Dunstable Master Plan

PREPARED BY: THE DUNSTABLE MASTER PLAN COMMITTEE

TECHNICAL ASSISTANCE BY: NORTHERN MIDDLESEX COUNCIL OF GOVERNMENTS

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I. INTRODUCTION

A Master Plan is a comprehensive planning document that establishes long-term policy recommendations for a community's physical development, and outlines implementation strategies that address land use issues, transportation, community facilities and services, the local economy, and the environment. Chapter 41, Section 81D of the Massachusetts General Laws states:

"*A planning board established in any city or town under section eighty-one shall make a master plan of such city or town or such part or parts thereof as said board may deem advisable and from time to time may extend or perfect such plan. Such plan shall be a statement, through text, maps, illustrations or other forms of communication that is designed to provide a basis for decision making regarding the long-term physical development of the municipality. The comprehensive plan shall be internally consistent in its policies, forecasts and standards.*"

In general, communities use the Master Planning process to understand and manage future growth and development. While the Master Plan is one of the main policy tools utilized by the Board of Selectmen, Planning Board, the Zoning Board of Appeals, the Conservation Commission, and other local decision-makers, it is important to note that it does not replace other important policy documents prepared by the Town, such as the *Housing Production Plan* or the *Open Space and Recreation Plan.* The Master Plan should be used to complement these planning documents and other planning initiatives undertaken previously and in the years ahead.

Dunstable is a beautiful community, and many residents would like to stop time and keep things just as they are at this moment. However, the Dunstable that is deeply cherished today is not the same as it was a century ago, and fifty years from now the community will not be the same as it is today. Without homes, the Town Hall, the Post Office, the Library, the Church, and the schools, there would hardly be a town at all. Sometimes it is hard to acknowledge that without the changes made by past generations who needed to make a living and support their families, there would not be historic homes, barns or the stone walls that characterize the rural landscape of Dunstable today. The relationship between history, the local economy, and the natural and cultural resources that define the town's character is undeniable.

The goal of this Master Plan is to shape the future in a way that does not allow unmanaged growth to destroy the town's heritage and character. Effective planning facilitates the

transformation of knowledge into action and is accomplished by understanding the outcomes desired by the community.

The Master Plan was adopted by the Planning Board on September 17, 2018. An extensive public participation process was utilized to help formulate the recommendations set forth in the Master Plan, in order to ensure that the document reflects the needs and desires of the community. However, in recognizing that communities change over time, the Master Plan should be viewed as a flexible and ever-evolving document. Therefore, the recommendations contained in this document should be periodically re-evaluated until a new Master Plan is created, in order to ensure that they continue to align with the needs and desires of the community.

THE MASTER PLAN DEVELOPMENT PROCESS

The Master Plan Committee was established in 2016, and held its first meeting in May 2016. The Committee was comprised of the following members who represent various town boards and committees, as well as residents at large.

Table 1: Master Plan Committee Members

Committee Member Name	Represents
Walter Alterisio	Board of Selectmen (former)
Carol Bacon	Affordable Housing Committee
Leah Basbanes	Conservation Commission/Board of Selectmen
Stephanie Cronin	Resident at large
Paul Dalida	Safe Pathways Committee
Anne Davis	Historical Commission
Karl Huber	Water Commissioners
Mike Martin	Road Commissioners
Susan Psaledakis	Community Preservation Commission
Kathy Sniezek	Resident at large
Joe Vlcek	Planning Board

The Committee met monthly over a two-year period to develop the Plan, with assistance from the Northern Middlesex Council of Governments (NMCOG). Extensive opportunities were provided for public input and feedback from a broad array of stakeholders and interested parties living in the community. As shown in Table 2 on the following page, four public input sessions were held, drawing the participation of well over 200 residents and stakeholders from across the community. Materials and summaries from the input sessions can be found in Appendix A.

Table 2: Public Input Sessions

Input Session	Date
Visioning Session 1: Strengths, Weaknesses, Opportunities and Threats (SWOT) Analysis	June 23, 2016
Visioning Session 2: Land Use, Zoning, Economic Development, Housing and Infrastructure	September 20, 2016
Visioning Session 3: Open Space, Recreation, Natural and Cultural Resources	March 21, 2017

In addition to the public input sessions, the Master Plan Committee invited stakeholders to provide input during at its monthly meetings. Stakeholders were encouraged to submit written comments or speak during any meeting of the Master Plan Committee. All of the documents produced during the planning process were available for public review and comment on the Town's website.

The Master Plan Committee developed and distributed a written survey to every Dunstable household, with 281 surveys completed by residents. The results of the survey are briefly summarized below and a more detailed analysis can be found in Appendix B.

Characteristics of respondents

- 71% of respondents have lived in Dunstable for 10 or more years.
- More than one-third of respondents have school-aged children.
- Nearly one-third of respondents have a household member aged 65 years or older.
- 80% of respondents chose to live in Dunstable because of its rural character.
- 49% chose to live in town because of the school system.

Management and Finances

- Taxes, the need for additional revenue, and fiscal responsibility/sound management/cost containment were identified as three of the most critical issues facing the town over the next ten years.

Schools

- Maintaining, improving or restoring the quality of the schools was rated the top issue facing the town over the next ten years.

Housing

- Nearly half of the respondents felt that there are poor housing options (47.45%) for seniors, while 38.04% were unable to respond to this question.

- Over half (57%) of the respondents rated housing affordability as fair (19%), while 38% rated it as poor.
- Approximately 78% of respondents favor creating additional senior housing, and 57% of respondents favor creating additional affordable housing.

Economic Development

- 47% of the survey respondents rated access to employment as excellent or good, while 41% rated access to employment as fair or poor.
- 88% of respondents favor creating additional opportunities for small-scale neighborhood-style business development
- 70% favor encouraging more intense economic development in strategic locations.
- 81% favor agri-tourism and eco-tourism.
- 62% of respondents oppose restricting or prohibiting business/commercial development.
- As part of the survey, residents were asked to identify where they would spend $100 in town funds if every resident were provided that opportunity. The number one response was to support new businesses.
- 89% of respondents favor adopting energy efficiency and renewable energy initiatives.

Land Use

- Growth, development and overdevelopment ranked as number 5 among the top issues facing the town over the next ten years, while maintaining rural/agricultural character ranked tenth.
- 78% of survey respondents favor creating design guidelines for new development.
- 62% of respondents oppose revising the zoning regulations to allow single-family homes on smaller lots (1 acre instead of 2 acres).
- 57% of respondents oppose revising zoning regulations to allow multi-family housing in certain areas.

Transportation

- 75% of respondents rate traffic flow in the Town Center as either good or fair; only 12.5% find it to be poor.
- Over 85% of respondents rate traffic flow in other areas of town as excellent or good.

- Over 85% of respondents rate speed enforcement as excellent or good.
- Over half (56%) of the respondents felt that pedestrian accommodations are poor, while only 22% felt that they are excellent or good.
- 77% favor increasing available accommodations for non-motorized transportation, while 71% of respondents favor adding sidewalks or pathways.
- 45% of the respondents rate bicycle facilities as poor, while 22% felt that they are excellent or good.

Open Space and Recreation

- Over 60% of the respondents rate the number of recreational facilities and opportunities as excellent or good.
- Approximately 87% of the respondents rate the amount of protected open space as excellent or good.
- 52% of survey respondents favor acquiring additional open space.
- 69% of survey respondents favor protecting additional agricultural lands.

Natural and Cultural Resources

- 90% of respondents rate the protection of wetlands, wildlife habitat and water resources as excellent or good.
- 89% of respondents rate agricultural preservation as excellent or good.
- 83% of respondents rate forestry as excellent or good.
- 81% of respondents rate historic preservation as excellent or good.
- 68% of respondents rate cultural/community events as excellent or good.

Services, Facilities and Infrastructure

- The following services were rated as either excellent or good by at least 50% of the respondents:

  -Public Safety/EMS (83%)

  -Schools (76%)

  -Town Hall (68%)

  -Library (64.5%)

-Road Maintenance (58%)

-Recreation (54%)

- Upgrading/expanding the water system ranked number 7 among the top issues facing the town over the next ten years, and 68% of survey respondents favor improving public water infrastructure.

Organization and Overview of the Master Plan

This section provides a summary of the organizational layout of the updated Master Plan Document and includes the Vision Statement and Goals adopted by the Master Plan Committee.

Contents of the Master Plan

This updated Master Plan for the Town of Dunstable is organized into nine primary components. The introductory section provides an overview of the master plan process, and includes a discussion of the Vision Statement and Goals. Section II focuses on Land Use and Zoning. In addition to a synopsis of land use development patterns in Dunstable, it offers a discussion of the Town's existing Zoning Bylaw and the types of uses permitted under these regulations. The Land Use and Zoning chapter includes a presentation of the issues and opportunities inherent to land use planning and zoning, as well as a set of recommendations for the future that allows the town to grow without sacrificing the natural, historical, and cultural integrity of the community.

Section III relies heavily on demographic and industry data to assess the current state of Economic Development in Dunstable. The chapter begins with a brief economic statistical profile of the community, followed by a discussion of existing economic and business conditions in Town. Community assets and liabilities are presented, followed by an infrastructure analysis. An important element of this chapter is the discussion about striking a balance between economic development and quality of life- a central theme throughout this Plan. The chapter concludes with an issues and opportunities discussion, coupled with a list of economic development recommendations.

Section IV examines Transportation Planning issues in Dunstable. It includes a description of the existing transportation network within the community, including commuting patterns within the town, traffic volumes, crash statistics and the current state of the town's overall transportation infrastructure for all transportation modes (automobile, bicycle and pedestrian). As with other sections of the Master Plan, issues and opportunities

related to transportation are presented and discussed, and a comprehensive list of recommendations is provided.

Section V assesses Housing issues in the community. It begins with an overview of existing conditions in terms of the housing stock and housing market. Topics covered within this section include housing development and sales trends; housing needs, as determined by demographic data available for the community; affordable housing efforts in Dunstable; issues, opportunities, and recommendations for sustainable housing production in the community to meet the needs of residents.

Section VI examines planning issues related to Open Space and Recreation. Topics covered in this chapter include existing conditions, local capacity, open space and recreation planning efforts, and identified community needs. The chapter also includes an analysis of issues and opportunities, as well as a set of recommendations.

Section VII focuses on the Natural and Cultural Resources within Dunstable. It includes a discussion of existing environmental, historical and cultural assets, and an analysis of the issues and opportunities inherent to natural, historical and cultural protection and preservation in the community. Finally, a set of recommendations aimed at preserving these important resources is presented.

Section VIII of the plan examines Municipal Facilities and Services. An overview of existing town-owned facilities is provided, as well as a description of town services. Issues and opportunities for improving the efficiency and quality of service delivery is discussed. Similar to other sections, issues and opportunities regarding future facility and service needs are discussed, and a set of recommendations is outlined.

The final section of the Master Plan includes the Implementation Plan, which consists of a matrix describing each recommendation contained with the document, identifying the specific entities responsible for implementation, and the timeframe for implementation.

The Master Plan Vision Statement

Over the course of the master plan development process, the Master Plan Committee worked to develop the town's Vision for the Future, which is presented below. The Master Plan was created with an eye toward guiding the community in a fashion that will ultimately achieve this vision:

By 2028, Dunstable is a tranquil community with a high quality of life, reflective of the town's commitment to protecting the community character and its historic heritage. The bucolic

rural landscape is the result of the town's efforts to promote and protect agricultural resources and enterprises. Planning and development regulations include design guidance that preserves and safeguards the historic and architectural quality of Dunstable historic buildings and landscapes.

The town's economy is strong, providing services and employment opportunities for town residents, as well as the revenues needed to fund municipal services. The town enjoys a quality school system and a well-run municipal government. Housing options are available for residents of all age groups and incomes.

Dunstable has an excellent and fully interconnected transportation system for pedestrians, bicyclists, and motor vehicles. Traffic calming measures have been implemented to manage vehicle speeds and "pass through" traffic in the Town Center and neighborhoods.

Dunstable residents embrace the concept of sustainability whereby natural resources and manmade features are well managed and wisely used, so that they will be available for future generations. The Town has improved and developed its municipal water infrastructure. Renewable energy sources are available for governmental, residential and business users. The preservation of open space, water resources and wildlife habitat has resulted in high environmental quality, and allowed the town to maintain its rural character. Open Space and recreation facilities and programs serve the fitness and social needs of the entire community, and are well distributed, maintained, and accessible to everyone.

A "sense of community" is prevalent, and includes participation at community events, volunteerism, a cooperative spirit, and a strong sense of social connectedness. Residents and visitors enjoy and support the Town Center as an attractive, vibrant focal point where people gather and socialize.

SCENIC PASTURELAND: A PART OF DUNSTABLE'S RURAL LANDSCAPE

Principal Goals of the Master Plan

The principal goals of the Master Plan were initially formulated based on input received during the public visioning process, and were later refined after careful consideration of additional public input, including the results of the written survey.

Land Use

- Maintain Dunstable's rural character and landscape by preserving trees, stone walls, agricultural fields and pastures, and historic architecture.
- Strengthen and maintain the Town Center as the civic and cultural heart of the community.
- Examine the zoning options to allow for small business enterprises that are compatible with the character and needs of the community.

Open Space and Recreation

- Continue to acquire open space, as opportunities arise and financial resources allow.
- Connect Dunstable's open space and recreation lands through a network of trails and pathways.
- Educate residents on the value and importance of open space.

Housing

- Create housing opportunities that meet the needs of the community, as outlined in the Dunstable Housing Production Plan.
- Develop a design guidance document to ensure that future development projects are well-designed, consistent with local needs, respectful of the town's character, and compatible with the goals outlined in the policies documents, including the Master Plan, Open Space and Recreation Plan, and the Housing Production Plan.
- Address the water infrastructure issue in order to facilitate the production of affordable and senior housing.
- Utilize CPA and state funds to support the production of affordable and workforce housing.
- Develop partnerships with non-profit and for profit developers to produce housing units to address the needs of seniors, young families and low- and moderate-income residents.

Economic Development

- Encourage businesses that are consistent with Dunstable's rural character.
- Identify appropriate development opportunities that will attract private investment to appropriately zoned districts.
- Create policies and regulations that allow entrepreneurial activities that are compatible with local neighborhoods.
- Promote local agricultural enterprises, as well as the work of local artists and craftsmen.
- Improve communication among local businesses and town government.
- Reconsider the town's position relative to alcohol sales.

Cultural and Natural Resources

- Preserve, maintain and continue to document Dunstable's legacy of historic farmsteads, buildings and landmarks.
- Preserve Dunstable's historical artifacts and documents.
- Continue to institute policies and practices that protect and enhance water resources, wildlife habitat, farmland, and forests.
- Protect the visual features, agricultural landscapes, and view sheds that give Dunstable its unique character.

Transportation

- Study the feasibility of establishing interconnected pathways and trails as an alternative to motorized transportation.
- Continue designating scenic roads as a means of protecting the town's rural character.
- Develop an asset management program for the town's transportation infrastructure.
- Work with NMCOG and MassDOT to study potential traffic calming measures along Route 113 within the Town Center and in neighborhoods.
- Incorporate bicycle and pedestrian accommodations in future transportation improvement projects, whenever possible.

Municipal Services and Facilities

- Evaluate options for generating additional revenue to support town services, including education, and to address infrastructure and facility needs.
- Develop a community building and engagement program to educate residents on town issues, improve communication between residents and town government, and build trust among community members and local government decision-makers.

- Advocate for a stronger regional school system and improve communication between the Town and the regional school district.
- Improve and develop the Town's municipal water infrastructure to address necessary maintenance and meet future needs.
- Pursue opportunities to implement energy efficiency improvements and promote the use of renewable energy alternatives when feasible.

II. Land Use and Zoning

The Land Use and Zoning chapter of the Master Plan examines past development trends and current land use patterns within the community. Land use refers to the physical arrangement of a community's residential, commercial, industrial and institutional development, along with its transportation network, infrastructure and vacant land. Examining spatial development patterns, rates of change, and trends can provide insight into how the town evolved under varying social, economic and environmental conditions. Understanding land use change within a community is a key aspect of the overall Master Plan, and forms the basis for discussion regarding the future direction of the Town.

Many individuals confuse land use with zoning. In the 1900s, local governments began to utilize zoning as a means for regulating the amount and location of development. Zoning is simply one tool that local officials may use to balance private property rights with the public interest in providing for orderly growth and change. In order to understand how zoning may aid in the accomplishment of community goals, this section of the Master Plan begins with a land use analysis, which considers five aspects of Dunstable's land use pattern:

- What are the features of Dunstable's land use pattern?
- How did this pattern come about?
- What aspects of the town's land use pattern are essential to the character of the town?

Land Use Goals

- Maintain Dunstable's rural character and landscape by preserving trees, stone walls, agricultural fields and pastures, and historic architecture.
- Strengthen and maintain the Town Center as the civic and cultural heart of the community.
- Examine zoning options to allow for small business enterprises that are compatible with the character and needs of the community.

- Is the existing land use pattern consistent with community goals?
- What opportunities exist to guide future development in a fashion consistent with the goals of the Master Plan or other established community goals?

Background

A community's physical progression can be traced through its land use history. The Town of Dunstable has a well-documented history, typical of other rural communities found throughout New England. Native Americans were the first inhabitants and subsisted off the land by hunting and gathering, fishing and cultivating crops. Once European settlers arrived, the Town's economy expanded to include extraction of natural resources and the production of pine pitch and turpentine, bog iron ore, peat and clay for bricks. Elias Nason's history of Dunstable lists the primary agricultural products grown in 1873 as hay, various grains, potatoes, vegetables, fruit and forest products.[1] At this point in the town's history, there were ninety active farms and the town's historic map shows that many of the roadways that form today's transportation network were already established.

Following World War II, the Town began to feel development pressure due in large part to the emergence of a society dependent on the automobile. The development of the local highway network, particularly U.S. Route 3, brought new economic opportunities to the community's residents, marking the beginning of the town's transformation to a bedroom community. Dunstable has retained much of its rural character over the years and visitors today are still taken with its agricultural landscape and small town feel. The Town's rural character will gradually disappear over time without ongoing efforts to protect open space, modifications to land use policy, and the implementation of design guidelines that ensure future development projects are consistent with the town's goals and aspirations.

Population Trends

As shown in Table 3 on the following page, Dunstable's population grew from 522 to 824 between 1950 and 1960, a growth rate of 57.85%. During the 1960s, the town's population increased from 824 to 1,292, growing at a rate of 56.79%. Although this growth rate seems high, other area communities along Route 3, such as Billerica and Chelmsford, saw their populations double during this same time period. In the 1970s, 1980s and 1990s, population growth slowed somewhat, to 29.33%, 33.81%, and 26.52% respectively. Since 2000, population growth has slowed considerably, as evidenced by the fact that the population increased by approximately 12.37% from 2000 to 2010. Between 1960 and 2010, the population in the region grew by 70% from 169,403 to 286,901 or an average of 14% per decade. In contrast, Dunstable's population increased steadily between 1960 and 2010, from

[1] 2010-2017 Open Space and Recreation Plan, Town of Dunstable, p. 15

824 to 3,179 or by 285.8%. With a land area of 16.74 square miles, Dunstable's population density was approximately 190 persons per square mile in 2010.

Table 3: Population Trends - 1950 -2010

Year	Population	% Change
1950	522	--
1960	824	57.85
1970	1,292	56.79
1980	1,671	29.33
1990	2,236	33.81
2000	2,829	26.52
2010	3,179	12.37

Source: U.S. Census

Population projections for the Town of Dunstable, as outlined in Table 4 below, indicate a slightly higher future growth rate for the town compared to the region as a whole. Between 2010 and 2020 Dunstable is expected to experience a growth rate of 2.4%. The growth rate is anticipated to increase to 4.3% and 7.5% in the 2020s and 2030s respectively, reaching a total projected population of 3,652 by 2040. The projections indicate that Dunstable's population will only comprise 1.2% of the Greater Lowell region's total population by 2040.

Table 4: Actual and Projected Population: 2010 - 2040

Year	Dunstable	Growth Rate	Greater Lowell Region	Regional Growth Rate	Dunstable as a Percent of Region
2010	3,179	---	286,901	---	---
2020	3,256	2.4%	291,101	1.5%	1.1
2030	3,397	4.3%	295,370	1.5%	1.2
2040	3,652	7.5%	306,913	3.9%	1.2

Source:2010 US Census; Projections developed by MassDOT in consultation with NMCOG

Land Use Trends

The town is a composite of development traditions, many of which pre-date zoning. While local regulations have shaped recent development, it has occurred against the backdrop of development patterns influenced by the history and economy of the community. The input received during the Master Plan visioning sessions has clearly documented strong community support for respecting and preserving the town's historic fabric, landscape and structures. The development of any single tract of land seldom changes the overall character of a community. Over time, however, the development of open land and the corresponding need for support services, slowly changes the overall community character.

Table 5 outlines the changes in land use that occurred from 1971 to 2014. This data was compiled by the University of Massachusetts Amherst through aerial photo interpretation, and by NMCOG GIS through interpretation of recent aerial photography. The 2014 land use data is graphically displayed on Map 1 on page 17. This information reflects the amount of land covered by a specific use based on physical attributes and is not parcel specific.

The land use development patterns changed in Dunstable from 1971 to 2014, as the amount of developed land increased by 385%, while the undeveloped land decreased by 15% over the past four decades. Within the developed land category, commercial uses increased by 16%, industrial uses increased by 219%, and residential uses increased by 389%. As of 2014, approximately 82% (8,805 acres) of Dunstable's total acreage remained undeveloped.

Table 5: Land Use Development Patterns in Dunstable (1971 – 2014)

Land Use	Acres					Percent Change 1971 – 2014	Percent of Town 2014
	1971	1985	1991	2005	2014		
Developed	**398.16**	**652.33**	**1,253.59**	**1,850.79**	**1,929.50**	**385**	**17.97**
Commercial	2.77	2.77	0.00	1.79	3.20	16.00	0.03
Industrial	26.80	62.75	189.11	0.00	85.60	219.00	0.80
Residential	368.59	585.81	1,064.48	1,725.27	1,803.20	389.00	16.79
Undeveloped	10,346.39	10,092.22	9,490.96	8,866.62	8,805.6	-15.00	82.03
Total	**10,744.55**	**10,744.55**	**10,744.55**	**10,717.41**	**10,735.10**	**N/A**	**N/A**

Sources: University of Massachusetts, MacConnell Land Use Data; NMCOG, Regional Strategic Plan for Greater Lowell, Table 13; NMCOG, MassGIS 1951-1999 Land Use data updated using MassGIS 2005 1:5,000 Color Ortho Imagery and Pictometry 2014 orthophotography.

Table Notes:

- Commercial areas are defined by MacConnell land use code 15
- Industrial uses include Mining (5), Industrial (16), Transportation (18), and Waste Disposal (19) MacConnell land use categories
- Residential uses include Multi-family Residential (10), High Density Residential (11), Medium Density Residential (12), and Low Density Residential (13) MacConnell land use categories
- Developed land uses include all Commercial, Industrial, and Residential categories above excluding Mining (5). Developed land uses also include Participation Recreation (7), Spectator Recreation (8), Water-based recreation (9), and Urban Open (17) MacConnell land use categories
- Undeveloped land uses include Crop Land (1), Pasture (2), Forest (3), Non-forested Wetlands (4), Mining (5), Open Land (6), Water (20), and Woody Perennial (21) land use categories

Land Use Characteristics of Existing Parcels

Land use coverage information provided through the University of Massachusetts' MacConnell data differs significantly from parcel-based land use statistics derived from tax assessor records. Since land use coverage maps account for a community's entire geography, they include features such as open water and roadways. In contrast, tax assessor parcel maps represent land in recorded plans and are used to determine the

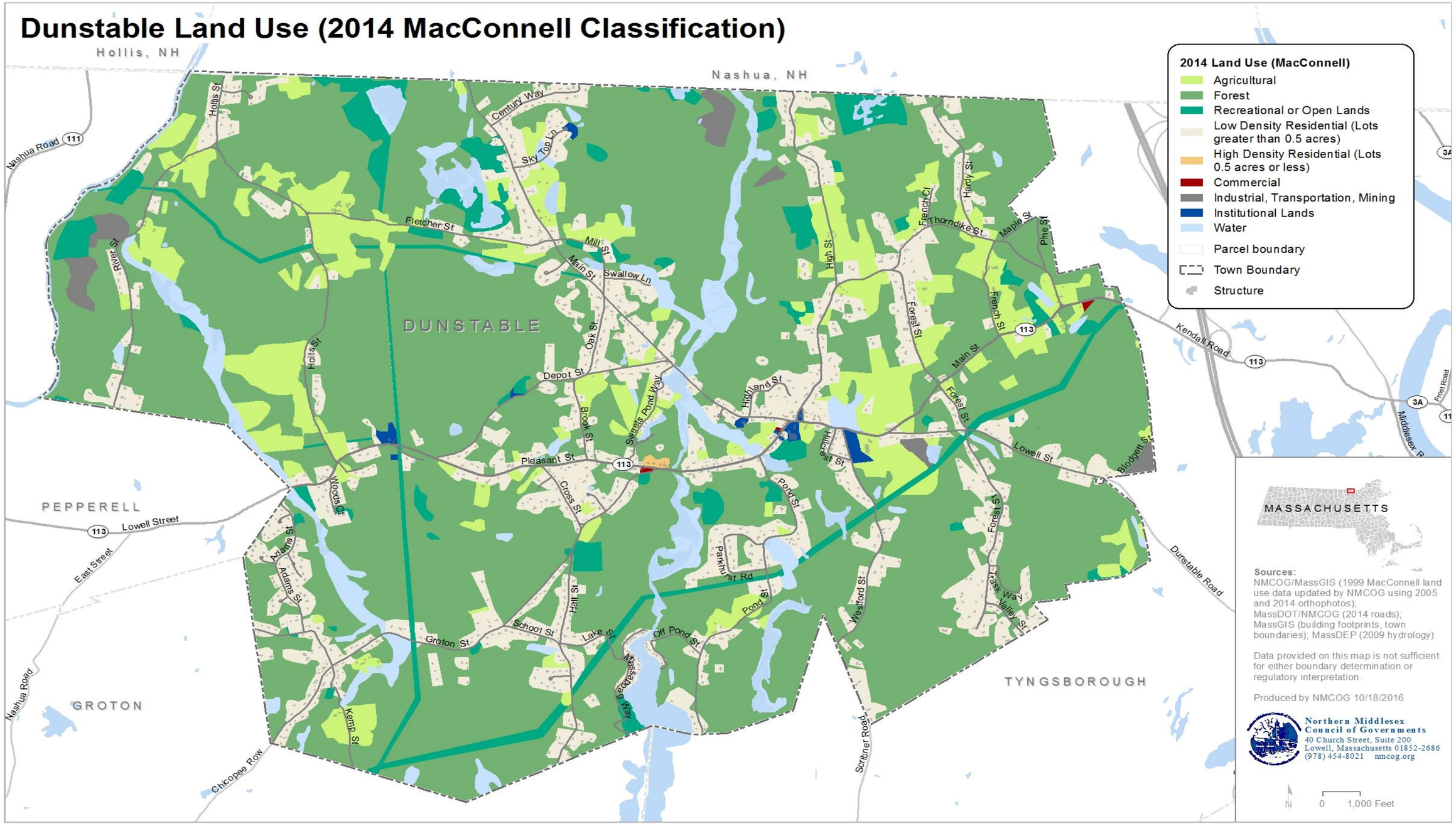
appraised value of property. Given the different characteristics of these two data sources, it is not possible to directly compare one with the other, but both sources provide important insight into the development patterns within the town and show similar trends. Table 6 provides parcel-based land use statistics from the tax assessor's database for FY 2016. These land uses are also graphically displayed on Map 2 on page 18.

Table 6 - Current Uses of Land in Dunstable (2016)

Land Use	No. of Parcels	Total Acres	% of Land Area
Single-family residential	1,058	3,068.38	29.58
Two-family residential	9	59.01	0.57
Mixed residential and commercial	12	69.50	0.67
Mixed residential and agricultural	22	867.11	8.36
Commercial	4	21.22	0.20
Manufacturing	1	6.32	0.06
Public Utilities	16	67.07	0.65
Public Land: Municipal and State	36	368.07	3.55
Non-profit/religious organization	4	14.46	0.14
Recreation	8	115.29	1.11
Agriculture	62	1,533.60	14.78
Cemetery	7	28.23	0.27
Forest	27	965.62	9.31
Conservation Land: State, Municipal and private land trust	94	2,214.36	21.35
Undeveloped	129	974.45	9.39
Total	**1,490**	**10,373.69**	**100.00**

Source: Dunstable Assessor's Parcel Land Use Codes, 2016

MAP 1


Dunstable Land Use (2014 MacConnell Classification)
Hollis, NH
Nashua, NH
DUNSTABLE
PEPPERELL
GROTON
TYNGSBOROUGH
2014 Land Use (MacConnell)
Agricultural
Forest
Recreational or Open Lands
Low Density Residential (Lots greater than 0.5 acres)
High Density Residential (Lots 0.5 acres or less)
Commercial
Industrial, Transportation, Mining
Institutional Lands
Water
Parcel boundary
Town Boundary
Structure
MASSACHUSETTS
Sources:
NMCOG/MassGIS (1999 MacConnell land use data updated by NMCOG using 2005 and 2014 orthophotos);
MassDOT/NMCOG (2014 roads);
MassGIS (building footprints, town boundaries); MassDEP (2009 hydrology)
Data provided on this map is not sufficient for either boundary determination or regulatory interpretation.
Produced by NMCOG 10/18/2016
Northern Middlesex Council of Governments
40 Church Street, Suite 200
Lowell, Massachusetts 01852-2686
(978) 454-8021 nmcog.org
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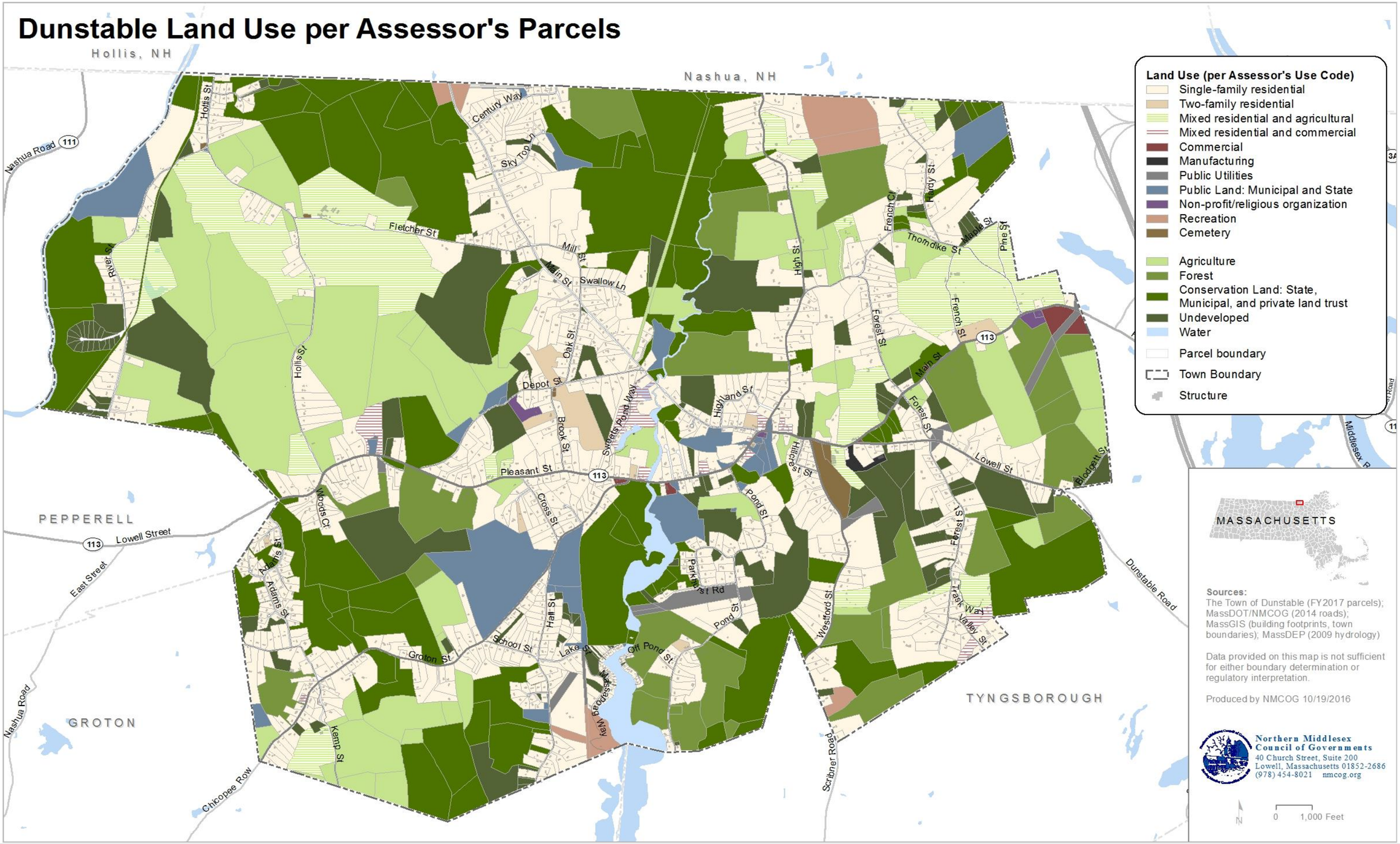
MAP 2


Dunstable Land Use per Assessor's Parcels
Hollis, NH
Nashua, NH
PEPPERELL
GROTON
TYNGSBOROUGH
Land Use (per Assessor's Use Code)
Single-family residential
Two-family residential
Mixed residential and agricultural
Mixed residential and commercial
Commercial
Manufacturing
Public Utilities
Public Land: Municipal and State
Non-profit/religious organization
Recreation
Cemetery
Agriculture
Forest
Conservation Land: State, Municipal, and private land trust
Undeveloped
Water
Parcel boundary
Town Boundary
Structure
MASSACHUSETTS
Sources:
The Town of Dunstable (FY2017 parcels); MassDOT/NMCOG (2014 roads); MassGIS (building footprints, town boundaries); MassDEP (2009 hydrology)
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N
Nashua Road
Hollis St
Century Way
Sky Top Ln
Fletcher St
Mill St
Main St
Swallow Ln
River St
Hollis St
Oak St
Depot St
Brook St
Swetts Pond Way
Highland St
High St
French Ct
Hardy St
Thorndike St
Maple St
Pine St
French St
Forest St
Main St
Hillcrest St
Pleasant St
Cross St
Moods Ct
Adams St
Pond St
Parkhurst Rd
Lowell St
Blodgett St
Dunstable Road
Westford St
Task Way
Valley St
Hall St
School St
Lake St
Off Pond St
Groton St
Nashua Road
East Street
Lowell Street
Kemp St
Chicopee Row
Nashaqsag Way
Scribner Road
Middlesex R

Residential Land Uses

As shown in Table 6 on page 16, thirty-nine percent (39.18 %) of the town's land is used for residential purposes, with twenty-nine percent (29.58%) utilized for single-family residences. An overwhelming majority of the homes in Dunstable are detached single-family residences, with less than one percent (1%) of the community's acreage occupied by two-family homes. There are no formal apartment buildings or condominium complexes within Dunstable.

There are several parcels within the community which the Tax Assessor classifies as mixed residential and commercial, or mixed residential and agricultural. Collectively, these parcels comprise about 936 acres, or nine (9) percent of town's land area, and many of these parcels are quite large.

Commercial Land Uses

Commercial land uses make up only 0.2% of the total land area in town, according to the assessor's database. These uses can be found on four parcels comprising twenty-one (21) acres.

