

MASTER PLAN



TOWN OF DOVER

2012

Adopted by Planning Board on December 17, 2012

TOWN OF DOVER

MASTER PLAN

2012

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ACKNOWLEDGEMENTS

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- Assessor's Office
- Building Inspector
- Board of Health
- Board of Selectmen
- Conservation Commission
- Conservation Agent
- Highway Department
- Long Range Planning Committee
- Open Space Committee
- Police Department
- Town Administrator
- Town Clerk
- Town Engineer

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Table of Contents

I. Goals and Vision Statement

- Introduction
- A Look Back
- A Vision Forward

II. Land Use

- Introduction and Overview
- Regional Context
- Historical Context
- Population Characteristics
- Lands of Conservation and Recreation Interest
- Protected Open Space and Conservation Lands
- Chapter 61, 61A, and 61B Lands
- Growth and Development Patterns
 - Current Trends
- Infrastructure
 - Transportation
 - Sewer
 - Water
- Long-Term Trends
- Land at Risk of Development
- Potential Buildout
- Land Use Recommendations

III. Housing

- History
- Current Zoning
- Development
- Affordable Housing
- Other Tools for Creating Affordable Housing
- Apartments in a Single-Family Zone
- Preservation of Historical Structures and the Demolition Review Process
- Shared Driveways
- Smart Growth/Sustainable Development
- Housing Recommendations

IV. Economic Development

- Introduction and Overview
- Current Business Medical-Professional and Manufacturing-Industrial Districts
- Fiscal and Financial Analysis

V. Natural and Cultural Resources

- Introduction and Overview

- Natural Resources Inventory

 - Land

 - Water

- Natural Resources Conservation

 - Public Conservation: The Conservation Commission, Park and Recreation

- Department and Open Space Committee

- Criteria for Town Conservation of Land and Surface Waters

- Private Land Conservation Organization

- Conservation of Groundwater

- Surface Waters

- Energy

- Cultural Resources

 - Historic Preservation

 - Formal Education

 - Other Cultural Resources

- Policies and Strategies for Protection and Management of Natural Resources

- Natural and Cultural Resources Recommendations

VI. Open Space and Recreation

- Preface

- Introduction and Overview

- Organized Athletics

- Open Space and Recreation Lands

- Open Space and Recreation Recommendations

- Open Space

 - A. Preserve and Protect the Groundwater Water Supplies

 - B. Acquire and Preserve Agricultural Lands and Community Supported Agriculture

 - C. Link Existing Open Space and Recreation Sites to Each Other

 - D. Develop Management Plans for Open Spaces

 - E. Develop and Publicize Procedures for Changes in the Use of Public Lands

- Recreation

 - A. Develop a Community Center that Suits the Needs of Dover Residents

 - B. Increase Public Awareness of Existing Recreational Opportunities

 - C. Expand Recreational Opportunities

VII. Public Services and Facilities

- Overview

- Services and Facilities

 - Town Administrative Facilities

 - Elementary School

 - Dover-Sherborn Regional Schools

 - Police

- Social Services
- Fire Department
- Library
- Cemetery
- Highways
- Waste Disposal
- Underutilized Facilities
- Municipal Water Supply
- Public Services and Facilities Recommendations

VIII. Circulation Element

- Overview
- Existing Conditions
- Automotive Traffic
 - Roadways
 - External Traffic Generators
 - Internal Traffic Generators]
 - Accident Patterns
 - Summary of Automotive Traffic
- Alternative Transportation
- Town Center Parking
 - Parking Inventory
 - Summary of Town Center Parking
- Circulation Paths (Sidewalks, Pedestrian, Bicycle and Equestrian Paths)
 - Recreational Paths
 - Sidewalks
- Summary of Circulation Paths
- Dedham Street Corridor
- Conclusion
- Circulation Recommendations

IX. Implementation

- Land Use
- Housing
- Economic Development
- Natural and Cultural Resources
- Open Space and Recreation
- Public Services and Facilities
- Circulation

List of Figures

- 1 Zoning Map
- 2 Regional Context
- 3 Dedham Land Grant, 1636
- 4 Dover Population Growth, 1940 to 2010
- 5 Protected and Recreational Open Space
- 6 Land Use, 1999
- 7 Protected and Recreational Open Space
- 8 Groundwater Protection Districts
- 9 Property Tax Revenue by Source
- 10 Town Center,
- 11 Surface Waters
- 12 Town Center Parking, Revised to 2004
- 13 Existing Town Center Sidewalks
- 14 Short-Term Improvement Measures
- 15 Long-Term Improvement Measures

List of Tables

- 1 Dover Population Growth, 1940 to 2010
- 2 Dover Population and Household Growth, 2000 to 2010
- 3 Land Use Changes, 1971 to 1999
- 4 Residentially Used Acres Per Person
- 5 Population Density – Local, Regional, and Statewide – 1990, 2000, and 2010
- 6 Growth in Total Population and Homes in Dover, 1950-2010
- 7 Property Tax Distribution
- 8 Overrides Authorized at Town Meeting and Town Election

I. Goals and Vision Statement

Introduction

This Master Plan provides guidelines for Dover's future through the year 2030. A master plan is a living document that incorporates new data and analyses, and constantly evaluates changing goals and objectives over time. The purpose of the Town of Dover's Master Plan 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 through a series of specific recommendations, to maximize the ability of Dover residents to realize their vision of the Town through the year 2030. However, those goals and objectives will only be achieved to the extent the Town and its various boards, departments and committees proactively implement the recommendations of this Master Plan.

Dover residents have had ample opportunity to influence the focus of the Town's Master Plan at several planning forums held since the last Master Plan update in 2004. The Planning Board engaged the Long Range Planning Committee in a two-year effort to best identify the goals and visions most critical to Dover residents. The result of that effort was a detailed **Master Plan Resident Survey** distributed town-wide in April 2011 via mail to every Dover resident and posted on the Town website. The full results of the 2011 Master Plan survey were released in October 2011 and are available on the Planning Board page of the Town website and/or through the Planning Board office at the Town House. Most recently, the Planning Board solicited the views of all Dover residents for this Master Plan update through written solicitations, at several Planning Board meetings, and at a public hearing held in December 2012 .

It is important to note that this Master Plan is a dynamic, living document. Conditions relevant to the Town's long-range planning are fluid, and new information or considerations emerge over time. Therefore, this Master Plan should continue to be reviewed and renewed periodically, and updated as appropriate. This update incorporates developments in the eight years since the Master Plan was last updated, and it includes updated data and factual information. It reflects upon and evaluates the current and forward-looking relevance, success, progress, or failure of the goals and recommendations set forth in the 2004 Master Plan. Based on that evaluation, this Master Plan articulates a new set of goals and recommendations for use by the Town in the near term. The next update of the Master Plan should be conducted by 2020.

A Look Back

Dover was first settled around 1635 and for many years was a part of the Town of Dedham. Dover was known then as Springfield because it was a primarily farming community with open fields situated around the abundant springs of Trout Brook. It was incorporated as a town in 1836 and named in honor of the ancestral home in England of Springfield Parish's chairman.

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 and highly valued by Dover residents. Dover's heritage and its country atmosphere represent a strong undercurrent in the residents' vision of the Town's future.

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 and other natural resources such as wetlands 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 sought 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 the remaining resources must be wisely distributed to Town services, complemented by a preponderance of appointed and elected residents serving as volunteers on Dover's various governing boards and committees. Thus, the community's vision of the future includes the continuation of significant citizen participation in the Town's governance.

A Vision Forward

Broadly stated, the following goals emerged as critical to the quality of life of Dover residents, based on the 2011 Master Plan Resident Survey and the input of various Town boards, committees, and residents between 2010 and 2012:

- *Preserving the purity and private ownership of our water supply*
- *Managing population growth for fiscal and environmental health*
- *Maintaining Dover's rural character while encouraging neighborhoods*
- *Protecting and enhancing Dover's natural environment*
- *Integrating town planning and management*
- *Retaining a volunteer community*
- *Incorporating affordable housing into the fabric of Town life*

These issues are discussed in detail in each of the Master Plan elements in the rest of this document.

II. Land Use

Introduction and Overview

The 2011 Master Plan Survey¹ and the October 2012 public forum confirmed the strong and unchanging preference of Dover residents to follow rural patterns to protect the Town's precious water resources, to promote biodiversity (which supports as well as indicates healthy ecosystems, soils and groundwater) and to preserve the scenic beauty of the Town.

People choose to reside in Dover because it offers a more rural alternative to the suburban development patterns of most surrounding towns. In the 2011 survey, 60% of residents chose "rural character" as the first or second most important reason they moved to Dover, the highest percentage among the six factors in the survey.² 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 is both enabled and limited by state statutes that shape the Town's local bylaws and subdivision rules and regulations. Zoning began in Massachusetts with state legislation adopted in 1920. Major revisions were adopted in 1954 and again in 1975. Chapter 40A, is the state Zoning Act. Dover adopted its first Zoning Bylaw on December 5, 1933.

The state Subdivision Control Law, Chapter 41, Sections 81K-81GG of the Massachusetts General Laws was adopted in its present form in 1953, replacing earlier flawed versions (Bobrowski, 1993). The Dover Planning Board was established at Town Meeting on March 5, 1945. The first set of Rules and Regulations Governing the Submission and Approval of Plats of Subdivisions of Land were adopted by the Planning Board on July 7, 1947.

Other state and local legislation that protect and preserve much of Dover's valued natural resources include the state Wetlands Protection Act and Rivers Protection Act, and the Town Wetlands Protection Bylaw, the Groundwater Protection Bylaw, the state Title 5 and Board of Health regulations and the state Scenic Road Act and Town Scenic Road regulations. These laws and regulations have a significant role in protecting the Town's private wells from development impacts, protecting other resources including wetlands, streams and important habitats and protecting trees and stone walls along designated Scenic Roads, which constitute an important element of Dover's character.

¹ The full Survey is attached as an appendix to this Master Plan. An electronic version of the detailed Survey results is available on the Planning Board page of the Dover Town website.

² See Survey question 4.

The Zoning Bylaw divides the Town into three residential zoning districts. These districts require minimum lot sizes of ½ acre (R), 1 acre (R-1) and 2 acres (R-2). Since the R district is located near the Town Center and is essentially fully built out under current zoning, new subdivision developments take place in the R-1 and R-2 districts resulting in one- or two-acre single family residential lots. This relatively low density zoning helps to protect the private wells on which most homes depend. **Figure 1** shows Dover's current zoning districts.

Also, nearly 100% of Dover's houses depend on individual septic systems; there are no town sewers and no plans to provide sewer service in Town. The three local Chapter 40B projects, as well as the regional high school, rely on on-site wastewater treatment plants.³ The Town's exclusive reliance on individual septic systems 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.⁴ The results of the 2011 Residents Survey, the 2011 Open Space and Recreation Plan, and Town Meeting votes in 2007 and 2008 on proposed bylaw changes to preserve Dover's remaining open space indicate that land conservation is consistently and strongly supported as a high priority for residents of the Town. Again, "Preserving rural character" was selected as the first or second most important long-term planning issue facing Dover by 60% of respondents, the highest percentage among the six choices. Also, 49% specifically selected "Scenic roads and views" as the first or second most important physical asset in Dover (second only to "Open/undeveloped space.")

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 (approximately 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. **Figure 2** shows Dover in its regional context.

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 corner (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

³ Currently, the Town's three Chapter 40B projects are Dover Farms, Dover Village, and The Meadows. See the Housing element of this Master Plan for more details on these projects.

⁴ Section 5 of the Town of Dover 2011 Open Space and Recreation Plan includes an inventory of the designated open space in Dover.

