee concluded that the alternatives to salt were significantly more expensive and that the Town should continue its current sand and salt use patterns. The committee recommended that the

Town continue to monitor snow and ice control operations, become aware of any new developments in materials technology, identify and correct any road drainage problems in the Town, and consider reconvening this or a similar committee in the future, especially if there are complaints or concerns about de-icing operations in Dover. Road management must continue to utilize the most advanced and ecologically sensitive techniques.

External Traffic Generators

Traffic originating outside Dover passes on all of our through-roads, of which Centre Street is the most heavily traveled.

Dover is surrounded by suburban towns of generally higher housing density and higher growth rates. These neighbors create a large part of Dover's rush hour traffic, which is estimated at 80% of the total volume. Like Dover residents, (see Figure 18) those towns send their commuters in starburst patterns creating a large part of the daily traffic loads, 12,000 vehicles/day, at certain locations in Dover center.

State highways surround the Town (Figure 19), but Dover roads offer an easy shortcut for neighboring communities, controlled by only one traffic signal (at the Centre Street/Walpole Street intersection). During peak commuting hours, there are increasingly prolonged traffic delays at the Centre Street and Walpole Street intersection and at the Dedham Street and Centre Street intersection.

The ratio of trucks to cars is low due to the total lack of heavy commerce within Dover. Truck traffic includes tractor-trailer rigs, contractors and concrete mixers.

Internal Traffic Generators

Four Dover schools generate most of the "internal" traffic. Dover's business district is compact and presently provides basic commercial and retail services to the Town's residents, as well as a post office, American Legion post, public library, Town Garage, and the Town House. In addition, there are five houses of worship, two law offices, a medical/professional building, and the Town transfer station off Powissett Street. Traffic related to these services is spread over off-peak travel time causing minimal disruption.

Accident Patterns

Figure 20 indicates the number and location of automobile accidents reported over the calendar years from 2000 through October 2004 (the most recent data available). Of those shown, one resulted in a fatality not related to road design.

Summary of Automotive Traffic

- Assets: low-density residential and no industrial use results in low, off-peak traffic loads and safe passage.
- Deficiencies: Peak commuting traffic, creates delays and related pollution, and off-peak through-traffic speed rates are excessive.

Alternative Transportation

Presently Dover has very limited alternate transportation: (i) private bus on Route 109 providing service between Milford and Boston; (ii) a taxi for hire; (iii) a single track railroad currently provides freight service between West Medway and Needham Junction with connections at the latter to Boston and Newton Highlands and at Medfield Junction to Walpole and Framingham.

Dover has one private heliport which is seldom used. Federal and state regulations govern helicopter flights, clearances, landing patterns, and safety facilities. Current heliport licensing procedures require government approval which is granted only with the concurrence of the Planning Board.

Funding subsidies are also currently available for local public or private van services where needed and feasible.

Town Center Parking

Parking Inventory

There are numerous parking spaces in the area of Dover center. Figure 21 indicates Town Center facilities and related parking capacities. Town and private school parking in the Town Center are frequently interchangeable for fairs, meetings, and similar occasions. (See Appendix for list.) Parking is adequate although moderate walking from space to destination is frequently necessary, sometimes involving several main road crossings.

Summary of Town Center Parking

- Availability of parking spaces is minimally adequate.
- Deficiencies: Crossing safety; night lighting facilities.

Circulation Paths (Sidewalks, Pedestrian, Bicycle and Equestrian Paths)

Recreational Paths

Dover has many miles of walking and bridle paths, across both private lands open to the public and Town owned or controlled conservation land. Construction of pathways on private property will in some instances need to comply with Dover's Subdivision Rules and Regulations. A discussion of recreational paths, as opposed to circulation paths, can be found in the Recreation Element.

Sidewalks

Limited, disconnected sidewalks exist at various locations within the Town, in some instances the result of zoning requirements for new housing development. Under current circumstances, walking is not an efficient or safe means of transportation (circulation), except in the more densely populated Town Center area which has a rudimentary system of sidewalks to

serve schoolchildren and business related access. A Citizen Petition for sidewalk construction on Centre Street was dismissed at Town Meeting in 1994. The following year, an Article, jointly sponsored by the Selectmen and the Finance Committee on Roads, concerning the design and construction of sidewalks on Centre Street, was also dismissed. However, in 2002, an Article was approved at Town meeting providing for the design and construction of a sidewalk along Centre and Cross Streets to allow children in the area to walk to Chickering School. That sidewalk has been completed and serves as a good example of how effective neighborhood cooperation can bring local projects to fruition.