Industrial Land Uses

There is only one parcel presently used for manufacturing, according to the Assessor's database. This parcel is located at 396 Main Street and is just over six (6) acres in size.

FIGURE 1-396 MAIN STREET

Public Utilities

Less than one percent (67 acres) of the land within Dunstable is utilized for public utilities. These parcels primarily include electric transmission line rights-of-way, electricity regulating substations, and a telephone relay tower.

Public Lands

There are thirty-six (36) publicly-owned parcels within Dunstable, comprising 368 acres, or 3.55% of the town's land area. The majority of this land, 296 acres or 80.4%, is owned by the Commonwealth of Massachusetts, while the Town owns the remaining seventy-two (72) acres. The state-owned land includes the Nashua River Trail right-of-way.

Non-profit and religious Land Uses

The Town of Dunstable has traditional institutional land uses consisting of non-profit and religious properties, which occupy 14.46 acres of the town's tax parcel acreage, or less than one percent (1%) of the land area. These properties are comprised of four parcels owned by the Tyngsborough-Dunstable Historical Society and the Congregational Church.

Recreation lands

Approximately one hundred fifteen (115) acres are classified as recreation land, or just over one (1) percent of the Town's total land area. These properties consist of a nature study area, a golf course and Camp Massapoag.

FIGURE 2-CAMP MASSAPOAG

Agricultural Land

Dunstable has retained much of its agricultural landscape, and in 2016 the Assessor classified sixty-two parcels, comprising 1,533 acres, as being agricultural in use. This represents nearly fifteen (15) percent of the town's land area. These lands support

livestock, dairy farming, orchards, Christmas tree production, woodlots, pastures, and fields for producing vegetables and other crops.

Cemeteries

There are seven (7) lots comprising 28.23 acres that are utilized for burial plots. These cemeteries include the Dunstable Central Burial Ground, the Meetinghouse Hill Cemetery, the Rideout Cemetery, the Swallow Cemetery and the Blood Cemetery.

Forests

Just over nine (9) percent of the land area in Dunstable is classified as forest by the Tax Assessor. This forested land encompasses twenty-seven (27) parcels and totals over 965 acres. These properties include the 133-acre George Price Town Forest and the 35-acre Gage Town Forest.

Conservation Land

There are ninety-four (94) parcels classified as conservation land in the Assessor's database. These properties comprise a total of 2,214 acres, or just over twenty-one (21) percent of the town's land area. The parcels are owned by the Town, the State and the local land trust. Many parcels are quite significant in size, such as the 133-acre Robins Farm property and the 38-acre Horse Hill property. The Open Space section of this document provides more detailed information on the town's open space resource areas.

Undeveloped Land

The Town's Assessor database classifies 129 parcels as "undeveloped". These parcels comprise 974 acres and include land that is developable, potentially developable, or undevelopable. According to the database, 231 acres (38 parcels) of the 974 acres are undevelopable, while 36.75 acres (11 parcels) are considered potentially developable. The

remaining parcels (706.25 acres) are considered to be developable primarily for residential purposes.

Zoning Overview

Dunstable regulates development through zoning, subdivision control, Board of Health regulations, and wetlands regulations. Zoning is the most important of these regulatory tools given its capacity to guide the development of vacant land. Dunstable adopted its first zoning bylaw in May 1947, and approved the first update to the bylaw in 1973. Over twenty-five (25) amendments to the bylaw have been approved by the Attorney General since the 1970s.

As shown on Map 3 on the following page, Dunstable's zoning framework includes six (6) conventional use districts and three (3) overlay districts. A use district is a geographic area delineated on a zoning map and designated for specific land uses. An overlay district, also delineated on a zoning map, may encourage or limit certain uses within one or more districts, depending on the purposes of the overlay. In Dunstable, for example, the Commercial Telecommunications Towers Overlay District, known as the Tower Overlay District, is designed to regulate telecommunications towers in areas coincident with the Commercial Recreation, General Residence, Single Family Residential, Retail Business, Service Business and Expanded Commercial districts.

Each zoning district has dimensional and use requirements, and many uses require a special permit, i.e., an approval granted at the discretion of the Zoning Board of Appeals, Board of Selectmen or the Planning Board. The Planning Board exercises control over activities and uses that require site plan review. Table 7 on page 24 identifies each zoning district and describes its allowed uses.

Table 8 on page 25 depicts the acreage for each zoning district within Dunstable. Approximately 97% of the town is zoned for residential use, with over 96% of the town zoned specifically for single-family residences. Commercial zoning districts (R1-a, B-1, B-2, and B-3) cover 3.35% of the community, while mixed-use is allowed on 0.36% of the town's land area.

MAP 3

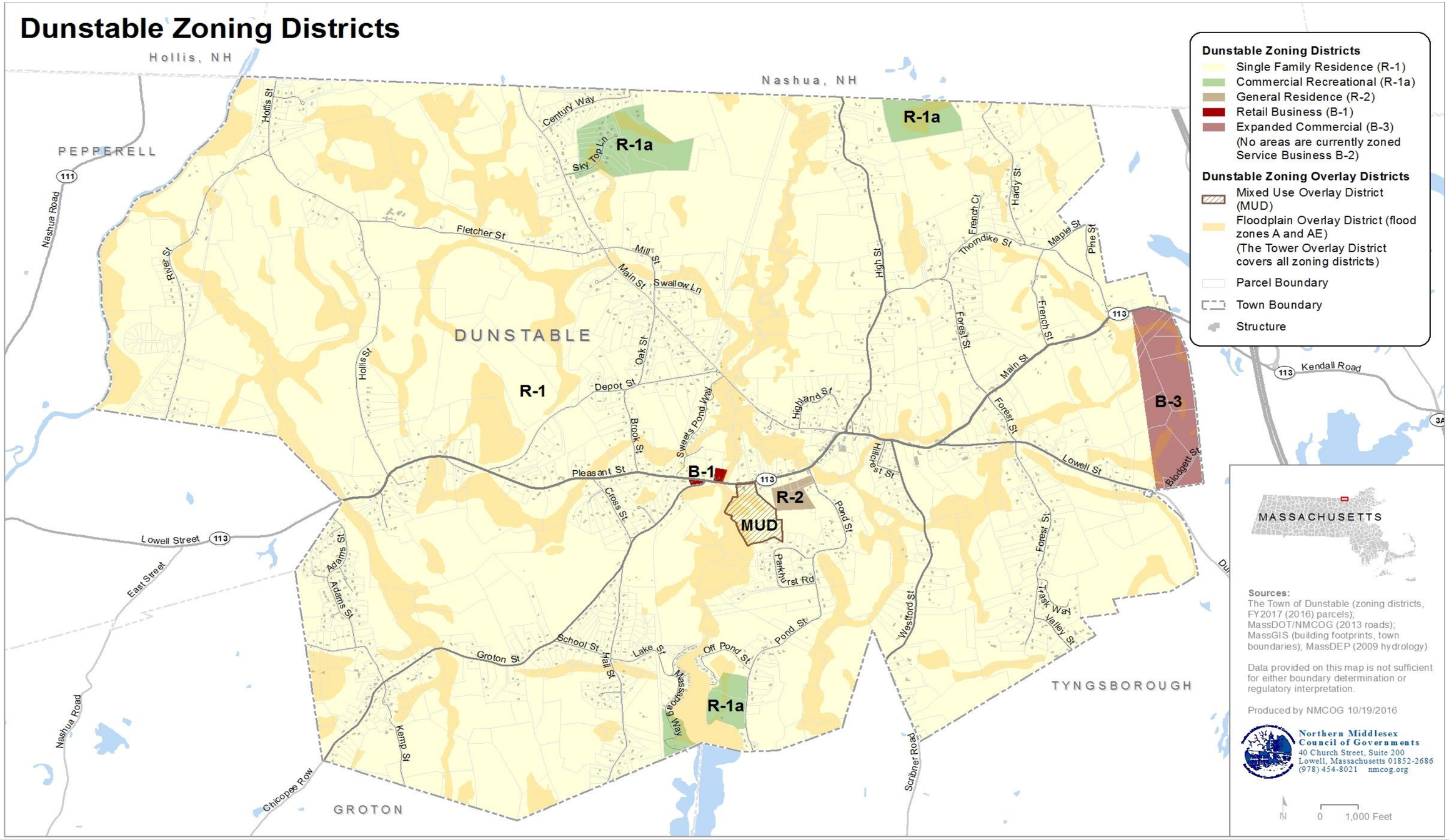
Dunstable Zoning Districts
Hollis, NH
Nashua, NH
PEPPERELL
DUNSTABLE
TYNGSBOROUGH
GROTON
R-1
R-1a
R-2
B-1
B-3
MUD
Dunstable Zoning Districts
Single Family Residence (R-1)
Commercial Recreational (R-1a)
General Residence (R-2)
Retail Business (B-1)
Expanded Commercial (B-3)
(No areas are currently zoned Service Business B-2)
Dunstable Zoning Overlay Districts
Mixed Use Overlay District (MUD)
Floodplain Overlay District (flood zones A and AE)
(The Tower Overlay District covers all zoning districts)
Parcel Boundary
Town Boundary
Structure
MASSACHUSETTS
Sources:
The Town of Dunstable (zoning districts, FY2017 (2016) parcels); MassDOT/NMCOG (2013 roads); MassGIS (building footprints, town boundaries); MassDEP (2009 hydrology)
Data provided on this map is not sufficient for either boundary determination or regulatory interpretation.
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Table 7: Current Zoning Districts and Allowed Uses

Zoning District	Allowed Uses
Single-family Residence (R-1)	• Single-family with no more than one dwelling unit per lot. • Rooming or boarding house for no more than 3 lodgers • Museums and libraries owned by the Town or a non-profit controlled by the Town • Parks, playgrounds, conservation and water supply areas, and land operated for public enjoyment by a public or quasi-public agency. • Certain agricultural and horticultural uses • Private non-commercial radio towers, windmills, or similar structures less than 100 feet in height • Customary home occupations with permit from the Building Inspector • Professional office • Studio or workshop for a trade or artisan • Daycare • Accessory apartments in single-family residence • By special permit: use of land or structure by a public utility, country club or golf course, commercial greenhouse on a residential premise or on parcels less than five acres, keeping of poultry on parcels over five acres, maintenance of dog kennels or stables for hire, a museum or library not owned or controlled by the Town, use of a dwelling or portion of a building for the sale of merchandise, stock or commodities not created on site.
General Residence (R-2)	• Any use permitted in the R-1 district • Two-family dwelling, providing there is only one residential structure per lot • Nursing or convalescent home • Multi-family housing for the elderly or old-age housing • By special permit, large scale ground-mounted solar photovoltaic facilities
Commercial Recreational (R1-a)	• Any use permitted in an R-1 district • By special permit, recreational uses that do not generate offensive noise, odor, pollution or traffic congestion
Retail Business District (B-1)	• Any use permitted in an R-1 or R-2 district • Retail store with sales conducted within a building • Barber shop, beauty shop, laundry and dry cleaning service, shoe repair, or similar retail establishment • Business office, professional office or bank • Post office • Craft workshop, including retail sales of products produced on premises • Restaurant • By special permit-offices for contractors and tradesmen, and large-scale ground-mounted solar photovoltaic facilities
Service Business District (B-2)	• Any use permitted within the R-1, R-2 or B-1 districts • By special permit: service station or repair shop for motor vehicles or appliances, auto body repair shop, sale and rental of light equipment, offices for general building maintenance, landscaping , or electrical contractors or similar building trades contractors, and large-scale ground-mounted solar photovoltaic facilities.

Table 7 (cont'd): Current Zoning Districts and Allowed Uses

Zoning District	Allowed Uses
Expanded Commercial District (B-3)	• By special permit: research laboratories with incidental processing or pilot manufacturing, office buildings, light manufacturing enterprises , and large-scale ground-mounted solar photovoltaic facilities
Mixed Use District (MUD)	• Planned Unit Development allowing for two-family dwellings, townhouses, multifamily dwellings, business uses permitted in the B-1 district, a senior center, and affordable housing for the elderly

Source: Town of Dunstable Zoning Bylaw

Table 8: Zoning District Classifications and Acreage

Zoning District	Acres	Percentage
Single-family Residence (R-1)	10,344.44	96.48
General Residence (R-2)	18.01	0.17
Commercial Recreational (R1-a)	199.93	1.86
Retail Business District (B-1)	4.95	0.05
Service Business District (B-2)	0	n/a
Expanded Commercial District (B-3)	153.99	1.44
Total	10,721.32	100
Mixed Use Overlay District (MUD)	38.42	0.36

Source: Northern Middlesex Council of Governments GIS

Residential Zoning

Dunstable is predominately zoned for residential development. As a result, the town's residential zoning regulations will significantly impact its overall land use pattern at build-out. According to the Dunstable Zoning bylaw, the residential zoning districts include Single Family Residence (R-1) and General Residence (R-2). Dunstable also has a Commercial Recreational (R-1a) district that allows any use permitted in the R-1 district. In addition, there is a Retail Business District (B-1) and a Service Business District (B-2), both of which allow any use regulated in an R-1 or R-2 district.

The Single Family Residence (R-1) District allows for one dwelling unit per lot, or a rooming or boarding house for not more than three lodgers. In order to increase the availability of moderately priced housing for the young, elderly, people of low and moderate income, and dependent relatives of town residents, accessory dwelling units may

be allowed by special permit of the Zoning Board of Appeals. The minimum lot size in the R-1 district is 87,120 square feet.

Dunstable's Open Space Development regulation allows an owner of a tract of land situated in the R-1 district to seek a Special Permit that provides an exemption from the lot area and frontage, side yard and width requirements of the bylaw. The tract of land must be at least fourteen acres in area, and the total number of building lots must be no more than the number of lots that would be allowed under a conventional development plan. At least 35% of the land must be retained as open space conveyed to the Town, a non-profit, or a homeowners association for conservation purposes. The bylaw requires that all dwelling units be in detached buildings, with no more than one dwelling unit per building.

For the purpose of providing a variety of housing opportunities for residents who are 55 years and older, landowners in the R-1 district may seek a Special Permit from the Planning Board for Senior Residential Multifamily Development (SRMD), exempting the developer from lot area and frontage, yard and width of lot requirements. The number of dwelling units allowed can be no greater than the number of building lots that would otherwise be allowed on the tract, multiplied by 1 $^{1}/_{4}$, and rounded to the next higher integer. An SMRD project may consist of any combination of single family or multifamily residential structures. A multifamily structure must not contain more than five units. All dwelling units within multiple unit buildings must have a minimum floor area of 780 square feet, and no dwelling unit may contain more than three bedrooms. No SRMD project may have more than 10% of the total number of dwelling units with three bedrooms. Each dwelling unit must have at least one person fifty-five years of age or older who is both an owner and a resident. An exception to this requirement is only allowed in the event where a senior resident is deceased and there is no surviving senior resident, and the unit is owned and occupied by the deceased senior resident's surviving spouse.

As part of the site plan approval for SRMD projects, a minimum of five percent of the total number of dwelling units must have an affordability restriction of at least thirty years in one or more of the following ways:

- The units shall be affordable to persons or families qualifying as low income;
- The units shall be affordable to persons or families qualifying as moderate income; and
- The units shall be affordable to persons or families qualifying as median income.

The bylaw encourages the applicant to seek designation through the DHCD Subsidized Housing Inventory (SHI) for the affordable units by working with a public agency, non-profit, limited dividend organization, or other suitable entity. The Planning Board may

award a 10% density bonus to increase the number of dwelling units. All dwelling units awarded as a density bonus must be limited to no more than two bedrooms.

The General Residence District (R-2) allows single family, two-family and limited types of multifamily development. Two-family dwellings are allowed as long as there is only one residential structure per lot or in an accessory building. Multifamily housing for the elderly under a state or federal law or program is allowed, or any other multifamily use mandated by law. The minimum lot size in the R-2 zone is 87,120 square feet, plus 20,000 square feet for a second or third unit, plus 15,000 square feet for each additional unit.

While the Retail Business District (B-1) is intended to provide for retail and other consumer-oriented businesses, any use permitted in an R-1 or R-2 district is also allowed in the B-1 district. Similarly, the Service Business District (B-2) is intended for commercial uses providing goods and services, but also allows for any use permitted in the R-1 or R-2 districts.

The Mixed Use District bylaw was established to encourage the development of affordable housing, including rental and ownership units. The district allows for "Planned Unit Development for Mixed Uses", including single and multifamily dwellings by Special Permit from the Planning Board. The bylaw allows two-family dwellings, townhouses, multifamily dwellings, and over-55 housing, providing the minimum area allocated for dwelling units is 5,000 square feet, and that the minimum land area for the development is ten acres. Minimum setback, rear and side yard requirements are applied only to the periphery of the Planned Unit Development. Dwellings must comprise 75% of the floor area of the development, with the balance used for business use. Individual commercial areas cannot exceed 1,500 square feet.

Table 9 on the following page identifies the permitted residential uses by zoning district. Single-family development is permitted by right in all residential districts, except the MUD district where a Special Permit from the Planning Board is needed. Two-family dwellings are only permitted by right in the R-2, B-1 and B-2 districts, and by Special Permit in the MUD district. The only multifamily housing allowed by right in Dunstable is senior housing, which can be located in the R-2, B-1 and B-2 districts. Multifamily housing in the MUD, R-1 and R-2 districts requires a special permit from the Planning Board. It should be noted that only the MUD district provides for multifamily housing that is not age restricted. Dwelling units above the first floor (that are not accessory units) are only allowed by Special Permit from the Planning Board in the MUD district. Assisted living facilities are allowed by right in the R-2, B-1, and B-2 districts. Boarding houses are allowed in every district except the MUD district, while trailers or mobile homes are not allowed in any district.

Table 9: Permitted Residential Uses by Zoning District

Residential Use	Zoning District					
	Single Family (R-1)	General Residence (R-2)	Commercial Recreational (R1-a)	Retail Business (B-1)	Service Business (B-2)	Mixed Use Development (MUD)
Single Family Dwelling	Y	Y	Y	Y	Y	PB
Two- Family Dwellings	N	Y	N	Y	Y	PB
Multifamily Dwellings	PB (senior only)	Y (seniors only)	PB (senior only)	Y (senior only)	Y (senior only)	PB
Accessory Dwelling Units	ZBA	ZBA	ZBA	ZBA	ZBA	ZBA
Dwelling unit(s) above first floor	N	N	N	N	N	PB
Boarding House	Y	Y	Y	Y	Y	N
Assisted living facility	N	Y	N	Y	Y	N
Trailer or mobile home park	N	N	N	N	N	N

Source: Dunstable Zoning Bylaw, May 2015

Within the R-1, R-1a, R-2, B-1, and B-2 districts residential development requires a minimum of 200 feet of frontage, and front yard, side yard and rear yard setbacks of thirty (30) feet, as shown in Table 10 below.

Table 10: Dimensional and Density Requirements for Residential Subdivisions

	Zoning District					
	Single Family (R-1)	General Residence (R-2)	Commercial Recreational (R1-a)	Retail Business (B-1)	Service Business (B-2)	Mixed Use Development (MUD)
Minimum Lot Area	87,120 sf	87,120 sf	87,120 sf	87,120 sf	87,120 sf	10 acres
Minimum Frontage (ft)	200	200	200	200	200	0
Minimum Front Yard (ft)	30	30	30	30	30	30*
Minimum Side Yard (ft)	30	30	30	30	30	30*
Minimum Rear Yard (ft)	30	30	30	30	30	30*

*APPLIED ONLY TO THE PERIPHERY

Source: Dunstable Zoning Bylaw, May 2015

In May 2015, the Town added a provision to its Zoning Bylaw to allow the Zoning Board of Appeals to grant a special permit for accessory dwelling units. No more than one accessory dwelling per lot is allowed, and an accessory dwelling unit cannot exceed 35% of the gross living area of the existing or expanded principal structure or 1,200 square feet, whichever is greater, and the accessory unit may not have more than two bedrooms. The accessory dwelling unit may be located in the principal structure or in a detached accessory structure that is at least ten (10) years old. The owner must certify that one of the two dwelling units is owner occupied, and that the lot and both dwellings are owned by the same owner. The lot area must be 87,120 square feet, or ten times the total ground floor area of the structure or structures on the lot, and comply with the dimensional requirements of the R-1 district.

Commercial and Business Zoning

There are four commercial zoning districts in the town's Zoning Bylaw: Commercial Recreational (R1-a), Retail Business (B-1), Service Business (B-2) and Expanded Commercial (B-3). These districts are shown on the town's Zoning Map found on page 23, with the exception of the B-2 district. Although the B-2 district is discussed and described within the Zoning Bylaw, the Town has not designated an area for this use and it is not shown on the zoning map. Table 11 below outlines the dimensional requirements for commercially zoned districts within Dunstable.

Table 11: Dimensional and Density Requirements for Commercial Development

	Zoning District			
	Commercial Recreational (R1-a)	**Retail Business (B-1)**	**Service Business (B-2)**	**Expanded Commercial (B-3)**
Minimum Lot Area	Prescribed by the Planning Board	43,560 sf	B-1 uses:43,560 sf B-2 uses: Prescribed by the Planning Board	B-1 uses: 43,560 sf; B-2 uses: Prescribed by the Planning Board; and B-3: 100,000 sf
Minimum Frontage	200 feet	B-1 uses: 150 feet	B-1 uses: 150 B-2 uses: Prescribed by the Planning Board	B-1 uses: 150 B-2 uses: Prescribed by the Planning Board B-3 uses: Per site plan
Minimum Front Yard (ft.)	----	----	---	Per site plan

Table 11 (cont'd): Dimensional and Density Requirements for Commercial Development

	Zoning District			
	Commercial Recreational (R1-a)	Retail Business (B-1)	Service Business (B-2)	Expanded Commercial (B-3)
Minimum Side Yard (ft)	----	----	---	Per site plan
Minimum Rear Yard (ft.)	----	----	---	Per site plan
Maximum Building height (ft.)	36 feet	30 feet	30 feet	30 feet

Source: Dunstable Zoning Bylaw

Commercial Recreational (R-1a)

Uses allowed within the Commercial Recreational District (R-1a) include any use permitted in the R-1 District. Through a Special Permit from the Board of Selectmen, recreational pursuits occurring outdoors are also allowed. Ancillary uses, such as the rental of recreational equipment for same day use on site, as well as the sale of related items, are permitted. Large-scale ground-mounted solar photovoltaic facilities are allowed through a Special Permit from the Planning Board.

Retail Business District (B-1)

The B-1 Retail Business District is intended for retail shopping and other consumer needs and services. There are only two parcels zoned for this purpose which comprise about five (5) acres in total. In addition to retail shops and personal services, business offices, professional offices, restaurants and banks are allowed within the B-1 district with site plan approval. Any use allowed in the R-1 and R-2 districts is also allowed in the B-1 district by right.

There are some uses allowed by Special Permit from the Planning Board, including offices for contractors and tradesmen and large-scale ground-mounted Solar Photovoltaic facilities.

Business Service District (B-2)

The B-2 Service Business District is intended for commercial uses that provide goods and services for Dunstable residents. While this District is discussed in the Town's Zoning Bylaw, there are no parcels identified on the Zoning map that carry this designation. Any use permitted with the R-1, R-2 or B-1 districts is allowed within the B-2 district.

With a Special Permit from the Planning Board, the following additional uses are allowed:

- Service station or repair shop for motor vehicles, appliances, and other light equipment;

- Auto body repair;
- Sale and rental of light equipment;
- Offices for general building contractors, building maintenance contractors, landscaping contractors, electrical contractors, and similar building trades contractors ; and
- Large-scale ground-mounted Solar Photovoltaic Facilities.

Section 9.3.2 of the Zoning Bylaw states that "development regulations as to area, frontage, setbacks, parking, etc., shall be as prescribed by the board in consideration of the uses, operations and facilities proposed and incorporated on the site plan". The Planning Board may allow more than one use on a lot or in a building, assuming the uses are compatible.

Expanded Commercial District (B-3)

The B-3 Expanded Commercial District is intended for limited types of research laboratories, office buildings and selected entrepreneurial uses, as well as business uses permitted in the B-1 and B-2 Districts, excluding residential uses, dumps, refuse disposal facilities, transfer stations, offal and rendering plants, junkyards and other incidental uses.

Under a Special Permit from the Planning Board and with site plan approval, research laboratories with incidental processing or pilot manufacturing, office buildings, light manufacturing, and large-scale ground-mounted Solar Photovoltaic Facilities are allowed.

As outlined in the Zoning Bylaw, regulations as to area, frontage, setbacks, etc., are prescribed by the Planning Board. The maximum building height allowed is thirty-six (36) feet and the minimum area of a tract to be developed is 100,000 square feet. No building may occupy an area greater than 25% of the lot area, and the parking lot may not cover more than 25% of the lot area.

Overlay Districts

Dunstable has three (3) zoning overlay districts: the Commercial Telecommunication Towers District, the Mixed Use District and the Floodplain District. The districts are discussed in greater detail below.

Commercial Telecommunication Towers Overlay District

The Commercial Telecommunication Towers Overlay District is coincident with the Commercial Recreation (R-1a), General Residence (R-2), Single-family Residential (R-1), Retail Business (B-1), Service Business (B-2), and Expanded Commercial (B-3) districts. The bylaw was developed to minimize the adverse impacts of wireless communication

facilities, and satellite dishes and antennae. The intent of the regulation is to minimize the overall number and height of these facilities to reflect what is truly essential, through a Special Permit from the Planning Board. New facilities are only considered if the applicant demonstrates that previously approved facilities cannot accommodate the proposed users.

Only free-standing monopoles with associated antenna and/or panels are allowed. Lattice style towers are prohibited unless the Planning Board determines that a monopole is not suitable for the location. Monopoles must be located at least five hundred (500) feet from the nearest residential structure, unless waived by the owner(s) of the residential structure. The telecommunication facility must comply with all applicable regulations administered by the Federal Aviation Administration (FAA), Federal Communication Commission (FCC), the Massachusetts Aeronautics Commission (MAC), and the Massachusetts Department of Public Health (MDPH).

The bylaw contains design requirements for a fall zone and for sufficient property line setbacks, and establishes a maximum monopole height of one hundred twenty (120) feet. Monopoles cannot be located on a building unless the Planning Board determines that such a location is in the best interest of the Town. However, applicants are encouraged to locate antennas inside suitable existing buildings to minimize visual impact to the area.

Satellite dishes and antennas must be attached to a structure in a manner that screens them from abutting street. Freestanding antennas or dishes must be situated so as to minimize visibility from abutting streets and residences.

Mixed Use District

In 2004, Dunstable Town Meeting approved the Mixed Use District bylaw to encourage the development of affordable housing, including rental and ownership units, as discussed above under the Residential Zoning discussion. The district allows for "Planned Unit Development for Mixed Uses", including single and multifamily dwellings by Special Permit from the Planning Board. The bylaw allows two-family dwellings, townhouses, multifamily dwellings, and over-55 housing, providing the minimum area allocated for dwelling units is five thousand (5,000) square feet, and that the minimum land area for the development is ten acres, subject to a reduction of up to twenty (20) percent for a project with an affordable housing component.

The MUD district also allows business uses permitted in the B-1 district, and a Senior Center. There are no frontage requirements within the PUD, and setback, rear and side yard requirements only apply to the periphery of the PUD. Residential units must comprise at least seventy-five (75) percent of the floor area.

Floodplain District

In 2010, Dunstable adopted the Floodplain District as an overlay that applies to all zoning districts. The floodplain district includes all flood hazard areas designated as Zone A or Zone AE, as shown on the Zoning Map on page 23. All development in the district must comply with DEP Wetlands Protection Laws, sections of the State Building Code that address flood hazard areas, Title V, and the Dunstable Wetlands Protection Bylaw. No building or structure can be located within the 100-year floodplain, unless placement of fill is allowed by Special Permit of the Planning Board. A condition of the Special Permit requires that a professional engineer demonstrate that such filling will not result in any increase in flooding during a one hundred year storm event.

If any part of a subdivision proposal involving a roadway is within the Floodplain District, it must be designed to ensure that all utilities and facilities are located and constructed to minimize or eliminate flood damage. All proposed water and sewer facilities located in the Floodplain District must be reviewed by the Board of Health. New or replacement water systems must be designed to minimize or eliminate the infiltration of flood waters into the system. New or replacement sanitary sewage systems must be designed to minimize or eliminate infiltration of flood waters into the system, as well as discharges from the systems into flood waters.

Regulations for Renewable Energy

Dunstable has established a Wind Energy Conversion Device Bylaw to regulate the construction and operation of wind energy conversion facilities. The bylaw provides setback requirements for meteorological towers that are consistent with the zoning district in which they are located, and establishes a fall zone of 1.5 times the height of the tower from the nearest property line. Meteorological towers must be removed within eighteen (18) months of construction. The same setback and fall zone requirements are established for small-scale wind energy conversion devices. Small-scale wind energy conversion devices cannot exceed sixty-five (65) feet in height, and no more than two (2) such devices can be located on any parcel. The bylaw also sets forth requirements for color, finish, and signage. Such devices must also comply with DEP noise regulations.

Large-scale wind energy conversion devices are subject to a Special Permit from the Planning Board. For projects proposed on conservation land, the installation must be reviewed and approved by the Conservation Commission. The height of a large-scale wind energy conversion facility is to be proposed by the applicant and determined by the Planning Board, based on a finding that the height of the facility meets the intent of the bylaw. Large-scale wind energy devices must be set back from the nearest property line and roadway by a distance equal to the height of the conversion device plus twenty-five

(25) feet. Design standards are set forth for color, finish, lighting, signage, connections to the grid, and appurtenance structures. Safety and environmental standards are outlined for access, shadow/flicker and noise. When a large-scale wind energy conversion device is decommissioned or abandoned, it must be removed within one hundred fifty (150) days and the site must be restored to its previous condition.

Dunstable has also established a bylaw for Large-Scale Ground-Mounted Solar Photovoltaic Facilities, which provides standards for the placement, design, construction, operation, monitoring, modification and removal of such facilities. The minimum lot size required for an installation is two acres. In the B-1, B-2 or B-3 districts, a 50-foot front side and rear yard setback is required, provided the facility will be at least two hundred (200) feet from any abutting recreational or residential district. In any residential, conservation or recreational district, 200-foot front, side and rear yard setbacks are required. The height of all structures comprising the facility cannot exceed twenty (20) feet. The bylaw also establishes design standards relative to signs, utility connections, and glare. Emergency service requirements and installation requirements are also outlined. When a large-scale ground-mounted solar photovoltaic facility is decommissioned or abandoned, it must be removed within one hundred fifty (150) days and the site must be restored.

Inclusionary Zoning

In 2011, voters approved Article 33 at the Annual Town Meeting establishing the Community Housing Bylaw, as part of the town's General Bylaws. The purpose of the bylaw was to promote and encourage the creation of housing "that more people can afford, especially people who live and work in the Town of Dunstable". The bylaw was to be applied to the issuance of certificates of occupancy for the creation of six (6) or more residential units, including phased or segmented projects. The bylaw applied to new construction and modifications to existing residential buildings. One of the first six units in a project must be "community housing". Community housing is defined as "housing for an eligible household for which, in perpetuity, the maximum sale/resale price or the maximum rent shall be as set forth in the Local Initiative Program (LIP) Guidelines."

For projects smaller than six (6) units, or in the case of a project greater than six (6) units where a fractional number of units has been rounded down, the developer is required to make a payment in lieu to the Affordable Housing Trust Fund, according to a formula outlined in the bylaw.

During the course of the Master Planning process, Town Meeting took action to move the Community Housing Bylaw from the General Bylaw to the town's Zoning Bylaw.

Development Standards

Dunstable has adopted development standards or requirements that govern site design, parking and loading, environmental standards, landscaping, and signage. The Site Plan review process and the development standards are outlined in the following narrative.

Site Plan Review

The Massachusetts Zoning Act does not specifically authorize site plan review, but the courts have upheld it as valid exercise of zoning authority, and most communities have some type of site plan review procedure. Site plan review is a vital component of the planning process because it creates a mechanism for reviewing development plans for projects that are likely to have a noticeable impact on the surrounding land uses, natural resources and traffic. Site plan review also provides a mechanism for placing reasonable conditions on projects prior to the issuance of a building permit. However, it does not create the authority to disapprove uses permitted by right. Unlike a subdivision plan or special permit, an approved site plan does not "grandfather" any zoning rights. Site plan approval lapses after two years from the approval date, if substantial use has not commenced, except for good cause.

Dunstable requires a site plan for nearly all development projects. In approving or disapproving a site plan, the following is considered: landscaping, scale, open space, circulation, drainage, utilities, signs, screening, loading areas, and overall compliance with the standards set forth in the Zoning Bylaw.

Landscaping

Landscaping plans are an important component of the overall development plan and are required by most communities as part of the Site Plan Review process. Dunstable's Site Plan requirements are outlined in Section 14 of the Zoning Bylaw. While preservation of landscape is stated as a requirement within the bylaw, the language simply reads that tree and soil removal is to be minimized and that grade changes must be harmonious with the neighborhood and the surrounding developed area. There are no specific landscaping requirements for development projects outlined in the Zoning Bylaw.

Dunstable's Subdivision regulations require that every effort be made to preserve existing trees on the street right-of-way and on the lots to be sold. The developer must plant at least six (6) suitable shade trees on every lot of a variety chosen by the Planning Board. These trees must be at least twelve (12) feet in height, and four (4) trees must be planted on lots at least ten (10) feet from the exterior line of the street right-of-way. Two (2) trees must be planted between the curb and the sidewalk for each two hundred (200) feet of lot frontage.

Parking and Loading

Zoning bylaws normally set minimum parking and loading standards for various land uses. In the case of residential uses, Dunstable's Zoning Bylaw requires one parking space for each dwelling unit, plus sufficient parking space to permit off-street parking either by employees or visitors. In places of public assembly, one (1) parking space is required for every three seats. Schools are required to provide one (1) parking space for each classroom, plus one (1) space for every two (2) employees or staff members other than teachers, and, where an auditorium is provided, one space is required for every three (3) seats. Hotels, motels and lodging houses are required to provide one (1) parking space for each guest room and loading space for all delivery and sanitary collection vehicles.

Service establishments and retail businesses are required to provide parking and loading accommodations based on the physical size of the establishment, whereby one (1) parking space must be provided for every one hundred forty (140) square feet or a fraction thereof of gross floor area, including basement storage area. The requirements for projects located in the B-3 district are largely driven by the number of employees. One (1) parking space is required for each person employed on the largest shift, plus one (1) space for each company-owned vehicle, plus spaces for customers' vehicles, as appropriate. Loading space for all delivery and shipping trucks must also be provided.

Signage and Outdoor Lighting

Signage and outdoor lighting is usually the most restrictive and exhaustive section of a zoning bylaw, given the need to accommodate and provide uniformity for each zoning district. Dunstable's Zoning Bylaw does not appear to set any outdoor lighting standards.

Section 13 of the Zoning Bylaw addresses sign requirements within specific zoning districts. In residential districts, where a use other than a dwelling has been permitted, where an accessory use or home occupation has been allowed, or where a property is being offered for sale or lease, two (2) signs, each not over twenty-four (24) inches by thirty-five (35) inches, are allowed. Historic signs denoting the identity of the occupants or the name of the premises are also allowed, as is a sign indicating the street number, in compliance with the Building Numbers Bylaw.

In a business district, exterior signs are allowed as long as they pertain to the business conducted on the premises. A sign displayed on the wall of a building must not exceed twenty (20) square feet or extend beyond the building lines. One sign is allowed for each separate and distinct establishment on any premises, or for each two hundred (200) linear feet of lot frontage on the principal street, provided that each sign does not exceed twenty (20) square feet in area.

Moving signs are prohibited in all districts and no exterior signs can be illuminated, except by reflected white light emanating from a source external to the sign. The source of light must be steady, and it must be shielded from direct view at normal eye level from streets and adjacent premises.