Figure 1
Zoning Map

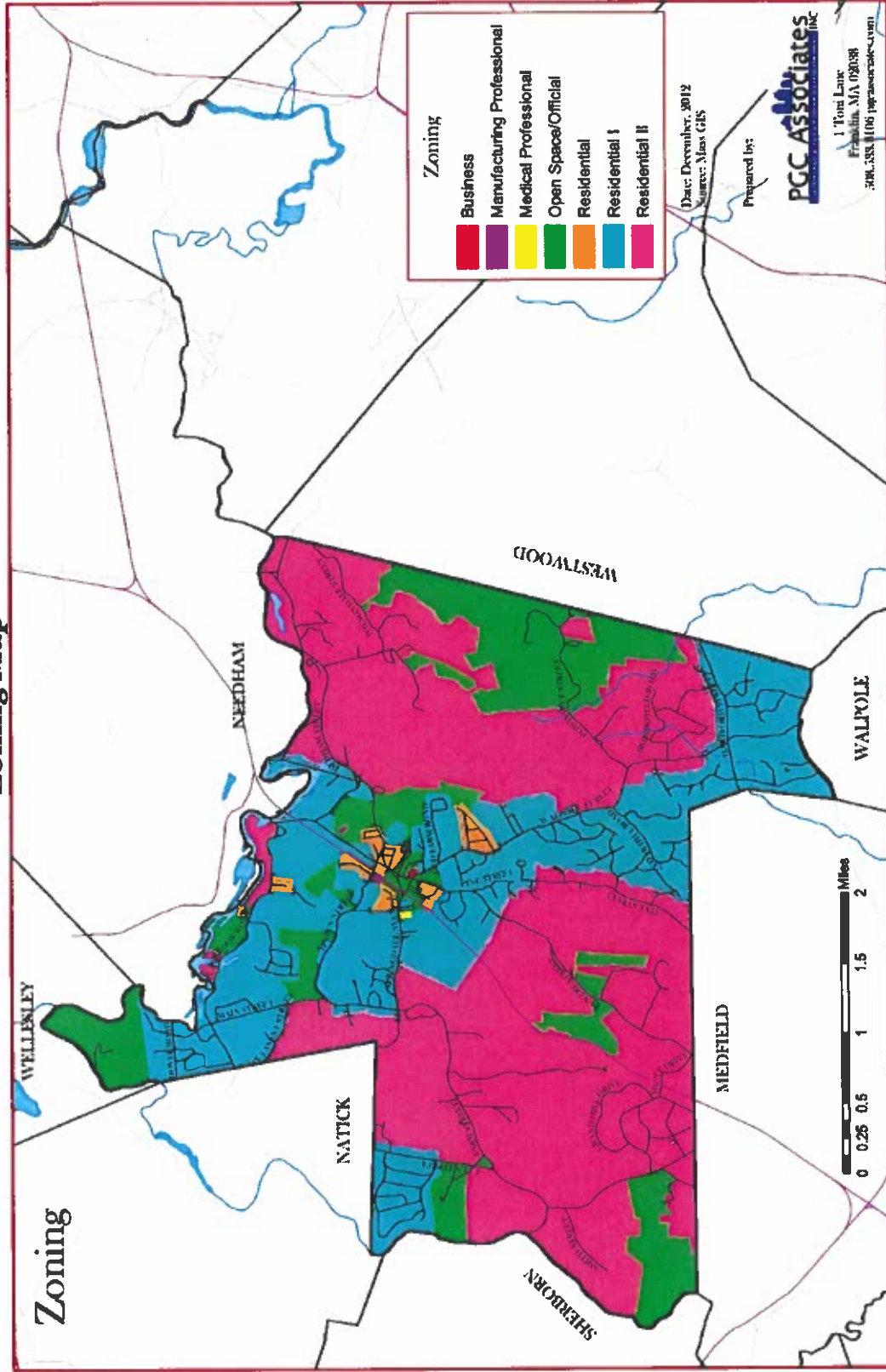
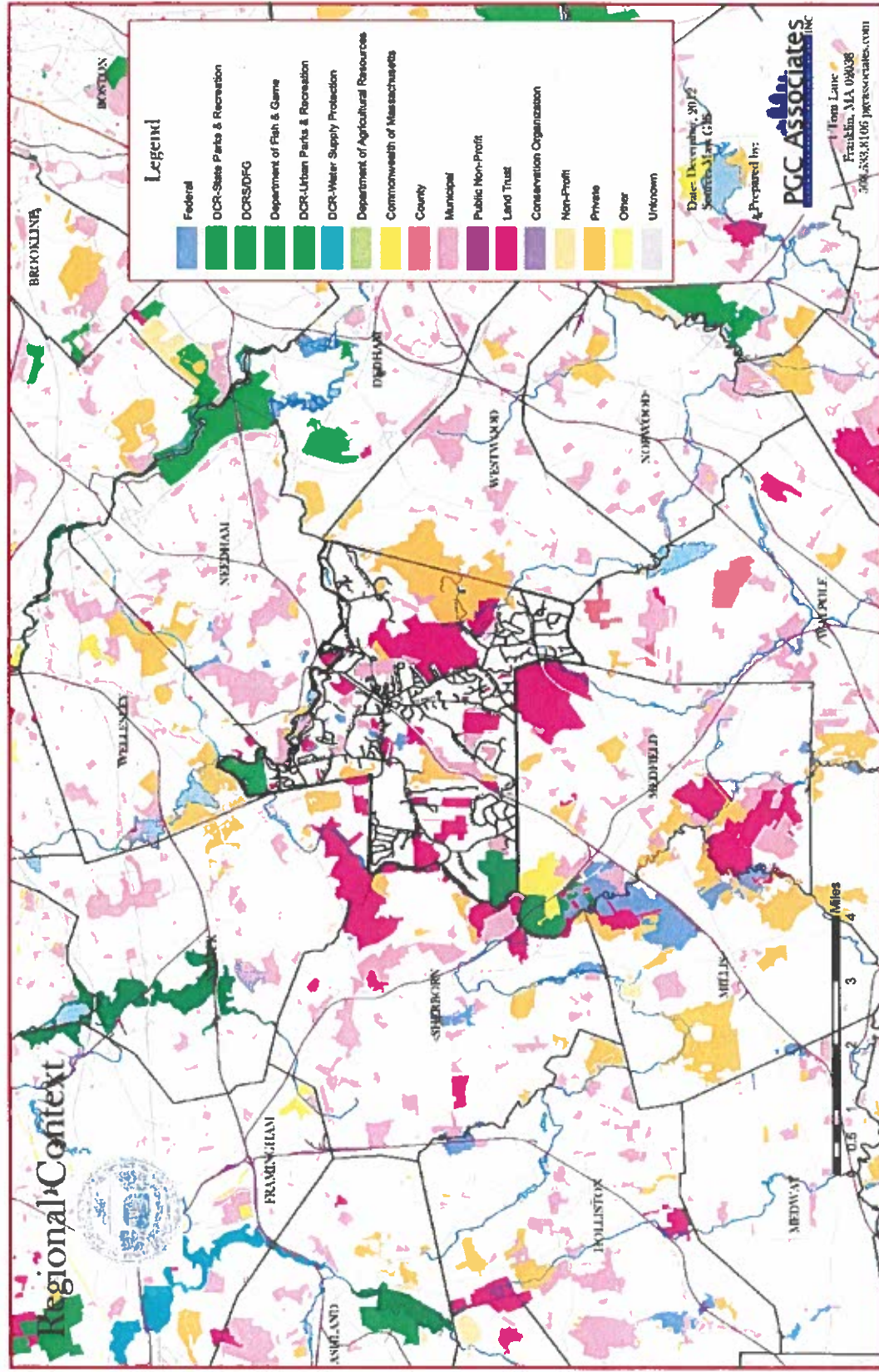


Figure 2
Regional Context



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.

Even amid much growth and change, Dover remains 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, banks, cleaners, eye doctor, 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 on its border with Wellesley. 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.

Historical Context

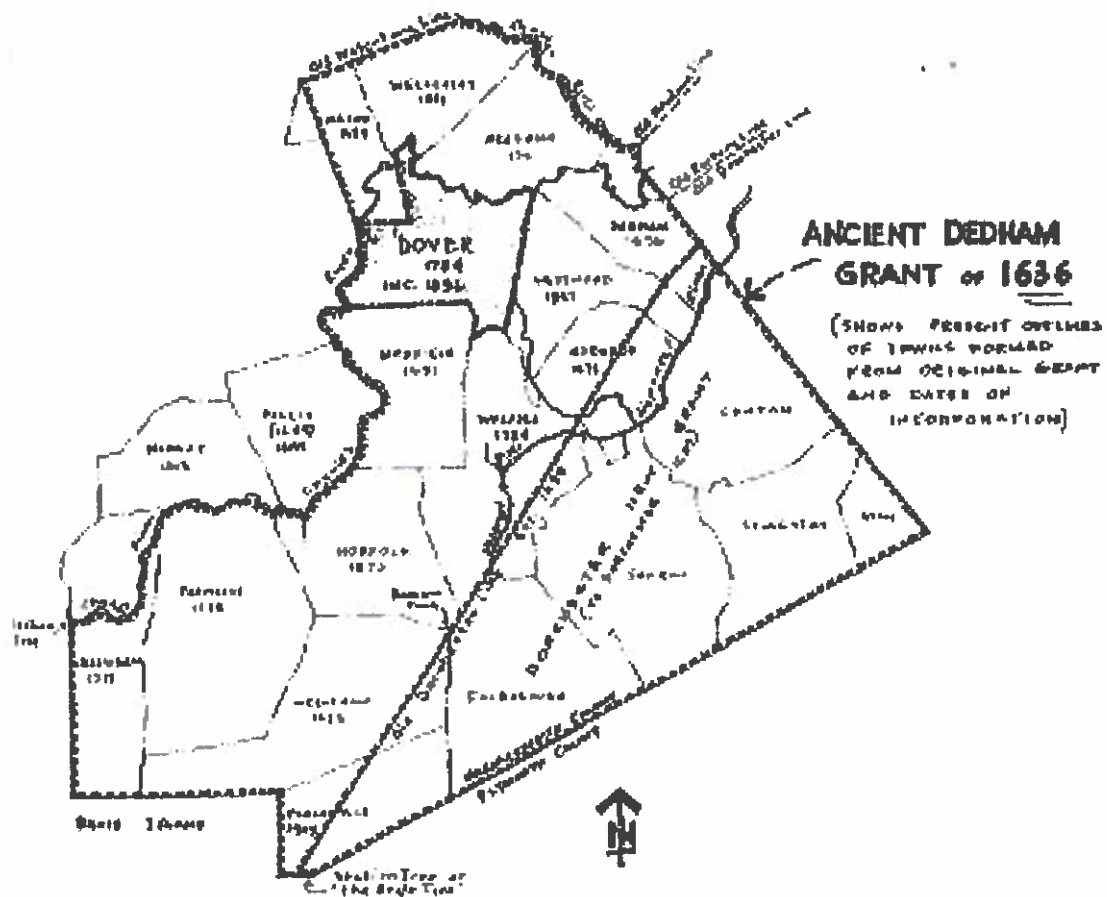
Dover was first settled around 1635, and for many years was part of the town of Dedham. **Figure 3** shows Dover's location within the boundaries of Dedham as they existed at that time. Dover was incorporated as a Town in 1836. Its history was recorded in Frank Smith's A History of Dover, Massachusetts, 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.

Historically, farming was 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 forbearers 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.

Dedham Land Grant, 1636



From a File by E. W. Filing Number, Massachusetts: D-40019 (1940-1941) 5-4-47

Population Characteristics

Tables 1 and 2 present estimates of Dover's population growth over time. **Table 1** shows the population estimates reported by the U.S. Census Bureau. The data show relatively rapid population growth between 1940 and 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 1990s with the addition of County Court and other residential development, which caused the population to increase by 13.1%% by 2000. There was very little population growth during the next 10 years as the 2010 population increased by just 31 to 5589.

Table 1
Dover Population Growth, 1940 to 2010

<u>Year</u>	<u>Population</u>	<u>Change</u>	<u>% Change</u>	<u>Avg. Annual</u>
1940	1374	NA	NA	NA
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%	0.4%
1990	4915	212	4.5%	0.5%
2000	5558	643	13.1%	1.3%
2010	5589	31	0.5%	0.05%

Source: US Bureau of the Census, various years

Figure 4
Dover Population Growth, 1940 to 2010

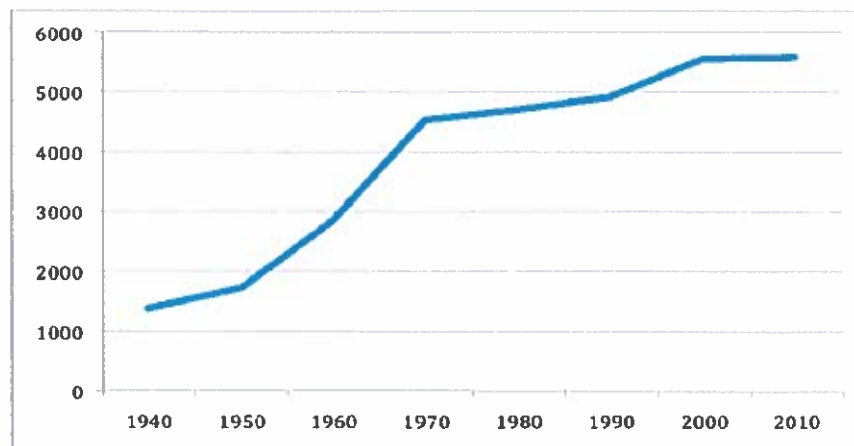


Table 2 presents population and household growth as measured by the Town Census conducted annually by the Town Clerk. These data differ from the federal census data due to methodological differences between the U.S. Census and Town Census. Most notably, the U.S. Census counts college students not living at home as residents of their college town, while the Town Census includes them as Dover residents. The Town Census data confirm Dover's slower rates of growth since 2000, remaining essentially stable since 2004. The most recent Town Census indicates a 2009 population of 6049 among 1978 households.

Table 2
Dover Population and Household Growth 2000 to 2010

Year	Growth		Change		% Change	
	Population	Households	Population	Households	Population	Households
2000	5874	1902	103	29	1.8%	1.6%
2001	5914	1912	40	10	0.7%	0.5%
2002	5892	1915	-18	9	-.03%	0.5%
2003	5907	1924	11	3	0.2%	0.2%
2004	6085	1927	178	3	3.0%	0.2%
2005	6088	1958	3	31	0.1 %	1.6%
2006	6010	1963	-78	5	-1.3%	0.3%
2007	6018	1972	8	9	0.1%	0.5%
2008	5987	1970	-31	-2	-0.5%	-0.1%
2009	6049	1978	62	8	1.0%	0.4%
2010	6034	1985	-15	7	-0.2%	0.3%

Source: Town Clerk Annual Census

Dover's land area is approximately 9878 acres, or 15.43 square miles. **Table 3** presents the amount of land in various land use categories in 1971, 1985, and 1999 (the most recent data available [Note: 2005 data is apparently now available as well. However, it is not quite identical (but tweaked to make it comparable) because it is from a different source) and it is only available by county, not town. I will see if I can separate the Town info and calculate it in the same categories.). Table 3 indicates that the amount of land used for residential purposes increased by 662 acres (about 31%) between 1971 and 1999. This roughly correlates with the loss of 546 acres of forest, 58 acres of pasture and 21 acres of cropland.

Density, measured as acres used for residential purposes per person, increased slightly between 1971 and 1999. The 1971 and 1999 populations can be estimated by adding the average annual increase for the decades of the 1970's to the 1970 population and subtracting the average annual increase for the 1990's from the 2000 population. This results in a 1971 population estimate of 4547 and a 1999 estimate of 5486. Dividing these figures by the land used for residential purposes as shown in **Table 4** result in 0.47 acres per person in 1971 and 0.51 acres per person in 1999.