Historically, Dover has not encouraged the development of a sidewalk system because the layout of much of Town is too dispersed and irregular for sidewalks to be a safe or efficient means of transportation. There was also concern that sidewalks would be inconsistent with efforts to maintain the Town's rural character. However, more recently, there is increased interest in promoting the use of sidewalks and bike paths to encourage non-vehicular traffic, to encourage pedestrian and bicycle traffic, particularly to and from various Town amenities (particularly in the Town Center), to reduce vehicular traffic and parking pressure, and to increase the safety for pedestrians and bicycle riders.

These benefits should not be pursued without first giving careful consideration must be given to potential costs associated with expanding the sidewalk system. In addition to the obvious construction and maintenance costs, there may be costs incurred to secure rights to place sidewalks and paths on private property. The width of the road right of way and pavement will affect the Town's ability to install sidewalks and paths along roads. If the right of way is not sufficiently wide, other rights (such as easements) would have to be secured through donation, purchase or eminent domain, each with varying costs and opportunities for controversy and delay. Planning on this issue would also have to assess the potential for disruption to front yards (including loss of landscaping, fences and walls) in locations where sidewalks or paths are desired.

Summary of Circulation Paths

- Assets: There are many miles of recreational walking, riding and bridle paths within Dover which are maintained and utilized by Dover residents and visitors.
- Deficiencies: Circulation paths for school children and other pedestrians are not connected. There are limited bike paths/lanes in Town as well.

Conclusion

Congestion, delays and accidents remain problems for the Town and require continuing attention. A Circulation Committee should be formed by the Board of Selectmen to include residents, the Highway Department, Police Department and the Town Engineer to research and carry out the recommendations of this section.

Circulation Recommendations

- Improve flow patterns at dangerous intersections and stretches of roads, installation of additional traffic control signs (e.g. STOP, YIELD, etc.) and other non-construction, low impact measures. The dangerous areas are as follows:

Dedham and Centre Street Intersection (installed traffic island in 2004)

Dedham Street

Centre Street

Walpole Street

Glen Street

Hartford and Walpole Street (four way stop installed in 1990)

Springdale Avenue, Farm and Main Street (recent discussion with Finance Committee on Roads concerning safety)

Haven and Main Street (recent discussion with Finance Committee on Roads concerning safety)

- The Town should restrict construction of new roads to the extent possible, particularly roads that will cross-connect any of the existing "spoke" roads. New developments should construct narrower roads in keeping with the rural character of the Town. Efforts to widen or straighten any scenic roads should be resisted in order to maintain the rural character of the Town.
- Research alternatives that will reduce the Town's dependence on automobiles. Such options could include the use of on-call vans, car-pooling programs and a Dover Community Bus.
- Improve safety of and access to public parking in the Town Center. This can be accomplished by encouraging use of existing parking areas for Town functions at the Library, Town Garage and American Legion parking lots. Additional lighting and pathways will improve the safety and access to these lots.
- Develop a Circulation Plan that:
 - Establishes a connected system of paths/sidewalks in and around the Town Center to promote pedestrian access to and from Town offices, recreational facilities and schools, as well as the commercial services available in the Town Center. The first priority of the plan should be to complete the sidewalk network in the Town Center area. The Plan should then identify other areas where existing sidewalks, other amenities or neighborhood interest present opportunities to create to connect Paths/sidewalks. In addition, the Circulation Plan should evaluate design criteria

for sidewalks and paths, and associated landscaping, to ensure new sidewalks do not unnecessarily create additional impervious area, affect sensitive resource areas (like vernal pools) or conflict with the rural character of the Town. The Plan should calculate the length of new sidewalks/paths proposed, provide information on expected construction and maintenance costs, identify whether the extent to which easements or other rights may need to be obtained from private property owners, and if feasible evaluate the extent to which construction of sidewalk/paths may disrupt front yard landscaping and other improvements on private properties.

- Evaluates the need for bike paths/lanes in Dover to encourage bicycle traffic and to reduce risks to the numerous bicyclists that ride in and through Town.
- Encourage safe, sensitive and coordinated avenues for recreational and other pedestrians, joggers, bicyclists, and equestrians within the development of new subdivisions.

IX. IMPLEMENTATION

The Implementation Element of the Master Plan is designed to take the recommendations identified in the previous eight (8) elements and organize them in a fashion conducive to accomplishment. Each element has a grid separated into four categories: Recommendations, Lead Agency, Other Agencies, and Resources. Within these categories specific Town boards, departments and/or agencies are identified as well as resources needed to realize the intended goal of the specific recommendation. There are costs associated with many of the recommendations. Although a dollar value was not assigned to each recommendation, tasks that will require fiscal input are identified.