Temporary signs can be employed to provide notice of special or community events, or the local occasional sales of goods of non-recurring nature (such as yard sales). Sign for special events can be displayed no earlier than twenty-one (21) days prior to the event and must be removed within five (5) days of the event.

Banners over public ways must be approved by the Board of Selectmen and must comply with the procedures established by the Board of Road Commissioners. Signs pertaining to public elections are allowed, but can be erected no earlier than sixty (60) days prior to the election. Such signs must be removed within five (5) days following the election.

Growth Management

To encourage sustainable development and address potential development impacts to public services, the Town has adopted Section 11.6 of the Zoning Bylaw which requires subdivision phasing. This regulation applies to all subdivisions of more than ten (10) lots, but does not apply to "Approval Not Required" (ANR) plans. No more than ten (10) lots or 20% of the total number of lots, whichever is greater, within a subdivision may be constructed within any twelve-month period, commencing on the date of final subdivision approval.

In addition, Section 11.8 of the Zoning Bylaw states that the rate of development should not exceed the Town's ability to provide necessary schools, roads, police, fire protection, water and other municipal services. The rate of development limitation is applied to all building permits for construction of new dwellings. This section of the bylaw sunsets on May 9, 2021, unless extended by Town Meeting. Under the bylaw no more than forty-eight (48) building permits for dwelling units can be issued in any 24-month period. No more than twenty-four (24) permits in any 24-month period may be issued for ANR lots. No applicant can be issued more than seven (7) building permits for new dwelling units in any twelve-month period, regardless of whether the permits pertain to subdivision lots, ANR lots, or any other lots. No more than five (5) building permits per year can be issued in any one subdivision for new dwelling units, regardless of the identity of the applicant.

Within Section 11.8, exemptions are provided for dwelling units created under any statute or statutory program for the purpose of fostering low- or moderate-income housing. Exemptions are also provided for any lot that has an area one hundred (100) percent over the required minimum, or any lot created as an Open Space Development, where the open space is at least one hundred (100) percent over the required minimum.

Public Input

The first Master Plan Visioning Session was held at Dunstable Town Hall on June 23, 2016. During the session, public input was generated through the use of a Strength, Weaknesses, Opportunities and Threats (SWOT) analysis exercise. The following responses relative to land use were received:

- Strengths
    - Rural character
    - Working farms
    - Small town feel
    - Open space
    - Agricultural lands
    - Historic barns, homes and roadways
    - Local commerce and business
    - Lovely town center
- Weaknesses
    - Lack of diversified revenue base/lack of large tax base
    - Lack of community gathering places
    - Lack of senior housing
    - Lack of a thriving downtown
    - Lack of retail/commercial establishments
    - Lack of cell phone coverage
    - Lack of protection for historic buildings
    - Lack of sidewalks/streetlights or too many streetlights
    - Being a "dry" community
- Opportunities
    - Attract businesses
    - Renewable energy
    - Age 55 and over housing
    - Revisit Town Center Plan/overlay district
    - Farm-to-table restaurant
    - Liquor licenses for bed and breakfasts
    - Use/develop the lake
    - More farms
    - Use Route 113 for economic development
    - Farmers market
    - Community supported agriculture (CSA)
    - Urgent care facility

- Threats
    - Insufficient income to support town needs/lack of revenue
    - Failure to preserve town character
    - Loss of farms
    - Unplanned growth/overdevelopment
    - Increased traffic
    - Uncontrolled 40B development
    - Viability of the town center
    - Expansion of Route 113
    - Lack of community feel

On September 20, 2016, a second Visioning Session was held to gather input on land use, housing and economic development. A series of questions were posed to participants and their responses relative to land use are summarized below:

- Town Center District should keep its rural character while allowing for business uses. A country store, coffee/tea house, farmers market, bakery or bed and breakfast might be appropriate.
- Commercial uses should follow design guidelines regarding architecture and design in order to keep the rural look.
- Keep business activity in the Center but require that barns and buildings maintain the same facade.
- An appropriate business zoning area is close to Route 3 as it keeps traffic out of town.
- Agricultural-type businesses in the center of town would be successful.
- Keep the existing B-3 district and see what businesses the Town may be able to attract. We can't compete with Nashua for retail opportunities.
- The B-3 zoning district is located on private property and the Town cannot do anything to attract business to that location.
- Town is looking at the construction of a public safety building in the Town Center, which could include additional parking for events in the Town Center.
- Establish an overlay district along Route 113 allowing commercial type uses by special permit.
- An art gallery and traditional artisan type establishments should be allowed to create an unique “New England” brand for the town.
- B-3 Parcel should be further studied to better understand future opportunities.
- Town cluster zoning does not specify lot size/density. Refine the cluster bylaw so developers understand what is acceptable in terms of density and minimum lot size for residences. This would also help the Planning Board.
- The Town is looking at small and medium scale free-standing solar, but state restrictions prohibit meaningful regulation of these uses.
- Stay away from chain-type businesses.
- Model town center after Groton.

- Cap building height for businesses at two floors.
- Promote the Town as an artist community, like Lowell did with the mills and artist studio space and lofts.
- Create a place for artists and artisanal workers.
    - Utilize the vacant barn on the McLoon property
    - Town could look into options for economically utilizing open space, such as an Eco-Adventure park, zip line, cross-country ski center.

The Master Plan Committee distributed a written and online survey to residents as a means of gathering additional input. The land use related input generated from the survey is summarized as follows:

- Growth, development and overdevelopment were ranked as #5 on the list of the top seventeen issues facing the Town over the next ten years;
- Maintaining rural/agricultural character was ranked #10 on the list of the top seventeen issues facing the Town;
- 62% of the respondents opposed revising the zoning regulations to allow single-family homes on smaller lots (1 acre instead of 2 acres);
- 88% of the respondents favored the creation of additional opportunities for small-scale neighborhood business development, while 70% favored more intense economic development in certain locations; and
- 57% of the respondents opposed revising the zoning regulations to allow multi-family housing in certain areas.

Issues and Opportunities

Rural character is a recurring theme in Dunstable. As in many small towns, residents have a different concept as to what the term "rural" means, as their point of reference and past experiences can be very different. Such competing perceptions can make it difficult for the community to reach consensus on a common vision for the future.

Much of Dunstable remains undeveloped. Single-family homes and farmsteads are sited on large tracts of land throughout most of the community, while small businesses operate inconspicuously along Route 113. Dunstable Center consists almost entirely of residential, institutional and agricultural uses. Unlike most small towns, there is no mixed use or business district within the town center, although many residents have expressed a desire to accommodate small business establishments that provide services to residents, and that are appropriately scaled to fit the character of the community. Town residents have also expressed a desire to have a community gathering spot, such as a coffee shop, within the town center, and many residents have stated that they think the Town should encourage more cultural activities within this area. The Master Plan Committee recommends that the concept of establishing a Town Center Overlay District be re-examined. Such an overlay

district could accommodate small-scale retail, restaurants and cafes, a bank, artisan/artist shops, galleries, museums and studio space, and personal services. The establishment of the overlay district would also legitimize existing businesses within the area.

Within the Town Center Overlay, consideration should be given to allowing the conversion of older, large homes for other possible uses, such as retail on the first floor with residential above. Many of these structures could accommodate conversion to apartments without negatively impacting the character and architectural quality of the district. Such uses would require a special permit. Such apartments are very common in small towns and usually they are so inconspicuous neighbors do not know they exist. Although often thought of as housing for elderly relatives, they also provide housing for adult children, live-in child care or elder care providers, and they can provide extra income for homeowners struggling to make ends meet. Dunstable could limit single-family conversions to buildings of a certain age, mainly to control the pace of conversion activity.

While many Dunstable residents are concerned about the town's lack of affordable housing options for seniors and young families, the current zoning bylaw does not facilitate a mix of housing styles. To reduce the threat of unwanted, large-scale comprehensive permit projects (40Bs), the Town needs to be more open to accommodating a broader mix of housing styles in appropriate locations. The Affordable Housing Committee has already identified eleven (11) potential sites within the town's Housing Production Plan. The zoning of these properties should be further evaluated to determine whether zoning for multi-family housing is appropriate at these locations. The challenge for the community involves both the technical and political aspects of siting moderate-density housing. Clearly, water infrastructure deficiencies will need to be addressed going forward. In addition, town leaders need to educate residents on the difference between accommodating affordable housing by choice and by chance.

There are some immediate changes that could be made to the zoning bylaw to promote the production of affordable housing. The Open Space Development bylaw should be revised to require that developers provide some level of affordability, e.g. 20% within a project with more than ten (10) units. Additional clarity regarding project density is also needed for this section of the zoning bylaw. In addition, it is the opinion of the Master Plan Committee that the Open Space Development bylaw should apply to projects that are sited on tracts of land smaller than the 14-acre threshold currently cited within the bylaw. The Committee found that a 5-acre threshold may be more appropriate.

The Master Plan Committee recommends that the Planning Board revisit the Senior Residential Multi-family District bylaw with a focus on the level of protection for dedicated open space and on project density requirements. It is also the opinion of the Master Plan Committee that the deed restrictions for any affordable units produced through this section

of the bylaw should be in perpetuity. The bylaw should require that the affordable units be eligible for inclusion on the Massachusetts Department of Housing and Community Development's (DHCH) Subsidized Housing Inventory (SHI).

While the Master Plan Committee has found that two-acre residential zoning should be maintained in most of the community, there may be some limited locations where a slightly higher density should be allowed. The zoning for these areas should be consistent with existing development patterns. Any potential rezoning would serve as a means of addressing non-conforming lots in certain neighborhoods. The Master Plan Committee recommends that the Planning Board compile data on non-conforming neighborhoods in order to determine the most appropriate approach in addressing this issue.

While the B-2 Zoning District is discussed in the Town's Zoning Bylaw, there are no parcels identified on the zoning map that carry this designation. Currently, any use permitted with the R-1, R-2 or B-1 districts is allowed within the B-2 district. The Master Plan Committee recommends that the Planning Board identify suitable locations for the B-2 district.

The Town's 1999 Master Plan recommended that the B-3 zone be utilized for office/R&D type development. The Master Plan recommends that the Planning Board re-examine the uses allowed within this district. It is the Committee's opinion that the B-3 district would be an appropriate location for multi-family housing. Such rezoning would help the town in meeting its 10% affordable housing production goal established by the State.

Dunstable's zoning bylaw needs to be updated, as it has not been significantly reviewed and rewritten in several years. Going forward, the Master Plan Committee recommends that the zoning bylaw and subdivision regulations be comprehensively reviewed every five (5) years. Many sections of the current regulations lack clarity or appropriate standards and guidelines. Better site development standards and regulations that address the impacts of clearing and grading are needed. Landscaping standards and sign and lighting regulations need to be enhanced to address size and illumination, and these standards need to be updated to reflect new technologies. Building design standards for exterior materials, massing and articulation, roof pitch, window areas and treatment, also need to be improved to provide added specificity. Such design guidelines would allow the Planning Board to consider factors beyond engineering and site design. Dunstable should also establish design guidelines for Comprehensive Permit projects (40Bs) as well, to ensure that such projects are designed in a fashion that is compatible with the town's rural character.

Additional performance standards should be included with the Zoning Bylaw. Furthermore, the Master Plan Committee recommends that peer review consultants be utilized to review development proposals, and that a process be created whereby peer review consultant services are funded by the project proponent.

The Town should consider allowing for Low Impact Development (LID) in its future development regulations. LID is an approach to environmentally friendly land use development that includes landscaping and design techniques that maintain the natural, pre-developed ability of the land to manage rainfall. Presently, the Town's subdivision regulations do not allow the use of LID techniques. This is achieved by applying a suite of tools including:

- Preserving the site's natural features such as wetlands, native vegetation, floodplains, woodlands and soils to the greatest extent possible;
- Planting native vegetation in buffer strips and in rain gardens;
- Using vegetated areas to slow runoff, maximizing infiltration and reducing contact with paved surfaces; and
- Reducing impervious surface wherever possible through alternative street design and through the use of shared parking.

Although all land uses generate costs, new residential development places more demand on municipal services than new commercial development. Unlike residential subdivisions, commercial development tends to locate where it can be supported by existing infrastructure and places no burden on public schools. A strategy to provide for Dunstable's long-term fiscal well-being should emphasize preserving privately-owned open space and fostering limited commercial activities that are compatible with the town's rural development interests. Agricultural enterprises and businesses, eco-tourism and renewable energy production could reduce some of the pressures of residential growth by generating a higher ratio of revenue to service costs. Even if the total amount of revenue is low, the associated service costs will be lower. Dunstable's zoning regulation should be modified to allow agricultural, cultural, and eco-tourism related uses and businesses in certain locations by right or by special permit. This includes allowing farm retail sales, co-ops, food processing and establishments similar to Blood Farm in Groton.

The Town should revisit the Growth Management Bylaw, which is due to sunset in 2021. The town has never reached the building permit cap outlined in the bylaw. Furthermore, retaining the bylaw prohibits the Town from applying for certain State grants, such as the Housing Choice Capital Grant and puts the town at a competitive disadvantage in applying for other State grants, such as MassWorks, PARC grants and LAND grants.

RECOMMENDATIONS

- Establish a Town Center Overlay District to accommodate small-scale retail, restaurants and cafes, a bank, artisan/artist shops galleries, museums and studio space, and personal services. The conversion of older, large homes to allow

commercial space on the ground level with residential use above should also be explored.

- Evaluate the zoning classifications for eleven parcels identified in the Housing Production Plan as potential locations for future affordable housing to determine whether zoning changes are appropriate.
- Revise the Open Space Development bylaw to include an affordability requirement, and ensure that affordable units are eligible for SHI inclusion and that they are deed restricted in perpetuity. In addition, clarify the density requirements for projects constructed under this section of the zoning bylaw. Consider lowering the project threshold from fourteen acres to five acres.
- Revisit the Senior Residential Multi-family District bylaw to ensure adequate protection of set aside open space and to clarify density requirements. Ensure that affordable units created under this section of the zoning bylaw are subject to a deed restriction in perpetuity, and that units are SHI eligible.
- Identify locations where more moderate density housing development might be appropriate, in that it is reflective of the existing development characteristics of the surrounding neighborhood, and as a means of addressing non-conforming lots.
- Identify suitable locations for the B-2 district.
- Re-examine the uses allowed within the B-3 district and consider adding multi-family housing as an allowed use by special permit.
- Update and revise the town's zoning bylaw to provide additional clarity, add appropriate design standards, guidelines and performance standards, including updated standards for landscaping, lighting and signage, as well as more specific building design standards. Conduct a comprehensive review of the town's development regulations every five years.
- Utilize peer review consultants to review development proposals, and establish a process whereby project proponents fund peer review consultant services.
- Establish design standards for Comprehensive Permit projects to ensure that such development projects maintain and protect the town's rural character.
- Consider allowing Low Impact Development (LID) techniques within the town's subdivision regulations for managing stormwater onsite, to the extent possible.
- Modify the town's zoning bylaw to clearly allow agricultural, cultural and eco-tourism related uses and businesses in certain locations. This would include allowing farm retail sales, co-ops, food processing and establishments similar to Blood Farm.

III. Economic Development

The Economic Development section of the Master Plan focuses on those elements that energize a community in terms of generating financial support for the municipal services that local government provides its citizens. Economic development largely defines a community in terms of its overall health, economy and business activities. Therefore, it includes a number of elements – housing, transportation, job creation, business development, land conservation and land use. An effective economic development strategy provides a balance between economic growth and quality of life in a community. In general, it is the quality of life within a community that attracts residents, shoppers and visitors. If there is an overemphasis upon economic growth, the quality of life within a community will suffer. Economic Development is more than a community's economic base – it reflects the overall process to attract private investment to provide jobs for community residents, generate property taxes that support local services, creates new contracting opportunities for local businesses and connects the local community with the regional, state and national economy.

As outlined in the Land Use section, land use and zoning are two different elements to understand in developing an economic development policy. Land use identifies how the commercial and residential parcels are being used, while zoning provides the "tools" to change how the land has been traditionally used in keeping with the stated policies of Town government, as approved by Town Meeting. This section of the Master Plan will outline the demographic data – population, households, employment and income-, the characteristics of the Dunstable workforce and the local economy, the local business conditions (employers, industry composition, wages) in the community, municipal taxation and spending, the local infrastructure, commercial activity,

Economic Development Goals

- Encourage businesses that are consistent with Dunstable's rural character.
- Identify appropriate development opportunities that will attract private investment to appropriately zoned districts.
- Create policies and regulations that allow entrepreneurial activities that are compatible with local neighborhoods.
- Promote local agricultural enterprises, as well as the work of local artists and craftsmen.
- Improve communication among local businesses and town government.
- Reconsider the Town's position relative to alcohol sales.

the balance between economic growth and quality of life and economic development opportunities.

Demographic Characteristics

The Demographic Characteristics section outlines important demographic data related to population, households, employment and income. Within the Land Use section, basic population data was provided. Similarly, within the Housing section, there will be more specific housing data than what appears in this section. The employment and income data is specific to the Economic Development section. As outlined in the Introduction, each of these elements is intertwined when one discusses economic development. This section is important in establishing the baseline and then determining what the future holds.

Population

According to the 2010 U.S. Census, Dunstable had a population of 3,179 residents, which represented 1.1% of the Greater Lowell region's population. With a land area of 16.74 square miles, the population density is approximately 190 persons per square mile. Over the last few decades, the population in Dunstable, as well as in the Greater Lowell region as a whole, has steadily increased. Dunstable remains the smallest town in the Greater Lowell region. Its overall proportion of the region's population has ranged between 1% in 2000 to 1.1% in 2010. Even Dunstable's 2040 projected population of 3,652 residents doesn't exceed a 1.2% share of the region's population, as shown in Table 12 on the next page.

The median age in Dunstable increased from 37.3 years in 2000 to 42.9 years in 2010, according to the U.S. Census. This data also indicates that the majority of Dunstable residents in 2000 and 2010 were between the ages of 35 and 59. However, the potential growth of the elderly population was fairly significant. Utilizing the MassDOT population projections, it is estimated that Dunstable's total population will increase by 14.9% between 2010 and 2040. To determine the projected age distribution of Dunstable's future residents, NMCOG utilized available data from Metro Future age cohort breakdowns. The age cohort breakdowns have been applied to the MassDOT projections so that the numbers are consistent. This data provides a useful indication of the future age distribution of Dunstable residents.

Table 12: Projected Age Distribution of Dunstable Residents (2010-2040)

Age Groups	2010		2020		2030		2040		Percent Change 2010 - 2040
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	
0-9 years	375	11.8	394	12.1	431	12.7	460	12.6	22.7
10-19 years	615	19.3	510	15.7	533	15.7	573	15.7	-6.8
20-24 years	118	3.7	120	3.7	105	3.1	110	3.0	-6.8
25-39 years	302	9.5	477	14.6	506	14.9	533	14.6	76.5
40-59 years	1,260	39.6	1,212	37.2	1,170	34.4	1,204	33.0	-4.4
60-74 years	404	12.7	491	15.1	577	17.0	644	17.6	59.4
75+ years	105	3.3	52	1.6	75	2.2	128	3.5	21.9
Total	**3,179**	**99.9**	**3,256**	**100.0**	**3,397**	**100.0**	**3,652**	**100.0**	**14.9**

Source: Projections developed by MassDOT in consultation with NMCOG, utilizing MetroFuture age cohort breakouts.

HOUSEHOLDS

Household growth rates in both Dunstable and the Greater Lowell region have experienced a slowdown since the turn of the century. However, Dunstable's slowdown was not as dramatic as the region's. In 2000 there were 923 households in Dunstable and by 2010 an additional 140 households (15.2%) had been added in the town's housing stock. The region's household growth rate decreased from 10.2% in 2000 to 4.7% in 2010. This slowdown was due principally to the housing and economic downturn in 2007-2008.

Household growth in Dunstable is expected to decline from 15.2% in 2010 to 10% (1,590 households) in 2040 (see Table 13). This is dissimilar from the regional household growth rates, which are expected to increase from 4.7% in 2010 to 5.1% over the same timeframe. Over the next twenty- five years, Dunstable's households are expected to comprise only 1.3% of the region's total households. Yet, Dunstable's household growth rate after 2020 will continue to double the region's household growth rate, leveling off at 10% in 2040. The current household projections developed by MassDOT with input from NMCOG are outlined in Table 13 below.

Table 13: Total Number of Households (2000-2040)

Year	Dunstable	Percent Change Town	Total Number Greater Lowell	Percent Change Region	Dunstable Households as Percent of the Region
2000	923	33.4	99,342	10.2	0.9
2010	1,063	15.2	104,022	4.7	1.0
2020	1,271	19.6	113,223	8.8	1.1
2030	1,446	13.8	119,635	5.7	1.2
2040	1,590	10.0	125,795	5.1	1.3

Source: 2000 and 2010 U.S. Census; Projections developed by Mass DOT in consultation with NMCOG
Note: The Percent Change columns begin with 1990 to 2000 and then continues with 2000 to 2010, 2010 to 2020, 2020 to 2030 and 2030 to 2040

Employment

Similar to the population and household projections outlined previously, MassDOT developed employment projections for the Greater Lowell region. These projections are an estimate of the future number of jobs within each community. MassDOT applied a "top-down" approach that utilizes employment projections for the state, as a whole, and then assigns shares of these figures to the MPO regions and individual communities within those regions. Based upon this approach, the employment projections at the state level are more accurate than those for the region or individual communities. Outlined below in Table 14 are the local and regional employment projections for Greater Lowell.

Table 14: Local and Regional Employment Projections: 2010-2040

Community	2010	2020	2030	2040	% change 2010-2040
Billerica	20,693	22,916	22,779	23,012	11.2
Chelmsford	20,846	22,547	23,152	23,389	12.2
Dracut	4,852	6,160	6,224	6,287	29.6
Dunstable	**256**	**246**	**249**	**251**	**-2.0**
Lowell	33,381	35,729	36,098	36,467	9.2
Pepperell	1,386	1,725	1,743	1,760	27.0
Tewksbury	15,294	15,400	15,559	15,718	2.8
Tyngsborough	4,145	4,928	4,979	5,030	21.4
Westford	11,743	13,552	13,692	13,834	17.8
Greater Lowell Region	112,596	123,203	124,475	125,748	11.7

2010 U.S. Census, U.S. Census Bureau. Projections developed by Mass DOT in consultation with NMCOG

MassDOT projected consistent steady employment growth over the next three decades with overall employment growth anticipated to increase by 11.7% for the region. However, in the case of Dunstable, there will be a 2% decrease in the number of jobs for the same time period.

Income

This section examines median household, family and per capita incomes in Dunstable, as well as the income distribution for households. This data is critical to determining the level of financial capacity in the community available to support commercial activity.

Median Household Income

Over the past twenty years, Dunstable has seen a significant increase in its median household income, which far exceeds that of the Greater Lowell region as a whole. More

recently, the median household income in Dunstable increased from $86,991 in 2009 to $118,523 in 2011-2015, as outlined below in Table 15.

Table 15: Median Household Income for Selected Geographies (1999 and 2011-2015)

Geographic Area	1999	2011-2015	% Change (1999-2011/2015)
Dunstable	**$86,991**	**$118,523**	**36.2**
Greater Lowell Region	$58,472	$76,728	31.2
Massachusetts	$50,502	$68,563	35.8
United States	$41,944	$53,889	28.5

Source: U.S. Census Bureau, 2010 U.S. Census and 2011-2015 American Community Survey

Based upon the 2011-2015 ACS data, Dunstable's median household income was one and a half times the Greater Lowell region's median household income. The Commonwealth of Massachusetts experienced increases in median household income of 35.8% between 1999 and 2011-2015, while the nation saw median household incomes increase by 28.5%.

Median Family Income

Median family income is often greater than median household income because a household can consist of single individuals, whereas family income always consists of two or more individuals. Over the past twenty years, median family incomes have increased in Dunstable, the Greater Lowell region, Massachusetts and the United States. As outlined in Table 16 below, Dunstable's median family income increased from $92,270 in 1999 to $136,328 in 2011-2015 – an increase of 47.7%. Median family incomes also increased across the region, state and nation, albeit not at the same level of growth experienced in Dunstable. When adjusted for inflation, Dunstable experienced 4% growth in median family income. In contrast, the Greater Lowell region, Massachusetts and the United States all experienced negative growth in inflation adjusted median family income, with incomes decreasing by 0.9%, 0.5% and 7.1% respectively.

Table 16: Median Family Income for Selected Geographies (1999 and 2011-2015)

Geographic Area	1999	2011-2015	% Change (1999-2011/2015)
Dunstable	**$92,270**	**$136,328**	**47.7**
Greater Lowell Region	$67,583	$95,071	40.7
Massachusetts	$61,664	$87,085	41.2
United States	$50,046	$66,011	31.9

Source: U.S. Census Bureau, 2010 U.S. Census and 2011-2015 American Community Survey

Per Capita Income

The U.S. Census Bureau defines per capita income as the average income received in the past twelve months for every man, woman, and child in a geographic area. It is derived by dividing the total income of all people 15 years old and over in a geographic area by the total population in that area. Income is not counted for people under 15 years old even though those individuals are included in the denominator of per capita income. As outlined in Table 17 below, Dunstable's per capita income increased from $30,608 in 1999 to $48,987 in 2011-2015 for an increase of 60%. This increase in per capita income is one and a half times the region's (44.1%) and state's (42.2%) per capita income growth, and nearly twice the national per capita income (34%) growth. Individuals residing in Dunstable have done much better in terms of per capita income growth than residents in the region, state and nation.

Table 17: Per Capita Income for Selected Geographies (1999 and 2011-2015)

Geographic Area	1999	2011-2015	% Increase (1999-2011/2015)
Dunstable	**$30,608**	**$48,987**	**60.0**
Greater Lowell region	$24,403	$35,160	44.1
Massachusetts	$25,952	$36,895	42.2
United States	$21,587	$28,930	34.0

Source: U.S. Census Bureau, 2010 U.S. Census and 2011-2015 American Community Survey

When adjusted for inflation, Dunstable experienced a per capita income growth of 12.7%, while the per capita income for the region increased by 1.5%. The state and per capita income, when adjusted for inflation, increased by only .1%, while the national per capita income decreased by 5.6%.

Income Distribution

While median household and median family incomes are valuable social and economic indicators, they do not account for the range or distribution of household incomes in a community. In 2011-2015, the median household income in Dunstable was $118,523, which was lower than the median family income of $136,328. As previously mentioned, it is typical for household income to be less than family income because, by definition, a "family" includes at least two people, which often includes two income earners. Outlined in Table 18 on the following page is the income distribution for households in Dunstable for 1999 and 2011-2015.

Table 18: Income Distribution for Households (1999 and 2011-2015)

	1999		2011-2015		Percent Change 1999 – 2011/2015
	Number	Percent	Number	Percent	
Less than $10,000	17	1.8	20	1.7	17.6
$10,000-$14,999	23	2.5	5	0.4	-78.3
$15,000-$24,999	43	4.6	48	4.1	11.6
$25,000-$34,999	35	3.7	47	4.0	34.3
$35,000-$49,999	88	9.4	101	8.6	14.8
$50,000-$74,999	165	17.6	88	7.5	-46.7
$75,000-$99,999	235	25.1	140	11.9	-40.4
$100,000 - $ 149,999	196	20.9	308	26.2	57.1
$150,000 - $ 199,999	91	9.7	202	17.2	122.0
$ 200,000 or more	43	4.6	217	18.5	404.7
Total	**936**	**99.9**	**1,176**	**100.1**	**25.6**

Source: U.S. Census Bureau, 2010 U.S. Census and 2011-2015 American Community Survey

Characteristics of the Workforce

In making determinations in terms of where to locate businesses, the chief criteria addressed by investors is the quality of the workforce within that community and in the region. This section focuses on the characteristics of the Dunstable workforce from several different perspectives – educational attainment, current employment sectors for Dunstable residents, commuting patterns and employment levels and unemployment. For the most part, the local workforce is well educated, works principally in the services sector and commutes outside Dunstable for employment. The employment and unemployment figures for the past ten years have been consistent with the regional employment and unemployment figures.

Educational Attainment

Local communities and regions cannot develop a skilled workforce without investing in universities, community colleges and the K-12 education system. The level of education attainment and the quality of education within a community represent key indicators of the quality of life, workforce preparedness and economic potential for that community. Dunstable does well in these areas and its school system attracts residents to the community.

Outlined in Table 19 on the following page is a comparison of the educational attainment between Dunstable and the Greater Lowell region for 2011-2015. Dunstable is a member of the Groton-Dunstable Regional School District, which consists of a high school, two

middle schools and three elementary schools. In comparing the two areas, Dunstable has more highly educated residents than the Greater Lowell region. Dunstable residents with Bachelor's Degrees and Graduate or Professional Degrees represent more than 55% of the population, while this group only represents 35% of the Greater Lowell population.

Table 19: Years of School Completed, Dunstable and Greater Lowell Region (2011-2015)

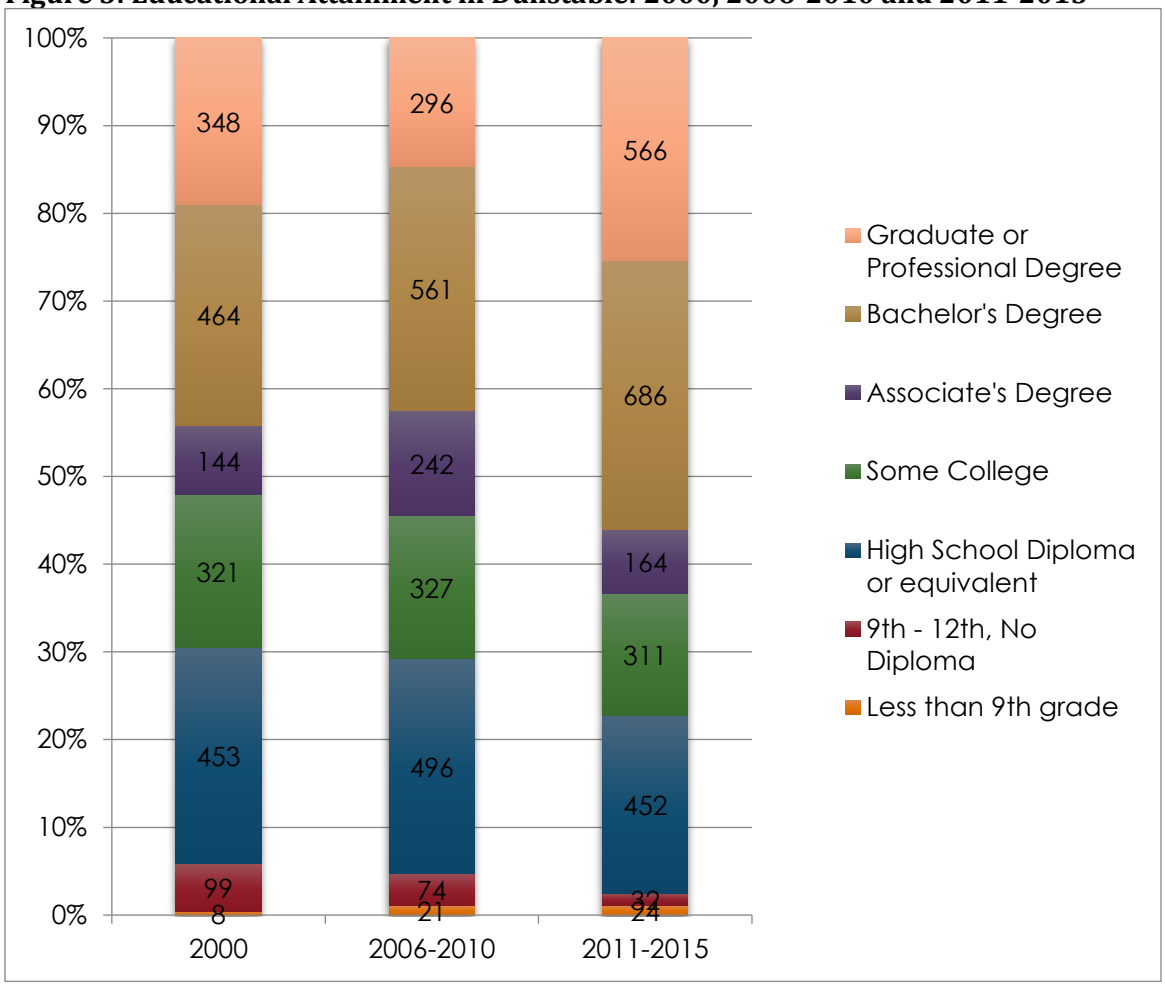
Subject	Dunstable		Greater Lowell Region	
	2011-2015	Percent	2011-2015	Percent
Less than 9th grade	24	1.07	11,178	4.66
9th - 12th, No Diploma	32	1.43	13,415	5.59
High School Diploma or equivalent	452	20.22	70,663	29.47
Some College	311	13.91	41,120	17.15
Associate's Degree	164	7.34	18,893	7.88
Bachelor's Degree	686	30.69	51,058	21.29
Graduate or Professional Degree	566	25.32	33,456	13.95
Total	2,235	99.98	239,783	99.99

Source: 2011-2015 American Community Survey. Due to rounding, the totals may not add up to 100%.

According to the 2011-2015 American Community Survey, only 2.5% of Dunstable's population does not have a High School diploma or equivalent, while more than 11% of the Greater Lowell population has not graduated from High School or received an equivalent degree.

The educational attainment level in Dunstable has increased as shown in Figure 3 on the following page, which compares the educational attainment level for 2000, 2006-2010 and 2011-2015. Residents with Graduate or Professional Degrees increased from 348 residents in 2000 to 566 residents in 2011-2015. The percentage of all adult residents in this category increased from 18.9% in 2000 to 25.3% in 2011-2015. Similarly, those with a Bachelor's Degree (464) increased from 25.3% of the total adult population in 2000 to 30.7%, or 686 residents, in 2011-2015. However, while those with just a High School Diploma or equivalent only decreased from 453 adults in 2000 to 452 adults in 2011-2015, the overall percentage decreased from 24.7% to 20.2%. Overall, those adults with some college experience or greater totaled 1,277 (69.5%) in 2000 and 1,727 (77.3%) in 2011-2015. Those adults without a High School Diploma decreased from 107 (5.8%) in 2000 to 56 (2.5%) in 2011-2015, although those with less than a 9th grade education actually increased from 8 (0.4%) to 24 (1.1%) in 2011-2015.

Figure 3: Educational Attainment in Dunstable: 2000, 2006-2010 and 2011-2015



Source: 2000 U.S. Census, 2006-2010 and 2011-2015 American Community Survey

Educational performance data for the K-12 system in Dunstable are highlighted through the results from the Massachusetts Comprehensive Assessment System (MCAS) testing that is conducted in the school system. Students who take the test are categorized as advanced and proficient, needing improvement, or warned or failing. Table 20 on the next page reflects the percentage of students within each school system that were categorized as proficient or higher in 2015. The Groton-Dunstable students exceed the regional scores in all three categories – ranking second (along with Tyngsborough) to Westford in English/Language Arts, ranking second to Westford in Math, and ranking second (along with Tyngsborough) to Westford in Science.