Measured by the total land area of the Town, density in Dover has increased significantly from 89 persons per square mile in 1940 (based on 1940 U.S. Census) to 392 persons per square mile in 2009 (based on 2009 Town Census). That is a relatively dramatic change, not lost on Dover's long-time residents. **Table 5** compares the density of Dover's population and households with neighboring towns and with the Commonwealth overall. Though substantially less densely developed than most towns in the region (with the exception of Sherborn), the increase in Dover's density over time is somewhat striking. Dover's population density is less than half that of the State as a whole, and is substantially lower than (roughly 25 percent of) its overall Metropolitan Area Planning Council (MAPC) sub-region, and less than one-sixth that of its overall MAPC district. This attests to the significant open space and rural character that still exists in Dover today.

Table 3
Land Use Changes 1971 to 1999

Code	Land Use	1971	1985	1999	Change 1971-1999	% Change 1971-1999
1	Crop Land	452	440	431	-21	-4.65%
2	Pasture	424	421	366	-58	-13.68%
3	Forest	6252	5997	5706	-546	-8.73%
4	Non-forested Wetlands	142	121	112	-30	-21.13%
5	Mining	8	0	0	-8	-100%
6	Open Land	149	128	133	-16	-10.74%
7	Participation Recreation	56	56	67	11	19.64%
8	Spectator Recreation	0	0	0	0	0%
9	Water Based Recreation	1	1	1	0	0%
10	Multifamily Residential	0	0	5	5	NA
11	High Density Residential	0	0	0	0	0%
12	Medium Density Residential	311	311	587	276	88.75%
13	Low Density Residential	1826	2121	2207	381	20.87%
14	Salt Water Wetlands	0	0	0	0	0%
15	Commercial	16	16	16	0	0%
16	Industrial	0	0	0	0	0%
17	Urban Open	99	117	100	1	1.01%
18	Transportation	0	0	0	0	0%
19	Waste Disposal	0	7	2	2	NA
20	Water	142	142	143	1	0.70%
21	Woody Perennial	0	0	0	0	0%
	Total	9878	9878	9878	0	0%

Figure 5
Land Use 1999

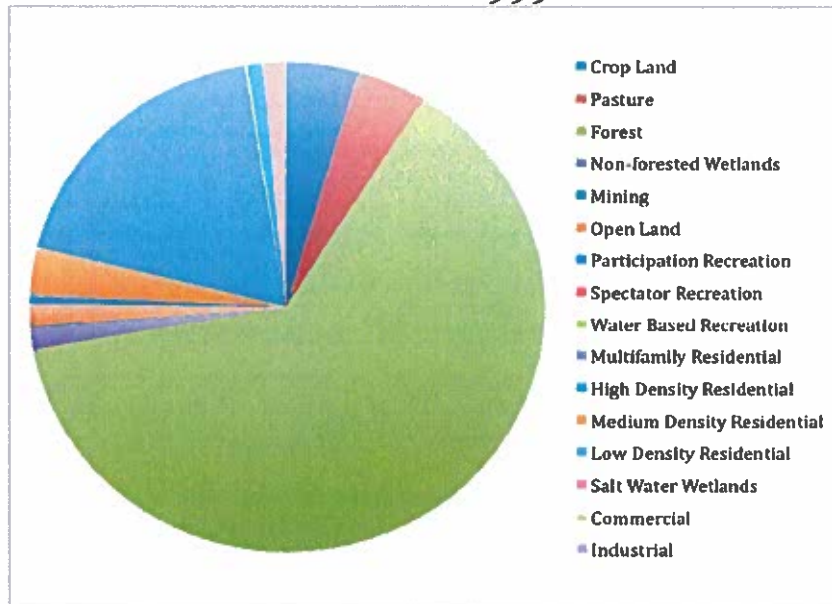


Table 4
Residentially Used Acres Per Person

Year	Population*	Acres per person
1971	4547	0.47
1999	5486	0.51
2005*		

*Note: 2005 data is available by county only. We are trying to separate out Dover data.

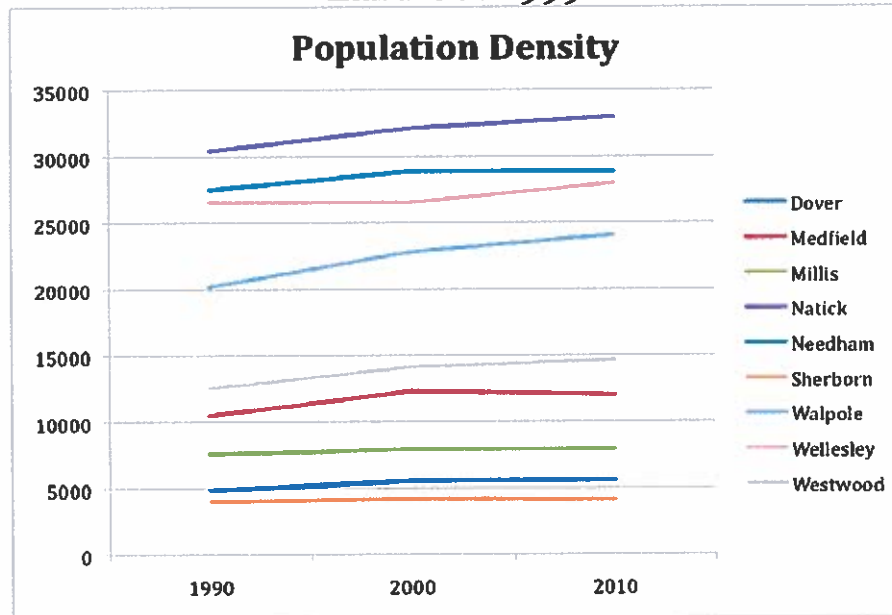
Table 5

Population Density – Local, Regional and Statewide - 1990, 2000, and 2010

Town	1990		2000		2010	
	Population	Density (per sq. mile)	Population	Density (per sq. mile)	Population	Density (per sq. mile)
Dover	4915	320.80	5558	362.77	5589	364.80
Sherborn	3989	249.31	4200	262.50	4119	257.44
Medfield	10,531	721.12	12,273	840.41	12,024	823.36
Millis	7613	619.17	7902	642.67	7891	641.78
Natick	30,510	2020.16	32,170	2130.07	33,006	2185.43
Needham	27,557	2165.93	28,911	2272.35	28,886	2270.39
Walpole	20,212	962.85	22,824	1087.27	24,070	1146.63
Wellesley	26,615	2650.04	26,613	2649.84	27,982	2786.15
Westwood	12,557	1131.02	14,117	1271.54	14,618	1316.66
Massachusetts	6,016,425	765.56	6,349,097	807.89	6,547,629	833.15

Source: U.S. Bureau of the Census, 1990, 2000, 2 010

**Figure 6
Land Use 1999**



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. **Figure 5** illustrates lands of conservation and recreation interest.

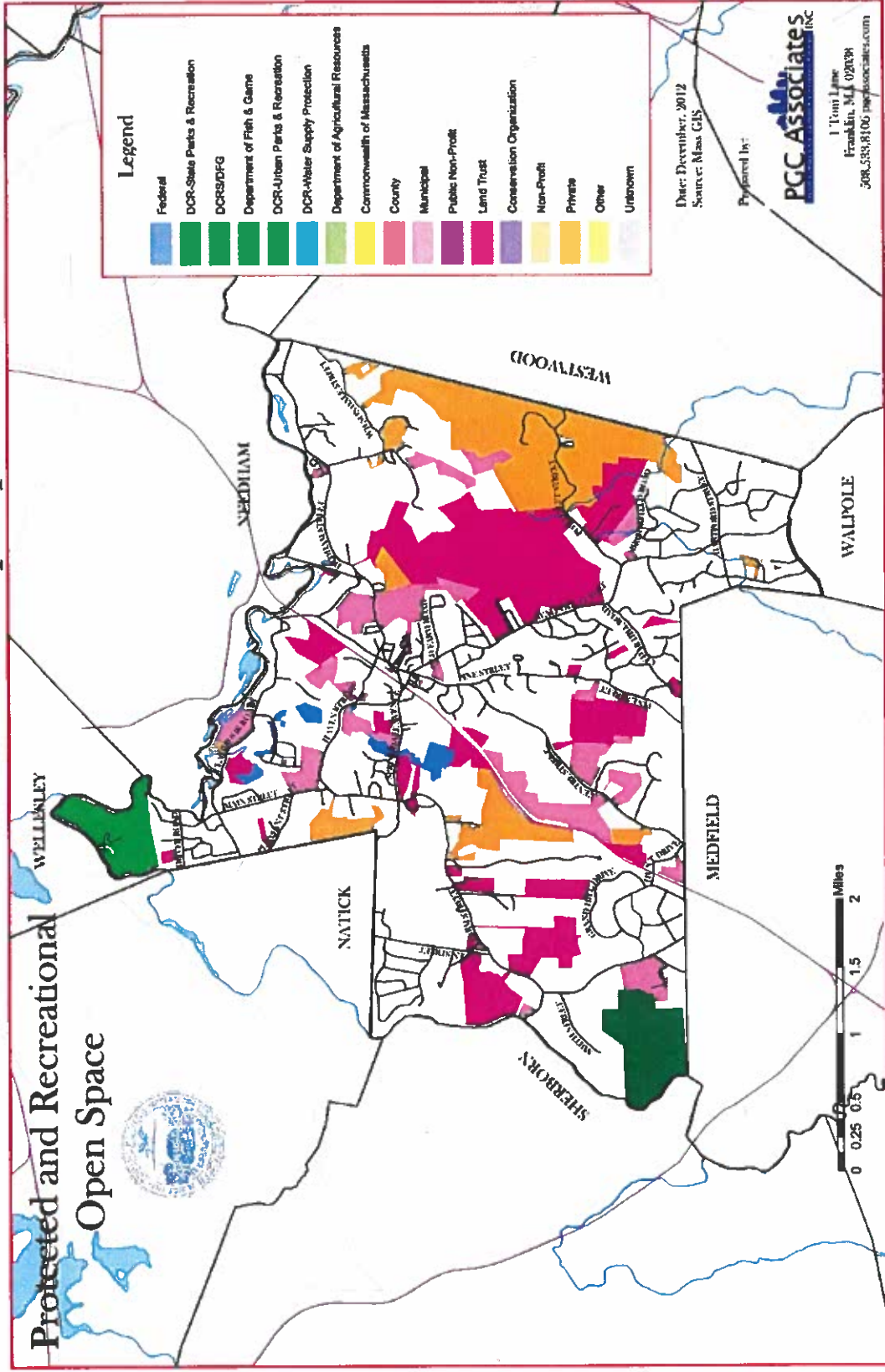
Protected Open Space and Conservation Lands

Section 5 of the 2011 Open Space and Recreation Plan provides an inventory of land in Dover, including lists, descriptions, and mappings of the Town's protected open space and conservation lands. For more details on the Town's open space and recreation resources, see that Plan and the Open Space and Recreation Element (Section VI) of this document.

Dover has approximately 3000 acres of protected open space owned in fee by governmental agencies or private, non-profit groups whose mission includes the acquisition and holding of conservation lands and/or otherwise using natural land for educational or recreational purposes. This represents over 30 percent of the Town's area of 15.31 square miles (9,876 acres). The Trustees of Reservations (TTOR) controls the largest portion of this (929 acres), followed by the Dover Conservation Commission (435 acres), the Dover Land Conservation Trust (DLCT) (over 395 acres), the State of Massachusetts (about 304 acres) and the US Army Corps of Engineers (about 94 acres). The Town of Dover owns an additional 206 acres.

In addition to the lands listed above, 540 acres (5.5% 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 or 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.

Figure 7
Protected and Recreational Open Space



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 734.28 acres of Chapter 61, 61A, and 61B properties in Dover as of 2011. The largest category is Chapter 61A (agricultural) lands, with 438.24 acres. There are 151 acres in Chapter 61 (forestry) lands, and 145 acres in Chapter 61B (recreation) lands.

Growth and Development Patterns

Current 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. The 1910 population of 769 residents grew slowly to 1,374 by 1940, when the heavy growth began. The Town's population grew by 25.3% in the 1940's, 65.3% in the 1950's and 59.1% during the 1960's. 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. Growth picked up slightly during the 1990's to about 1.3% annually, and has been essentially stable since at least 2004.

It should be noted that due to the decline in household size, from about 3.2 persons per household in 1980 to 3.0 in 2000, and projected to further decline to 2.85 by 2030, population growth understates, to some degree, the impact of development on the Town. As household size declines, more housing units are needed to accommodate the increase in population.

With the exception of a 56-unit condominium project built in 1990 under a comprehensive permit off Route 109, and two developments of 26 and 20 units each that are still being developed (also approved under comprehensive permits), recent development has been almost entirely low-density. In many cases, lot sizes have been greater than the minimums established by zoning. The most recent subdivision of approximately 12 acres off Betsy Lane (behind Colonial Road) is in a one-acre zone, but four of the five lots exceed an acre, with some in excess of two acres. One subdivision of 143+ acres (Snow's Hill) off Centre Street is in a two-

acre zone but consists of 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. An MBTA rail line currently traverses Dover; however, since the 1960's it has been used for freight only and has not been used at all in recent years. Currently, a rail trail has been proposed and is under consideration by the Town for this right-of-way.

Air service is available at Logan International Airport in Boston, TF Green Airport in Warwick, Rhode Island and Manchester-Boston in New Hampshire.. Norwood Municipal Airport and Hanscom Field in Bedford 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 Town 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. The three comprehensive permit projects (County Court off County Street, The Meadows off Springdale Avenue and Dover Farms off Centre Street) all have utilized small wastewater treatment plants in order to make those developments possible. The Dover-Sherborn Regional High School has a small wastewater treatment plant.