Land Use

RECOMMENDATIONS	LEAD AGENCY	OTHER AGENCIES	RESOURCES
1. Engage a professional to complete a more thorough buildout scenario.	Planning Board	Board of Selectmen Conservation Commission Open Space Committee Board of Health	Funds for technical consultant, etc.
2. Retain a consultant to perform a town-wide groundwater analysis and evaluate groundwater quality, risks and protection strategies.	Conservation Commission	Planning Board Board of Health Board of Selectmen	Funds for technical consultant, etc.
3. Complete a systematic legal and technical review of all Town bylaws to ensure that they adequately support the Master Plan objectives.	Planning Board	Board of Selectmen Conservation Commission Open Space Committee Board of Health	Funds for legal and technical consultants, etc. Staff time.
4. Maintain and expand the use of the Dover Geographic Information System (GIS) to make it available to and integrated with all appropriate Town offices.	Planning Board Board of Health	Board of Selectmen Conservation Commission Building Department Engineering Department Highway Department Assessor's Office	Funds for training, technology and a GIS coordinator. Staff time.
5. Initiate a comprehensive study by the Park and Recreation Commission to enhance and utilize underused natural recreational features.	Park & Recreation Commission	Planning Board Conservation Commission Open Space Committee Board of Health	Funds for educational materials, consultants, etc. Staff time

RECOMMENDATIONS	LEAD AGENCY	OTHER AGENCIES	RESOURCES
6. Establish permanent programs in habitat management, ecological restoration, open space enhancement for recreational purposes and nature study.	Conservation Commission	Open Space Committee Park & Rec. Commission	Funds for educational materials, consultants, etc. Staff time.

Housing

RECOMMENDATIONS	LEAD AGENCY	OTHER AGENCIES	RESOURCES
1. Continue to support the Housing Partnership with Town resources to encourage development of small affordable housing projects.	Board of Selectmen	Dover Housing Partnership Planning Board Council on Aging	Funds for consultant. Acquisition and Development costs
2. Revisit Section 185-43 of the Zoning Bylaws to determine whether Dover should allow accessory apartments in residences constructed after 1985.	Planning Board		Staff time.
3. Review the current Section 185-40 of the Bylaw to determine if restrictions on residential development should be imposed in the event that Open Space use is discontinued.	Planning Board		Staff time.
4. Evaluate additional planning tools for promoting the development of affordable housing outside of the context of private Chapter 40B projects, including cluster zoning, inclusionary zoning and the Community Preservation Act.	Planning Board		Funds for legal and Planning consultants, etc. Staff time.
5. Develop and implement procedures to create and maintain an accurate inventory of Dover’s affordable housing stock (including all rental units) for reporting to the Department of Housing and Community Development.	Dover Housing Partnership	Planning Board Town Clerk’s Office	Staff time.

RECOMMENDATIONS	LEAD AGENCY	OTHER AGENCIES	RESOURCES
6. Revise the Town’s Multi-Family Housing bylaw to encourage development of multi-unit affordable housing projects with local, rather than Chapter 40B, approval.	Planning Board	Board of Selectmen Dover Housing Partnership	Staff time.
7. Evaluate other means of increasing the flexibility of the zoning bylaws in a way that would encourage the construction of affordable housing that respects the Town’s rural character.	Planning Board		Funds for consultants, etc. Staff time.
8. Evaluate the use of Open Space Residential Design to enhance the quantity and quality of open space that may be protected in connection with residential subdivision projects.	Planning Board		Staff time

Economic Development

RECOMMENDATIONS	LEAD AGENCY	OTHER AGENCIES	RESOURCES
1. Analyze existing and proposed developments for fiscal, demographic and all other impacts. Manage growth and retain rural character and biodiversity. Maintain lean government structure and foster volunteerism.	Board of Selectmen Planning Board	Assessor’s Office Conservation Commission Town Clerk	Staff time. Community outreach.
2. Establish, protect and encourage community farms and their contributions to the Town's economy, biodiversity and rural character.	Open Space Committee	Planning Board	Community outreach.
3. Strictly enforce regulations to guard against any commercial activity which could adversely impact Dover's aquifer and endanger water supply.	Building Department	Board of Health Board of Selectmen Planning Board Conservation Commission	Staff time.
4. Expand earned-income capabilities of school and other Town owned property through fees, rentals and fines.	Town Administrator	Board of Selectmen School Committee Caryl School Reuse Committee Park & Recreation Department	Staff time.
5. Continue to identify new opportunities for recruiting volunteers for service in Town government.	Board of Selectmen	Town Administrator Town Moderator Town Clerk	Staff time.