Table 20: MCAS Performance for Dunstable and Greater Lowell region

School District	2015 MCAS % Proficient or Higher		
	English/Language Arts	Math	Science
Billerica	94	80	84
Chelmsford	96	92	90
Dracut	93	82	85
Groton - Dunstable	97	94	92
Lowell	84	69	63
Pepperell (part of North Middlesex Regional School District)	92	76	83
Tewksbury	93	85	84
Tyngsborough	97	91	92
Westford	99	97	96

Source: Massachusetts Department of Education

Employment Sectors for Dunstable Residents

Given the high educational attainment levels for the Dunstable adult population, it would be expected that the local workforce would be more engaged in the service-providing domain rather than the goods-producing domain. As outlined in Table 21 on the next page, Dunstable residents employed in the goods-producing domain totaled 413 or 27% of the total local workforce in 2000, while Dunstable residents employed in the service-providing domain (1,115) represented 73% of the local workforce. Between 2000 and 2011-2015, there was an 11.7% increase in the number of employed Dunstable residents, which increased the disparity between the two domains. Employment of Dunstable residents in the goods-producing domain decreased by 3.1% between 2000 and 2011-2015, while employment in the service-providing domain increased by 21.2% during the same time period. Overall, the percentage of Dunstable residents employed in the goods-producing domain in 2011-2015 decreased to 22.8%, while those employed in the service-providing domain increased to 77.2%. These changes are likely to continue over the next decade as overall employment in the manufacturing and construction industries declines, while increased employment opportunities become available in the service-providing domain.

Table 21: Primary Employment Industries for Dunstable Residents in 2000 and 2011-2015

Industry	2000	2011-2015	Percent Change 2000 – 2011/2015
Goods-Producing Domain	413	400	-3.1
Agriculture, Forestry, Fishing and Hunting, and Mining	24	20	-16.7
Construction	111	99	-10.8
Manufacturing	278	281	1.1
Service-Providing Domain	1,115	1,351	21.2
Wholesale Trade	71	58	-18.3
Retail Trade	131	175	33.6
Transportation, Warehousing, and Utilities	41	35	-14.6
Information	78	49	-37.2
Finance, Insurance, and Real Estate (including leasing)	97	105	8.2
Professional, Scientific, Management, and Administrative and Waste Services	187	328	75.4
Educational Services, Health Care, and Social Assistance	340	357	5.0
Arts, Entertainment, Recreation, Accommodation and Food Services	95	114	20.0
Other services, except Public Administration	42	66	57.1
Public Administration	73	64	-12.3
TOTAL	**1,568**	**1,751**	**11.7**

Source: 2000 Census and 2011-2015 American Community Survey

Within the service-providing domain, the major growth industries between 2000 and 2011-2015 were Professional, Scientific, Management, and Administrative and Waste Services (75.4%), Other services, except Public Administration (57.1%), and Retail Trade (33.6%).

Commuting Patterns

In addition to understanding the industries where Dunstable residents work, it is also important to know their place of employment and their mode of transportation in getting to work. Based upon information in the 2011-2015 American Community Survey, 86.3% of Dunstable residents work in Massachusetts with nearly three-quarters of total workers employed in Middlesex County. As outlined in Table 22 on the next page, only 13.7% of Dunstable residents commuted to work outside of Massachusetts, principally in New Hampshire and Maine.

Table 22: Journey to Work Data for Dunstable Residents, 2011-2015

Place of Employment	Number of Workers	Percentage of Workers
Massachusetts	1,488	86.3
Middlesex County	1,250	84.0
Outside of Middlesex County	238	16.0
Outside of Massachusetts	236	13.7
Total Workers	**1,724**	**100.0**

Source: U.S. Census Bureau, 2011-2015 American Community Survey

As outlined below in Table 23, 89% of Dunstable residents, aged 16 or older, commuted to work by car, either alone or, less frequently, in carpools. Only .8% of Dunstable residents utilized public transit to commute to work, while .6% walked and 9.3% worked at home. With nearly 10% of Dunstable residents working at home, it reflects the cottage industries that have developed in the community. The average travel time to work was 32.1 minutes for all modes of travel, while nearly a quarter of workers (22.3%) spent less than 20 minutes commuting to work.

Table 23: Mode of Transportation to Work, 2011-2015

Mode	Number	Percent
Car, truck, or van -- drove alone	1,467	85.1
Car, truck, or van -- carpooled	68	3.9
Public transportation (excluding taxicab)	13	0.8
Walked	11	0.6
Other means	5	0.3
Worked at home	160	9.3
Total Workers	**1,724**	**100.0**

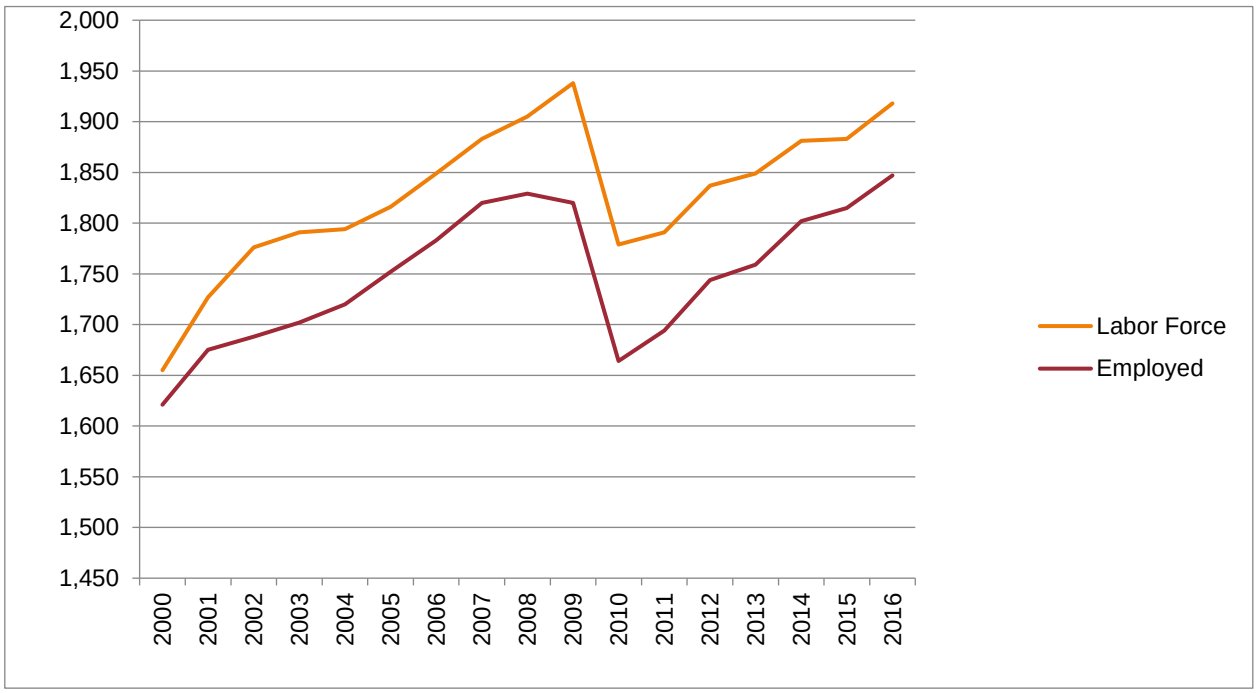
Source: U.S. Census Bureau, 2011-2015 American Community Survey

Employment Levels and Unemployment

Since 2000, the Dunstable Labor Force and Employment figures have largely mirrored what has happened in the Greater Lowell region and Massachusetts. Beginning in July 2000, the Dunstable labor force consisted of 1,655 residents and 97.9% of these residents (1,621) were employed at that time. As shown in Figure 4 on the next page, the labor force figures increased until 2009 when there were 1,938 residents in the workforce, which represented an increase of 17.1% in the workforce since 2000. However, the number of employed residents increased only until 2008 when there were 1,829 employed residents, which represented a 12.8% increase in employed residents since 2000. At this point, the employed residents represented only 96% of the total workforce largely due to the impact

of the national recession. The labor force declined by 8.2% to 1,779 in 2010, but then began to increase again in 2011. The number of employed only decreased by 9 or 0.5% between 2008 and 2009, but the level continued to decrease by 156 employees or 8.6% between 2009 and 2010. At that point, the number of employed compared to the labor force was 93.5%, which represented the height of unemployment during the past sixteen years. The labor force figures have continued to improve since 2010, but the 2016 figures (1,918) still fall short of the high point in 2009 (1,938). However, the 2016 employment figures (1,847) finally exceeded the employed figures high point in 2008 (1,829). This figure represents 96.3% of the labor force, which pales in comparison to the 2000 ratio of 97.9%.

Figure 4: Dunstable Labor Force and Employment Numbers, 2000-2016

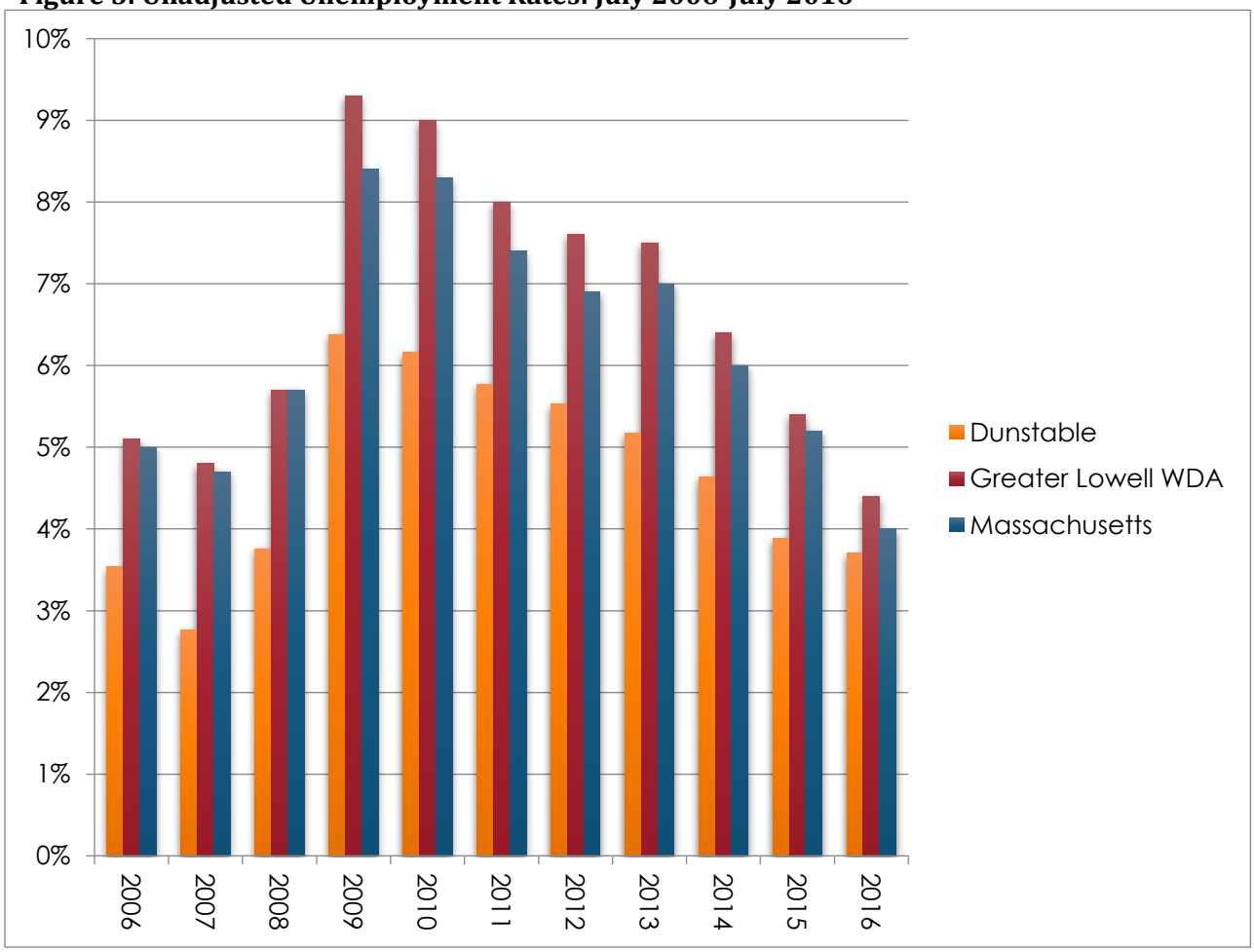


Source: Executive Office of Labor and Workforce Development, Labor Force and Unemployment Data

In comparing the unemployment figures for Dunstable, the Greater Lowell Workforce Development Area (WDA) and the Commonwealth of Massachusetts in Figure 5 on the following page, it is fairly striking that the unemployment rate for the Greater Lowell WDA has been generally equal to or higher than the state's unemployment rate. This reflects the impact of Lowell's unemployment rate on the other seven communities (Billerica, Chelmsford, Dracut, Dunstable, Tewksbury, Tyngsborough and Westford) within the Greater Lowell WDA. The unemployment rates for Dunstable have generally been two percentage points lower than that for either the State or Greater Lowell WDA. The unemployment rate pattern between 2006 and 2016 reflects the impact of the national recession beginning in 2009 and continuing until Dunstable's unemployment rate was

below 4% in 2015. The unemployment rates for Dunstable, the Greater Lowell WDA, and the State still have not reached the lower unemployment rates in 2006.

Figure 5: Unadjusted Unemployment Rates: July 2006-July 2016



Source: Executive Office of Labor and Workforce Development LURR Reports

Economic and Business Conditions in Dunstable

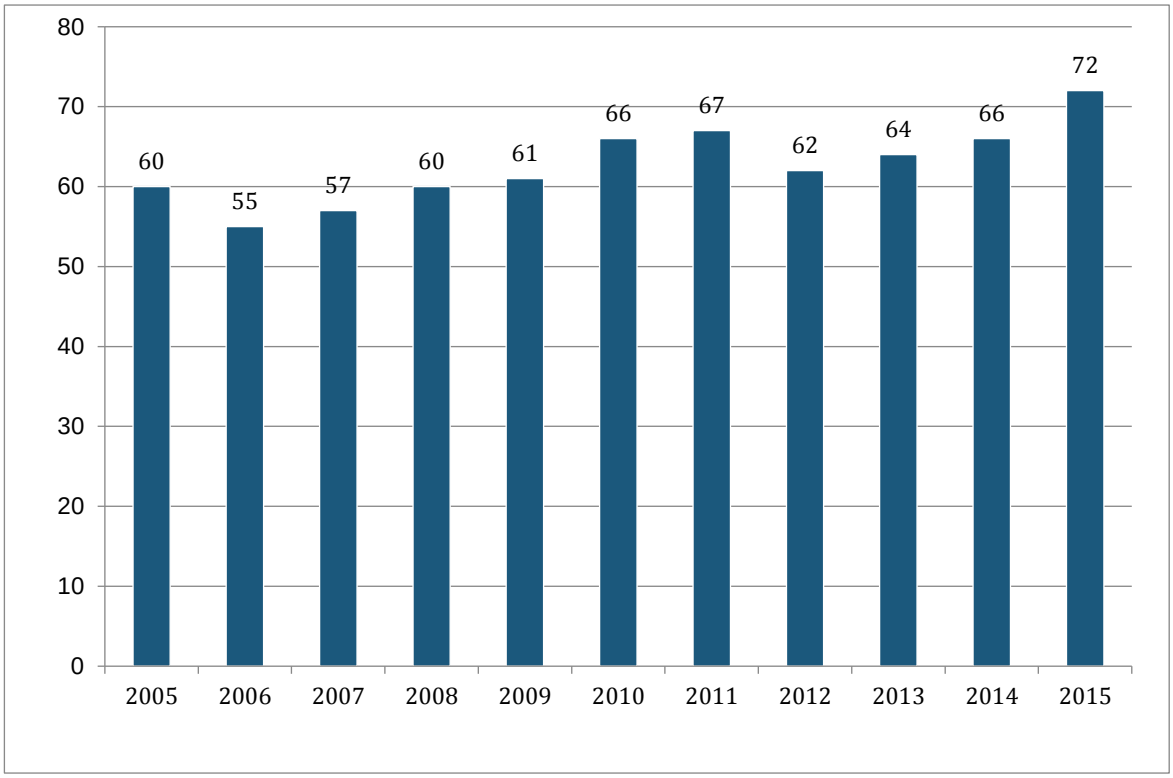
The Economic and Business Conditions in Dunstable are largely established through its business sector and town government. This section will focus on the private establishments in Dunstable, in terms of the total number of establishments, average monthly employment and average weekly wages. The next step will be to focus on the industry composition in Dunstable similar to what was done for the industries where Dunstable residents worked and to utilize a location quotients analysis comparing the industries in Dunstable with those in the Greater Lowell Workforce Development Area (GLWDA). This analysis will highlight the relative strength of Dunstable businesses in

relation to the region. To the extent possible, we will identify the major employers in Dunstable and provide information on total wages and average weekly wages by industry. Local business issues, such as municipal taxation and spending, will also be summarized.

Business Patterns in Dunstable

The number of business establishments in Dunstable has not varied much since 2005 although the 2015 figures suggest that slightly more businesses are located in Dunstable than in the past decade. Outlined below in Figure 6 are the number of establishments in Dunstable from the third quarter in 2005 to the third quarter in 2015.

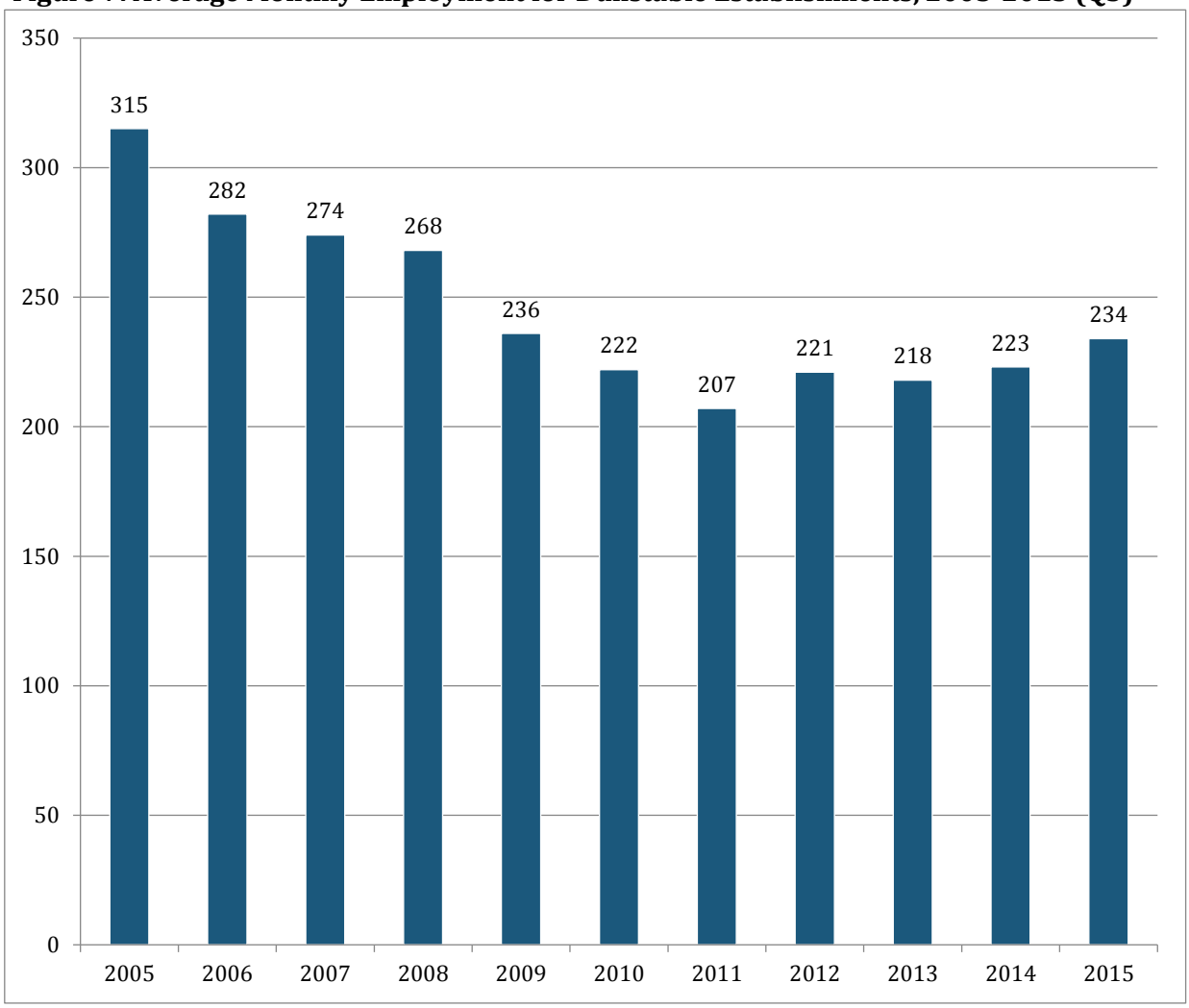
Figure 6: Total Number of Establishments in Dunstable, 2005 -2015 (Q3)



Source: Executive Office of Labor and Workforce Development ES-202 Reports

The average monthly employment figures for Dunstable establishments, as shown in Figure 7 on the next page, reflect the decline in the average employment for these establishments. The high point for employment was in 2005, while the low point came in 2011 just after the national recession. These figures have rebounded somewhat to 234 employees per month as of the third quarter of 2015, but it is apparent that Dunstable residents largely commute to work outside the community.

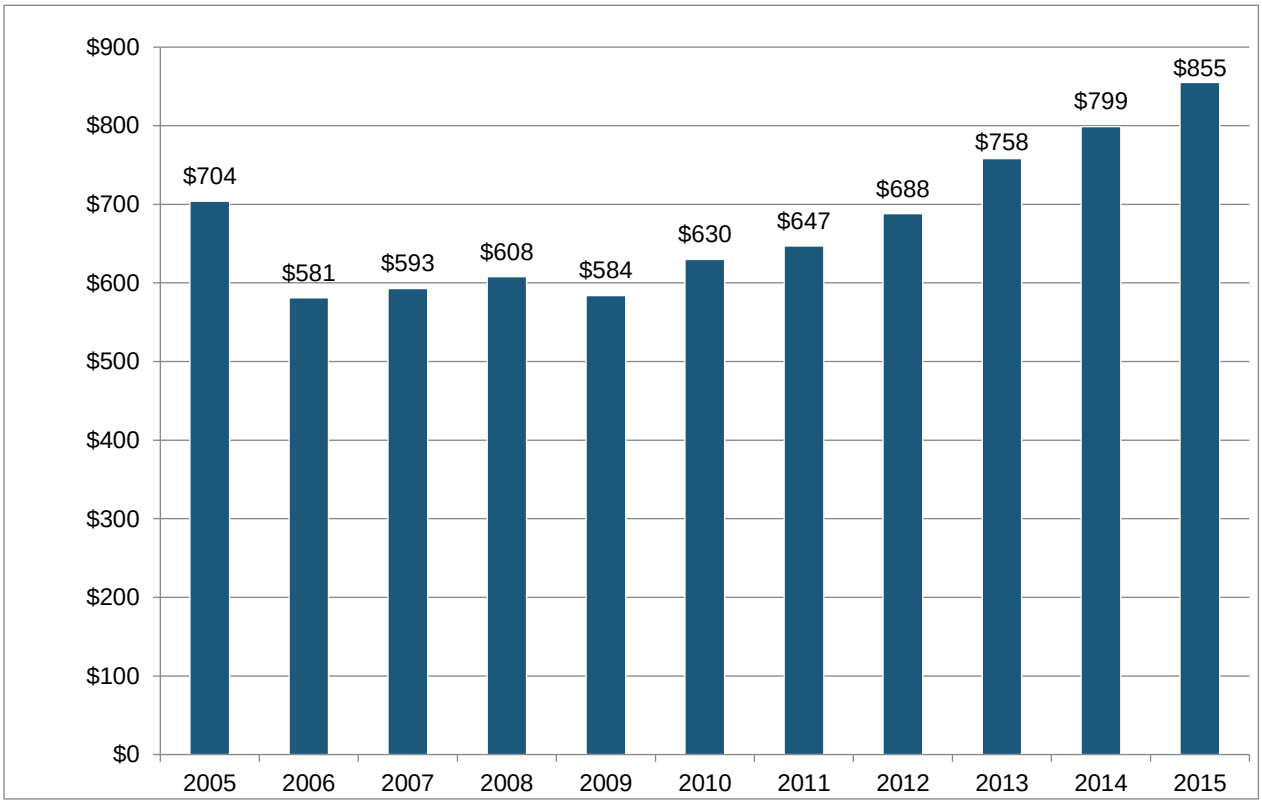
Figure 7: Average Monthly Employment for Dunstable Establishments, 2005-2015 (Q3)



Source: Executive Office of Labor and Workforce Development ES-202 Reports

The average weekly wages paid to Dunstable workers are outlined in Figure 8 on the following page. These figures compare the average weekly wages for Dunstable workers during the third quarter of each year. Initially, there is a decrease in average weekly wages from $704 in 2005 to $581 in 2006. The average weekly wages then begin to increase from $581 in 2006 to $608 in 2008, but then slip to $584 in 2009 when the impacts of the national recession were being felt. From that point on, the average weekly wages steadily increased until they finally exceeded the 2005 figure in 2013 ($758) and then increased to $855 in 2015.

Figure 8: Average Weekly Wages for Dunstable Workers, 2005 - 2015 (Q3)



Source: Executive Office of Labor and Workforce Development ES-202 Reports

Dunstable Employers

The list of Dunstable employers keeps changing from year to year. For the most part, the largest employers in the community are the Town and the School Department. In developing an overall list of employers, NMCOG utilized data provided by InfoGroup, which is the data source that the Commonwealth uses as well. NMCOG staff submitted this data to the Assessor's Office for a comparison with the records in that office and it was determined that 29 of the 78 businesses listed as part of the InfoGroup data could be accounted for. The Assessor's Office also provided personal property information that lists other property owners as well. We also received a list of public and private employers from Walter Alterisio that listed 41 employers consisting of Town and School Departments, the Post Office, local farms, auto repair shops, antique dealers, landscaping firms, a florist and real estate, financial and tax services.

Wages

Table 24 on the next page compares the total wages and average weekly wages by industry for the third quarter of 2005 and the third quarter of 2015. The total wages for all industries actually decreased by 9.8% from $2,882,223 in 2005 to $2,599,944 in 2015.

This decrease was largely attributable to the 19.3% decrease in the total wages for the service-providing domain. The Professional and Business Services industry experienced a 34.9% decrease in total wages. At the same time, the average weekly wages increased by 21.4% from $704 in 2005 to $855 in 2015. Both the goods-producing (30.3%) and service-providing (17.5%) domains experienced increases in average weekly wages. Within the service-providing domain, the Trade, Transportation and Utilities industry had a 236.9% increase in average weekly wages, while the Professional and Business Services industry experienced a 7% increase in average weekly wages, notwithstanding their significant decrease in total wages. The relatively high average weekly wages in some industries is likely due to the small number of businesses within the industry.

Table 24: Total Wages and Average Weekly Wages by Industry: 2005 and 2015 (Q3)

Industry	Total Wages (Q3)		Percent Change 2005- 2015	Average Weekly Wages (Q3)		Percent Change 2005-2015
	2005	2015		2005	2015	
Goods-Producing Domain	$866,984	$972,752	12.2	$660	$860	30.3
Construction	$837,531	$972,752	16.1	$664	$860	29.5
Service-Providing Domain	$2,015,239	$1,627,192	-19.3	$724	$851	17.5
Trade, Transportation and Utilities	$114,712	$216,282	88.5	$260	$876	236.9
Wholesale Trade	NA	$87,642	NA	NA	$1,124	NA
Retail Trade	$74,112	NA	NA	$190	NA	NA
Transportation and Warehousing	NA	$110,506	NA	NA	$1,063	NA
Information	NA	$163,191	NA	NA	$4,184	NA
Professional and Business Services	$574,852	$327,251	-34.9	$941	$1,007	7.0
Professional and Technical Services	$136,592	$214,221	56.8	$1,751	$1,177	-32.8
Administrative and Waste Services	$438,260	NA	NA	$822	NA	NA
Education and Health Services	NA	$299,918	NA	NA	$641	NA
Health Care and Social Assistance	NA	$40,001	NA	NA	$220	NA
Other Services	$55,240	$110,989	100.9	$472	$657	39.2
Total, All Industries	**$2,882,223**	**$2,599,944**	-9.8	**$704**	**$855**	21.4

Source: Executive Office of Labor and Workforce Development ES-202 Reports NA-Not Available

Municipal Taxation and Spending

Dunstable has a single-rate, uniform tax policy, which many companies may consider to be an advantage in locating in the community. In Fiscal Year 2017, Dunstable's commercial and industrial tax rate at $17.02 per $1,000 was at the low end of the region's commercial and industrial tax rates – only higher than Dracut ($14.50), Pepperell ($15.89), and Westford ($16.61). The relatively low commercial and industrial tax rate would appear to make the community competitive for business, particularly that portion of Dunstable close to Route 3. The tax rates for the Greater Lowell communities are shown below in Table 25.

Table 25: Fiscal Year 2017 Tax Rates by Class for Dunstable and the Greater Lowell Region

Community	Residential	Open Space	Commercial	Industrial	Personal Property
Billerica	$14.09	$0.00	$33.44	$33.44	$33.44
Chelmsford	$17.92	$0.00	$17.92	$17.92	$17.92
Dracut	$14.50	$0.00	$14.50	$14.50	$14.50
Dunstable	**$17.02**	**$0.00**	**$17.02**	**$17.02**	**$17.02**
Lowell	$14.92	$0.00	$30.64	$30.64	$30.64
Pepperell	$15.89	$0.00	$15.89	$15.89	$15.89
Tewksbury	$16.31	$0.00	$27.82	$27.82	$27.82
Tyngsborough	$17.16	$0.00	$17.16	$17.16	$17.16
Westford	$16.41	$0.00	$16.61	$16.61	$16.41

Source: Mass. Department of Revenue, Division of Local Services 2017 Rate per $1,000 evaluation

According to the Massachusetts Department of Revenue's Division of Local Services, $8,488,763 in property taxes were levied in Fiscal Year 2017 in Dunstable. As shown in Table 26 below, approximately, 96.8% of these taxes were generated through residential properties given the small proportion of commercial and industrial properties. Residential properties had a total assessed valuation of $482,972,280. Commercial properties provided $80,907 in taxes or less than 1% of the total tax levy. The industrial tax levy was only $ 52,733, which was .62% of the total tax levy. The additional tax levy was raised through $134,935 in personal property taxes.

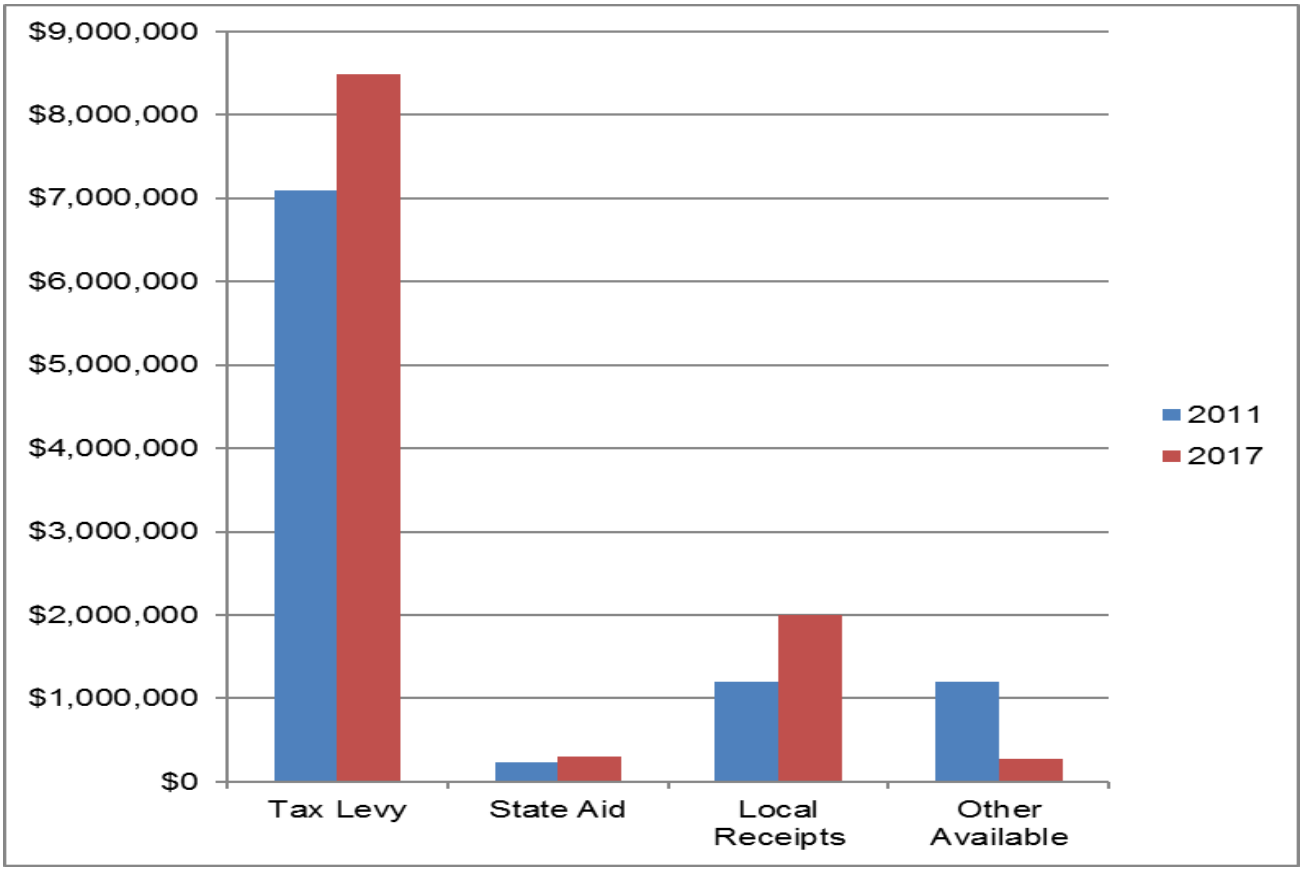
Table 26: Fiscal Year 2017 Dunstable Tax Classification

Tax Classification	Assessed Values	Tax Levy	Tax Rate
Residential	$482,972,280	$8,220,188	$17.02
Commercial	4,753,654	80,907	17.02
Industrial	3,098.300	52,733	17.02
Personal Property	7,928,024	134,935	17.02
Total	**$498,752,258**	**$8,488,763**	$17.02

Source: MA Department of Revenue Division of Local Services At a Glance Report

Dunstable's annual operating budgets were affected by the national economic recession in the late 2000s. Most communities in the Commonwealth have not recovered from that situation. As outlined in Figure 9 below, Dunstable has become more dependent upon the property tax levy – moving from 72.9% in 2011 to 76.7% in 2017. This reflects the reduction in the availability of federal and state funds for local communities. Overall revenue sources increased by 13.8%, but the major share of that increase was from local taxes. It should also be pointed out that State Aid increased by $65,732 during this period of time as well. Other Available funds actually decreased by $926,549 or by 77.3%.