Water

Dover residents rely primarily on local wells for their water supply. The private Colonial Water Company (formerly Dover Water Company) serves some parts of Town at rates among the highest in the Commonwealth due to the nature and relatively small size of the system. Some residents near the Town line receive water service from the Natick and Medfield municipal water departments. The Appendix to this document contains a map illustrating public water system service areas in Dover. Water service has been a controversial issue in the past as the Town's Church Street wells have been contaminated, and proposals to tie into public water supplies from neighboring towns have resulted in heated battles over the future character of the Town.

Long-Term Trends

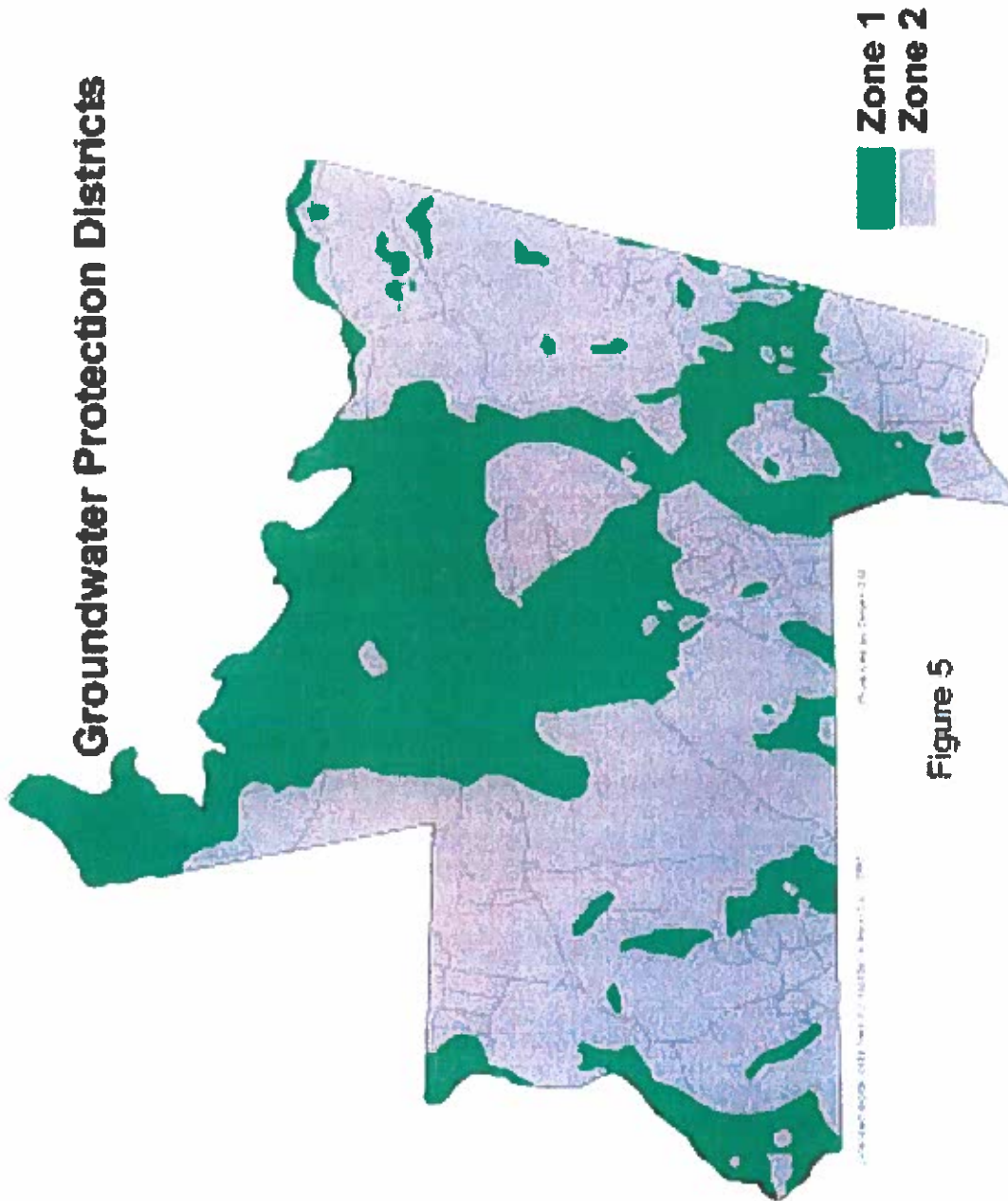
The primary land use control in Dover is the Zoning Bylaw. **Figure 1** has already depicted the current zoning districts in Town.

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 (B), medical-professional (M_P), and manufacturing (M) uses. There is also an Official or Open Space District (O) 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 overlay districts. The Conservancy district is for protection of ground water, flood plains, natural conditions, wildlife, etc. The Multifamily Residence district is for the purpose of allowing alternative development patterns and to encourage construction of elderly and affordable housing.

Dover adopted a General Bylaw in 1993 that created Groundwater Protection Districts (**Figure 8**). 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 Administrative Assistant and consultant aid 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 Protection 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 5 of the State Sanitary Code regarding the design and installation of septic

Figure 8
Groundwater Protection Districts



systems and alternative waste disposal systems. The Dover Board of Health also has its own regulations, which are more stringent than Title 5.

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. Hale Reservation is a 1,200 acre site in Dover and Westwood, including 625 acres of forest land in Dover owned and managed by Hale Reservation, Inc. While Hale Reservation holds a significant amount of land in its natural state, conservation is not Hale's primary mission. There is no guarantee, 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. The Zoning Bylaw states that land in the "Open Space or Official" (O) district (as Hale Reservation is currently zoned) may be considered as part of the abutting residential district if it becomes available for residential development. However, that provision very well may be invalid since state law requires that zoning can only be changed by a vote of Town Meeting. Regardless, Dover cannot assume that it will have as much open space as it presently enjoys without continued, vigilant open space conservation efforts.

In 2005, the Dover Planning Board considered potential revisions to the Zoning Bylaw to preserve open space. In 2006, 2007, and 2008, the Planning Board proposed various bylaw changes to create permanently protected open space in residential districts in exchange for some flexibility, by special permit, in the dimensional requirements of existing zoning bylaws. A two-thirds vote of each Town Meeting was required to adopt the proposed changes to the Zoning Bylaw. At the 2006 Town Meeting, the Board proposed separate bylaws for large and small developments. The proposed bylaws required developments of six or more homes to permanently preserve at least 50 percent of the total site acreage as open space, and allowed developers of less than six homes to voluntarily create permanently-preserved open space, in exchange for dimensional flexibility by special permit. In a Special Town Meeting in November 2006, neither article received the required two-thirds vote needed to pass, although both received simply majorities of 58 percent and 54 percent, respectively. At the 2007 Town Meeting, a similar open space bylaw was defeated by just two votes less than the two-thirds majority required to pass the bylaw. The proposed bylaw was defeated a third time at the 2008 Town Meeting by seven votes less than the required two-thirds majority. The Planning Board continues to prioritize the preservation of open space, and it continues to believe the Town's Zoning Bylaw should be revised to best preserve open space.

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. Land values have increased significantly in recent decades. This makes 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.

The Open Space Committee has long advocated for a conservation education program, tailored to Dover's specific needs and circumstances, and designed to benefit both residents and Town finances. The Town population has reached a point at which the Town is called upon recurrently

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. The results of the 2011 Master Plan Resident Survey quite clearly make that point.

Potential Buildout

Reliably projecting possible or likely future buildout scenarios for Dover is very difficult. Any buildout projections hinge on the inputs and assumptions on which they are based. While the amount of potentially developable land in Dover presents the prospect of significant future buildout, there is not a consensus in the Town on the likely pattern or timing of future development to inform such assumptions. In addition, the ultimate buildout of a given piece of land critically depends on economic and property-specific factors, such as where lot lines are drawn, soils, topography, wetlands delineations, and details of conservation restrictions, easements, rights-of-way, etc., all of which impact actual development relative to what appears to be possible on paper. Therefore while the Planning Board has identified clear risks to Dover's remaining open space, the Board decided not to revise, or even consider, prior buildout projections as part of this Master Plan update.

The broad conclusion of a buildout estimate originally prepared by the Town Planner in 1997 is that the vast majority of future development will take place in Dover's two-acre zoning area, where the most abundant and largest tracts of undeveloped land still exist. A significant amount of building in the one-acre zone also is likely, although the timing is uncertain. There will be negligible building in the areas zoned for less than one acre, where little undeveloped land remains. That buildout analysis was last updated in April 2004. Based on current zoning and data from Assessors Maps (not field tests), that analysis projected another 560 buildable lots in Dover. At the 2010 average of 2.8 people per household, for example, 560 more homes would add 1568 residents to Dover's population, nearly doubling its 2010 population of 1985 residents (see Table 2). However, this rough estimate gives no indication of the timespan over which any such development may take place. Ultimately, the pace and magnitude of Dover's actual buildout over time may be much higher or lower than this estimate, based on any number of factors.

Land Use Recommendations

1. Consider proposed changes to Dover's Zoning Bylaw designed to encourage the permanent protection of Dover's remaining open space.
2. Review Dover's Zoning Bylaw to eliminate inconsistencies and to streamline the wording and structure of some sections, with the intent of clarifying, but not substantively changing, certain provisions.
3. Prepare explicit regulations regarding visible landscape elements, especially stone walls, along designated Scenic Roads in the interest of clarity and consistency in preserving the rural character of Scenic Roads and complying with the Scenic Road Bylaw.

4. Review the extent to which Dover's current groundwater regulations comply with state and federal requirements, and/or whether any additional protections are warranted.
5. Maintain and expand Dover's use of the Geographic Information System (GIS) across all appropriate Town offices. Evaluate current GIS use and any additional budget, equipment, or staffing to maximize the benefit of GIS use to the Town. Consider consolidating the process under one town agency, and incorporating it into the Town planning process.
6. Consider developing a buildout scenario tool, to help project Dover's future development based on ranges of user-defined inputs for key parameters and, to the extent possible using available data, accounting for health, environmental, safety, zoning and private restriction requirements.
7. 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 6
Growth in Total Population and Homes in Dover, 1950- 2010

Year:	1950	1960	1970	1980	1990	2000	2010
Population¹:	1,722	2,846	4,529	4,703	4,915	5,558	5,589
# Homes²:	381	810	1,268	1,460	1,672	1,902	1,985
Average # People per Household:	4.5:1	3.5:1	3.6:1	3.2:1	2.9:1	2.9:1	2.8:1

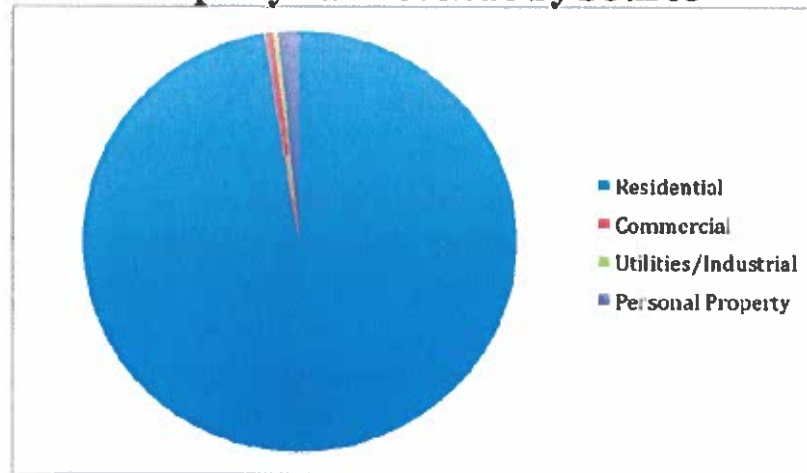
Sources: ¹U.S.Census, ²Town Census

In FY 2011, the percentage of property taxes collected from the different property categories was as follows:

Table 7

Property Category	% of Taxes
Residential	97.4
Commercial	0.7
Utilities/Industrial	0.3
Personal Property	1.6
	100.00

Figure 9
Property Tax Revenue by Source



Source: Massachusetts Department of Revenue, Municipal Data Bank

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 2-½ 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 Official or Open Space Zone, though its designation might suggest otherwise, 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. This provision is of questionable legality since Massachusetts law requires a specific Town Meeting vote to change zoning.

Much of Dover's rural character depends on the continued dedication of owners of O-zoned property 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 and which was at risk for development. 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 area 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 frontage 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 below in the section entitled "Affordable Housing.". Certain "grandfathered" accessory apartments are permitted in any zone. See the section called "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. 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 processes: Approval Not Required (ANR); subdivision; or comprehensive permit (also known as "40B").

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 endorse an ANR plan within 21 days, it is deemed valid under state law. ANR endorsement does not mean that a lot is buildable, only that it meets the dimensional requirements and has the requisite frontage and access, and that therefore it does not constitute a subdivision as defined under state law. 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. Massachusetts' Subdivision Control Law specifies the process needed, which includes notifying abutters and holding a public hearing. 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 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. 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. 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 of Massachusetts state law. 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.

The vast majority of single family housing in Dover is built by private developers and sold at market rate. Two buildout analyses under our current zoning structure estimate the number of new homes that could be built under current zoning other applicable land-use and environmental controls. One estimated that approximately 560 single family homes could be built while the other estimated 1157. 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 2011, only 17, or 0.9 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 (9.7%), Needham (7.6%), Sherborn (2.3%), Westwood (9.2%), Medfield (4.4%), Walpole (5.3%) and Wellesley (5.3%).

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 Appeals. 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.