Natural and Cultural Resources

RECOMMENDATIONS	LEAD AGENCY	OTHER AGENCIES	RESOURCES
1. Continue to create an ecosystem map of Dover and a census of species diversity. Develop and implement strategies of habitat management to increase long-term biodiversity.	Conservation Commission	Board of Selectmen Planning Board	Funds for consultants, Staff Time
2. Adequately fund education mission of the Open Space Committee.	Board of Selectmen	Open Space Committee	Funds for consultant and education materials.
3. Promote school curricula, scouting programs, and the establishment of a 4H Club Chapter in Dover to teach rural skills and values.	School Committee Park & Recreation Department	Board of Selectmen	Funds for education, community outreach, etc. Staff time for grant writing.
4. Develop a procedure to use the "Betterment Bill" to fund the removal of residential environmental hazards.	Board of Selectmen	Board of Health	Staff time.
5. Formulate policies for the Town's acquisition and management of bodies of water and riparian conservation.	Board of Selectmen Conservation Commission Planning Board Long Range Planning Committee Open Space Committee		Land acquisition funds. Staff time.

RECOMMENDATIONS	LEAD AGENCY	OTHER AGENCIES	RESOURCES
6. Expand the use of Dover Cable television to advertise, record and broadcast cultural events.	Board of Selectmen	DCTV	Video equipment. Staff time.
7. Promote organic horticulture and agriculture among landowners.	Conservation Commission	Board of Selectmen Board of Health Planning Board	Educational materials, community outreach.
8. Research mechanisms to reduce the use of chemical fertilizers, pesticides and road salt.	Highway Department Board of Health		Staff time.

Open Space and Recreation

RECOMMENDATIONS	LEAD AGENCY	OTHER AGENCIES	RESOURCES
1. Educate owners of large parcels of land about land disposition and conservation options.	Open Space Committee	Board of Selectmen Conservation Commission Planning Board	Educational materials and community outreach.
2. Develop strong volunteer programs for enhancing Dover's recreation space.	Park & Recreation Department	Board of Selectmen Conservation Commission Planning Board Open Space Committee	Staff time.
3. Acquire additional lands for conservation, recreation and other municipal needs.	Board of Selectmen	Conservation Commission Planning Board Open Space Committee Park & Recreation Department	Funds for land acquisition.
4. Increase public awareness of open space and conservation resources and issues.	Conservation Commission	Planning Board Open Space Committee Park & Recreation Department Board of Selectmen	Educational materials and community outreach.
5. Link open space and recreation sites to each other and to recreational areas.	Open Space Committee	Park & Recreation Department Planning Board	Funds for land and/or public access acquisition.

RECOMMENDATIONS	LEAD AGENCY	OTHER AGENCIES	RESOURCES
6. Develop and/or improve both indoor and outdoor recreation areas to provide a wide range of year-round activities.	Park & Recreation Department	Board of Selectmen	Community education and outreach.
7. Review the current Zoning Bylaw to consider whether the Open and Official Zone effectively protects open space permanently.	Planning Board	Open Space Committee Board of Selectmen Conservation Commission	Funds for consultant. Staff time.
8. Research and protect existing trail corridors.	Open Space Committee	Park & Recreation Department	Staff time
9. Determine whether the existing permanently protected open space is sufficient to protect key resources such as groundwater quality.	Conservation Commission	Planning Board	Funds for consultant. Staff time.
10. Explore use of overlay districts to reduce loss of open space.	Planning Board	Open Space Committee	Staff time.
11. In connection with the Open Space Plan, research and inventory lands currently considered to be permanently protected open space. Identify titles and other restrictions preserving open space.	Open Space Committee	Planning Board	Staff time.

Public Services and Facilities

6. Expand evening and weekend library hours.	Library Commission		Funds for increased staffing and operating costs.
7. Assess the feasibility of purchasing a recycling baler and/or hauling vehicle.	Board of Selectmen	Highway Department Recycling Committee	Funds to purchase equipment.
8. Assess future human resource needs.	Board of Selectmen	Long Range Planning Committee	Staff Time.
9. Educate citizens about the availability and benefits of free garbage pickup.	Recycling Committee		Community outreach.
10. Study the future use of the Park and Recreation building on Whiting Road.	Board of Selectmen	Board of Selectmen	Consultant fees
11. Assess methods and strategies for improved fire fighting without high capacity water infrastructure.	Fire Department	Planning Board Board of Selectmen	Staff time.

X. REFERENCES AND RESOURCES

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Dover GIS

XI. APPENDIX

The Appendix contains the following categories of additional information:

- Master Plan Survey, 1993
- Open Space and Recreation Plan Summary, 2003 Update
- Public Water Systems Map
- Natural and Cultural Resources Lists
- Final Report, Committee on Principles and Values, Survey Results Nov. 1990
- Mass. Div. of Fisheries & Wildlife, Natural Heritage and Endangered Species BioMap
- Historic Places and Scenic Views