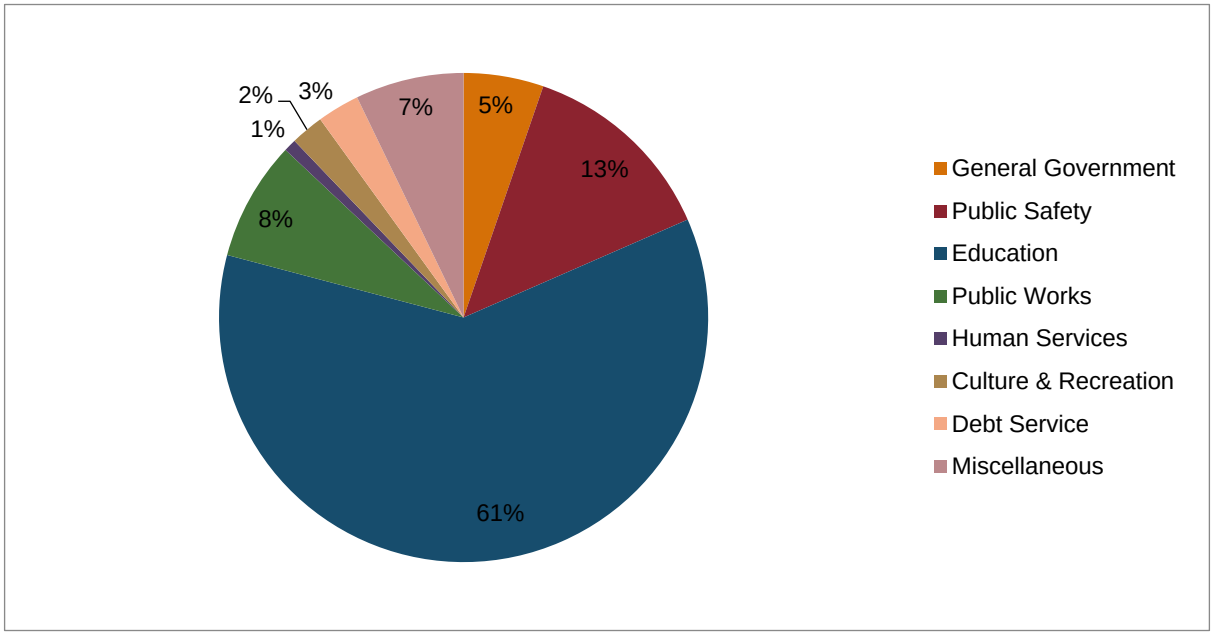
Figure 9: Municipal Revenue Sources, FY 2011 and 2017



Source: MA Department of Revenue, Division of Local Services. At a Glance Report.

Figure 10 on the next page shows the breakout of municipal expenditures for FY 2017. More than 61% of the municipal budget was set aside for education costs.

Figure 10: Municipal Expenditures FY 2017



Source: Town of Dunstable

Infrastructure Analysis

This section examines the existing wastewater issues, water supply and distribution, and utilities infrastructure in the community. Infrastructure is a critical component to a community's development capacity, whether it be for economic development, housing or municipal facility purposes. By focusing on the existing systems, the critical gaps in the infrastructure system can be identified and addressed, based upon the willingness of the community and the availability of funds. This summary is based upon a review of previous documents, including the *1999 Dunstable Master Plan,* the *Greater Lowell Comprehensive Economic Development Strategy (CEDS) for 2009-2013* and the *Dunstable Housing Production Plan for 2016-2020*.

Sewer Capacity

There is no public sewage system in Dunstable. All wastewater treatment is done through onsite septic systems.

Public Water Supplies

Dunstable has a limited centralized public water supply serving 102 connections, with the majority being residential customers. According to information provided through the Water Supply, Distribution & Storage Study, and the Dunstable Open Space and Recreation Plan, the Dunstable Water Department provides water to approximately 10% of the population. The remaining residents receive their water through on-site wells. In 2014,

the Dunstable Water Division supplied an average of 26,455 gallons per day through 102 service connections serving approximately 234 persons per day.

Water is supplied by two gravel packed wells located about 200 feet from Salmon Brook. The main wellhead is the Salmon Brook Gravel Packed Well, while the backup well was brought online in December 2006. Both wells have the capacity to provide 360,000 gallons per day, which is the capacity needed to accommodate future growth in the community. There is a concern about the adequacy of the existing fire hydrant system to handle a fire emergency. Water tank trucks from other communities would be needed to address an emergency situation. The Dunstable Water Department has been identifying feasible sites for the construction of a water storage tank to address these needs. Currently, there are two 5,000 gallon below ground storage tanks.

Table 27 below reflects the current water rates for customers of the Dunstable Water Department.

Table 27: Water Rates

	Rates Based on Usage
Service charge per billing period	$30.00/ Account
Minimum rate up to 10,000 gallons	$63.00
10,001 gallons to 20,000 gallons	0.0073/ Gallon
Over 20,000 gallons	$0.0080/ Gallon
Bulk water rate	$0.035/ Gallon + DWD

Source: Dunstable Water Department

Table 28 shows the current system development fees:

Table 28: System Development Fees

Pipe Size	Application/ Connection Fee
1"	$4,000 + meter cost+ installation/administration fee
1 1/2"	$6,000 + meter cost+ installation/administration fee
2"	$8,000 + meter cost+ installation/administration fee
3"	$12,000 + meter cost+ installation/administration fee
4"	$16,000 + meter cost+ installation/administration fee
6"	$24,000 + meter cost+ installation/administration fee
8"	$32,000 + meter cost+ installation/administration fee

Source: Dunstable Water Department

Other Utilities and Telecommunications

Dunstable is well-served in terms of other utilities and telecommunications. Gas and electricity are provided by National Grid, while Verizon and Charter Communications provide cable and cable internet services to residents and business owners in town. Table 29 below shows the pricing structure for energy delivery services. These service rates are for small commercial and industrial customers with average usage less than 10,000 kWh per month or 200 kW of demand.

Table 29: National Grid Rates for General Delivery Service-2016

	Rate
Customer Charge	$10.00/month
Distribution Charge First 2,000 kWh*	4.912¢/kWh
Transmission Charge	2.401¢/kWh
Transition Charge	0.042¢/kWh
Energy Efficiency Charge	0.875¢/kWh
Renewables Charge	0.050¢/kWh
* Includes: Basic Service Adjustment Factor (0.12¢), Residential Assistance Adjustment Factor 0.557¢, Storm Recovery Adjustment Factor 0.039¢, Storm Fund Replenishment Adjustment Factor 0.231¢, Pension/PBOP Adjustment Factor 0.256¢, Revenue Decoupling Mechanism Factor 0.002¢, Net CapEx Factor 0.202¢ Attorney General Consultant Expenses Factor 0.002¢ and Solar Cost Adjustment Factor 0.011¢.	

Source: National Grid, 2016

Table 30 on the following page outlines Demand Service rates for commercial and industrial customers with average use exceeding 10,000 kWh per month and demand not exceeding 200 kW.

For large commercial and industrial customers with demand greater than 200 kW, energy services are charged on the basis of time-of use. The fee structure for time-of-use service is illustrated in Table 31 on the following page. Fees differ depending on whether energy is consumed during peak or non-peak times. Peak hours are from 8:00 a.m. to 9:00 p.m. Monday through Friday, excluding holidays. Off-peak hours are from 9:00 p.m. to 8:00 a.m. Monday through Friday, and all day on Saturdays, Sundays and holidays

Table 30: National Grid Rates for Demand Service-2016

	Rate
Customer Charge	$25.00/month
Distribution Demand Charge	$8.50/kW
Distribution Energy Charge*	1.152¢/kWh
Transmission Charge	2.372¢/kWh
Transition Energy Charge	0.031¢/kWh
Energy Efficiency Charge	0.875¢/kWh
Renewables Charge	0.050¢/kWh
* Includes: Basic Service Adjustment Factor (0.12¢), Residential Assistance Adjustment Factor 0.557¢, Storm Recovery Adjustment Factor 0.039¢, Storm Fund Replenishment Adjustment Factor 0.231¢, Pension/PBOP Adjustment Factor 0.256¢, Revenue Decoupling Mechanism Factor 0.002¢, Net CapEx Factor 0.202¢, Attorney General Consultant Expenses Factor 0.002¢ and Solar Cost Adjustment Factor 0.011¢.	

Source: National Grid, 2016

Table 31: National Grid Time of Use Fee Structure

	Rate
Customer Charge	$223.00/month
Distribution Demand Charge	$5.75/kW
Distribution Charge Peak Hours*	1.289¢/kWh
Distribution Charge Off-Peak Hours*	0.536¢/kWh
Transmission Charge	2.161¢/kWh
Transition Energy Charge	0.023¢/kWh
Energy Efficiency Charge	0.875¢/kWh
Renewables Charge	0.050¢/kWh
* Includes: Basic Service Adjustment Factor (0.12¢), Residential Assistance Adjustment Factor 0.557¢, Storm Recovery Adjustment Factor 0.039¢, Storm Fund Replenishment Adjustment Factor 0.231¢, Pension/PBOP Adjustment Factor 0.256¢, Revenue Decoupling Mechanism Factor 0.002¢, Net CapEx Factor 0.202¢, Attorney General Consultant Expenses Factor 0.002¢ and Solar Cost Adjustment Factor 0.011¢.	

Source: National Grid, 2016

Public Input

In assessing the economic development potential of a community, it is important to determine what the assets and liabilities of a community are through the perspective of the community's residents and business community. The Northern Middlesex Council of Governments (NMCOG) worked with the Master Plan Committee to host a Visioning Session on Land Use and Zoning, Housing and Economic Development, in order to address specific issues related to each of these topics. In addition, NMCOG developed a community survey, with extensive input from the Master Plan Committee, in order to reach out to the residents and solicit their input. The results of the Visioning Session and community survey, relative to economic development, are summarized on page 70.

The economic development goals developed in the 1999 Master Plan, as well as the draft economic development goals developed more recently by the Master Plan Committee, provide more perspective on the assets and liabilities in the community. The Master Plan process was designed to build upon what was developed previously, and to bring the economic development perspective up-to-date with the current opinions of the community.

The 1999 Dunstable Master Plan outlined specific economic development goals for the community. The 1999 goals were defined as Economic Base Goals and were developed as a result of a community survey, public forums and other community input, and included the following:

1. Attract limited environmentally acceptable businesses in appropriate areas of town which will help provide tax revenues to support town services.
2. Allow only nonresidential uses which are environmentally appropriate and do not require the availability of public water and sewer services.
3. Coordinate vehicular traffic, pedestrian traffic and parking in business areas so that they function in an optimal manner (especially in the Town Center).
4. Develop limited retail uses on a site outside of the town center while protecting Dunstable's New England village character.
5. Maintain high standards of design and maintenance in existing and new commercial developments.
6. Explore senior housing and health care facilities as a potential source of net tax income for the town.
7. Seek to promote the viability of the town's agricultural economy.

The Dunstable Master Plan Committee held its Visioning Session II on Land Use and Zoning, Housing and Economic Development on September 16, 2016, which attracted more than 40 residents. The bulk of the meeting was devoted to discussing Land Use and Zoning, which

impact the Housing and Economic Development areas as well. However, there was limited time at the event to discuss the Housing and Economic Development questions. The results of the Economic Development discussion were as follows:

> ***Question: What should the town do to retain and attract businesses? What specific types of businesses should be targeted?***
>
> ***Responses:***
>
> - Stay away from chain type businesses.
> - Model town center after Groton.
> - Develop a business that is local/unique to the area.
> - Cap building height for businesses.
> - Keep New England characteristics for businesses.
> - Historic District.
> - Get back to an artisanal community.
> - Utilize location and town character to bring people and money in.
> - Promote an artisanal community, like Lowell did with the mills and artist communities.
> - Create a place for artists and artisanal workers.
> - Utilize the vacant barn on the McLoon property (now owned by the Dunstable Rural Land Trust).
> - Town could look into options for making money from open space:
> - Eco-Adventure park
> - Zip lines
> - Cross-country ski center.

The Dunstable Master Plan issued its community survey in November 2016, which provided an opportunity for the public to respond electronically, or through printed surveys that were made available at Town Hall and the Public Library. Nearly 300 responses to the survey were received, which provided additional input from the community as a whole. The economic development responses to the survey are summarized as follows:

- 47% of the survey respondents rated access to employment as excellent or good, while 41% rated access to employment as fair or poor.
- Creating and attracting new businesses ranked as number 4 among the top 17 critical issues facing the town over the next ten years. Lack of a commercial/industrial tax base ranked as number 6.

- 88% of respondents favor creating additional opportunities for small-scale, neighborhood-style business development, and 70% favor encouraging more intense economic development in strategic locations. 81% favor agri-tourism and eco-tourism.
- 62% of respondents oppose restricting or prohibiting business/commercial development.
- Under Question 7 (choice for spending $100 in town funds), the number one response was to support new businesses.
- 89% of respondents favor adopting energy efficiency and renewable energy initiatives.

The Dunstable Master Plan Committee developed the updated Economic Development goals for the 2018 Master Plan through the public input process, which include the following:

1. Encourage businesses that are consistent with Dunstable's rural character.
2. Identify appropriate development opportunities that will attract private investment to appropriately zoned districts.
3. Create policies and regulations that allow entrepreneurial activities that are compatible with local neighborhoods.
4. Promote local agricultural enterprises, as well as the work of local artists and craftsmen.
5. Improve communication among local businesses and town government.
6. Reconsider the town's position relative to alcohol sales.

Issues and Opportunities

The Town of Dunstable needs to determine how it will expand its economic development opportunities in a way that is consistent with the town's character. These initiatives should balance economic development with quality of life so that the community benefits from the increased revenues and services, but maintains the quality of life that attracted residents to Dunstable. The Town should build off its strengths as a rural, historic, agricultural community and develop a commercial framework that encourages agri-business or eco-business opportunities. Based upon what is outlined in the Land Use and Zoning section, there appear to be three areas available for commercial development: the MUD District, some areas along Route 113, and the B-3 zoning district adjacent to Tyngsborough.

The MUD District is well defined in the Land Use and Zoning section. The Dunstable Affordable Housing Committee received a report from the LDS Consulting Group, LLC on

opportunities for development in the MUD District. The report, entitled *Town of Dunstable Age Restricted Housing Supply and Demand Study*, focused on mixed-uses within the MUD District that could include limited commercial development. The consultants were able to identify 45 businesses within a two-minute drive of the MUD District based upon data from ESRI. Of these businesses, only five could be classified as retail, customer-facing establishments. The consultants determined that there was a retail gap of $20 million that is not being tapped by the Town of Dunstable. In essence, 88.9% of total expected spending from Dunstable residents is being lost to neighboring towns. According to the consultants, a retail establishment would benefit from the high visibility of the MUD District. Given the depressed commercial rental rates, it was suggested by the consultants that donated land would be a good way to attract commercial business.

Commercial development along Route 113, including the Town Center, should be considered. This development should build upon the historic assets in the area and promote the agricultural products developed within the community. An overlay district would provide a means to identify what types of businesses would be acceptable in the Town Center. The Town should resubmit a revised Town Center Overlay District to Town Meeting to encourage appropriate commercial development in this area.

As discussed in the Land Use and Zoning section, the B-3 zoned area adjacent to Tyngsborough provides an opportunity for more substantial commercial development than either the MUD District or Route 113 area. There are opportunities to work with Tyngsborough to build infrastructure capacity in this area that would be financed by both communities and/or the State, possibly through MassWorks funding. The budget situation in Dunstable requires that these opportunities be fully considered before discarding them out of hand.

The Master Plan Committee feels that there is an opportunity for the Town to open up additional business opportunities within the community. The establishment of an Economic Development Committee, similar to Groton, Westford and Chelmsford, would help the Town focus upon the creation of additional business opportunities consistent with the Town's character. Furthermore, streamlining the permitting process would encourage entrepreneurs to locate in Dunstable. The focus of the Economic Development Committee should be on identifying the best areas in town to locate businesses, as well as outlining the types of businesses that would build upon the strengths of the community. Input from current business owners would assist the Economic Development Committee in understanding both the assets and liabilities, from a business owner's perspective, in doing business in Dunstable. The development of design guidelines for Dunstable Center would emphasize the historic significance of the community and attract the types of businesses that would thrive in this environment. Attracting bed and breakfast facilities or

restaurants that would build upon Dunstable's rural character would require changes to the zoning bylaw, as well as the "dry" town bylaw.

While 88% of the survey respondents favored creating additional opportunities for small-scale neighborhood style businesses, the Master Plan Committee questioned what this term meant. In general, these businesses would be consistent with the rural nature of Dunstable and would address the common everyday needs of residents, and could include cafes, farm-to-table restaurants, country stores, farm stands, antique shops and artist lofts. Agri-tourism and eco-tourism businesses would build upon the strengths of the community without adversely impacting the quality of life. Having the Agricultural Commission work closely with the Economic Development Committee would help provide direction and focus on these two areas. Developing a list of existing farms and their goods and services would assist the Agricultural Commission in promoting the products available through Dunstable farms. Working with agricultural commissions and groups in neighboring communities would enable these services to be regionalized, thus attracting a larger clientele for these goods and services. Promoting the use of recreational areas for nature tours, environmental studies and cross-country skiing would provide additional incentive for visitors to support small businesses in Dunstable.

The need for infrastructure improvements, particularly related to the municipal water distribution system, is quite apparent. Without these improvements, the development of mixed-use buildings in the MUD District would be financially infeasible. The Master Plan Committee identified other infrastructure improvements related to roads and sidewalks, which is covered more extensively in the Transportation and Circulation section. Another infrastructure issue to be addressed relates to energy efficiency and renewable energy initiatives. Nearly 90% of survey respondents indicated that they favored these items. Dunstable should become a state-designated "Green Community" and enjoy the cost savings associated with these initiatives. Focusing on these areas will encourage private investment in the community as well.

As noted in the previous data, Dunstable has a highly educated workforce that works largely in other communities. Although the unemployment rate in Dunstable has been fairly low over the past several years, there are unemployed and underemployed workers that live in Dunstable that could use some assistance to return to the job market. The Greater Lowell Workforce Development Board (GLWDB) administers programs that can assist the unemployed and underemployed residents of Dunstable. Career fairs at the High School and additional information on the resources available at the GLWDB can be provided to assist young and older workers. Apart from services for the unemployed and underemployed, the need to upgrade one's skills in this highly competitive market is more critical today than in the past. Courses at UMass Lowell and Middlesex Community College

are also available for those who wish to improve their skills to keep up with the improving technology in the workplace.

There are additional federal and state resources that could be tapped to build additional infrastructure and attract private investment. There may be ways to work with Pepperell in identifying economic opportunities along Route 113 that could benefit both communities. There are significant revenues being generated within the community, but there is also untapped economic potential available in the future.

This economic development section of the Master Plan should serve as a blueprint for future commercial development that balances Dunstable's quality of life with its economic potential.

RECOMMENDATIONS

- Create an Economic Development Committee to implement the Economic Development section of the Master Plan.
- Focus on the MUD District, Route 113 and the B-3 zoned area adjacent to Tyngsborough to locate small-scale neighborhood style businesses.
- Streamline the local permitting process and develop a handbook that summarizes the permitting process.
- Identify the types of businesses that build upon the strengths of the community.
- Work with local businesses to determine the assets and liabilities related to doing business in Dunstable.
- Develop design guidelines for Dunstable Center that emphasize the historic significance of the community in order to attract the types of businesses desired.
- Focus on attracting bed and breakfast facilities and restaurants and address needed changes to the zoning bylaw, including the "dry" town bylaw.
- Attract small-scale neighborhood style businesses, such as cafes, farm-to-table restaurants, country stores, farm stands, antique shops and artist lofts.
- Encourage agri-tourism and eco-tourism businesses to locate in Dunstable.
- Encourage the Agricultural Commission to work with the Economic Development Committee and agricultural entities and historic entities in adjoining towns to promote the sale of goods and services from existing farms.
- Promote the use of recreational areas for nature tours, environmental studies and cross-country skiing as a means to attract visitors and businesses.
- Address the infrastructure issues related to the municipal water distribution system.
- Address the infrastructure issues related to roads and sidewalks.

- Encourage energy efficiency and renewable energy initiatives, such as being designated as a "Green Community" by the Commonwealth of Massachusetts.
- Promote workforce development resources available at the Greater Lowell Workforce Development Board (GLWDB) for unemployed and underemployed residents.
- Promote the skill sets of the Dunstable workforce through resources available at UMass Lowell and Middlesex Community College.
- Identify and secure federal and state resources to build additional infrastructure and attract private investment.
- Work with the Merrimack Valley Visitors and Convention Bureau to identify Dunstable as a historic destination.

IV. Transportation and Circulation

A multi-modal transportation system is essential to a community's vitality by providing access to housing, employment centers, local services, retail establishments and recreational amenities. A transportation system must accommodate all users safely and efficiently, including motorists, pedestrians, bicyclists, and those needing or wanting transit services.

Dunstable's roadways, sidewalks, and trails exert a significant influence on the health, well-being, and quality of life of its residents. There are few sidewalks in Dunstable, so most roads double as pedestrian ways and travel ways for large and small vehicles, bicycles, and horses. Given the limited number of roads in town, local traffic and regional traffic mix to a greater degree than in many other communities. Much of Dunstable's road network consists of narrow, colonial-era byways that greatly affect the community's visual and rural character.

The Transportation and Circulation section provides an overview of Dunstable's existing transportation system, presents an assessment of safety and operational issues, and outlines recommendations for addressing needs and deficiencies. An assessment of existing conditions was prepared through background research, field reconnaissance and input provided by the Master Plan Committee and the public input process. Some of the information used in this analysis is derived from the *Regional Transportation Plan* [2] (RTP) and the

Transportation and Circulation Goals

- Study the feasibility of establishing interconnected pathways and trails as an alternative to motorized transportation.
- Continue designating scenic roads as a means of protecting the town's rural character.
- Develop an asset management program for the town's transportation infrastructure.
- Work with NMCOG and MassDOT to study potential traffic calming measures along Route 113 within the Town Center and in neighborhoods.
- Incorporate bicycle and pedestrian accommodations in future transportation improvement projects, whenever possible.

[2] Northern Middlesex Regional Transportation Plan, 2016-2040, Northern Middlesex Council of Governments, July 2015

Transportation Improvement Program[3] (TIP) prepared by the Northern Middlesex Council of Governments (NMCOG).

Existing Conditions

The Town of Dunstable is located in northern Massachusetts along the New Hampshire border, west of Tyngsborough, east of Pepperell, and north of Groton. The Town is served by State Route 113, which provides a direct connection to U.S. Route 3, as well as to points east and west. Dunstable's transportation network consists primarily of arterial and local roadways, and provides residents with access to essential services and employment opportunities.

Roadways are classified according to their function and purpose in a hierarchy based on mobility and access, as outlined in guidelines established by the Federal Highway Administration[4] (FHWA). Functional classification is the process by which streets and highways are grouped into classes according to the character of traffic service that they are intended to provide. There are three general highway functional classifications: arterial, collector, and local roads. In Massachusetts, arterials are further classified into interstates, principal arterials, and minor arterials, based on the mobility and access provided by the roadway. Table 32 below summarizes the number of centerline miles by main functional class for Dunstable's roadway network[5]. Map 4 graphically displays the town's roadway network by functional classification.

Table 32: Roadway Centerline Miles by Functional Classification

	Functional Class				
Centerline Miles	**Interstate**	**Arterial**	**Collector**	**Local**	**Total**
	0	10.29	0	31.15	41.44

Source: MassDOT, 2015

Arterials

Arterial roadways provide the highest level of service, at the greatest speed, for the longest uninterrupted distance, with some degree of access control. Arterials are a major conduit for travel and commerce, and help link economic regions and urban centers. Dunstable contains one principal arterial: State Route 113 (Main Street/Pleasant Street), which

[3] FY 2017-2021Transportation Improvement Program, Northern Middlesex Council of Governments, August 2016

[4] Highway Functional Classification Concepts, Criteria and Procedures, Federal Highway Administration, U.S. Department of Transportation, 2013 Edition.

[5] MassDOT Road Inventory Year End Report 2015, Massachusetts Department of Transportation, Office of Transportation Planning, August 2016.

extends in a general east/west direction for approximately 4.8 miles in Dunstable. This represents over 10% of the centerline roadway mileage owned by the Town.

FIGURE 11: MAIN STREET IN DUNSTABLE (PHOTO COURTESY OF GOOGLE MAPS)

Minor arterials serve shorter distance traffic movements, and are secondary to principal arterials. Minor arterials primarily link population centers within or between distinct geographic and economic regions. The characteristics of Dunstable's minor arterials are outlined below:

- **Groton Street** runs in a general north/south direction between Route 113 (Pleasant Street) and the Groton town line, where the roadway becomes Chicopee Row and eventually connects to Route 119. This two-lane roadway provides access to the Groton-Dunstable Regional High School and is key to linking Dunstable Town Center with Groton's downtown business district. Roadway width varies from 24 to 28 feet with narrow shoulders.
- **Westford Street** is a two-lane roadway extending from Route 113 to the Tyngsborough town line, where it becomes Scribner Road. Eventually, this roadway becomes Dunstable Road in Westford and connects with Route 40. The roadway is narrow (18 feet) and there are no shoulders present.
- **Lowell Street** is a north/south roadway running between Route 113 and the Tyngsborough town line, where the roadway becomes Dunstable Road. Eventually, this roadway connects with Routes 40 and 3A at Vinal Square in Chelmsford. The roadway is 24 feet wide with narrow shoulders.

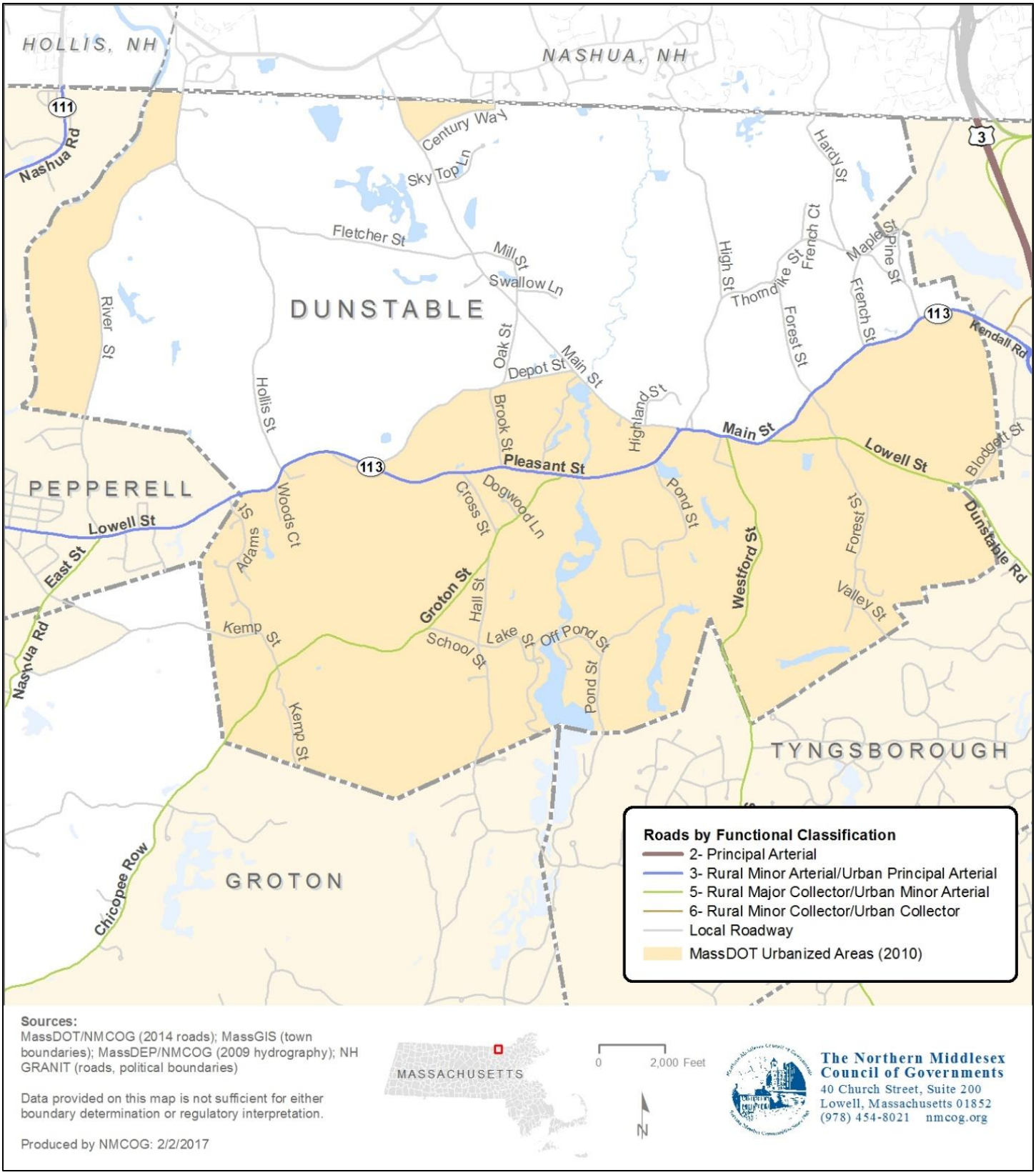
Table 33 below summarizes the characteristics of the town's arterial roadways.

Table 33: Summary of Arterial Roadway Characteristics

Roadway	Class	Speed Limit (mph)	Roadway Width (ft)	Shoulder Width (ft)	Sidewalk	Bike Lane
Route 113 (Main/ Pleasant Street)	Principal Arterial	25-40	24-32	0-4	None	None
Groton Street	Minor Arterial	35-40	24-28	1-2	None	None
Lowell Street	Minor Arterial	40	24	1	None	None
Westford Street	Minor Arterial	30	18	0	None	None

Source: NMCOG Traffic Counting Database

MAP 4: DUNSTABLE ROADWAY FUNCTIONAL CLASSIFICATION



Local Roadways

Local roads consist of all roads not defined as arterials or collectors, and serve to provide access to land with little or no through movement. There are approximately 31 miles of local roads in Dunstable, accounting for seventy-five percent (75%) of the town's roadway mileage. Table 4.3 below summarizes the characteristics of several of the town's locally classified roadways.

Table 34: Local Roadway Characteristics

Roadway	Class	Speed Limit (mph)	Roadway Width (ft)	Shoulder Width (ft)	Sidewalk	Bike Lane
High Street	Local	25	20	0	No	No
Main Street	Local	25-40	24	1	No	No
Thorndike Street	Local	25	18	0	No	No
Depot Street	Local	30	16	0	No	No
Brook Street	Local	30	18	0	No	No
Oak Street	Local	30	16	0	No	No

Source: NMCOG Traffic Counting Inventory Database

Unaccepted Roads

The Town has approximately 1.78 miles of unaccepted roadways, also known as private ways. Private ways are often unaccepted because they do not meet local standards for roadway construction. The Town does not receive funding through the Chapter 90 program to maintain these roads. According to MassDOT's Roadway Inventory database, the following roadways are unaccepted: Lake Circle, Lake Street, Lower Dam Way, Massapoag Way, Off Pond Street, and Sweets Pond Way.

Scenic Roads

Dunstable has been fortunate to retain the traditional character of its rural roadways. Many still reflect their original alignment, width and corridor characteristics, with extant stone walls, farm fences and roadside trees. On many of the secondary roads, traffic consists of local residents and speeds are low enough to accommodate farm vehicles. In order to protect their scenic and historic qualities, nearly all roads in Dunstable, except Route 113, are designated "scenic roads" under Chapter 40, Section 15C of the Massachusetts General Laws. Any repair, maintenance, reconstruction, tree removal, or altering of stone walls requires town approval.

Jurisdiction

Roadway ownership is key to identifying the responsible parties for maintaining and improving Dunstable's transportation network. The Town has full ownership of most of its

roadway network. Of the 41.44 centerline miles of roadway in the Town, 96% are accepted streets and are therefore eligible for Chapter 90 funding assistance from the State. Table 35 below summarizes the ownership of Dunstable's roadway network[6].

Table 35: Roadway Jurisdiction

Jurisdiction	Town-owned	Unaccepted	Total
	39.66	1.78	41.44

Source: MassDOT Road Inventory, 2015

Roadway Maintenance

Efficient utilization of limited transportation resources requires adequate maintenance and preservation of the existing transportation system. Timely and appropriate maintenance is vital given that construction costs rise annually and government agencies find themselves fiercely competing for funding. In addition, overused, poorly maintained, inadequately lit, and badly signed and striped roads pose a safety hazard. A sound and thoughtful maintenance program leads to the long-term sustainability of roadway infrastructure, and is comprised of the following activities:

- Winter maintenance
- Preservation (resurfacing and crack filling)
- Pavement markings, signs, safety barriers, etc.
- Pavement rehabilitation (restructuring without upgrading nominal load capacity)
- Pavement upgrading (increasing load capacity, environmental features, and low cost measures)
- Structural maintenance (bridges, tunnels, etc.)
- Peripheral maintenance (embankments, drainage, shoulders, etc.)

Dunstable's character is defined by large amounts of open land, a close-knit, small-town feel, and unobtrusive development. One significant disadvantage of being a small, rural community is that the Town has many miles of roads to maintain and few taxpayers to share the cost. The Town's Highway Department and Road Commissioners are responsible for the maintenance of all public roads, including snow and ice removal. The Town subcontracts roadwork on an as-needed basis and has no long-term roadway maintenance plan or asset management program.

[6] MassDOT Road Inventory Year End Report 2015, Massachusetts Department of Transportation, Office of Transportation Planning, August 2016.

Paved roadways represent one of the largest capital investments in the highway budget. Maintaining the paved surface of a public roadway system involves complex decision-making on how and when to apply surface treatments to best keep the system performing and operating within the funding constraints facing the community.

NMCOG staff evaluated the 10.28 federal aid eligible centerline miles of roadway within Dunstable in 2016, as part of its regional pavement management program. The analysis showed that 8% of the federal-aid roadways monitored within Dunstable were in excellent condition, 46% were in good condition, 7% were in fair condition, and 39% were in poor condition.

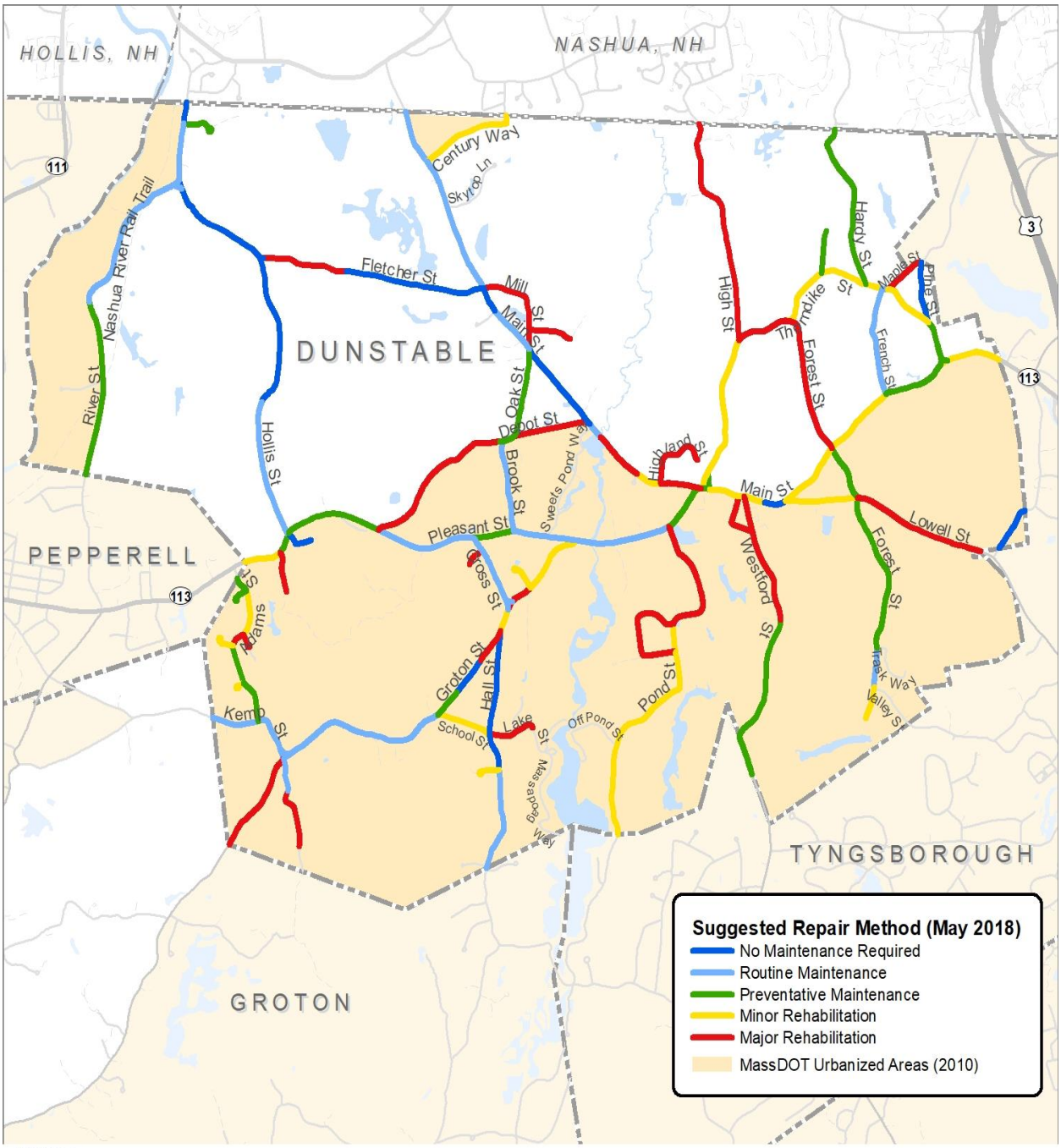
In June 2018, the Town completed a Pavement Management Program report, using an engineering consultant, to determine the level of distress on the current roadway system, prioritize repair and rehabilitation efforts, and calculate the cost of addressing maintenance and repair needs. The pavement management program determined that 10.79 miles of the town's roadway system is in need of major rehabilitation, while 7.53 miles require minor rehabilitation, as shown on Map 5 on the following page. Preventative or routine maintenance is needed on 16.11 miles of the system, while only 4.73 miles require no maintenance at this time. The total cost of undertaking the rehabilitation, repair and maintenance activities is estimated at $6.9 million.[7]

Allocating adequate resources for preventive maintenance, such as crack sealing, can increase the life cycle for certain roadways, while deferring maintenance can lead to a need for full depth reconstruction, which is far more costly. The Town can initiate pavement preservation and rehabilitation type projects for federal aid eligible roadways by following the State's procedures for project initiation and approval. Under this funding scenario, the Town would be responsible for design, permitting and any needed right-of-way acquisition, while the Federal Highway Administration and MassDOT would assume the project construction costs.