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, or a private developer to make recommendations to the Board for the development of affordable housing. The advantages of "local initiative" programs under Chapter 40B is that the Town has greater flexibility to structuring, designing and siting the projects and it can reserve a percentage of the affordable units to Town residents and/or Town employees. 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. It also poses 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 Chapter 40B projects have been presented to Town Boards for review and three have been approved. All of them involve single-family houses. The Meadows is a 26-unit development off Springdale Avenue next to the Dover Market. Dover Farms includes 20 single-family dwellings off Center Street next to the cemetery. Both of these are under construction. A 3rd project, called Dover Village, consists of 4 single-family dwellings off County Street.

Dover's first 40B project was a large condominium project, known as County Court, on Tisdale Drive (off Route 109) in Dover. That project created 17 affordable units, along with an additional 39 market rate units (for a total of 56) the developer was entitled to develop.

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 open space preservation 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 open space 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 open space preservation zoning bylaws to address various local needs like affordable housing or additional open space. While proposals for such a bylaw have been narrowly defeated in the past, it is recommended that an open space preservation 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. The state matches the funds raised locally using a surcharge on fees at the Registry of Deeds. From 2001-2007 the match was 100%. It has since declined to 25% in 2011 due to increasingly widespread adoption by many surrounding Massachusetts towns.

At least 10% of the funds must be used on each of affordable housing, open space and community housing, and funds for recreation projects can only be used on land purchased with CPA funds. If adopted, a Community Preservation Committee first approves a plan for using the funds and then presents specific funding recommendations to Town Meeting for approval. As of 2011, 147 cities and towns have adopted the Community Preservation Act.

At the 2002 Town Meeting, the Community Preservation Act was presented for adoption, but was not approved. It should be noted that legislation is pending that would allow towns to adopt a 1% property tax surcharge and use other revenue sources for up to an additional 2%. The legislation would also require that the state match be a minimum of 75%. It would also allow recreation projects to be funded on land that was not acquired with CPA funds. 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 adult 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. 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 curb cuts, 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 Question #35 of the 2011 survey of residents, 59% supported a bylaw change to allow shared driveways. Therefore, the Planning Board continues to support an amendment to the Zoning Bylaw to again allow shared driveways.

Smart Growth/Sustainable Development

The Executive Offices of Housing and Economic Development and Energy and Environmental Affairs have broad policy-making authority over the environmental, housing, transportation and energy policies in Massachusetts. Pursuant to its mandate, the state 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, these 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 the 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

1. Improve evaluation and implementation of affordable housing projects:

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.

2. 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:

Open space preservation zoning;

Inclusionary zoning; and

The Community Preservation Act.

3. Develop and implement procedures to create and maintain an accurate inventory of Dover's affordable housing stock for reporting to the Department of Housing and Community Development.
4. Revise the Town's Multi-Family Housing bylaw to encourage development of multi-unit affordable housing projects with local, rather than Chapter 40B, approval.
5. 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.
6. Revisit Section 185-43 of the Zoning Bylaws to determine whether Dover should allow accessory apartments in residences constructed after 1985.
7. Review the current Section 185-40 of the Bylaw to determine if restrictions on residential development should be imposed in the event that Official or Open Space zoning district use is discontinued.
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.

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."⁵

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, Manufacturing-Industrial and Medical-Professional Districts. Some of the current businesses include the following: a small bank, credit union, coffee/sandwich shop; two realtors; a drop-off laundry and dry-cleaning establishment; a small grocery store; a liquor store; a house renovator and cabinet maker, a health spa, several law offices; gas station/automobile repair shop; and a custom-built home countertop contractor. The current use of the Caryl Community Center includes day-care, and private

⁵ *Eliot Report*, 1958, pg. 18

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 10). 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 (FY2011 rate is \$11.70/\$1000). Business property value, however, is assessed differently - on the basis of income. In FY 2011, as shown in Table 7 repeated below, the percentages of taxes collected from the different property categories were as follows:

Table 7
Property Tax Revenue by Source

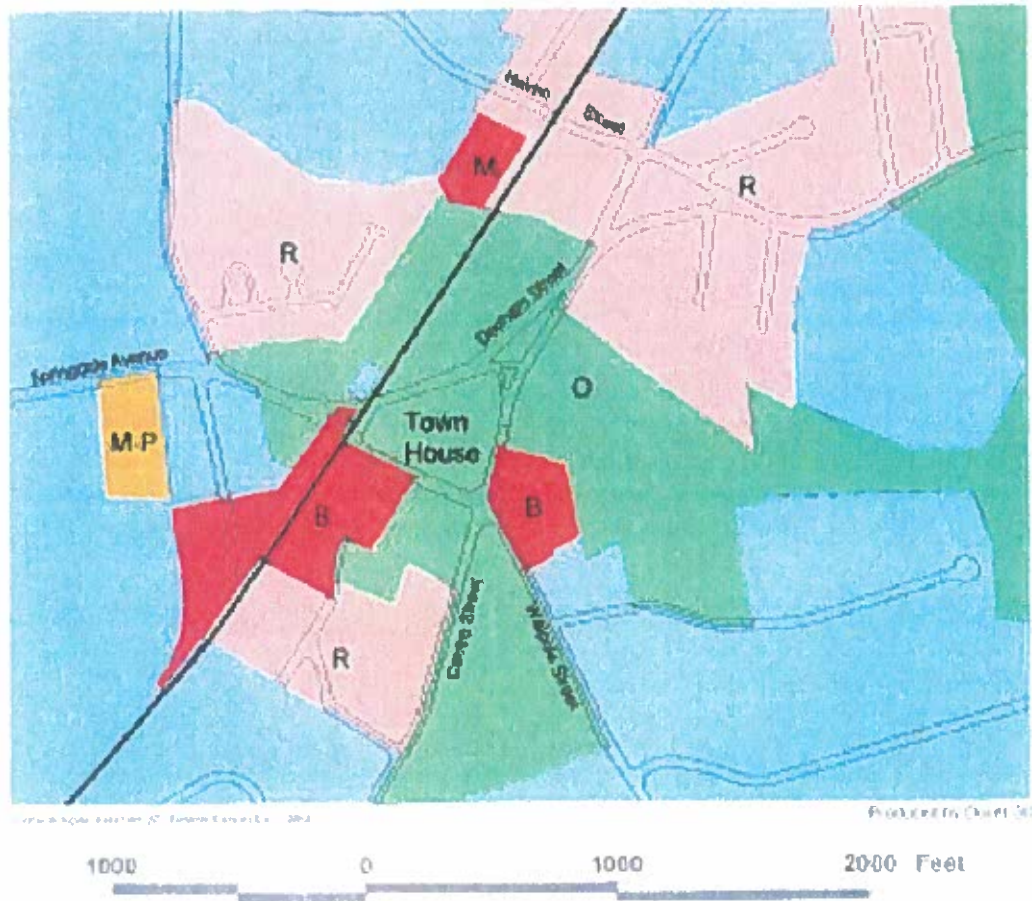
Property Category	% of Taxes
Residential	97.4
Commercial	0.7
Utilities/Industrial	0.3
Personal Property	1.6
Total	100.00

Source: Assessors Office, 2011

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 2004 through 2011, tax revenues increased 48%, from \$17.4 million to \$25.8 million. In addition, Proposition 2 1/2 overrides have been necessary to help us make ends meet. After a series of overrides in the early 1990's, there were none between 1995 and 2004.

Figure 10
Town Center Zoning
Town Center

Revised as of 2004



Zone

- R 1/2 acre s.f. residential
- Official Open Space
- Business
- Medical - Professional
- Manufacturing

Table 8

Overrides Authorized at Town Meeting and Town Election

Fiscal year	Override	Purpose
2004	\$350,000	General
2005	\$650,000	General
2006	\$900,000	General
2007	\$0	
2008	\$149,500	Ambulance
2008	\$495,000	Fire truck
2009	\$0	
2010	\$0	
2011	\$0	
2012	\$0	

Education accounted for 60.1% of the total budget in FY2011. 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

1. Analyze existing and proposed developments for fiscal (both revenue and cost), demographic and all other impacts.
2. Work with Town departments, boards and committees to identify why and when increases in the costs of Town services will occur.
3. Establish, protect and encourage community farms and their contributions to the Town's economy, biodiversity and rural character.
4. Strictly enforce regulations to guard against any commercial activity which would adversely affect Dover's aquifer and endanger our water supply.
5. 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 Community Center property).
6. 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

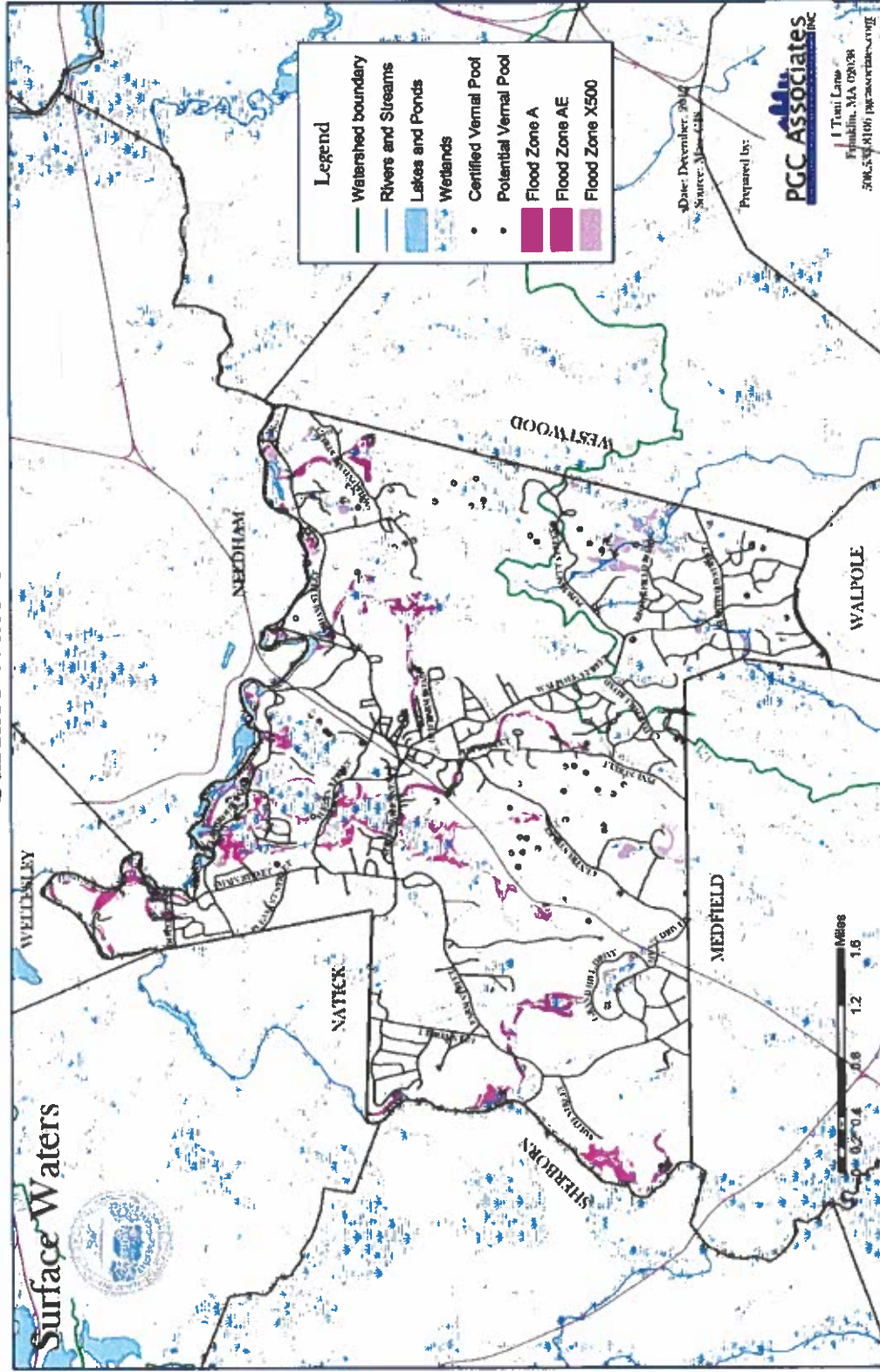
Dover's topography is highly variegated. Its lowest point is 90 feet above sea level, where Dover, Westwood, Needham, and Dedham meet. Its highest points are 449 feet at Snow Hill, 442 feet at Cedar Hill just south of the Medfield line, and 410 feet at Powissett Peak; 410 feet at Pegan Hill, just over 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

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 swamp (990 acres). Figure 7 presents Dover's water resources.

Figure 11
Surface Waters



Natural Resources Conservation

Agencies and Organizations Responsible

There are nearly 1,100 acres that are bodies of water or wetlands subject to regulation by both State and local Federal agencies. Dover has approximately 3000 acres of protected open space owned in fee by governmental agencies and private, non-profit groups whose mission is primarily the acquisition and holding of conservation lands. This represents over 30 percent of the Town's area of 15.31 square miles (9876 acres). 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). However, the Conservation Commission believes that land prices have risen to the point that it is unlikely that it will acquire land through direct acquisition.

Dover's Park and Recreation Department maintains small plots in Town Center, at least one building, and most Town-owned land (other than Conservation Commission lands), 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 (OSRP) for the Town. The plan was submitted to the Executive Office of Environmental Affairs in July, 1997. In June, 1997, the Board of Selectmen added to the duties of the Open Space Committee by assigning it responsibility for the identification and acquisition of open space lands in Dover. The Open Space Committee became an official standing committee by Town Meeting vote in 2001. In compliance with current state laws the Dover Open Space Committee submitted updated Open Space and Recreation Plans to the Massachusetts Executive Office of Environmental Affairs in 2003 and 2011. The most recent OSRP is particularly thorough and has been approved through 2017. The Plan Summary of the 2011 OSRP is included in the Appendix.

Criteria for Town Conservation of Land and Surface Waters:

The following criteria are 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 GWI 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 that 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 395 acres in Dover, and holds conservation restrictions on an additional 192 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 929 acres in Dover and holds an additional 342 acres with conservation restrictions.