State funding through the Chapter 90 program can be utilized for roadway projects. The Chapter 90 Program is funded through the State Transportation Bond Bill and is administered by MassDOT. The funds are apportioned by formula, based on local roadway mileage, employment and population. The FY 2017 Chapter 90 allocation calculation for the Dunstable is detailed in Table 36 on page 84.

[7] Pavement Management Program Status Report, prepared by Beta Group for the Town of Dunstable, June 2018.

MAP 5-Pavement Management Program Rehabilitation and Maintenance Needs



Sources:
Beta Group, Inc. (5/2018 pavement management summary data); MassDOT/NMCOG (2014 roads); MassGIS (town boundaries); MassDEP/NMCOG (2009 hydrography); NH GRANIT (roads, political boundaries)

Data provided on this map is not sufficient for either boundary determination or regulatory interpretation.

Produced by NMCOG: 9/13/2018

The Northern Middlesex Council of Governments
40 Church Street, Suite 200
Lowell, Massachusetts 01852
(978) 454-8021 nmcog.org

Table 36: Dunstable Chapter 90 Apportionment, FY 2017

MassDOT District	Roadway miles	2015 Population	2015 Employment	FY 2017 Apportionment
3	39	3,343	236	$178,744

Source: MassDOT

Chapter 90 funds must be used for roadway projects, such as resurfacing and related work, and other incidental work, such as preliminary engineering, State Aid/Consultant Design Agreements, right-of-way acquisition, shoulders, side road approaches, landscaping and tree planting, roadside drainage, structures (including bridges), sidewalks, traffic control, service facilities, and street lighting (excluding operating costs).

Bridges

MassDOT utilizes standards developed by the American Association of State Highway and Transportation Officials (AASHTO) to rate all bridges in Massachusetts based on their condition. Currently, MassDOT monitors one bridge in Dunstable. The Main Street Bridge over Salmon Brook was rebuilt in 2014, using Federal funding through the TIP process and is currently in good condition.

FIGURE 12: MAIN STREET BRIDGE OVER SALMON BROOK

Traffic Volumes

Traffic volumes across the Northern Middlesex region are monitored through NMCOG's traffic counting program and gathered from traffic impact studies prepared for development projects. Generally, the NMCOG traffic counting monitoring program runs from April through October. Recorded traffic volumes taken between 2005 and 2016 show that the traffic has increased in Dunstable by approximately 0.54% annually. Map 6 on the next page shows locations of traffic counts and average daily traffic volumes on Town roadways. Table 4.6 on the following page provides a summary of traffic volumes, traffic growth rates and truck percentages at Dunstable count locations. The growth rates are calculated for locations with at least three years of volume data, and are shown in Table 37 (page 87) on an annualized basis.

Public Transportation

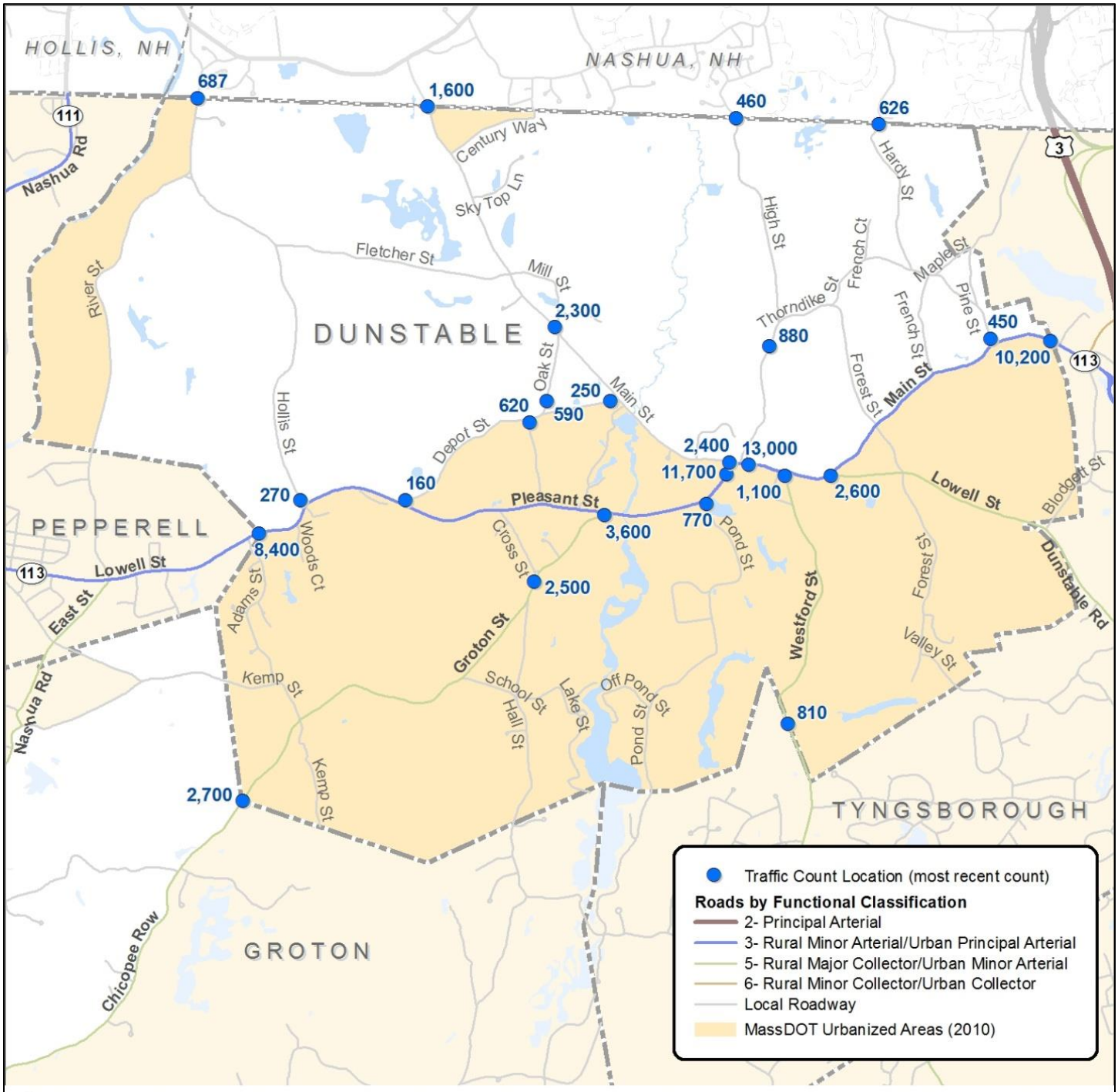
Dunstable lies within the Lowell Regional Transit Authority (LRTA) service area. The LRTA is one of sixteen regional transit authorities across the Commonwealth of Massachusetts dedicated to operating transit services on a regional basis. In addition to Dunstable, the LRTA service area includes Acton, Billerica, Carlisle, Chelmsford, Dracut, Groton, Lowell, Maynard, Pepperell, Tewksbury, Townsend, Tyngsborough and Westford. Presently, there is no LRTA fixed route bus service within Dunstable.

The Dunstable Council on Aging provides senior demand-response transportation service via a private transportation provider and subsidizes fares. With advanced reservation, transportation is available seven days per week at a cost of $5.00 round-trip to surrounding communities and $10 per ride for longer distance destinations as far away as Boston.

FIGURE 13: MBTA COMMUTER RAIL AT LOWELL STATION

MBTA regional commuter rail service to and from Boston via the Lowell line is available at the Gallagher Terminal in Lowell, at the commuter rail station in North Billerica, and in Ayer. The Lowell line service consists of twenty-two daily inbound trains operating between 5:35 A.M and 12:10 A.M. Headways are 30 minutes during the peak travel periods, and approximately hourly during other times of the day. In addition to Lowell and North Billerica, the train stops at Wilmington, Anderson, Mishawaum, Winchester, Wedgemere, and Medford and terminates at North Station in Boston. Weekend and holiday service consists of eight daily round trips between Lowell and Boston

MAP 6: DUNSTABLE AVERAGE DAILY TRAFFIC VOLUMES



Sources:
NMCOG (traffic counts); MassDOT/NMCOG (2014 roads); MassGIS (town boundaries); MassDEP/NMCOG (2009 hydrography); NH GRANIT (roads, political boundaries)

Data provided on this map is not sufficient for either boundary determination or regulatory interpretation.

Produced by NMCOG: 11/3/2016

0 2,000 Feet

N

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40 Church Street, Suite 200
Lowell, Massachusetts 01852
(978) 454-8021 nmcog.org

Table 37: Traffic Count Locations in Dunstable

Location	Average Daily Traffic (ADT)												Growth Rate (%)	% Trucks
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016		
Groton St/Chicopee Row @ Groton Town Line			2,000	2,200		2,100			2,700				5.83	
Groton St S of Cross St				3,500			3,500				2,500		-4.08	1.6
Groton St S of Rte 113 (Pleasant St)		3,200			3,000			3,300				3,400	0.63	2.3
High St @ NH State Line				460										
Hollis St @ NH State Line		575			687									
Lowell St @ Rte 113 (Main St)	3,400			2,800				3,100				2,600	-2.14	2.5
Main St @ NH State Line			1,900	1,700		1,700			1,600				-2.63	
Pond St @ Rte 113 (Pleasant St)	770													
Rte 113 (Pleasant St) W of Main St			11,800			10,900						11,800	0.00	3.7
Rte 113 (Pleasant St) at Pepperell Town Line		7,900			7,500				8,700			8,400	0.63	2.6
Rte 113 (Main St) at Tyngsborough Town Line		10,200			10,300					10,200		11,600	1.37	4.2
Main St W of Rte 113 (Pleasant St)				2,200			2,400							
Thorndike St N of Rte 113 (Main St)					450									
Main St N of Oak St							2,100			2,300		2,200	0.95	1.6
Hardy St @ NH State Line		563			626									
Depot Street W of Main St (between Main and Oak St)										250				1.4
Depot Street E of Route 113 (Pleasant St)										160				6.6
Brook Street S of Depot St and Rte 113 (Main St)										620				4.3
Oak Street N of Depot Street										590				3.1
Westford Street South of Rte 113												1,100		3.0
Westford Street at Tyngsborough Town Line			890							810				1.3
Hollis St North of Rte 113												270		5.7
Rte 113 East of High St												12,900		4.1

.

The Nashua River Rail Trail may be utilized to access the Ayer Commuter Rail station, thereby providing an automobile free commute between Dunstable and Boston. Private bus service (Boston Express) to Boston is available at the MassDOT park-and-ride lot located on Route 113 in Tyngsborough, just east of Route 3.

Transportation Safety

The Dunstable Police Department provides crash records to the Registry of Motor Vehicles (RMV) on an ongoing basis. MassDOT and NMCOG maintain a database of all crash data reported to the RMV. Table 38 below provides a summary of the crashes that occurred in Dunstable between 2012 and 2014, based on the most recent data available. Of the 151 crashes reported, 44 (29%) involved injuries, and none were reported as fatal.

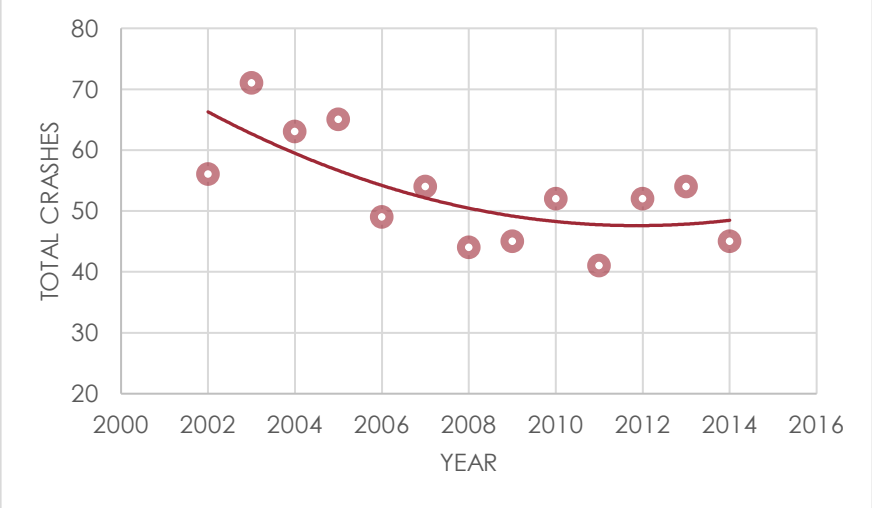
Table 38: Dunstable Crash Summary (2012-2014)

Year	Total Crashes	Property Damage Only Crashes	Injury Crashes (Total People Injured)	Fatal Crashes
2012	52	34	18 (23)	0
2013	53	37	16 (21)	0
2014	45	36	9 (17)	0

Source: MassDOT Crash Data Record System, 2012-2014

Figure 14 shows reported Dunstable crash data trends between 2002[8] and 2014. This data shows a consistent decrease, from a high of 71 reported crashes in 2003 to a low of 41 in 2011. The latest data available shows a relatively constant total in the 40-60 range, well below reported crash data in the early 2000s.

Figure 14: Reported Crashes in Dunstable 2002-2014



Source: Massachusetts RMV/MassDOT, 2002-2014

[8] 2002 was the first year Massachusetts began using the current crash data reporting system, requiring local police to send reports to the RMV. Prior to 2002, the RMV used an Accident Records System for reporting purposes.

NMCOG staff analyzes crash data for key intersections in Dunstable each year to identify locations with potential safety concerns. Three years of data are examined, in order to minimize annual variations that can be created by construction, road closures, or various factors at or near each location. Crash locations are analyzed using the equivalent property damage only (EPDO) method. Through this method, each reported crash is assigned a numeric value based on severity. Property damage only crashes are assigned one (1) point, injury crashes are assigned five (5) points, and fatal crashes are assigned ten (10) points. The points assigned to each crash are then added to determine the intersection's EPDO value. In accordance with accepted national transportation engineering best practices, NMCOG flags all locations with more than five accidents per year as warranting further study and investigation. Table 39 below summarizes the EPDO scores for Dunstable intersections for reporting years 2012-2014.

Table 39: Crash Summary at Key Intersections (2012-2014)

Intersection	Intersection Control	Total Crashes	Property Damage Only Crashes	Injury Crashes	Fatal Crashes	EPDO
Rte. 113 (Pleasant St) at Hollis St	Stop	5	2	3	0	17
Rte. 113 (Main St) at Lowell St	Stop	7	5	2	0	15
Rte. 113 (Pleasant St) at Main St	Stop	3	1	2	0	11
Groton St at Cross St	Stop	2	0	2	0	10
Rte. 113 (Pleasant St) at Brook St	Stop	4	3	1	0	8
Rte. 113 (Pleasant St) at Groton St	Stop	4	3	1	0	8
Rte. 113 (Main St) at Westford St	Stop	3	2	1	0	7
Rte. 113 (Main St) at French St	Stop	2	1	1	0	6
Rte. 113 (Pleasant St) at Pond St	Stop	2	1	1	0	6
Rte. 113 (Main St) at Forest St	Stop	2	1	1	0	6
Groton St at Kemp St	Stop	2	1	1	0	6
Groton St at School St	Stop	2	2	0	0	2
Lowell St at Forest St	Stop	2	2	0	0	2
Rte. 113 (Pleasant St) at Depot St	Stop	1	1	0	0	1
Rte. 113 (Main St) at High St	Stop	1	1	0	0	1
Groton St at Hall St	Stop	1	1	0	0	1

Source: MassDOT Crash Database, 2012-2014

While no intersections in Dunstable made the Top 100 High Crash Intersection List for the Northern Middlesex region, there are issues with run off the road incidents throughout the community, particularly along Route 113. Of the reported 43 injury related crashes between 2012 and 2014, 31 (72% of all injury crashes) occurred on Main Street/Pleasant Street, with 27 reported single vehicle incidents (62% of all injury crashes). The highest number of injury crashes at an intersection occurred at Pleasant Street and Hollis Street, where three of the five reported crashes involved non-fatal injuries. Two of the injury

crashes reported were single vehicle incidents where the driver lost control and hit a fixed object along the side of the roadway. Weather may be partly to blame, as two of the three injury crashes occurred during snow events and the other occurred during a rainstorm.

While three years of data is used to analyze trends for vehicular crashes, more data is often needed to determine trends in pedestrian and bicycle crashes. A five-year review (2010-2014) of crashes involving vehicles and pedestrians/bicyclists has been examined in order to identify locations where bicycle and pedestrian safety may be an issue. Compiled records indicate no pedestrian or bicycle-related crashes occurred in Dunstable between 2010 and 2014.

Key Traffic Issues

The public input process has identified Route 113 as the most critical roadway in Dunstable from a traffic perspective. Extending from Tyngsborough to Pepperell, the main thoroughfare through Town experiences traffic volumes that far exceed those of other roadways in town. The Town Center is the civic and cultural heart of the community and is bisected by Route 113/ Main Street. Main Street forms the basis of the Town Center and is characterized by a number of classic New England farm and village landscapes and structures. From a regional perspective, Main Street also provides a critical transportation link with neighboring towns and serves as the primary means of access to Route 3. Should Route 113 fail, there are no viable alternative routes available for redirecting thousands of vehicles per day.

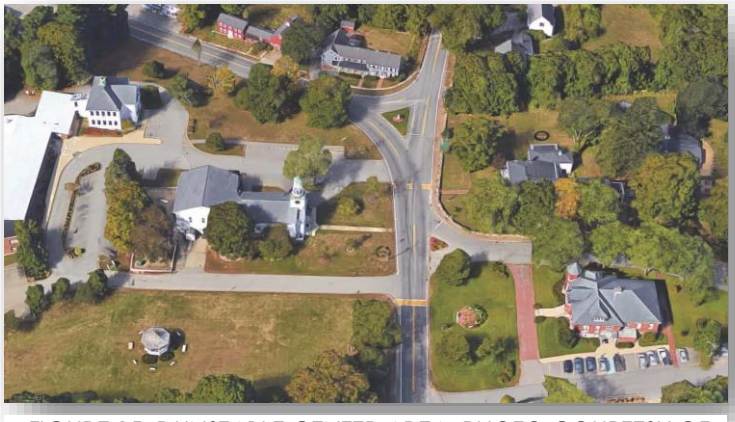


FIGURE 15: DUNSTABLE CENTER AREA, PHOTO COURTESY OF GOOGLE MAPS

In 2015, Town officials, working with NMCOG and MassDOT, initiated the Main Street Improvement Project to repair and reconstruct the roadway and intersections that lie between the Central Cemetery at Westford Street and the Main Street intersection with Route 113 near Town Hall. This project is under design, and will include minor widening to allow for better bicycle and pedestrian accommodations, including the installation of a sidewalk along the south side of the road. The goals of the Main Street project are as follows:

- Improve vehicular travel and bicycle accommodations;
- Improve pedestrian safety and accessibility;

- Increase substandard sight distance issues at Westford Street by moving the intersection approach 7-9 feet further north;
- Improve substandard intersection geometry issues at High Street;
- Improve pedestrian crossing issues within the Town Center;
- Reconstruct 850 feet of dry-laid stone wall which is immediately adjacent to and supporting the roadway, and is currently failing;
- Replace an existing dry-laid stone box culvert, which carries a perennial stream and is failing; and
- Respect and maintain the visual character and the historic character of the Town Center and the Central Cemetery.

The High Street approach to Main Street includes a landscaped island that controls two-way traffic on both sides. Many find the intersection confusing, in part due to inadequate signage and markings and the narrow 18-foot travel areas. As part of the improvement project, the Town is proposing to reconfigure this intersection as a conventional T-intersection. In addition to this project, the Town is considering a plan to develop a new sidewalk/pathway segment on Main Street, west of the Town Center, extending from the intersection of High/Pleasant Street to the Library.

Overall, traffic congestion in Dunstable is minimal. Although the volume of traffic on Route 113 is considerable (nearly 13,000 vehicles per day), it does not exceed the capacity of the roadway. However, the steady flow of traffic during peak travel can make left turns at the intersecting roadways challenging. The lack of gaps in the Route 113 traffic flow during rush hour slows traffic moving through the Town Center. During the Visioning Session for the Master Plan, participants identified traffic on Route 113 as the second most significant weakness facing the town, and there was substantial interest in improving traffic control. However, the results of the written survey found that 75% of the nearly 300 respondents rated traffic flow in the Town Center as either good or fair, while only 12.5% found it to be poor.

While the majority of streets in Dunstable are very narrow, it is important to note that recent subdivision streets are significantly wider. This wider width is the result of the Town's subdivision regulations, which require a 55-foot right-of-way with two 10-foot travel lanes, an 8-foot parking lane, and sidewalks on each side (2-5 feet wide). The Town may want to revise these regulations to reflect the community's current desires and to be consistent with current practices and state and federal regulations. For example, the Americans with Disabilities Act (ADA) requires sidewalks that are wider than what is currently allowed within the existing subdivision regulations.

The Town should strive to consistently apply the requirements and standards set forth within the zoning and subdivision regulations. As written, the Town's subdivision

regulations require that sidewalks be constructed of concrete. Observations made in existing subdivisions with sidewalks show that most are comprised of bituminous asphalt. It is assumed that the Planning Board has traditionally waived the requirement for concrete. If asphalt is preferred, the subdivision regulations should be revised to indicate this preference.

Pedestrian and Bicycle Facilities

Currently, Dunstable residents rely almost exclusively on their motor vehicles for transportation. The absence of sidewalks and bicycle accommodations discourages the use of alternative modes. In many communities, bicycling and walking have become key factors in measuring a community's quality of life. Communities that promote walking and other forms of non-motorized transportation can reap significant social, environmental and health benefits. Safe, convenient and comfortable trails, sidewalks and walkways provide opportunities for exercise, help people meet and socialize, and provide mobility options for children and others who do not drive. With the option to walk or bike available to residents, visitors and workers, the number of motorized vehicles on the roadways can be reduced, which helps to decrease traffic congestion and air pollution.

While there are off-road trails in Dunstable, such as the Nashua River Trail and various other trails located on conservation lands, there are no continuous, connected pedestrian or bicycle facilities that can be used to access popular destinations, such as Town Hall, the Library, the elementary school, or the Larter recreation area. As a result, children and adults must share the limited roadway width with automobile and truck traffic. Currently, the Town is focusing on creating a pedestrian pathway along Main Street to connect Town Hall and the Library, as mentioned previously.

In 2016, MassDOT launched a Complete Streets funding program for communities that adopt Complete Streets policies, and identify and prioritize projects that promote Complete Streets on local roads. Complete Streets is a design approach that requires streets to be planned, designed, operated and maintained so that travel is safe for walking and bicycling, in addition to driving. Over the past year, Dunstable adopted a Complete Streets Policy and prepared a draft Complete Streets Prioritization Plan. The recommendations of the Town's Complete Streets Prioritization Plan have been considered in the development of the Master Plan.

Non-Motorized Transportation and Healthy Aging

There are approximately five hundred (500) seniors residing in Dunstable, and like most communities, Dunstable's population is aging. Being able to get around using the means of transportation one desires is a fundamental aspect of healthy aging. Transportation for

older adults is essential to their physical and emotional well-being. For the older adults who are not licensed to drive (12% of people 65-69 and 52% of those age 85 and over[9]), walking or public transportation may be the only transportation options available. National studies have shown that older drivers average six trips per week outside their homes, while non-drivers average only two trips.[10] This reduction may have a significant impact on social connections and lead to depression and other mental health issues.

Walking and/or wheelchair use for daily activities is a valuable means for getting recommended daily exercise. Walking has numerous health benefits, such as:

- Improving blood pressure;
- Reducing the risk of heart disease;
- Alleviating depression; and
- Significantly reducing the risk of Alzheimer's.

However, walking is more dangerous for older adults than for younger residents. Older adults are more likely to be hit by automobiles, and are more likely to die as a result of such accidents. People age 70 and over comprise less than 10% of the nation's population but account for 18% of pedestrian deaths.[11] Overall, the elderly may be fifteen times more likely to be injured or killed as pedestrians than as drivers.[12] In addition, injuries from falls are a leading cause of death in older adults. Streets, curbs and sidewalks that have uneven surfaces, cracks, grade changes and tripping hazards can present a significant health risk for a community's senior population. These facts should be taken into consideration as Dunstable addresses maintenance and construction projects in the upcoming years.

Community Initiatives for Improving Non-Motorized Transportation

Enhancing transportation requires community design improvements to help everyone, including older adults, stay active and healthy in a safe manner. The following measures are typically utilized to address bicycle and pedestrian needs within a community:

- Evaluate local needs for pedestrian, bicycle and trail access and mobility;
- Create a plan for upgrading existing facilities, establishing future networks, and obtaining needed funding;
- Develop and maintain pedestrian and bicycle facilities using state and federal grant funds, and local Community Preservation funds;

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[9] Federal Highway Administration, Distribution of Licensed Drivers by Sex and Age, Table DL-20; http://www.fhwa.dot.gov/policyinformationstatistics

[10] Livable Community Indicators for Sustainable Aging in Place, MetLife Mature Market Institute, 2013.

[11] Sandra Rosenbloom, *The Mobility Needs of Older Americans: Implications for Transportation Reauthorization*, The Brookings Institution.

[12] Deborah Howe, *Aging as the Foundation for Livable Communities*, Routledge, 2012.

- Enact local bylaws and subdivision regulations that encourage the provision of pedestrian and bicycle accommodations; and
- Consider pedestrian and bicycle needs within the site plan and subdivision review processes.

Dunstable has taken action on some of these measures through the creation of its Complete Streets Policy and Plan. However, the Town's zoning bylaw and subdivision regulations need to be fine-tuned, in order to better address requirements related to bicycle and pedestrian accommodations.

Funding bicycle and pedestrian improvement projects can be challenging. Without a dedicated funding source, even the best-crafted plans cannot be implemented. While limited grants are available under the State's Complete Streets program, the most likely funding source is local revenue that provides a predictable capital outlay. Given Dunstable's small budget and limited tax base, the Town should consider leveraging contributions from future development projects. Some communities, such as Chelmsford and Westford, have established sidewalks funds for accepting such contributions. These funds are expended on projects in each community that have been identified as high priority. Dunstable could utilize such monies in implementing portions of its Complete Street Prioritization Plan.

Sidewalks

Currently, Dunstable has a very limited sidewalk inventory, with designated sidewalks located in residential neighborhoods along Century Way, Skytop Lane, Swallow Lane, Parkhurst Street and Highland Street. The lack of sidewalks on main thoroughfares inhibits pedestrian travel throughout the Town. Pedestrians are forced to walk in the road to reach destinations, exposing themselves to the unnecessary risk of sharing space with vehicles. Over 77% of Dunstable residents responding to the Master Plan survey favor increasing available accommodations for non-motorized transportation, while 71% of the respondents favor adding sidewalks or pathways.

The Town has installed crosswalks in front of Town Hall and near the Town Library, demonstrating a noted desire for pedestrians to use Town Center amenities like the Town Common and fields, the Dunstable Evangelical Congregation Church, the Swallow Union Elementary School, and nearby conservation areas. These crosswalks are not ADA compliant, in that no sidewalk refuge is in place on either side for physically challenged individuals. The installation of adjacent sidewalks is necessary to bring these crosswalks into ADA compliance. When considering improvements to pedestrian facilities, it is important to take into consideration all users, including those with physical impairments.

Sidewalks should be wide enough to accommodate wheelchairs, and wheelchair ramps at crosswalks should meet ADA standards, which include tactile strips.

As mentioned earlier, the Town has initiated the Route 113 (Main Street) Improvement Project, which will add a sidewalk between the Central Cemetery on Westford Street and the Town Center. In addition, the Town's Complete Streets Prioritization Plan identifies several locations where sidewalks would benefit users of the local transportation network, as shown in Table 40 below.

Table 40: Future Sidewalk and Pedestrian Pathway Project Locations

A. North side of Main Street between Pleasant Street and Highland Street
B. North side of Main Street between Common Street and Pleasant Street
C. Main Street between Common Street and the east side of Westford Street
D. East side of Westford Street between Main Street and existing Central Cemetery Roadway
E. East side of Pleasant Street between Main Street and Pond Street
F. South side of Pleasant Street from Pond Street to the Post Office with crosswalks across Pond Street and the Post Office driveway
G. Pleasant Street from the Post Office to Groton Street/gas station
H. Groton Street between Pleasant Street and Larter Field
I. Larter Field Access Road between Groton Street and existing pathway north of the parking area
J. Shared use path (crushed stone) between the Central Cemetery and Lowell Street
K. Main Street-Highland Street Red Line Trail:
    - Phase 1-sidewalk construction between Highland Street and Sawyer Conservation Area
    - Phase 2-sidewalk construction between Sawyer Conservation Area and Red Line Trail
L. Improvements to Red Line Trail between Main Street and NH State Line
M. Improvements to Red Line Trail between Larter Field Driveway and Camp Massapoag Road
N. Red Line Trail Connection between Main Street and Groton Street
O. Construction of a shared use path between Pleasant Street (at the Police Station) and the Library

Source: Complete Streets Prioritization Plan, March 2017

Other Planned Initiatives

To enhance pedestrian and vehicular safety the Town has outlined the following intersection improvements through its Complete Streets Prioritization Plan:

- Realignment of the intersection of Main Street and Pleasant Street to provide safer pedestrian crossing and to slow turning vehicles. This work would include sidewalks, ADA compliant ramps and crosswalks.
- Realignment of the intersection of Main Street and Thorndike Street to provide safer pedestrian crossings and to slow turning vehicles.
- Installation of a raised intersection and crossings at Groton Street/Dogwood Lane/Larter Field Driveway.
- Realignment of the Main Street and Oak Street intersection to address sight distance issues.
- Intersection improvements at Lowell Street and Forest Street to address sight distance issues.
- Intersection improvements at Pleasant Street and Groton Street to reduce speeding and conflicting movements, and to improve sight distances.

Other planned pedestrian related improvements include benches at the Town Hall, Library and Red Line Trail roadway crossings. Crosswalk and signage improvements are also planned along Main Street between Highland Street and Common Street, and on River Street at the Nashua River Trail.

Bicycle Facilities and Multi-use paths

Safe convenient and comfortable trails and walkways provide opportunities for exercising and help people meet and socialize. Accommodating bicyclists through on-road and off-road facilities, such as bike lanes, bike paths, and the use of wider roadway shoulders, encourages the use of bicycling as a form of transportation and provides a safer bicycling experience. There are currently no on-road bicycle facilities in Dunstable. There are opportunities to designate on-road routes along Main Street and Route 113 west of the Town Center, providing improved access to the Town Center area. "Share the Road" signs along Route 113 would help increase awareness among motorists and bicyclists. Providing bike racks at strategic locations, as outlined in the town's Complete Streets Prioritization Plan, would also help encourage bicycling. Map 7 on page 100 shows the current mapped trail system throughout the Town.

Nashua River Rail Trail (NRRT)

The Nashua River Rail Trail is a 12.5 mile paved, multi-use rail trail, which begins in Ayer, and follows the course of the Nashua River through Groton, Pepperell and Dunstable. It crosses over the state line extending into Nashua, NH, where it ends at Gilson Road. The trail is maintained and owned by the Massachusetts

FIGURE 16: NASHUA RIVER RAIL TRAIL IN DUNSTABLE

Department of Conservation and Recreation (DCR). Within Massachusetts, the NRRT is ten feet wide and sections of the trail include a separate, unpaved bridle path for equestrians.

The Ayer trailhead, located close to the Ayer commuter rail station, provides access to rail service between Boston and Fitchburg. The Ayer Center parking lot is the largest parking area along the trail with sixty (60) paved parking spaces. Parking for 10 to 15 vehicles can be found in Groton Center. Additional unpaved parking lots can be found at Sand Hill Road in Groton, Railroad Square in Pepperell and Hollis Street in Dunstable, at the trailhead at Yudicky Park near the New Hampshire State line.

FIGURE 17: NASHUA RIVER TRAIL IN DUNSTABLE

The NRRT is an important and popular transportation and recreation asset for the Town and the region, providing a safe off-road alternative to Routes 111 and 113. On Saturday, September 8, 2007, the first statewide trail usage count was held at multiple trails across Massachusetts. Volunteers completed counts at three points along the NRRT as part of this effort. The most recent NRRT counts were completed in May and July of 2014 by NMCOG staff at the Railroad Square trail crossing in Pepperell.

Table 41 compares the Saturday trail counts at Railroad Square between 2007 and 2014, with the highest increases occurring during the early afternoon. The "peak hour" for Saturday trail usage in both 2007 and 2014 occurred between 10:00 a.m. and 11:00 a.m. The largest share of users, 18% in 2007 and 17% in 2014, were counted during this time period. Overall trail usage increased nearly 48% during the seven-year study period.

Table 41: Trail Usage at NRRT Railroad Square Crossing in Pepperell, 2007 and 2014

Time	2007	Percent (%)	2014	Percent (%)	% Change
7:00 a.m. – 8:00 a.m.	39	6.3	-	-	-
8:00 a.m. – 9:00 a.m.	84	13.6	54	5.9	-35.7
9:00 a.m. – 10:00 a.m.	111	17.9	78	8.5	-29.7
10:00 a.m. – 11:00 a.m.	112	18.1	155	16.9	38.3
11:00 a.m. – 12:00 p.m.	92	14.9	134	14.6	45.6
12:00 p.m. – 1:00 p.m.	92	14.9	138	15.1	50.0
1:00 p.m. – 2:00 p.m.	42	6.8	106	11.6	152.3
2:00 p.m. – 3:00 p.m.	45	7.3	120	13.1	166.6
3:00 p.m. – 4:00 p.m.	-	-	128	14.0	-
Total	**617**	**100**	**913**	**100**	**47.9**

Source: NMCOG Trail Counts (2014) and http://brucefreemanrailtrail.org/ (2007)

As noted in Table 42, cyclists made up the largest share of users (78.6% in 2007 and 90% in 2014). The presence of joggers on the trail increased significantly, more than doubling between 2007 and 2014.