Approximately 36 of the 188 acres at Elm Bank have been leased long term by the Massachusetts Department of Conservation and Recreation 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

Conservation of groundwater is the one of the highest priorities for public policy in Dover, confirmed explicitly as such by this Master Plan and 2011 survey of residents. 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.

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 5 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 systems that will require cooperative maintenance by several homeowners. Currently, Dover has four package wastewater treatment systems. These are located at the Regional High School and three residential projects at County Court, the Meadows and Dover Farms. 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. A concern with any system, particularly a shared system, is that it may not be maintained properly, and without proper maintenance, it will not function properly leading to ineffective performance and to groundwater contamination.

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. However, all known tanks were removed by 2006.

Surface Waters

Dover has several significant bodies of surface waters including Channing Pond, the Charles River and various brooks. Protection of surface waters is partially achieved through the Environmental Protection Agency Phase II Stormwater Regulations. This program is intended to mitigate stormwater pollution in designated “urban” areas. There are three designated areas in Dover subject to Phase II, which requires significant mapping, testing of outfall discharge, treatment of stormwater, annual reports, discharge permits and public education. Phase III regulations are anticipated to be issued in 2013.

Energy

Energy use has become a significant issue due both to its cost and its environmental impact. Programs are available to promote and encourage energy conservation and development of alternative energy sources for Town facilities as well as for private property owners. Among these programs are (1) the Massachusetts Green Communities Act, which makes grants available to cities and towns that meet certain criteria and prepare a plan to reduce energy consumption by 20% over 5 years; (2) Solarize Mass, which helps lower prices for installation of solar panels on private property by grouping buyers in order to generate volume discounts, (3) MassSave, which conducts energy assessments of both public and private buildings and provides access to subsidies for energy-saving improvements; and (4) various state and federal tax credits. These programs, as well as other energy-saving ideas, should be considered by the Town. In the 2011 survey, 52% of respondents identified energy conservation as an important issue, and even stronger majorities supported specific measures such as energy audits (67%), purchasing energy-efficient vehicles (67%) and adopting energy efficient building codes (62%). While 46% supported adopting Green Community status, an additional 32% responded “maybe” to this question indicating that more information about it is necessary.

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). Dover has one historical preservation institution: the Dover Historical Society (DHS) DHS is privately funded and governed and 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. The Society also collects and conserves significant material

pertaining to culture and history. 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 Fisher 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 in Dover near the border of the two Towns. Dover also has one private elementary school in the center of town, the Charles River School, teaching 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 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 Department of Conservation and Recreation. The Society invested \$10 million in the restoration and further creation of major year-round demonstration gardens and educational programs, and the renovation of the main buildings on the estate. The estate 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 estate 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, although it is a property that requires public safety resources.. Dover is extremely fortunate to host so significant 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 particularly given the economizing impacts of electronic telecommunications on information storage and retrieval, and on book and multimedia publication. The 2011 survey found that 86% of respondents believe that the library is adequate for future needs without major improvements or renovations. The library became a full member of the Minuteman Library Network in 1997 which network allows residents access to the collections of 40 other public and college libraries..

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. The former 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 uses the existing property and buildings for retreats and conferences, there is currently no guarantee that this use 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. This operation recently merged with Sherborn's cable access service. 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."

Dover's scenic roads are a major cultural resource. The importance of these and the efforts to protect them have been discussed in the Land Use section. Efforts to document the current state of Dover's scenic roads should be initiated as well as strengthened regulations to protect them.

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, turkeys, coyotes and, in rural suburbs like ours, deer. When natural predators are absent, as they are in most suburbs, the populations of these adaptable species 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 of these imbalances has resulted in a dramatic increase in the deer population and a related increase in the number of deer ticks and the spread of Lyme Disease. In response to this imbalance, the Board of Health has initiated a program for controlled hunting of deer to reduce their population. However, it is unlikely that controlled human hunting of deer will significantly reduce the deer herd in Dover, and another solution to the imbalance must be found.

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 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 is 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 principle 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 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

1. Institute biodiversity as a prime value of Town planning and management. Create an ecosystem map of Dover and a census of species diversity by using the State's BioMap II, Priority Habitats for Rare Species, and Estimated Habitats of Rare Wetlands Wildlife maps as a base and adding specific local knowledge as it becomes available. Indicate areas of optimal biodiversity and those being managed for increased biodiversity. Develop and implement strategies of habitat management to increase long-term biodiversity.
2. Promote school curricula, Scouting programs, and the establishment of a 4H Club Chapter in Dover that could teach rural skills and values.
3. Promote organic horticulture and agriculture among landowners.
4. Promote the development of connections between open space areas (see also Element VI).
5. Initiate efforts to document the state of Dover's scenic roads as well as strengthen regulations to protect them.
6. Continue to research methods, policies and regulations to reduce the use of chemical fertilizers, pesticides and road salt.
7. Develop and implement a method to reduce the deer population and tick population, and minimize the spread of Lyme disease and other tick-borne diseases.
8. Continue to expand the use of Dover Cable television to advertise, record and broadcast cultural events in Town.
9. Pursue a program of energy efficiency and alternative energy for Town facilities and encouraging such measures for private property owners.
10. Pursue a program of energy efficiency and alternative energy for Town facilities and encouraging such measures for private property owners

VI. Open Space and Recreation

Preface

The Dover Open Space Committee, appointed by the Board of Selectmen, prepared the first 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 again in 2011, and state approval of the update is now valid until 2017. The Open Space Committee includes members of the Conservation Commission, the Dover Land Conservation Trust and the Planning Board. The 2011 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 8, Open Space and Recreation 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 Action Plan in the OSRP.

Introduction and Overview

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 continued and expanded 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 adversely impacted 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. 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.

The OSRP specifically emphasizes the protection of groundwater and agricultural lands. It also calls for linking open space and recreation sites where possible, developing management plans for open space and recreation lands, and developing procedures for addressing tax title lands and changes in uses of open space lands.

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 Community Center, Caryl Park, Chickering School and Playing Fields, Dover-Sherborn Regional Schools and Playing Fields; Channing Pond; Riverside Drive Boat Landing, and Bridge Street Boat Landing...The Town also uses facilities in the Town of Sherborn; Fessenden Field, Jameson Field and Laurel Farm, and Pine Hill School.

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 developed 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 Metropolitan Boston Region of the State Comprehensive Outdoor Recreation Plan (SCORP). The most recent version of that plan was completed in 2006 and it is currently being updated again.. Dover's needs are reflective of the needs of the region. The top issues of the region include improving access for people with disabilities; maintaining existing facilities; restoring and improving existing outdoor recreation areas; expanding environmental education programs; improving access by public transportation, providing maps, guides and other interpretive information; and purchasing new outdoor recreational areas. Many of these reflect Dover's preferences.

The 2011 survey of residents, revealed a strong interest in expanding walking trails as 48% favored this while just 1% wanted fewer trails (51% said no change was needed). Also, 30% supported additional playing fields and 20% supported more equestrian activity. When the question was asked in terms of spending tax dollars, however, 58% rated conservation land either 1 or 2 on a scale of scale of 6 while just 33% so rated "hiking, skiing and horse trails" and 27% gave this rating for "sports playing fields."

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 now offers 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

Protected open space serves several valuable functions. Depending on the type (e.g. forest, meadow, wetlands, farmland, etc.) open space can provide valuable habitat for both plant

and wildlife, help replenish and protect aquifers, reduce and absorb storm water runoff, produce a sustainable source of a wide range of resources, and absorb and/or treat pollutants. Open space also offers numerous active and passive recreational opportunities and adds scenic views to the landscape. "Protected" open space is land that is preserved because it is under the care and custody of the Conservation Commission, is subject to a conservation restriction or other deed restriction, is owned by a nonprofit organization whose purpose is the preservation of open space, is dedicated as park land or is otherwise protected by Article 97 of the Massachusetts Constitution (See Appendix).

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

This section discusses existing open space and recreation lands in four categories. These include protected open space and conservation lands; conservation restrictions; public and private recreation areas and facilities; and Chapter 61, 61A and 61B lands.

Dover has approximately 3000 acres of protected open space owned in fee by governmental agencies and private, non-profit groups whose mission is primarily the acquisition and holding of conservation lands. This represents over 30 percent of the Town's area of 15.31 square miles (9876 acres). The Trustees of Reservations (TTOR) control the largest portion (929 acres), followed by the Dover Conservation Commission (435 acres), the Dover Land Conservation Trust (over 395 acres), the State of Massachusetts (about 304 acres) and the U.S. Army Corps of Engineers (92.75 acres). The Town of Dover owns an additional 206 acres.

With regard to permanent protection (in perpetuity) of the lands listed above, the properties owned by the TTOR and the Dover Land Conservation Trust are protected from a change in use by the charters and mission statements of the two organizations. The land owned by the Dover Conservation Commission and the Department of Conservation and Recreation of the State of Massachusetts are protected under Article 97 of the Article of Amendment to the Constitution of the Commonwealth of Massachusetts. Land owned in fee by the Town of Dover and currently classified as open space can be used for other purposes upon a vote of the Town Meeting. The land owned by the Dover-Sherborn Regional School can be used for any purpose that the Regional School Committee deems appropriate. Hale Reservation enjoys no protection from development, except that it is zoned in the Official or Open Space district, which provides few development options [See discussion of this zoning district in the "Land at Risk of Development" subsection of the Land Use section]. Land owned in fee or by easement by the Army Corps of Engineers for the Natural Valley Storage Program was purchased with the intent of providing flood protection by maintaining the water storage function of wetlands in the Upper Charles River Basin. It therefore has a high level of protection.

Among the most significant open space parcels in Dover are Hale Reservation and Noanet Woodlands. Hale Reservation, totaling about 1200 acres in Dover and Westwood, is managed by Hale Reservation, Inc., a private, non-profit organization with headquarters in Westwood. It should be noted that Hale Reservation is not permanently protected. [this

sentence redundant with paragraph above, discuss in one place] Noanet Woodlands (529 acres) is owned by The Trustees of Reservations. Its eastern border, for the most part, is contiguous with the western border of Hale Reservation. Management of the two organizations collaborate in developing rules for the use of trails, and hiking, biking, and horseback riding are allowed on the well-marked trail systems of both reservations. This results in a de facto reservation of more than 1800 acres.

Noanet Woodlands has trail access from several points. The main entrance is from Dedham Street, where a parking lot is at present shared with Caryl Park, abutting Noanet. Another TTOR parking lot is planned for Powissett Street. A ranger station is staffed by TTOR on weekends. The reservation is used heavily for hiking, bicycling, horseback riding, cross-country skiing, snowshoeing, and other activities by people from all over eastern Massachusetts. Users include scouting organizations, orienteering clubs, and other groups, in addition to individuals.

The Trustees of Reservations also own and manage Peters Reservation and the Chase Woodlands on the western side of Dover. Peters Reservation totals 89 acres and has significant frontage on the Charles River. It is separated from Chase Woodlands by Farm Street, but a permanent trail easement links these two significant open space areas. Chase Woodlands includes 85 acres of woods and trails. Powissett Farm, which totals more than 106 acres, does not permit public access since it is maintained as a working farm, which now operates as a community-supported agriculture (CSA) program.

Another significant open space parcel is the Snow Hill Reservation. This is the largest parcel (71 acres) and first acquisition of the DLCT and is used for both active and passive recreation. The Boy Scouts of America maintain a camp on the property, which is used as a wilderness experience camp. The Conservation Commission also owns several abutting parcels interlaced with trails for walking and horseback riding. Acquisition by the Town of the Wylde property combined with Snow Hill, the Ferguson property, Channing Pond, and abutting properties in Chapter 61, links and expands the "Centre Street corridor" of open space and an extended system of trails close to the center of town.

DLCT was organized in 1965 to "assist in and promote the preservation of the rural character of the Town in order to preserve and maintain areas for conservation," according to its Articles of Incorporation. Its goals include water resource protection, plant and animal life enhancement, historic preservation, and active and passive recreation.

Bartlett Pines (owned by DLCT), accessed off of Claybrook Road, is a beautiful property that juts into the Troutbrook Marsh. A seasonal stream is spanned by a primitive bridge and leads to a path around the property. There are wonderful views of the marsh. Wildlife abounds, from deer and muskrat to geese and ducks.

DLCT also owns Springdale Field. Located at the corner of Springdale Avenue and Farm Street, it is a large open field with a stream running through it. It is used as the gathering place for "the hunt" (Norfolk Hunt Club) several times a year, and townspeople use it to exercise horses and dogs.

In addition to its Snow Hill properties, the Dover Conservation Commission also has custody of several other outstanding parcels. These include the Valley Farm land, Rice land, Channing land, and properties on Walpole and Haven Streets, as well as a 46-acre parcel on the Charles River. The Town is also fortunate to have the 67-acre Larrabee –Whiting Estate, which is governed by its own elected Board of Trustees.

With regard to the Conservation Restrictions, described in the following paragraph, the protections afforded to properties owned in fee by the Conservation Commission and the State of Massachusetts by the provisions of Article 97 can be extended to restrictions held by 501c(3) organizations as well as by restrictions held by the Conservation Commission and the Army Corps of Engineers if approved by the Division of Conservation Services.

Besides the in fee ownership of lands listed above, 540 acres (5.5% 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. He would not, however, be able to subdivide and develop it. 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 result in an income tax deduction, and 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 Trustees of Reservations hold the largest area of conservation restrictions with 342 acres. Along with their 929 acres held in fee, they control nearly 1300 acres (almost 13%) of Dover's land area.

U.S. Army Corps of Engineers also owns flood protection easements. With the 92 acres held in fee, the 183 acres of easements protects about 275 acres.

Dover has a significant trail system and continues to expand it through land acquisition. Unfortunately, some former public access trails have been lost due to insufficient use and blockages by private landowners.. 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 (CPA) 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.

In Towns that have adopted the CPA, a Community Preservation Committee develops a plan for using funds and presents specific funding recommendations to Town Meeting for approval. To date, 147 cities and towns have adopted the Community Preservation Act. Some communities, such as Weston, (\$9.6 million), North Andover (\$8.2 million), Boxford (\$3.5 million), Wellesley (\$4.3 million), Norfolk (\$3.0 million), Needham (\$4.7 million), Lincoln (\$3.0 million), Carlisle (\$2.1 million) and Duxbury (\$7.8 million) have effectively leveraged these funds to acquire open space, develop recreation facilities, build affordable housing and preserve historic properties. It is estimated that in four years (2003 through 2006) Dover would have collected \$1.6 million in state funds under this rejected program. It should be noted that beginning in 2008, the state match declined from 100% to 67% and continued to fall to 25% by 2011. A bill currently under consideration by the legislature would establish the match at 75% as well as make a few other tweaks.

Open Space and Recreation Recommendations

1. 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.
2. 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.
3. Acquire additional lands for conservation, recreation and other municipal needs.
4. Increase public awareness of open space and conservation resources and issues.
5. Link open space and recreation sites to each other and to recreational areas.
6. Develop and/or improve both indoor and outdoor recreation areas to provide a wide range of year-round activities.

7. Review the current Zoning Bylaw to consider whether the Open and Official Zone (O Zone) effectively protects open space permanently. [Put references to this where Hale discussed]
8. Continue to research and protect existing trail corridors.
9. Review the question of whether the existing permanently protected open space is sufficient to protect key resources such as ground water quality.
10. Explore overlay districts to reduce loss of open space.
11. Research and inventory lands currently considered to be permanently protected open space, to identify titles and other restrictions preserving open space.

Note: The following are the goals and objectives from the OSRP:

Open Space

A. Preserve and Protect the Groundwater Water Supplies

1. Enforce Existing Groundwater Protection Districts.
2. Monitor New Zoning Regulations in Other Towns Regarding Groundwater Protection
3. Enforce Existing Septic System Regulations
4. Monitor New Septic System Regulations in Other Towns
5. Create a Database to Monitor, Maintain, and Enforce the Maintenance of Unconventional Septic Systems
6. Expand GIS Information on the Location of Private Wells and Private Septic Systems as Requested by Other Boards
7. Reduce the Use of Road Salt
8. Discourage the Use of Fertilizers, Pesticides, and Household Cleaning Supplies
9. Contact Landowners with Land Critical to Groundwater Water Supplies
10. Acquire Additional Lands (Fee Simple or Conservation Restriction) to Protect Water Supplies

B. Acquire and Preserve Agricultural Lands and Community Supported Agriculture

1. Contact Landowners with Agricultural Lands
2. Acquire Additional Agricultural Lands (Fee Simple or Conservation Restriction)
3. Develop a Right to Farm Bylaw

C. Link Existing Open Space and Recreation Sites to Each Other

1. Require Trail Linkages where Appropriate
2. Contact Landowners with Critical Lands for Recreation –
3. Acquire Additional Lands (Fee Simple or Conservation Restriction) for Recreation

D. Develop Management Plans for Open Spaces

1. Develop Land Management Plans for Municipal and School Owned Parcels
2. Develop Wildlife (Deer and Wild Turkeys) Management Plans – Board of Health

E. Develop and Publicize Procedures for Changes in the Use of Public Lands

1. Develop Written Procedures regarding the Permanent Disposition of Tax Taken Parcels
2. Develop Written Procedures regarding the Change in Land Use of Open Space Parcels where No Public Monies are Used

Recreation

A. Develop a Community Center that Suits the Needs of Dover Residents

1. Continue to support the long term use of the Caryl Community Center for recreation and other community activities

B. Increase Public Awareness of Existing Recreational Opportunities

1. Identify Recorded Trail Easements owned by the Town
2. Place Permanent Boundary Markers as Needed on Existing Public Open Space Lands and Trails
3. Perform Annual Monitoring of Town Owned Conservation Restrictions
4. Develop Expanded Parking Opportunities to Open Spaces via Changes in the Zoning Bylaws
5. Produce Printed Trail Maps of Large Public Open Space Parcels for Distribution to Town Residents in Public Buildings
6. Conduct Annual Trail Hikes Open to the Public
7. Maintain and Update Lists of Open Space Parcels Owned in Fee Simple or by Conservation Restrictions

C. Expand Recreational Opportunities

1. Study Proposals to Convert the Railroad Bed into a Hiking and Biking Trail
2. Enhance Coordination Among Recreational Organizations through Monthly Meetings

VII. Public Services and Facilities

Overview

The 2010 Dover Town Report noted 1,983 households. The U.S. Census for 2010 indicated a total population of 5,589. The American Community Survey 5-year estimates indicated that the population included 1660 persons aged 0 through 17 and 1017 persons aged 60 or more. The median age of our population was 42.3 years and the average median annual income was \$164,583.

The population has stabilized since 2000 and projections are for small population increases through 2030 to about 5800. However, as household size has declined, the number of households and housing units has increased despite a stable population. This trend also impacts public facilities and services.

Dover residents have highly rated the quality of the Town's services (See Master Plan Residents Survey, Spring of 2011, in Appendix). 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.

The changing demographics of Dover residents and changing state and federal laws and regulations are used as the basis for recommendations in this section. 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 changing 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 2012 Town budget of \$29.7 million.

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 2011 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 2010, education costs made up 61% 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 was 549 (October, 2010), a decrease of 61 from 2003. All elementary education is provided at the Chickering School (grades K-5), which was completed and opened in September 2001.

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 totaled 1,141 in October 2010, 609 from Dover and 532 from Sherborn. This is an increase of 11% from April 2004.

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.

A Facilities Planning Committee was formed by the Regional School Committee in 1998, and both Dover and Sherborn 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 completed in 2004.

Since it was put into service in 2003, the wastewater treatment plant for the regional campus has frequently been out of compliance with its discharge permit from the Massachusetts Department of Environmental Protection (DEP). During 2009, the region was served with a consent order by DEP to command compliance, making clear the need for major capital upgrades. Funding the upgrades was approved at the 2012 Town Meeting.

Police

In 2011, the authorized strength of the Dover Police force was 17 persons, consisting of one chief, four sergeants and twelve patrol officers. Two part-time special officers augmented this permanent force, each covering a weekend day shift once per month. The police department includes one additional administrative person handling payroll, billing and general office work. 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. Variations in the Town's police work stem directly from transportation patterns, and growth in transient traffic. 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.

In 2010, the Dover Police began a rigorous policy of motor vehicle enforcement. This has significantly increased the number of recorded incidents (7402 in 2010 compared to 6885 in 2009). These policies will continue in coming years.

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 SPAN D-S (Substance Prevention and Awareness Network), a community-based human service organization focused mainly on prevention of alcohol and drug abuse in the Dover and Sherborn schools. 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. There is also a chapter of SADD (Students Against Destructive Decisions) at the regional high school.

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 44 part-time and local firefighters and EMTs, including the Chief, Deputy Chief, Captain, and four Lieutenants. In 2010, 740 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 workload. 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 the discussion in "Municipal Water Supply" below.

Library

The library includes a separate level for children's circulation, handicapped access, an improved public meeting room, and more space for library users. The library is 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 first in the state among towns within its population category.. 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 Highland Cemetery was enlarged as a result of the Town's acquisition of the 7 acre Young property, which should provide approximately 1400 new burial sites. Additionally, there are a number of available sites on the existing cemetery grounds. Presently, there are approximately a dozen demands for sites per year. There is adequate space beyond 2020. The present cemetery acreage should be sufficient through the year 2020 [check 2025?].

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 the Circulation section. The Highway Department has a workforce of 7, and 3 additional part-time workers to handle snow removal. It currently operates 14 [check] 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 Town Garage will meet the Town's needs through the year 2020 [check 2025?].

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 \$74.01 a ton. Recyclables are sold at a modest profit.

Looking forward, Dover's contract with Millbury was renewed for 20 years 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 1.45 tons per year. 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 [check 2025?] with the purchase of a third compactor.

Recycling is the Town's best defense against increasing disposal costs. In 2010, Dover recycled over 681 tons of materials, a decrease of 2% from 2009, and continued a noticeable downward trend over the past decade. During 2011, the Parks and Recreation Commissioners put into effect a "carry in- carry out" policy at the Dover playing fields with the goal of eliminating litter and the improper disposal of trash.

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, perhaps due to insufficient promotional efforts.

Underutilized Facilities

The Town has one underutilized building: the building on Whiting Road. The future use, demolition or sale of this building should be studied.

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 (since purchased by Colonial Water Company) to supply water to the Town Center. This contract has been renewed to present day. (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

1. The work to upgrade school buildings in recent years should provide adequate facilities through 2020.
2. The Dover Police force and its facilities should be adequate through 2020.
3. Gather refined police statistics in order to evaluate the need for a Town social worker.
4. Gather detailed statistics with respect to domestic violence, including child, spouse and elder abuse.
5. Consider expanding the hours of operation during evenings and weekends.
6. Assess the feasibility of purchasing a baler and/or hauling vehicle.
7. Assess additional manpower needs for the future.
8. Educate citizens about the availability and benefits of free garbage pickup.
9. Continue to study the future use of the Caryl Community Center,
10. 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.
11. Consider electronic storage of records and plans, including purchase of a scanner for large-size plans.
12. Encourage use of advanced septic systems [perhaps this should be under Natural and Cultural Resources].

VIII. Circulation Element

Overview

This section of the plan reviews 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 there exists no opportunities for 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. 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 been adopted that require roadway widths in new developments to be 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.

The Town is again considering its salt policy. The 2011 Master Plan survey found that 31% agreed that the current salt use policy is appropriate, while 41% would reduce salt use if can be done so safely. Eighteen percent would reduce salt use if doing so were not significantly more expensive, while 10% would do so even if it were significantly more costly.

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, 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 (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 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, law offices, a medical/professional building in or near the center. The Town transfer station off Powissett Street also generates traffic, especially on Saturdays. Traffic related to these services is spread over off-peak travel time causing minimal disruption.

Accident Patterns

Need info on accidents indicates the number and location of automobile accidents reported in calendar years from 2008 through 2011 (the most recent data available). [Add comment after seeing data]

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: There is a taxi for hire within Town and there is access to commuter rail service in the neighboring towns of Needham, Natick and Walpole.

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.

According to the 2011 Master Plan Survey, 30% of respondents reported that they worked in Boston, while 16% worked along Route 128. Thirty three percent had no commute and another 21% worked within I-495 or had a commute that varies. When asked what type of public transportation would be desirable for Dover, 50% said none. Twenty-nine percent would like commuter rail, 23% would like bus service to a commuter rail station and 13% would like a shuttle to shopping. Forty eight percent said they would use such service daily or occasionally while 53% said they would use it seldom or never.

Town Center Parking

Parking Inventory

There are numerous parking spaces in the area of Dover center. Figure 12 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.

In the 2011 Master Plan survey, 87% of respondents agreed that parking in the Town Center is adequate.

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 Open Space and Recreation section. Walking trails received strong support in the 2011 Master Plan survey with 48% supporting more trails and only 1% favoring less. The rest were satisfied with existing trails.

In addition, the survey included a question about converting the MBTA rail line from Needham through Dover to Medfield into a rail trail. Forty percent favored the idea if private property could be

protected and another 36% favored it if would be paid for through private funds or grants. Only 24% opposed the idea. A committee is currently pursuing this idea, which is known as the Bay Colony Rail Trail. {[hyperlink](#)}

Figure 12
Town Center Parking

Town Center Parking

Revised to 2004

Public	164
Employee/Customer	327
Distant Public	200
Churches	110



Sidewalks

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 system of sidewalks to serve schoolchildren and business related access (See Figure 13). 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, especially as they impact scenic roads. The Planning Board's Subdivision Rules and Regulations encourage off-road trails rather than sidewalks in new subdivisions. However, more recently, there is increased interest in promoting the use of sidewalks and bike paths to encourage non-vehicular traffic, and 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.

To address these concerns, the Planning Board drafted and submitted to the Board of Selectmen a set of guidelines to be used when considering new sidewalks. The guidelines were used in 2011 when approval was granted for a new sidewalk on Dedham and Centre Streets which connected Caryl Park with the Town Center. In response to this experience, the guidelines were revised by the Planning Board in 2012.