Table 42: Trail Users at NRRT Railroad Square Crossing, 2007 and 2014

Trail User	2007	Percent (%)	2014	Percent (%)	Percent Change
Baby Carriage	4	0.6	2	0.2	-50.0
Bicycle	485	78.6	822	90.0	69.4
Jogger	17	2.7	36	3.9	111.7
Roller Blade (Skater)	17	2.7	5	0.5	-70.5
Walker	83	13.4	48	5.2	-42.1
Wheelchair	5	0.8	0	0.0	-100.0
Other	6	0.9	0	0.0	-100.0
Total	**617**	**100**	**913**	**100**	**47.9**

Source: NMCOG Trail Counts (2014), Friends of Bruce Freeman Rail *Trail website (2007)*

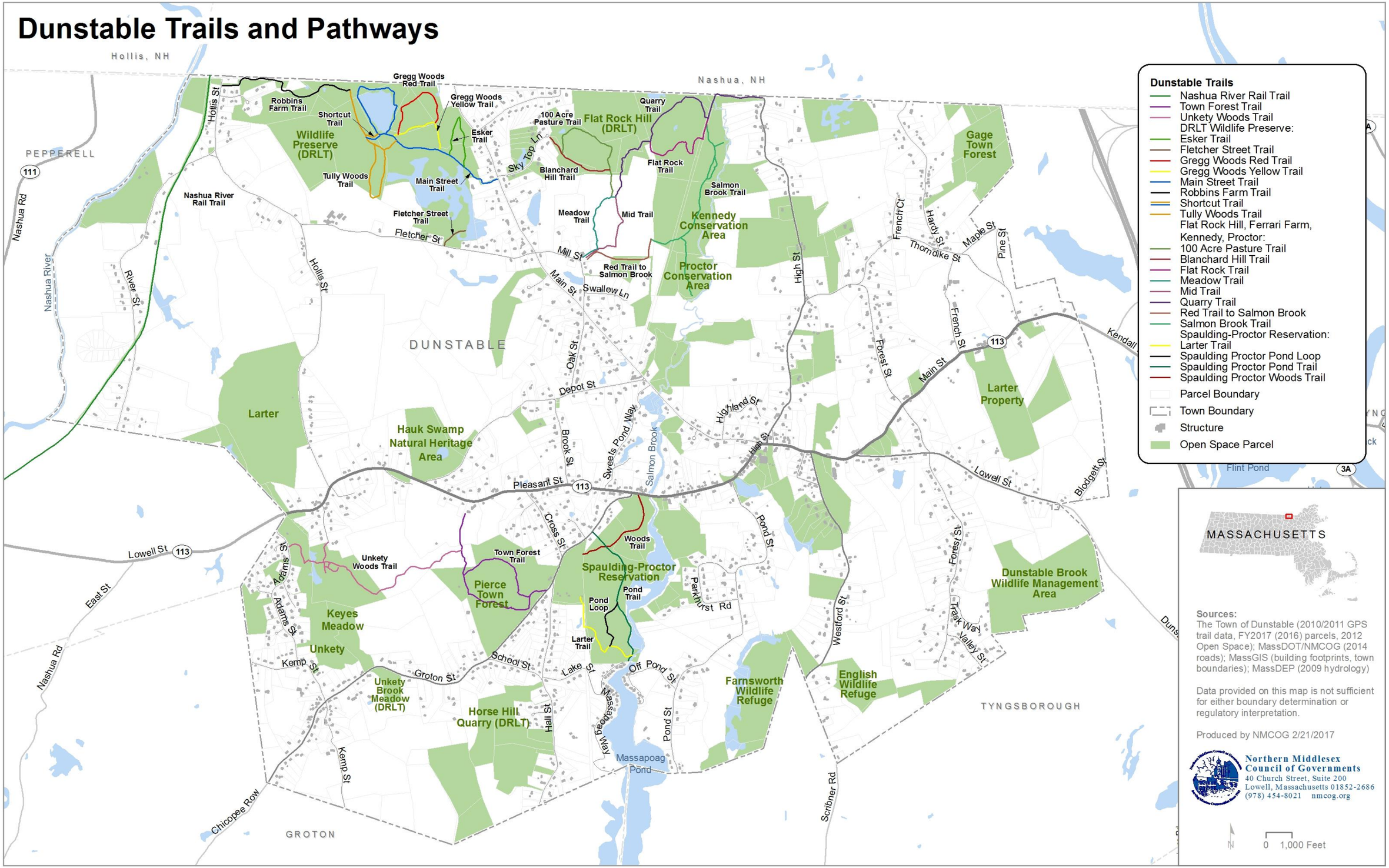
In 2016, NMCOG and the Nashua Regional Planning Commission (NRPC) coordinated on the installation of a permanent trail count station on the NRRT in Nashua, NH, just north of the Dunstable/Nashua line. In May 2016, average weekend volumes (604 users) were found to be twice the weekday volume (300 users), indicating that most users are utilizing the trail for recreational purposes rather than for commuting. The peak Saturday count totaled 1,147 users on May 14th, while the highest weekday volume was 544 users on Friday, May 20th. These user volumes are similar to those observed in Pepperell.

In addition to the Nashua River Rail Trail, Dunstable boasts a network of off-road trails running through wildlife refuges, conservation areas, and Town forests. Some of the key areas include the following:

- The Dunstable Rural Land Trust Wildlife Refuge on Main Street consists of approximately 800 acres of land with trail systems running throughout the property. The trails extend from the Nashua River Rail Trailhead on Hollis Street to the Dunstable Wildlife Preserve entrance on Main Street.
- Flat Rock Hill and Blanchard Hill Trail Systems lie just to the east of the Dunstable Rural Land Trust Wildlife Refuge, and consist of approximately 85 acres of land. Flat Rock Hill Conservation Area and the adjacent Arched Bridge Conservation Area cover 425 acres with about 4.5 miles of woodland trails. A 1.5 mile rail trail runs through Arched Bridge Conservation Area to Main Street in Dunstable. The area is named after a beautiful granite bridge over Salmon Brook. Other trails connect to the adjacent Flat Rock Hill Conservation Area. Connecting to the Yudicky Farm Conservation Area in Nashua would provide even more opportunities for recreation and healthy transportation.
- The Pierce Town Forest, managed by the Town Forest Committee, is located off Groton Street and provides recreation activities through a system of trails that connect to the Unkety Brook Trail system.
- The Spaulding Proctor Reservation consists of four hiking trails that can be accessed from Larter Field on Groton Street.

Map 7 on the following page depicts the trails and pathways throughout Dunstable.

MAP 7


Dunstable Trails and Pathways
Hollis, NH
Nashua, NH
PEPPERELL
DUNSTABLE
TYNGSBOROUGH
GROTON
Gregg Woods Red Trail
Gregg Woods Yellow Trail
Robbins Farm Trail
Shortcut Trail
Wildlife Preserve (DRLT)
Esker Trail
100 Acre Pasture Trail
Flat Rock Hill (DRLT)
Quarry Trail
Tully Woods Trail
Main Street Trail
Sky Top Ln
Blanchard Hill Trail
Flat Rock Trail
Salmon Brook Trail
Nashua River Rail Trail
Fletcher Street Trail
Meadow Trail
Mid Trail
Kennedy Conservation Area
Red Trail to Salmon Brook
Proctor Conservation Area
Gage Town Forest
Larter
Hauk Swamp Natural Heritage Area
Larter Property
Unkety Woods Trail
Town Forest Trail
Pierce Town Forest
Spaulding-Proctor Reservation
Woods Trail
Pond Trail
Pond Loop
Larter Trail
Keyes Meadow
Unkety
Unkety Brook Meadow (DRLT)
Horse Hill Quarry (DRLT)
Farnsworth Wildlife Refuge
English Wildlife Refuge
Dunstable Brook Wildlife Management Area
Massapoag Pond
Flint Pond
Nashua River
Nashua Rd
Hollis St
River St
Fletcher St
Mill St
Main St
Swallow Ln
Oak St
Depot St
Brook St
Sweets Pond Way
Salmon Brook
Highland St
High St
French Ct
Hardy St
Thorndike St
Maple St
Pine St
French St
Forest St
Kendall
Lowell St
Blodgett St
Pleasant St
Cross St
Pond St
Parkhurst Rd
Westford St
Trask Way
Valley St
Adams St
East St
Kemp St
Groton St
School St
Lake St
Off Pond St
Hall St
Massapoag Way
Chicopee Row
Scribner Rd
Dunstable Trails
Nashua River Rail Trail
Town Forest Trail
Unkety Woods Trail
DRLT Wildlife Preserve:
Esker Trail
Fletcher Street Trail
Gregg Woods Red Trail
Gregg Woods Yellow Trail
Main Street Trail
Robbins Farm Trail
Shortcut Trail
Tully Woods Trail
Flat Rock Hill, Ferrari Farm, Kennedy, Proctor:
100 Acre Pasture Trail
Blanchard Hill Trail
Flat Rock Trail
Meadow Trail
Mid Trail
Quarry Trail
Red Trail to Salmon Brook
Salmon Brook Trail
Spaulding-Proctor Reservation:
Larter Trail
Spaulding Proctor Pond Loop
Spaulding Proctor Pond Trail
Spaulding Proctor Woods Trail
Parcel Boundary
Town Boundary
Structure
Open Space Parcel
MASSACHUSETTS
Sources:
The Town of Dunstable (2010/2011 GPS trail data, FY2017 (2016) parcels, 2012 Open Space); MassDOT/NMCOG (2014 roads); MassGIS (building footprints, town boundaries); MassDEP (2009 hydrology)
Data provided on this map is not sufficient for either boundary determination or regulatory interpretation.
Produced by NMCOG 2/21/2017
Northern Middlesex Council of Governments
40 Church Street, Suite 200
Lowell, Massachusetts 01852-2686
(978) 454-8021 nmcog.org
N
0 1,000 Feet

Public Input

Through a robust public involvement process, a number of issues and opportunities were identified relative to Dunstable's transportation system. A Master Plan Visioning Session was held at Dunstable Town Hall on June 23, 2016. During the session, input was generated through the use of a Strength, Weaknesses, Opportunities and Threats (SWOT) analysis exercise and the following comments were received relative to transportation:

Strengths:

- Walking trails

Weaknesses:

- Traffic on Route 113
- Truck traffic on Route 113
- Condition of Main Roads
- Lack of sidewalks/streetlights
- Too many streetlights
- Trail designation
- Speed on Route 113/Main Street
- Throughway to other communities

Opportunities:

- Plan for traffic control
- Alternative modes of transportation
- Revisit town center plan

Threats:

- Lack of infrastructure funding
- Increased traffic
- Over use/improper use of trails
- Expansion of Route 113

The Master Plan written survey results relative to transportation have been summarized as follows:

- 75% of respondents rate traffic flow in the Town Center as either good or fair; only 12.5% find it to be poor.
- Over 85% of respondents rate traffic flow in other areas of town as excellent or good.
- Over 85% of respondents rate speed enforcement as excellent or good.
- Over half (56%) of the respondents felt that pedestrian accommodations are poor, while only 22% felt that they are excellent or good.

- 77% favor increasing available accommodations for non-motorized transportation, while 71% of respondents favor adding sidewalks or pathways.
- Adding sidewalks was ranked third in responding to Question 7, where respondents identified where they would spend their $100 in town funds.
- 45% of the respondents rate bicycle facilities as poor, while 22% felt that they are excellent or good.

ISSUES AND OPPORTUNITIES

Maintaining a "rural" feel as the town grows and new roads are built will require balancing safety and convenience factors with the desire for context-sensitive solutions. Dunstable's development pattern has resulted in existing older roadways serving as conduits for local and through vehicular traffic, and also as neighborhood roads for residents. The challenge is to accommodate a stated desire for better and safer roads while preserving the scenic qualities so cherished by many residents.

Dunstable's Subdivision Regulations call for a minimum right-of-way width of fifty-five (55) feet, and a roadway cross-section that includes two 10-foot travel lanes, an 8-foot parking lane, and two five-foot sidewalks (one on each side of the road). Such a design standard for residential roadways will result in a very wide span of pavement that is not consistent with the community's rural character. In addition, these wide roadways may encourage speeding and are contrary to the desires of the community. Modifications to the layout requirements should consider the fact that on-street parking is not prevalent throughout the town, and therefore, it would seem inappropriate to include a parking lane. Parking lanes are generally found within town centers or in urban environments.

Overall, the parking requirements outlined within the Town's regulations need to be updated and expanded, to reflect more current standards for various types of land uses. The Planning Board should revise and update the Subdivision Regulations so that they are in keeping with the planning and design goals of the community. The Planning Board often waives many of the requirements contained within both the Zoning Bylaw and the Subdivision Regulations, which is an indication that these documents are no longer relevant and in need of revision. Updates to these regulations should consider the community's desires relative to rural character and roadway design width for low-volume residential streets, protection of historical roadside features, and the needs of all roadway users.

Perhaps the most notable transportation deficiency identified through the Master Plan process is the lack of a connected system for pedestrian and bicycle transportation. Future

planning initiatives should focus on closing the gap in the network. The town's roadway system currently has very few sidewalks and no dedicated bicycle accommodations, with the exception of the Nashua River Trail. Implementing the recommendations outlined in the town's recently adopted *Complete Streets Prioritization Plan* will help move the town forward in this regard. Additional linkages, through the establishment of sidewalks, pathways and trail connections, should be pursued in the future, as resources permit. Such efforts should emphasize safety and accommodate users of all abilities. There is a need for additional parking along the Nashua River Trail and at some of the conservation land trailheads. The Committee also recommends that the Town consider establishing a snow removal bylaw in the future, when the sidewalk network is more expansive.

The survey process for the Master Plan demonstrated that increasing non-motorized transportation options for residents has strong support, with 77% of respondents favoring additional accommodations for pedestrians and bicyclists. Funding pedestrian and bicycle transportation projects will require a multi-faceted approach that includes State grants, private developer contributions, Chapter 90 and municipal funds. The Master Plan Committee has concluded that the Town should require developers to provide streetscape amenities, such as benches, street trees and pedestrian scale lighting as part of the development approval process. The town's *Complete Streets Prioritization Plan* has identified specific priority locations for pedestrian benches, including Town Hall and the Library.

Bicycle and pedestrian safety cannot be addressed simply by improving bicycle and pedestrian facilities. Educational initiatives for bicyclists, pedestrians and motorists are also essential. Paying particular attention to the needs of children is especially important, since bicycling and walking are their only means of independent transportation and children lack the experience of an adult. Public safety officials and the regional school district should collaborate on a safety education program for school-age children.

Route 113 is the only principal arterial in Dunstable and carries a significant volume of traffic, particularly during peak hours. Much of this traffic is generated by those passing through town. The Town is currently working to design improvements to the section of Route 113 that passes through the Town Center. These improvements will be funded through the region's Transportation Improvement Program. During the Master Plan process, many residents expressed an interest in implementing other traffic calming measures within the Center. Such recommendations for this area have been included in the Town's *Complete Streets Prioritization Plan,* and Complete Streets funding should be pursued in the future for implementation. The Master Plan Committee also recommends that traffic calming measures be further studied for other key locations, such as in the vicinity of Woods Court and in the area around Larter Field. The use of traffic calming

devices should be carefully considered and traffic calming proposals should be reviewed by the Fire and Police Departments, to ensure that any proposed changes will not significantly increase emergency response times or hinder effective evacuation of an area in the event of an emergency.

Run-off–the–road crashes are a particular problem along sections of Route 113 within Dunstable, as documented by MassDOT crash data. The roadway is somewhat winding and residents have suggested that inadequate lighting and the lack of clear zones may be factors in some crashes. The Town should work with NMCOG and MassDOT to study this issue in greater detail, to identify the cause of the crashes and outline appropriate mitigation measures for improving safety along the roadway. Increased speed enforcement may also help improve safety along Route 113, as well as in other parts of town.

Currently, the Town does not have a formal process for street acceptance. An unaccepted street is defined as one for which there is no record of acceptance by the Town. Responsibility for maintenance of these streets rests with the abutters. In order for a street to be accepted, it must be laid out, resulting in a layout plan, generally by the Board of Selectmen in the case of an existing road. The developer usually prepares layout plans for new subdivisions. The layout plan must be filed with the Town Clerk, and must be accepted by Town Meeting, as outlined in MGL Chapter 82, Section 23. Given the potential cost of accepting and maintaining unaccepted streets, most communities establish guidelines for evaluating acceptance requests and making recommendations for Town Meeting.

RECOMMENDATIONS

Complete Streets, Bicycle and Pedestrian Transportation

- Implement the following recommendations as outlined in the Town's *Complete Streets Prioritization Plan:*
    - Establish sidewalks and paths at the following locations:
    1. North side of Main Street between Pleasant Street and Highland Street
    2. North side of Main Street between Common Street and Pleasant Street
    3. Main Street between Common Street and the east side of Westford Street
    4. East side of Westford Street between Main Street and existing Central Cemetery Roadway
    5. East side of Pleasant Street between Main Street and Pond Street
    6. South side of Pleasant Street from Pond Street to the Post Office with crosswalks across Pond Street and the Post Office driveway
    7. Pleasant Street from the Post Office to Groton Street/gas station

8. Groton Street between Pleasant Street and Larter Field
9. Larter Field Access Road between Groton Street and existing pathway north of the parking area
10. Shared use path (crushed stone) between the Central Cemetery and Lowell Street
11. Main Street-Highland Street Red Line Trail:
    -Phase 1-sidewalk construction between Highland Street and Sawyer Conservation Area
    -Phase 2-sidewalk construction between Sawyer Conservation Area and Red Line Trail
12. Improvements to Red Line Trail between Main Street and NH State Line
13. Improvements to Red Line Trail between Larter Field Driveway and Camp Massapoag Road
14. Red Line Trail Connection between Main Street and Groton Street
15. Construction of a shared use path between Pleasant Street (at the Police Station) and the Library

- Realign Lowell Street to intersect with Main Street behind the Dunstable Animal Clinic. This project would include the construction of sidewalk and crosswalk connections.
- Realign the intersection of Main Street and Pleasant Street to provide safer pedestrian crossing and to slow turning vehicles. This work would include sidewalks, ADA compliant ramps and crosswalks.
- Realign the intersection of Main Street and Thorndike Street to provide safe pedestrian crossings and to slow turning vehicles.
- Install a raised intersection and crossings at Groton Street/Dogwood Lane/Larter Field Driveway.
- Realign the Main Street and Oak Street intersection to address sight distance issues.
- Install intersection improvements at Lowell Street and Forest Street to address sight distance issues.
- Intersection improvements at Pleasant Street and Groton Street to reduce speeding and conflicting movements, and to improve sight distances.
- Install pedestrian benches at the Town Hall, Library and Red Line Trail roadway crossings.
- Complete crosswalk and signage improvements along Main Street between Highland Street and Common Street, and on River Street at the Nashua River Trail.

- Establish a sidewalk snow removal bylaw in the future, when the sidewalk network becomes more expansive.
- Establish a sidewalk fund through developer contributions.

- Create additional parking for the Nashua River Trail and at significant conservation land trailheads.
- Develop a plan for improving the connectivity of the town's trail network, pathways and sidewalk network.
- Amend the town's development regulations to require developers to provide sidewalks, bike racks, and streetscape amenities, such as benches, pedestrian scale lighting, and street trees, where appropriate.
- Work with the regional school district and public safety officials to implement a bicycle and pedestrian safety education program for school-age children.

Roadway Design, Safety and Parking:

- Revise the town's Zoning Bylaw and Subdivision Regulation design standards, so that they are consistent with the community's rural character and reflect current needs and practices. This can be accomplished by reducing the size of the minimum right-of-way width (e.g. eliminating the parking lane), while keeping road user safety in mind. Revisions should consider the town's desire to protect historical roadside features, such as stone walls, gates and trees. Modify standards so that they are compliant with the American with Disabilities Act (ADA)
- Revise and update the parking requirements within the Zoning Bylaw and Subdivision Regulation to reflect current day standards for various land uses.
- Continue to work with NMCOG and MassDOT to implement improvements along Route 113 in the Town Center area through the Transportation Improvement Program.
- Work with NMCOG and MassDOT to study and address safety issues along Route 113.
- Promote traffic calming measures within the Town Center, near Larter Field and in the vicinity of Woods Court.
- Increase enforcement of motorist, pedestrian and bicycle safety laws.
- As resources permit, develop an asset management program to ensure that roadway maintenance and repair is undertaken as cost-effectively as possible.
- Develop a formal process for street acceptance that is consistent with Massachusetts General Law Chapter 82, Section 23.

Planning for an Age-friendly Community:

- Provide better transportation services for seniors.

V. HOUSING

The Housing section of the Master Plan reflects the characteristics of a community more than any other section of the Master Plan. While focusing on the available and potential housing stock and the human side of housing, this section outlines where the community has been and what its potential in the future can be. Unlike most of the communities in the Greater Lowell region, the housing "boom" in Dunstable did not occur until the 1980s and 1990s. For the most part, the housing stock has been comprised of single-family houses, which limits access to those residents who cannot afford the cost of single-family homes in Dunstable. The Town has begun to focus on developing other housing options that can accommodate working families that want to contribute to Dunstable's growth. The housing market continues to play a major role in the community's economy and ability to support the expanding need for municipal services. The Town's future will depend upon how it addresses the changing housing needs of its residents and balances the need for additional housing with the quality of life that attracts residents to Dunstable.

This Housing section builds upon the work completed in the *1999 Dunstable Master Plan* and the *Town of Dunstable Housing Production Plan (2016-2020).* The conditions in the housing market and economy have certainly changed since 1999 and there have even been some changes since 2016. The Housing section focuses on the entire housing market in Dunstable, not just affordable housing. The opportunities for housing development in Dunstable are fairly extensive, however, they are limited by the lack of sewer and limited water infrastructure. Hopefully, this section will focus on the opportunities for housing development over the next five to ten years that are balanced with the appreciation for the quality of life in Dunstable.

Housing Goals

- Create housing opportunities that meet the needs of the community, as outlined in the Dunstable Housing Production Plan.
- Develop a design guidance document to ensure that future development projects are well-designed, consistent with local needs, respectful of the town's character, and compatible with the goals outlined in the policies documents, including the Master Plan, Open Space and Recreation Plan, and the Housing Production Plan.
- Address the water infrastructure issue in order to facilitate the production of affordable and senior housing.
- Utilize CPA and state funds to support the production of affordable and workforce housing.
- Develop partnerships with non-profit and for profit developers to produce housing units to address the needs of seniors, young families and low- and moderate-income residents.

This section has been divided into seven subsections: Existing Conditions, Housing Development and Sales Trends, Housing Needs, Affordable Housing Efforts in Dunstable, Public Input, Issues and Opportunities and Recommendations. The Existing Conditions section summarizes the Housing Inventory, Housing Age and Development Type, the Size and Condition of Housing Units, Occupancy, Tenure and Vacancy Rates, and Housing Turnover. The next section focuses upon New Residential Development, Number of Sales, Median Sales Price, Zoning, Comprehensive Permits and Infrastructure Limitations Impacting Housing. The Housing Needs section provides a Demographic Profile, which complements the information in the Land Use and Zoning and Economic Development sections, Housing Affordability and Foreclosures component. The section on Affordable Housing Efforts largely updates the information in the *2016-2020 Housing Production Plan.* The Public Input section summarizes the information provided through Visioning Session II, while the Issues and Opportunities section summarizes the housing issues facing the Town and the opportunities available to address these issues. The Recommendations section summarizes the overall recommendations contained within the Issues and Opportunities section.

Existing Conditions

This section provides an overview of the existing conditions of the local housing stock over time, including changes in the total number of units, historical development patterns, the size and condition of the local housing stock, and housing tenure/turnover trends.

Housing Inventory

According to the 2010 U.S. Census, there were 1,057 housing units in Dunstable, of which 97.9% were single-family homes. Although there were no two-family units identified in 2010, the estimates for the 2011-2015 American Community Survey (ACS) indicate that there were eleven (11) two-family units. Although multifamily (3-4 units) and mobile homes were identified in the 2010 U.S. Census, there were no structures identified in the 2011-2015 ACS. While the housing stock has increased over time, the distribution of housing types within Dunstable has remained largely unchanged as shown in Table 43 on the next page.

Table 43: Housing Units by Type (2010 and 2011-2015)

Number of Units per Structure	2010 Housing Stock		2011-2015 Housing Stock		Percent Change 2010-2011/2015
	Number	Percent	Number	Percent	
1-unit, detached	1,028	97.3	1,182	97.8	15.0
1-unit, attached	5	0.5	15	1.2	200.0
2 units	0	0.0	11	0.9	NA
3 or 4 units	12	1.1	0	0.0	NA
5 to 9 units	0	0.0	0	0.0	0.0
10 to 19 units	0	0.0	0	0.0	0.0
20 to 49 units	0	0.0	0	0.0	0.0
50 or more units	0	0.0	0	0.0	0.0
Mobile Home	12	1.1	0	0.0	NA
Boat, RV, van, etc.	0	0.0	0	0.0	0.0
Total	**1,057**	**100.0**	**1,208**	**100.0**	**14.3**

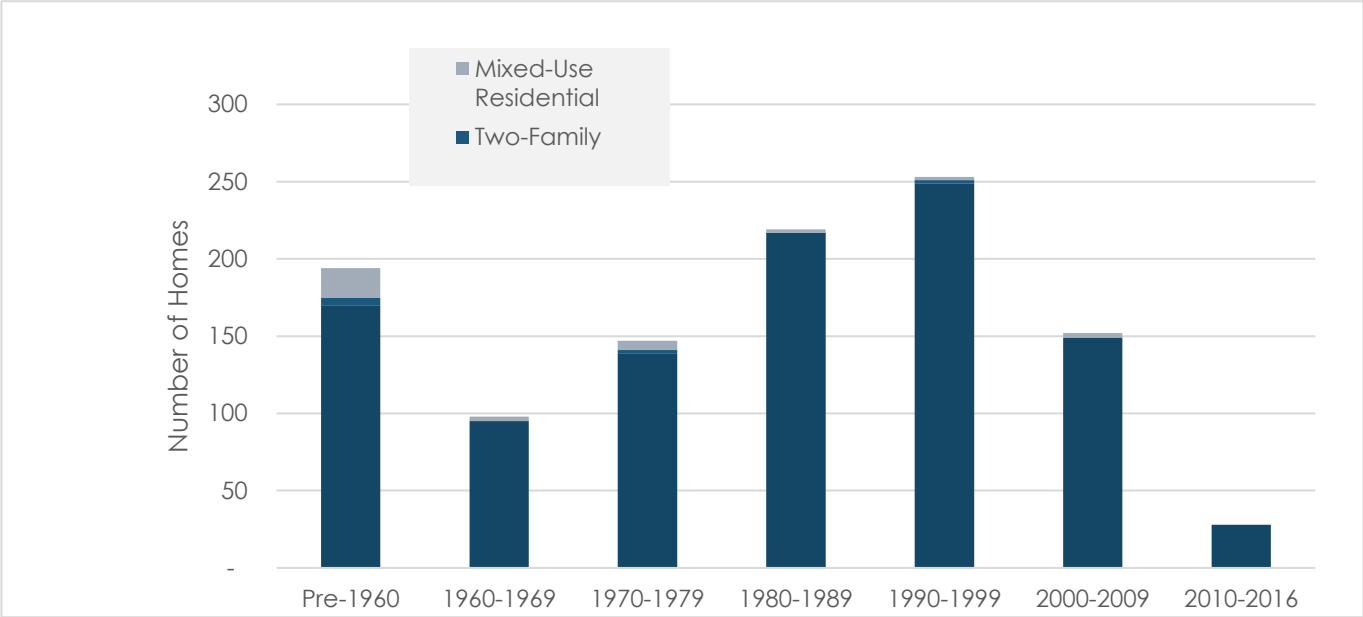
Source: 2010 U.S. Census and 2011-2015 American Community Survey

There was widespread disagreement about these housing unit figures by the Affordable Housing Committee members during the development of the *Dunstable Housing Production Plan* in 2015, particularly related to the American Community Survey data. In particular, there were no mobile homes in Dunstable as shown in the 2010 U.S. Census. Additionally, the increased sampling error for the ACS exaggerates the numbers for a small community like Dunstable and makes it difficult to compare the information directly with the U.S. Census data. In order to address this issue, the Board of Assessors determined in May 2015 that there were 1,037 single-family residential units, 9 two-family residential units and 48 mixed-use residential units, for a total of 1,094 residential units. Whichever figures are used, there is a need to develop multifamily units that can accommodate those residents who cannot afford to purchase a single-family home.

Housing Age and Development Type

Based upon data from the Dunstable Board of Assessors, it was possible to provide a historical assessment of the development of specific types of housing in Dunstable since 1730. Figure 18 on the next page breaks down residential properties by both the type of housing structure (determined by land use code) and the period in which the housing was built. This data reveals that 194 residential structures were developed prior to 1960 with single-family houses comprising 87.6% of total residential structures. During the most recent six decades, the number of residential units has increased more than four times than what occurred between 1730 and 1960. Housing growth in the 1980s and 1990s outstripped the previous growth in the first two and a half centuries in Dunstable.

Figure 18: Year Structure Built for All Developed Residential Properties



Mixed-Use Residential	19	3	6	2	2	3	-
Two-Family	5	-	2	-	2	-	-
Single-Family	170	95	139	217	249	149	28
Total by Period	194	98	147	219	253	152	28

Source: Dunstable Assessor's property assessment database, Fiscal Year 2017 (7/26/16)

As shown in Figure 16, the overall percentage of single-family homes has consistently increased since 1960. The number of two-family (4) and mixed-use (16) residential structures built since 1960 were lower than the two-family (5) and mixed-use (19) structures built during the first three centuries, according to the information from the Dunstable Assessor's data base. Mixed-use residential structures have been largely residential/commercial or residential/agricultural based upon the land use codes used by the Assessor. The 1990s represented the most significant period for the development of housing units (253) in Dunstable and there have been less housing units developed (180) in the 2000s than occurred in the 1990s.

Table 44 on the next page further examines the residential properties by assessing the number of parcels dedicated to each residential land use. These numbers are higher than those listed in the previous figure because sometimes multiple parcels are combined into one address/property.

Table 44: Residential Properties by Land Use

Use	Number of Parcels	Percent of Total Parcels	Total Acreage	Average Acreage
Single-Family	1,047	96.0	2,990	2.9
Two-Family	9	0.8	59	6.6
Mixed-Use Residential	35	3.2	862	24.6
Total	**1,091**	**100.0**	**3,911**	**3.6**

Source: Assessor's property assessment database, Fiscal Year 2017 (July 26, 2016 extract)

According to the FY 17 Assessor's database, 96% of the 1,091 residential parcels were denoted as single-family housing. Two-family housing comprised an additional 0.8% of the total residential uses, while mixed-used residential comprised 3.2% of all residential parcels. In terms of acreage and average lot sizes, single-family properties accounted for 2,990 acres or 76.5% of the 3,911 acres of land used for residential uses. The average acreage for a single-family residential unit was 2.9 acres, as compared to the 6.6 average acres for a two-family development and 24.6 average acres for a mixed-use residential development.

Size and Conditions of Housing Units

Even though the majority of residential units in Dunstable are single-family residences, some two-family residential units have also been built since 1730. This section examines characteristics of the local housing stock, including land and living areas, appraised property values and number of rooms and stories.

Single-Family Housing Units

Historic single-family homes built before 1960 have lower total assessed values than those single-family homes built after 1960. Part of this may be due to the smaller residential area for the older homes even though the land area was fairly similar across different timeframes. Note that weighted averages are used for the land value, building value and total value in Table 45. The largest single-family homes seem to have been built in the 2000s with an average residential area of 3,232 square feet. Additionally, homes built after 1969 have had more rooms within the housing unit and have been higher storied structures. Table 45 on the next page compares the data for single-family homes across different timeframes.

Table 45: Characteristics of Single Family Homes by Age of Housing Units

Period	Parcels	Land Area	Land Value*	Building Value*	Other Value	Total Value*	Building Area (sq. ft.)	Rooms	Stories
Pre-1960	170	2.8	$177,663	$143,335	$7,192	$328,190	2,049	6.4	1.3
1960-1969	95	2.6	$181,164	$140,595	$6,175	$327,934	2,212	6.1	1.2
1970-1979	139	2.8	$181,128	$167,987	$7,039	$356,154	2,305	6.7	1.4
1980-1989	217	3.0	$180,318	$224,078	$4,987	$409,383	2,605	7.2	1.7
1990-1999	249	2.8	$174,371	$270,165	$4,744	$449,280	2,783	7.2	1.8
2000-2009	149	3.1	$166,672	$341,348	$3,881	$511,900	3,232	7.6	1.9
2010-2016	28	2.5	$172,279	$282,229	$775	$455,282	2,435	7.1	1.7
Average, all years	NA	2.9	$176,500	$225,151	$5,397	$407,048	2,566	7.0	1.6

*Source: Assessor's property assessment database, Fiscal Year 2017 (7/26/16) Note: * weighted values*

Two-Family Housing Units

Table 46 below provides similar information on two-family homes in Dunstable. Due to the limited number (9) of two-family homes built since 1730, the data is not as complete as that for single-family homes. However, it can be seen from the data that the pre-1960 two-family homes have a greater total value ($497,840) than the median total value ($454,733) for all two-family homes. Note that weighted averages are used for the land value, building value, other value and total value in Table 4. In addition, the residential square footage for these older homes (3,847 sq. ft.) is greater than that for two-family homes built in the 1970s (2,902 sq. ft.) or those built in the 1990s (3,060 sq. ft.). The land area for the older homes was more than three times that for the newer two-family homes. The number of rooms for these older homes was much greater as well.

Table 46: Characteristics of Two-Family Homes by Age of Housing Unit

Period	Parcels	Land Area	Land Value*	Building Value*	Other Value	Total Value*	Building Area (sq.ft)	Rooms	Stories
Pre-1960	5	9.7	$197,480	$285,340	$15,020	$497,840	3,847	10.0	1.8
1960-1969	0	NA	NA	NA	NA	NA	NA	NA	NA
1970-1979	2	3.1	$181,450	$189,050	$350	$370,850	2,902	7.0	1.0
1980-1989	0	NA	NA	NA	NA	NA	NA	NA	NA
1990-1999	2	2.2	$164,550	$264,500	$1,800	$430,850	3,060	8.5	2.0
2000-2009	0	NA	NA	NA	NA	NA	NA	NA	NA
2010-2016	0	NA	NA	NA	NA	NA	NA	NA	NA
Average, all years	**NA**	**6.6**	**$186,600**	**$259,311**	**$8,822**	**$454,733**	**3,462**	**9.0**	**1.7**

*Source: Assessor's property assessment database, Fiscal Year 2017 (7/26/16) Note: * weighted values*

Occupancy, Tenure and Vacancy Rates

This section analyzes trends in housing occupancy, ownership and rental tenure, vacancy rates, and housing turnover. Dunstable has historically had an owner-occupied housing stock given the predominance of single-family homes. As outlined in Table 47 below, owner-occupied housing units increased from 996 in 2010 to 1,148 in 2011-2015 or by 15.3%. Renter-occupied housing units actually decreased from 67 units in 2010 to 28 units in 2011-2015 or by -58.2%. Overall, occupied housing units increased by 10.6%, while the vacancy rate declined from 3.2% to 2.7% reflecting an improving economy.