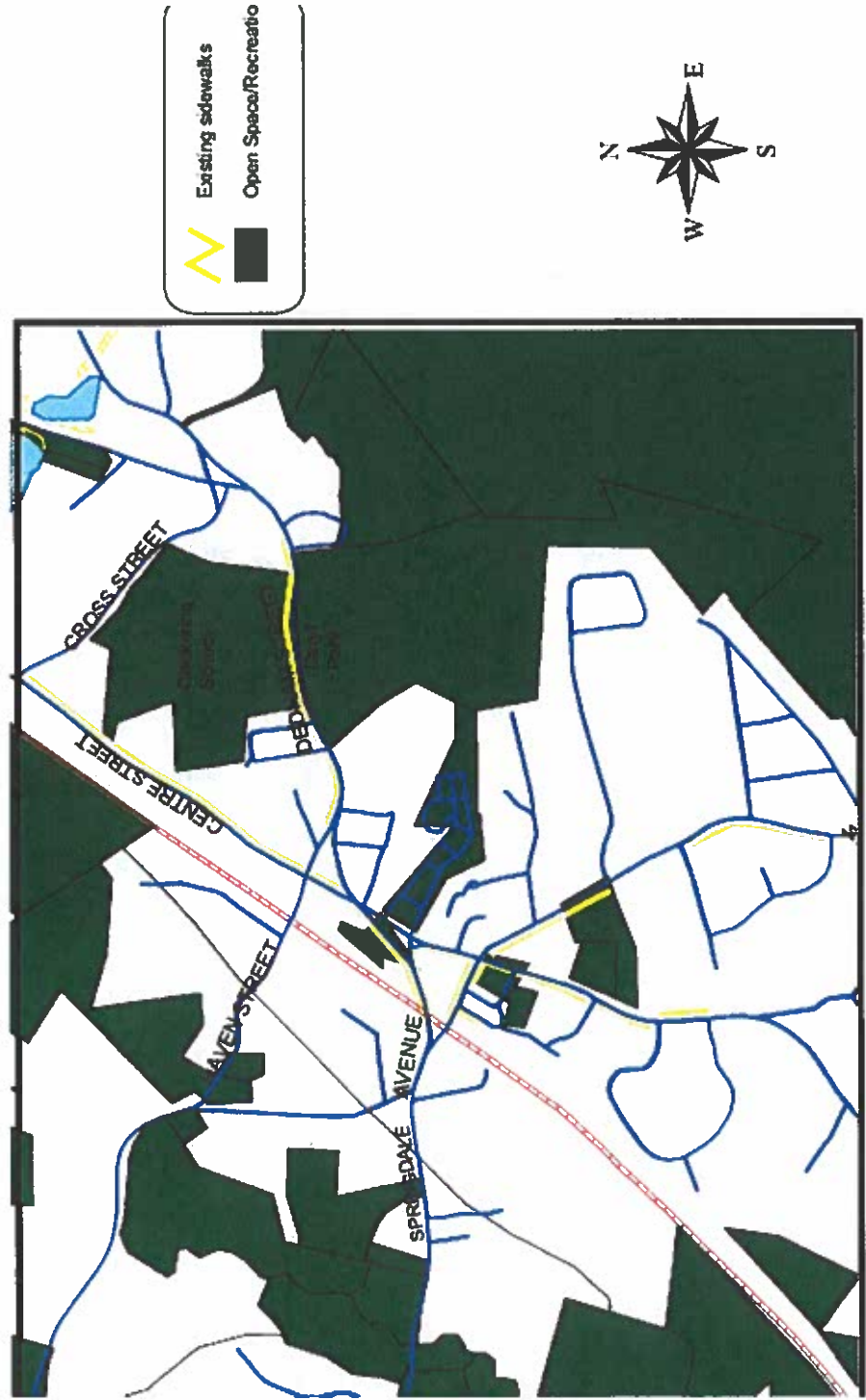
While there are clearly benefits to sidewalks in promoting safe pedestrian movement, these benefits should be pursued while giving careful consideration to potential costs associated with expanding the sidewalk system. In addition to the obvious construction and maintenance costs, there may be costs 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. Other issues that need to be addressed include the potential for disruption to front yards (including loss of landscaping, fences and walls) and the impact on scenic roads 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.

Figure 13
Existing Town Center Sidewalks



Dedham Street Corridor

In 2011, several issues had arisen concerning the Dedham Street corridor. These included a proposal to renovate and expand Caryl Park. A proposal for a sidewalk on the south side of Dedham Street to connect Caryl Park with the Town Center, reaction to the recently-installed raised crosswalks, and the continuing issues of access to Chickering School and the speed of vehicles traveling on Dedham Street. In response to these issues, the Board of Selectmen commissioned a study of the corridor.

A final report was issued in December 2011. The report documented existing conditions and made a series of both short-term and long-term recommendations. Figures 7 and 8 from the report (reproduced here as Figures 14 and 15) illustrate the recommendations.

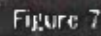
The short-term recommendations include primarily adding and relocating signage, replacing pavement markings and trimming vegetation to improve sight lines. They also include consideration of prohibiting left turns from Willow Street onto Dedham Street or closing Willow Street between Cross Street and Dedham Street; and prohibiting left turns from Centre Street to Dedham Street.

The long-term recommendations include reconfiguring the Dedham Street/Centre Street intersection as a modern roundabout, installing a raised island at the Centre Street/Cross Street intersection; extending the Dedham Street sidewalk to the Willow Street/Cross Street intersection and then along Cross Street to Centre Street, reconfiguring the Caryl Park West parking lot for one-way traffic; removing the raised crosswalks and replace them with thermoplastic crosswalks with signage; and then installing pedestrian-activated warning beacons at the Chickering Fields crossing. In May, 2012, the Board of Selectmen voted to remove the raised crosswalks. Other measures are still under consideration.

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.

Director, American Council on Education, Inc., Washington, D.C.

**Vander & Associates, Inc.**

VIII - 9

NEPTUNE STREET SIDEWALK

- RECONFIGURE CARP PARK WEST LOT FOR ONE-WAY STREET FLOW
- EXTEND SIDEWALK ALONG NEPTUNE STREET TO NEPTUNE STREET/CLARK STREET AND ALONG CLARK STREET TO CARP STREET
- REMOVE EXISTING SIDEWALK AND REPLACE WITH NEWER, WIDER SIDEWALK WITH IMPROVED DRAINAGE AND LIGHTING
- INSTALL FURNITURE ATTACHED TRAILING BEACONS AT CORNERING TRAIL CROSSING

RECONFIGURE STREETCROSSING

- RECONFIGURE STREETCROSSING AS A MODERN ROSSIGNOL TO IMPROVE SAFETY AND TRAFFIC FLOW

Legend:

- Extend Sidewalk

0 100 200 feet

Figure 8

Vannoy & Associates, Inc.

VIII - 10

Circulation Recommendations

1. 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)

2. 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.
3. 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.
4. Evaluate the need for improved 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.
5. Develop a Circulation Plan that:
 - i. Evaluates 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.

- ii. 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.
- iii. Encourage safe, sensitive and coordinated avenues for recreational and other pedestrians, joggers, bicyclists, and equestrians within the development of new subdivisions.

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- ii. 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.
- iii. 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. Consider proposed changes to Dover's Zoning Bylaw designed to encourage the permanent protection of Dover's remaining open space.	Planning Board	Board of Selectmen	Funds for technical consultant, staff time, etc.
2. Complete a systematic legal and technical review of all Town bylaws to eliminate inconsistencies and clarify its wording as well as ensure that they adequately support the Master Plan objectives.	Planning Board	Board of Selectmen Conservation Commission Board of Health	Funds for legal and technical consultants, etc. Staff time.
3. Prepare explicit regulations regarding visible landscape elements, especially stone walls along scenic roads	Planning Board	Board of Selectmen	Funds for legal and technical consultants, etc. Staff time.
4. Review the extent to which Dover's current groundwater regulations comply with state and federal requirements, and and/or whether any additional regulations are warranted.	Conservation Commission	Planning Board Board of Health Board of Selectmen	Funds for technical consultant, etc.
5. 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.

Continued

Land Use
(Continued)

RECOMMENDATIONS	LEAD AGENCY	OTHER AGENCIES	RESOURCES
6. Consider developing a buildout scenario tool, to help project Dover's future development based on ranges of user-defined inputs for key parameters and, to the extent possible using available data, accounting for health, environmental, safety, zoning and private restriction requirements..	Planning Board	Board of Selectmen Board of Health	Funds for technical consultant, etc.
6. Establish permanent programs in habitat management, ecological restoration, open space enhancement for recreational purposes and nature study.	Conservation Commission	Park & Recreation Commission	Funds for educational materials, consultants, etc. Staff time.

Continued

Housing

RECOMMENDATIONS	LEAD AGENCY	OTHER AGENCIES	RESOURCES
1. 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. Evaluate additional planning tools for promoting the development of affordable housing outside of the context of private Chapter 40B projects, including open space preservation zoning, inclusionary zoning and the Community Preservation Act.	Planning Board		Funds for legal and Planning consultants, etc. Staff time.
3. 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.
4. 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.
5. 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.
6. 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.

Housing
(Continued)

RECOMMENDATIONS	LEAD AGENCY	OTHER AGENCIES	RESOURCES
7. 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.
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

Continued

Economic Development

RECOMMENDATIONS	LEAD AGENCY	OTHER AGENCIES	RESOURCES
1. Analyze existing and proposed developments for fiscal (both revenue and cost) demographic and all other impacts.	Board of Selectmen Planning Board	Assessor's Office Conservation Commission Town Clerk	Staff time. Community outreach.
2. Work with Town departments, boards and committees to identify why and when increases in the costs of Town services will occur	Board of Selectmen	Capital Budget Committee Treasurer's Office	Staff time
9. 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 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 Community Center property.	Town Administrator	Board of Selectmen School Committee Caryl Management Advisory Committee Park & Recreation Department	Staff time.
5. Institute systems for identifying and recruiting new volunteers to serve in Town government.	Board of Selectmen	Town Administrator Town Moderator Town Clerk	Staff time.

Continued

Natural and Cultural Resources

RECOMMENDATIONS	LEAD AGENCY	OTHER AGENCIES	RESOURCES
1. Institute biodiversity as a prime value of Town planning and management. Create an ecosystem map of Dover and a census of species diversity by using the State BioMap II and Priority Habitat and Estimated Habitat maps as a base. 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. 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.
3. Promote organic horticulture and agriculture among landowners.	Conservation Commission	Board of Selectmen Board of Health Planning Board	Educational materials, community outreach. Establish Agriculture Commission?
4. Promote the development of connections between open space areas (see also Open Space and Recreation recommendations)	Planning Board	Park & Recreation Department	Funds for land and/or public access acquisition.

Continued

Natural and Cultural Resources
(Continued)

RECOMMENDATIONS	LEAD AGENCY	OTHER AGENCIES	RESOURCES
5. Initiate efforts to document the state of Dover's scenic roads as well as strengthen regulations to protect them.	Planning Board		Staff time Volunteer efforts
6. Continue to monitor research on methods to find alternatives to and/or reduce the use of chemical fertilizers, pesticides and road salt.	Highway Department Board of Health		Staff time.
7. Develop and implement a method to reduce the deer population and tick population, and minimize the spread of Lyme disease and other tick-borne diseases.	Board of Health		Staff time
8. Continue to expand the use of Dover Cable television to advertise, record and broadcast cultural events.	Board of Selectmen	DCTV	Video equipment. Staff time.
9. Pursue a program of energy efficiency and alternative energy for Town facilities and encouraging such measures for private property owners			

Continued

Open Space and Recreation

RECOMMENDATIONS	LEAD AGENCY	OTHER AGENCIES	RESOURCES
1. Educate owners of large and strategic 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. Continue the efforts of the Open Space Committee and Trails Committee to 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, including publishing maps of open space lands both on the Town's web site and in print..	Open Space Committee	Planning Board Conservation Commission 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.	Planning Board	Park & Recreation Department	Funds for land and/or public access acquisition.
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.

Open Space and Recreation (Continued)

RECOMMENDATIONS	LEAD AGENCY	OTHER AGENCIES	RESOURCES
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	Funds for consultant. Staff time.
8. Continue to research and protect existing trail corridors.	Open Space Committee	Park & Recreation Department	Staff time
9. Review the question of 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.

Continued

Public Services and Facilities

RECOMMENDATIONS	LEAD AGENCY	OTHER AGENCIES	RESOURCES
1. Gather refined police statistics in order to evaluate the need for a Town social worker.	Board of Selectmen	Police Department Council on Aging	Funds for technical consultant, staff time
2. Poll residents to evaluate the desire for a more organized approach to human services.	Board of Selectmen	Town Administrator	Funds for technical consultant, staff time
3. Gather detailed police statistics with respect to domestic violence, including child, spouse and elder abuse.	Board of Selectmen	Police Department Council on Aging	Funds for technical consultant, staff time
4. Consider expanding evening and weekend library hours.	Library Commission		Funds for increased staffing and operating costs.
5. Assess additional manpower needs for the future.	Board of Selectmen	Long Range Planning Committee	Staff Time.
6. Educate citizens about the availability and benefits of free garbage pickup.	Recycling Committee		Community outreach.
7. Continue to study the future use of the Caryl Community Center,	Caryl Management Committee	Board of Selectmen	Consultant fees
8. The present Town House space should be evaluated to determine whether it will be sufficient through the year 2020.	Board of Selectmen	Town Administrator	Funds for technical consultant, staff time
9. Assess methods and strategies for improved fire fighting without high capacity water infrastructure.	Fire Department	Planning Board Board of Selectmen	Staff time.

Continued

Public Services and Facilities
(Continued)

RECOMMENDATIONS	LEAD AGENCY	OTHER AGENCIES	RESOURCES
10. Consider electronic storage of records and plans, including purchase of a scanner for large-size plans.	Board of Selectmen	Town Administrator	Funds for technical consultant, staff time
11. Encourage the use of advanced septic systems [perhaps this should be under Natural and Cultural Resources]	Board of Health	Board of Selectmen	Funds for technical consultant, staff time

Continued

Circulation

RECOMMENDATIONS	LEAD AGENCY	OTHER AGENCIES	RESOURCES
1. 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.	Highway Department	Board of Selectmen	Highway Dept. budget, staff time
2. 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	Planning Board	Board of Selectmen	Subdivision Control Law, Scenic Road Act and regulations
3. 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.	Board of Selectmen	Council on Aging	Act allowing MBTA assessment to be used for other transit services
4. Evaluate the need for improved 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.	Board of Selectmen	Highway Department	Town Budget Staff time

Continued

Circulation
(Continued)

5. Develop a Circulation Plan that:				
a. Evaluates 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.	Highway Department	Planning Board	Town Budget Staff time	
b. 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.	Highway Department	Rail Trail Committee Planning Board	Town Budget Staff time	
c. Encourages safe, sensitive and coordinated avenues for recreational and other pedestrians, joggers, bicyclists, and equestrians within the development of new subdivisions.	Planning Board	Highway Department	Town Budget Staff time	