Table 47: Housing Tenure (2010 and 2011-2015)

Tenure Status	2010		2011-2015		Percent Change 2010 -2009/ 2013
	Number	Percent	Number	Percent	
Owner-occupied	996	93.7	1,148	94.0	15.3
Renter-occupied	67	6.3	28	6.0	-58.2
Occupied Housing Units	**1,063**	**100.0**	**1,176**	**100.0**	**10.6**
Vacant Units	**35**	**3.2**	**32**	**2.7**	**-8.6**
Total Housing Units	**1,098**		**1,208**		**10.0**

Source: 2010 U.S. Census and 2011-2015 American Community Survey

When one compares the owner occupancy levels in Dunstable with the Greater Lowell region, there are significant differences. As shown in Table 48, the owner occupancy rate in the Greater Lowell region in 2011-2015 was 70.2% as compared to the Dunstable owner occupancy rate of 94%. Similarly, while Dunstable had a rental occupancy rate of 6% in 2011-2015, the Greater Lowell region's rental occupancy rate was nearly five times that level at 28.3%. The vacancy rates were also significantly different with the Greater Lowell region at 5% and Dunstable at 2.7% in 2011-2015.

Table 48: Housing Tenure in the Greater Lowell Region (2011-2015)

Tenure Status	2011-2015	
	Number of Units	Percent of Total
Owner-occupied	84,309	70.2
Renter-occupied	35,838	29.8
Occupied Housing Units	120,147	100.0
Vacant Units	6,335	5.0
Total Housing Units	126,482	

Source: 2011-2015 American Community Survey

Housing Turnover

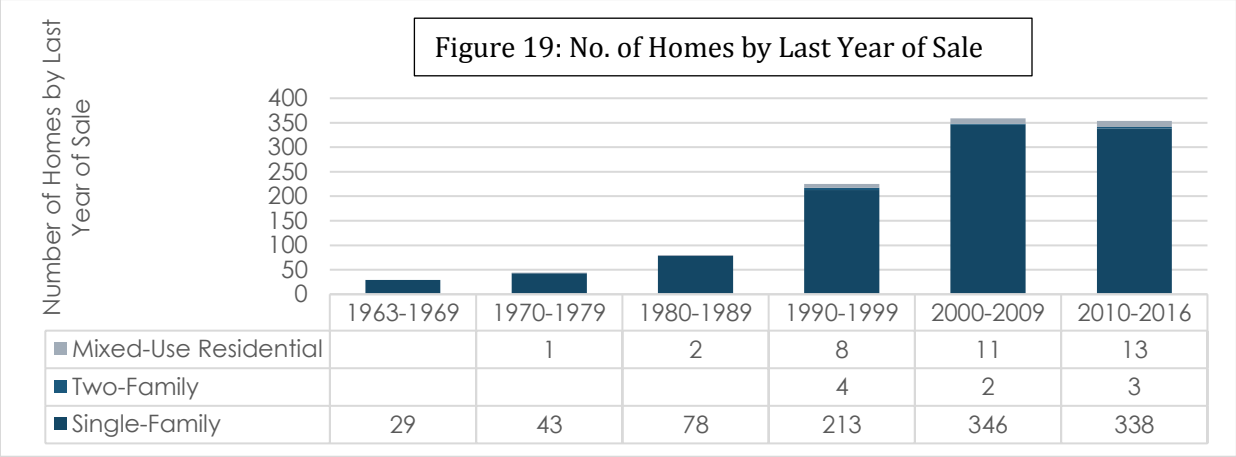
Table 49 below compares the year that Dunstable households moved into their current homes with households in Dracut, Pepperell and Tyngsborough. The data shows that Dunstable households have been in their current homes longer than the other three communities: 10.54% at 1979 or earlier as compared to Dracut (9.45%), Pepperell (8.48%) and Tyngsborough (6.21%). More than 98% (98.1%) of households in Dunstable have been in their present homes since before 2015.

Table 49: Year Household Moved Into Present Home for Dunstable and Neighboring Communities

	Dracut		Dunstable		Pepperell		Tyngsborough	
	Number	%	Number	%	Number	%	Number	%
Total population in occupied housing units	30,919	100.00	3,310	100.00	12,020	99.99	12,117	100.00
2015 or later	1,280	4.14	63	1.90	265	2.20	224	1.85
2010 - 2014	6,707	21.69	267	8.07	2,265	18.84	2,620	21.62
2000 - 2009	11,071	35.81	1,279	38.64	4,033	33.55	4,293	35.43
1990 - 1999	5,843	18.90	889	26.86	3,296	27.42	3,026	24.97
1980 - 1989	3,096	10.01	463	13.99	1,142	9.50	1,202	9.92
1979 or earlier	2,922	9.45	349	10.54	1,019	8.48	752	6.21

Source: 2012-2016 American Community Survey

Figure 19 below shows the last year of sale for residential properties in Dunstable. Based upon the Assessor's database, the data shows the majority of the last residential sales (65.4%) in Dunstable have occurred within the last sixteen years. Single-family homes (65.3%), two-family homes (55.6%) and mixed-use residential units (68.9%) had the majority of sales between 2000 and 2016. That means that there has been a large turnover of properties during that timeframe even though 11.46% of Dunstable households have been in their current homes since 1979 or earlier.



Source: Assessor's property assessment database, Fiscal Year 2017 (7/26/16)

Housing Development and Sales Trends

This section examines trends in housing development in Dunstable as well as the trends in the sale of existing housing stock. In the first subsection, residential permits issued in Dunstable from 2010-2015 are outlined, which show the predominance of single-family homes, as well as the estimated construction cost for individual permits issued since 2005. Within the second subsection, the total number of housing sales in Dunstable and the Greater Lowell region for the past five years are compared. Similarly, the median sales prices for single-family homes in Dunstable, the Greater Lowell region and selected communities (Ashby, Essex, Merrimac, Tyngsborough and Westford) for the past four years are compared. The remainder of the section focuses on the current residential zoning requirements in Dunstable, the status of comprehensive permits and the infrastructure limitations to effective housing development.

New Residential Development

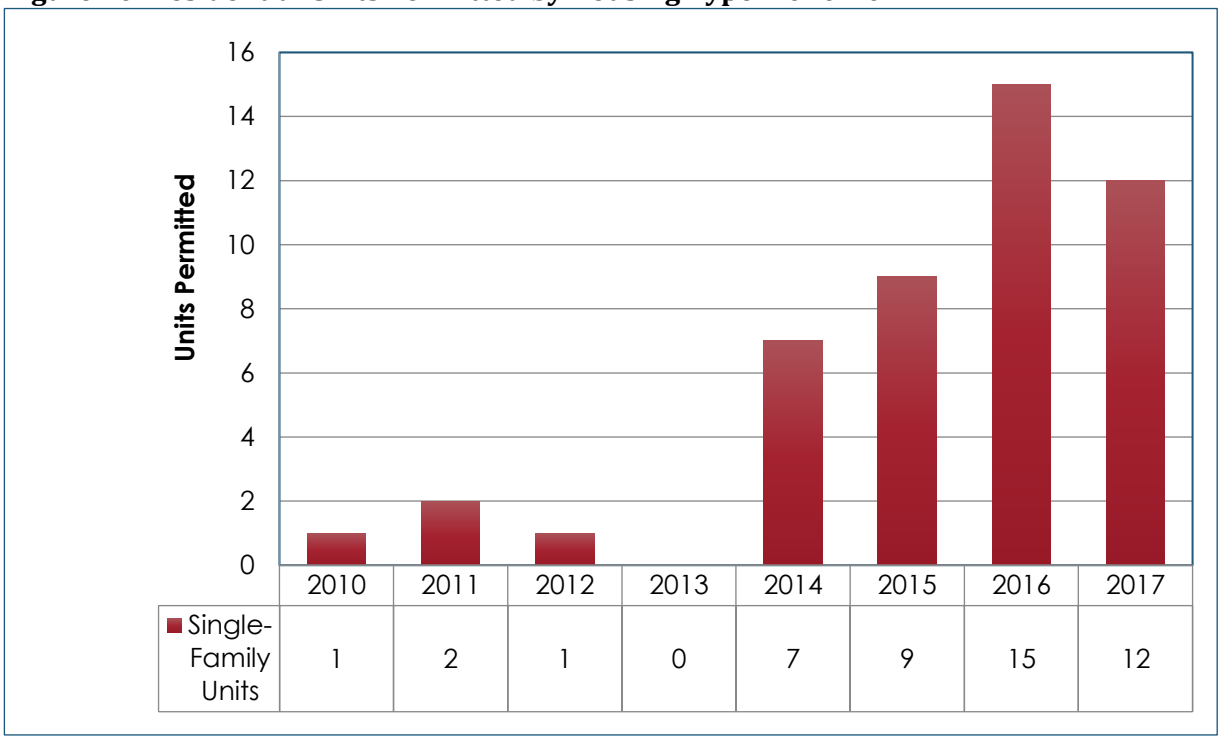
Table 50 below and Figure 20 on the next page show that there were 47 residential permits issued for single-family homes between 2010 and 2017 in Dunstable. This compared with the 26 single-family permits issued between 2005 and 2009. Overall, the number of building permits issued has remained steady during the past eight years. As part of this effort, NMCOG staff worked with the Dunstable Building Department to document the residential permits issued between 2010 and 2017. NMCOG staff worked with the Town's Building Department to collect data on the actual residential building permits issued, which is summarized by property on the next two pages in Table 51. Although we were not able to capture the total information for each building permit, the data in Table 51 shows the year of issuance, permit number, address, date issued and estimated construction cost for that property.

Table 50: Residential Permits Issued in Dunstable (2010 – 2017)

Year	Total Building Permits Issued	Total Residential Units Permitted
2010	1	1
2011	2	2
2012	1	1
2013	0	0
2014	7	7
2015	9	9
2016	15	15
2017	12	12
Total	**47**	**47**

Source: 2010-2017 Town of Dunstable Building Department

Figure 20: Residential Units Permitted by Housing Type: 2010-2017



Source: 2010-2017 Town of Dunstable Building Department

Table 51: New Residential Construction Building Permits by Year, 2010 - 2017

Year	Permit #	Address	Issued	Construction Cost
2010	38	701 Pleasant St	6/27/2010	$200,000
2011	7	226 River St	2/24/2011	$360,000
	42	880 Main St	6/13/2011	N/A
2012	11	379 Forest St	3/11/2013	$200,000
2013	N/A	N/A	N/A	N/A
2014	32	264 Pond St	4/28/2014	$600,000
	40	270 Main St	5/12/2014	$270,000
	62	23 Robbins Farm Rd	6/23/2014	$300,000
	79	33 Massapoag Way	7/28/2014	$200,000
	121	1054 Main St	9/29/2014	$285,000
	45	644 Groton St	12/15/2014	$150,000
	159	328 Hollis St	1/5/2015	$140,000

Table 51 (cont'd): New Residential Construction Building Permits by Year, 2010 - 2017

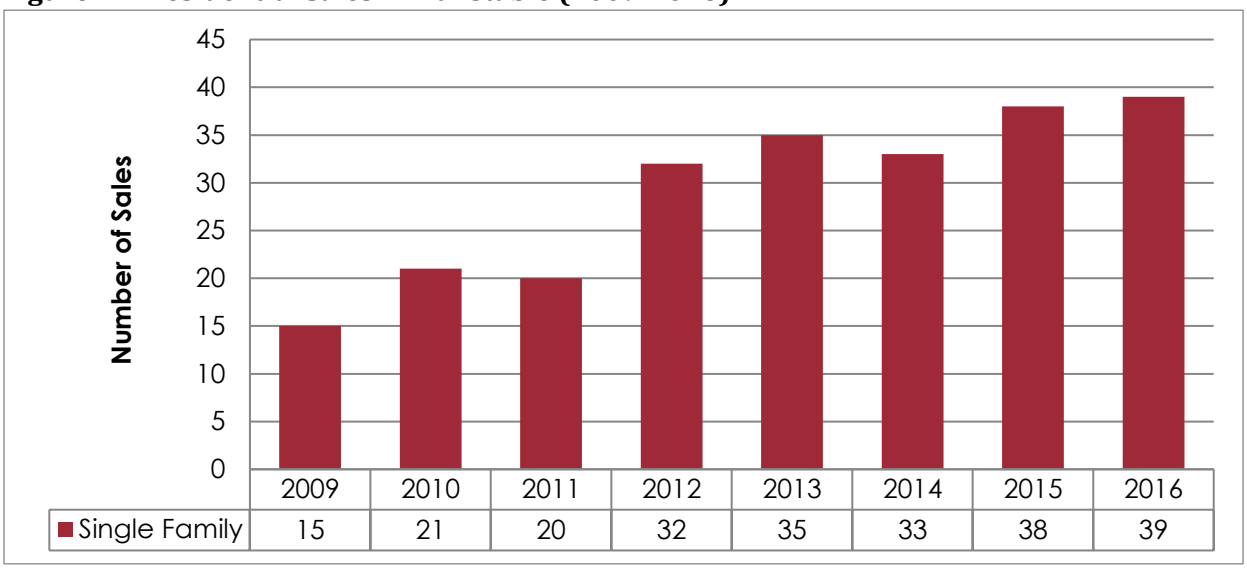
Year	Permit #	Address	Issued	Construction Cost
2015	19	7 Alexander Way (lot 9)	4/27/2015	$330,000
	20	5 Alexander Way (lot 8)	4/27/2015	$250,000
	21	3 Alexander Way (lot 7)	4/27/2015	$254,000
	27	54 Massapoag Way	5/4/2015	$300,000
	43	4 Alexander Way (lot 2)	6/1/2015	$320,000
	73	6 Alexander Way (lot 3)	7/6/2015	$240,000
	95	368 Pond St	8/17/2015	$400,000
	114	25 Alexander Way (lot 1)	9/14/2015	$375,000
	142	295 Pond St	11/9/2015	$450,000
	N/A	56 Alexander Way (lot 10)	N/A	$400,000
2016	16-13B	56 Alexander Way	3/28/2016	$400,000
	16-25B	17 Massapoag Way	4/14/2016	$275,000
	16-41B	10 Lake Circle	5/23/2016	$350,000
	16-50B	45 Chapman St	6/10/2016	$212,000
	16-51B	10 Chapman St	6/10/2016	$230,000
	16-69B	445 River St	7/25/2016	$300,000
	16-68B	20 Parkhurst Rd	7/25/2016	$295,000
	16-97B	23 Massapoag Way	9/19/2016	$200,000
	16-104B	451 River St	10/4/2016	$292,000
	16-116B	22 Robbins Farm Rd	10/17/2016	$300,000
	16-118B	26 Alexander Way	10/24/2016	$294,000
	16-121B	45 Alexander Way	11/30/2016	$280,000
	16-14RB	157 Forest St	12/5/2016	$280,000
	16-15RB	54 Chapman St	12/10/2016	$182,000
	16-19RB	179 Off Pond St	12/19/2016	$364,348
2017	17-11RB	50 Chapman St	3/27/2017	$114,000
	17-1B	431 River St	3/27/2017	$280,000
	17-36RB	425 River St	5/31/2017	$300,000
	17-38RB	57 Chapman St	6/1/2017	$211,000
	17-48RB	477 Forest St	6/19/2017	$300,000
	17-50RB	1010 Main St	6/26/2017	$625,000
	17-60RB	46 Chapman St	7/31/2017	$160,000
	17-66RB	34 Maple St	8/14/2017	$251,900
	17-69RB	8 Maple St	8/21/2017	$290,000
	17-84RB	73 Chapman St	9/29/2017	$190,000
	17-85RB	24 Maple St	10/2/2017	$267,000
	17-90RB	39 Westford St	10/16/2017	$40,000 (accessory apartment)

Source: Dunstable Building Department

Number of Home Sales

Figure 21 below shows the number of residential sales in Dunstable between 2009 and 2016. Single-family home sales increased from 15 units in 2009 to 39 units in 2016.

Figure 21: Residential Sales in Dunstable (2009-2016)

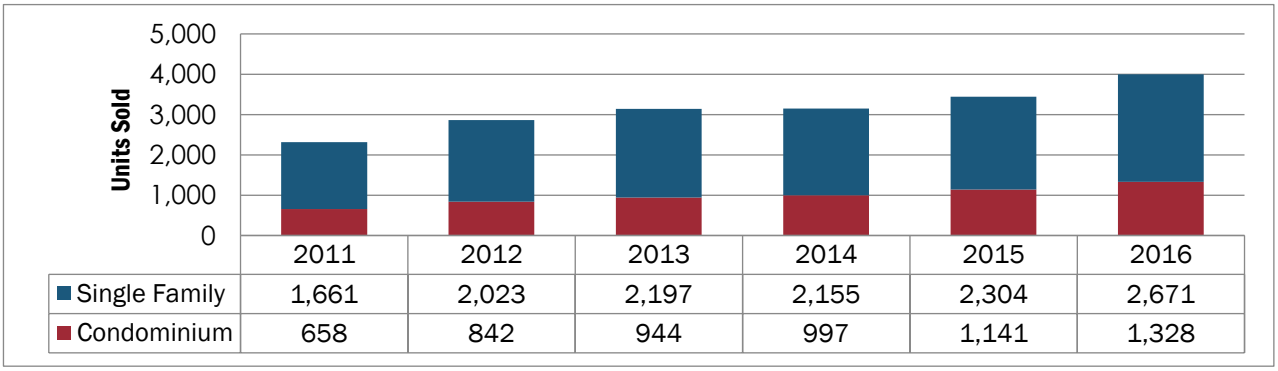


	2009	2010	2011	2012	2013	2014	2015	2016
Single Family	15	21	20	32	35	33	38	39

Source: The Warren Group, 2017

Figure 22 below shows the number of residential sales in the Greater Lowell region between 2011 and 2016. Except for the slight downturn in single-family home sales between 2013 and 2014, there was a steady increase in the number of single-family home sales in the Greater Lowell region consistent with Dunstable. The growth in the condominium sales in the Greater Lowell region has been fairly significant, increasing from 658 sales in 2011 to 1,328 sales in 2016 or by 101.8%. Dunstable registered its first condominium sale in 2017.

Figure 22: Home Sales in the Greater Lowell Region (2011-2016)



	2011	2012	2013	2014	2015	2016
Single Family	1,661	2,023	2,197	2,155	2,304	2,671
Condominium	658	842	944	997	1,141	1,328

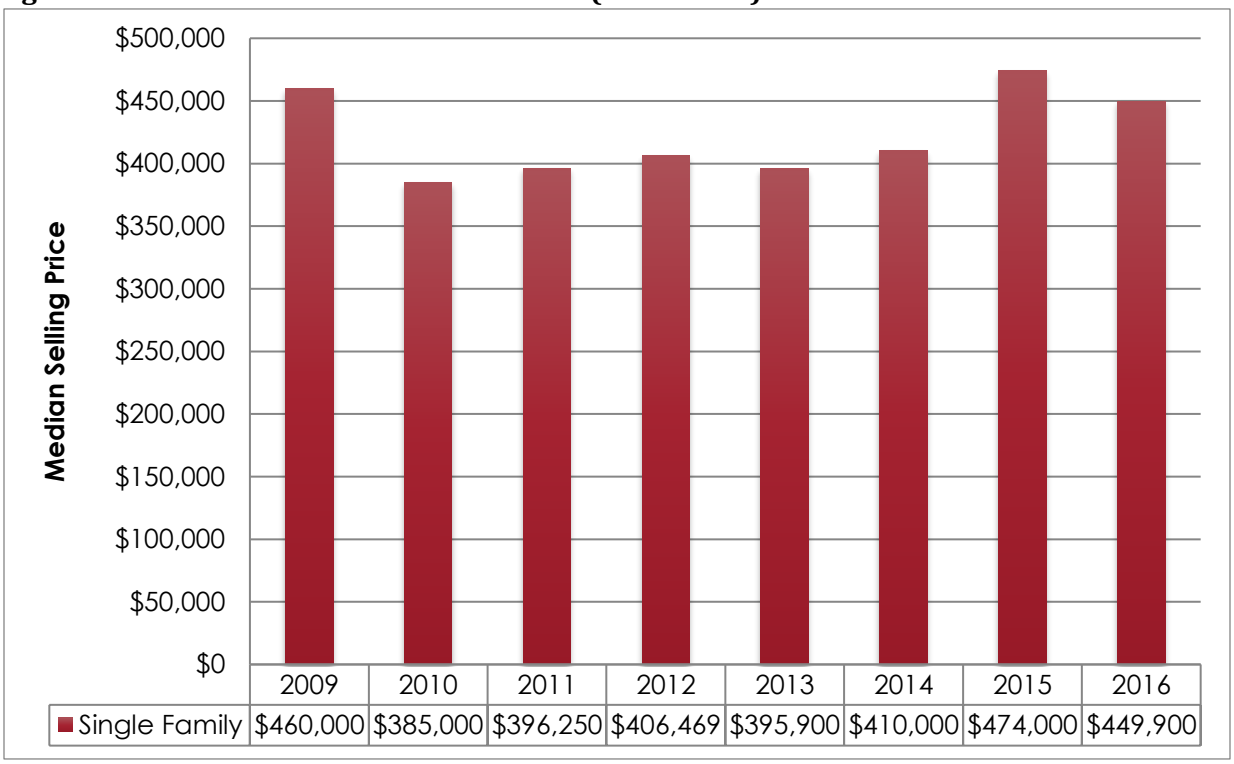
Source: The Warren Group, 2017

Median Sales Prices

Figure 23 below shows the changes in median sales prices in Dunstable for single-family homes between 2009 and 2016 based upon data from the Warren Group. The median sales price for single-family homes in Dunstable actually decreased from $460,000 in 2009 to 385,000 in 2010 due to the economic recession and housing downturn. The median sales price stabilized and increased slightly to $396,250 in 2011 and $406,469 in 2012. After decreasing to $395,900 in 2013, the median sales price increased to $410,000 in 2014 and reached a new high in 2015 at $474,000. Since that time, the median sales price decreased to $449,900 in 2016. These median sales prices for single-family homes are among the highest in the region. The difference in the median sales prices with the Greater Lowell region is quite evident in Figure 24 on the next page. Median sales prices for single-family homes increased from $315,337 in 2013 to $340,550 in 2015, but decreased to $328,756 in 2016, which was well below the Dunstable figure of $449,900.

In addition to the comparison with the Greater Lowell Median Sales Prices, we have provided a comparison with Ashby, Essex, Merrimac, Tyngsborough and Westford in Figure 25 on the next page. Ashby, Essex and Merrimac are similar sized communities as Dunstable, while Tyngsborough and Westford are adjacent to Dunstable.

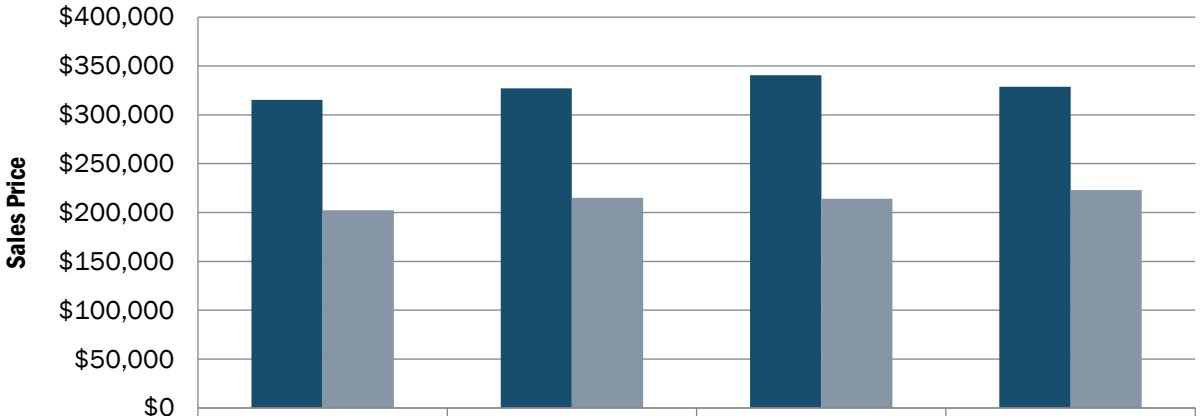
Figure 23: Median Sales Prices in Dunstable (2009-2016)



	2009	2010	2011	2012	2013	2014	2015	2016
Single Family	$460,000	$385,000	$396,250	$406,469	$395,900	$410,000	$474,000	$449,900

Source: The Warren Group, 2017

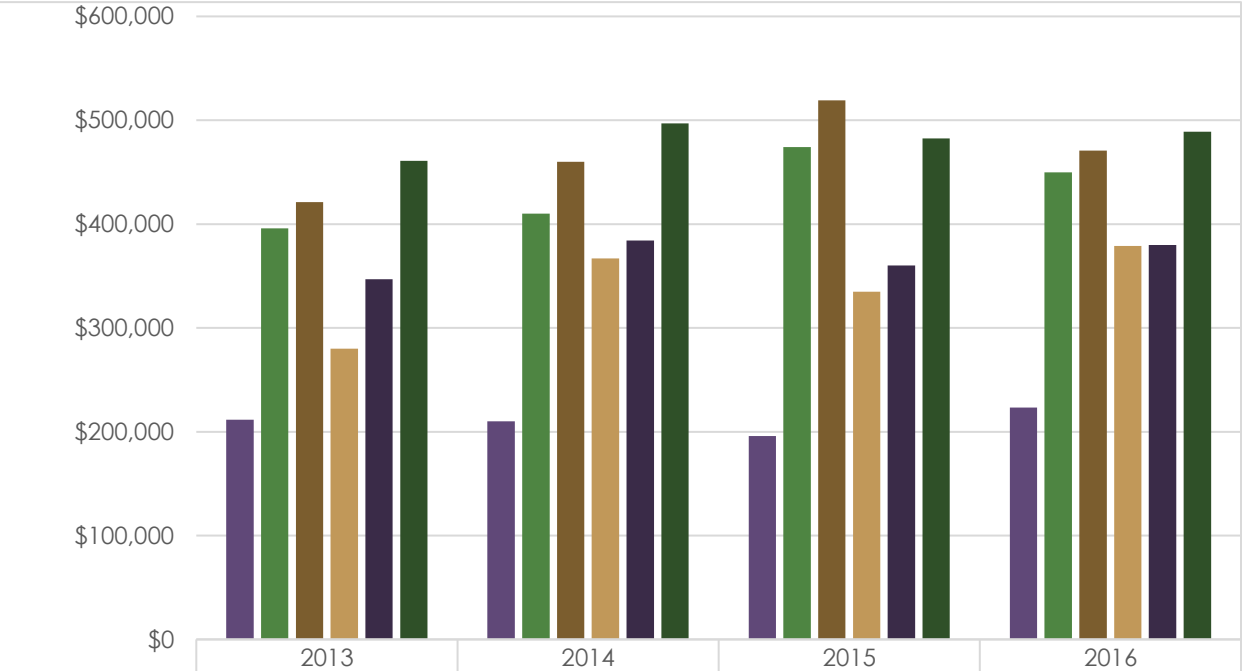
Figure 24: Median Home Sales Prices in the Greater Lowell region (2013-2016)



	2013	2014	2015	2016
Single Family	$315,337	$327,198	$340,550	$328,756
Condominum	$202,292	$214,971	$214,182	$222,886

Source: The Warren Group, 2017

Figure 25: Median Home Sales Prices for Single Family Homes in Selected Communities (2013 - 2016)



	2013	2014	2015	2016
Ashby	$211,500	$210,000	$196,000	$223,303
Dunstable	$395,906	$410,000	$474,000	$449,900
Essex	$421,102	$460,000	$519,000	$470,875
Merrimac	$280,000	$367,000	$334,839	$379,000
Tyngsborough	$346,750	$384,225	$360,000	$379,900
Westford	$461,000	$497,000	$482,500	$489,000

Source: The Warren Group, 2017

Zoning

With nearly all developed land in Dunstable currently used for residential or agricultural purposes, the Town is primarily a bedroom community with single-family homes as the most common residential use. According to the Dunstable Zoning bylaw, the residential zoning districts include Single Family Residence (R-1) and General Residence (R-2). Dunstable also has a Commercial Recreational (R-1a) district, which allows any use permitted in the R-1 district. In addition, there is a Retail Business District (B-1) and a Service Business District (B-2), both of which allow any use regulated in an R-1 or R-2 district.

Single-family development is permitted by right in all residential districts, except the MUD district, where a Special Permit from the Planning Board is needed. Two-family dwellings are only permitted by right in the R-1, B-1 and B-2 districts, and by Special Permit in the MUD district. The only multifamily housing allowed by right in Dunstable is senior housing, which can be located in the R-2, B-1 and B-2 districts. Multifamily housing in the MUD, R-1 and R-2 districts requires a special permit from the Planning Board. It should be noted that only the MUD district provides for multifamily housing that is not age restricted. Dwelling units above the first floor (that are not accessory units) are only allowed by Special Permit from the Planning Board in the MUD district. Assisted living facilities are allowed by right in the R-2, B-1, and B-2 districts. Boarding houses are allowed in every district except the MUD district, while trailers or mobile homes are not allowed in any district.

Within the Dunstable Zoning bylaw, there is a provision to limit the housing growth rate to no more than forty-eight (48) dwelling units in any twenty-four (24) month period. According to the Housing Growth Rate Limitation section, "no more than twenty-four (24) permits in any twenty-four (24) month period may be issued for Approval Not Required (ANR) lots, and no more than twenty-four (24) permits in any twenty-four (24) month period may be issued for dwelling units in a subdivision". This limitation has been established "to ensure that Dunstable is able to provide the necessary municipal infrastructure and services needed to protect and promote public health, safety and welfare while maintaining a steady growth and avoiding wide variations in the rate of development".

More detailed information on the Town's residential zoning, allowed uses and dimensional requirements can be found in the Land Use and Zoning chapter of this document.

Comprehensive Permits

The Massachusetts Comprehensive Permit Law (Chapter 774 of the Acts of 1969 or Chapter 40B of the Massachusetts General Laws) enacted in 1969 is legislation designed to "increase the supply and improve the regional distribution of low- or moderate-income housing by allowing a limited override of local requirements and regulations which are consistent with local and regional affordable housing needs".

Affordability thresholds are calculated annually by the U.S. Department of Housing and Urban Development (HUD). These thresholds, which are based on a combination of household income and the total number of individuals living in a given household, are calculated on a regional basis. In the case of Dunstable, affordability thresholds are based on household incomes in the Lowell Metro FMR Area. Table 10 below represents the adjusted household income limits to determine eligibility for affordable housing in the Greater Lowell region effective October 1, 2016:

Table 52: Adjusted Income Limits by Household Size, Lowell Metro FMR Area, FY 2017

Income Limit Area	Area Median Income	FY 2017 Income Limit Category	Household Size							
			1-Person	2-Person	3-Person	4-Person	5-Person	6-Person	7-Person	8-Person
Lowell, MA HUD Metro FMR Area	**$96,300**	30%-Extremely Low	$20,250	$23,150	$26,050	**$28,900**	$31,250	$33,550	$37,140	$41,320
		50% - Very Low	$33,750	$38,550	$43,350	**$48,150**	$52,050	$55,900	$59,750	$63,600
		80% - Low	$47,600	$54,400	$61,200	**$68,000**	$73,450	$78,900	$84,350	$89,800

Source: U.S. Department of Housing and Urban Development. Dunstable is included in the Lowell Metropolitan Fair Market Rent (FMR) region

The Commonwealth has established a 10% affordable housing goal for every community across the state. Table 53 below shows the changes in the total number of affordable housing units for Dunstable and the other communities in the Greater Lowell region. For both years, the 10% affordability goal is calculated based upon the number of year-round housing units in the 2010 U.S. Census.

Table 53: Subsidized Housing Inventories in the Greater Lowell Region (April 2012–February 2018)

Community	Year Round Housing Units-2010	Subsidized Housing Inventory (SHI) Units			Percent SHI Units	
		April 2012	Feb. 2018	% Change	April 2012	Feb. 2018
Billerica	14,442	1,186	1,118	-5.73	8.21	7.74
Chelmsford	13,741	966	1,264	30.85	7.03	9.20
Dracut	11,318	595	585	-1.68	5.26	5.17
Dunstable	1,085	0	0	NA	0.00	0.00
Lowell	41,308	5,212	5,180	-0.61	12.62	12.54

Table 53 (cont'd): Subsidized Housing Inventories in the Greater Lowell Region (April 2012–February 2018)

Community	Year Round Housing Units 2010	Subsidized Housing Inventory (SHI) Units			Percent SHI Units	
		April 2012	Feb.2018	% Change	April 2012	Feb. 2018
Pepperell	4,335	122	130	6.56	2.81	3.00
Tewksbury	10,803	1,011	1,044	3.26	9.36	9.66
Tyngsborough	4,166	283	465	64.31	6.79	11.16
Westford	7,671	337	1,055	213.06	4.39	13.75
NMCOG Region	**108,869**	**9,712**	**10,841**	**11.62**	**8.92**	**9.96**

Source: Massachusetts DHCD, Chapter 40B SHI, April 3, 2012 and February 1, 2018

Infrastructure Limitations Impacting Housing

This section provides information on the existing sewer, water and transportation infrastructure and identifies the infrastructure gaps that present barriers to new residential development. This summary is based upon information within the Annual Town Reports, the updated Profile of the Dunstable Water Department (2014) and the *Greater Lowell Comprehensive Economic Development Strategy (CEDS) for 2009-2013*.

Sewer System

There is no public sewage system in Dunstable. All wastewater treatment is performed through onsite septic systems.

Water Supply

Dunstable has a limited centralized public water supply with 102 connections, including municipal buildings and schools, with the majority being residential customers. According to information provided through the 1998 Water Supply, Distribution & Storage Study and the Dunstable Open Space Plan, the Dunstable Water Department provides water to approximately 10% of the population. The remaining residents receive their water through on-site wells. In 2014, the Dunstable Water Division supplied an average of 26,455 gallons per day through 102 service connections serving approximately 234 persons per day. Please refer to the Facilities and Services section for additional information.

Water is supplied by two gravel packed wells located about 200 feet from the Salmon Brook. The main wellhead is the Salmon Brook Gravel Packed Well, while the backup well was brought online in December 2006. Both wells have the capacity to provide 360,000 gallons per day, which is the capacity needed to accommodate future growth in the community. There is a concern about the adequacy of the existing fire hydrant system to handle a fire emergency. Water tank trucks from other communities would be needed to address an emergency situation. The Dunstable Water Department has been identifying

feasible sites for the construction of a 75,000 gallon water storage tank to address these needs. Currently, there are two 5,000 gallon below ground storage tanks.

Housing Needs

This section provides an overview of the affordable housing needs in Dunstable. More extensive detail is available in the *2016-2020 Housing Production Plan*. Much of the information provided in this section is from the HPP. This section provides a discussion of the changes in the number of families, household types, age and disability status. Data on households and household income is in the Economic Development section of this Plan.

Demographic Profile

This section examines some of the socioeconomic characteristics of Dunstable's residents. It includes a discussion of changes in the number of households and families, household types, age and disability status. Table 54 below summarizes the changes that have taken place from 2000 to 2010 to 2011-2015 in terms of the household types in Dunstable. For instance, the data shows that the percentage of family households has decreased from 86.5% in 2000 to 83.5% in 2010 to 78.1% in 2011-2015. Non-family households therefore have increased from 13.5% in 2000 to 16.5% in 2010 to 21.9% in 2011-2015. The overall composition of the family has changed in the nation, state and Dunstable. Married family households with related children under 18 in Dunstable decreased from 55.2% in 2000 to 50.8% in 2010 and then increased to 54.8% in 2011-2015. The number of householders living alone increases from 76% in 2000 to 77.7% in 2010 to 91.4% in 2011-2015. The percentage of householders 65 and older living alone decreased from 35.8% in 2000 to 32.4% in 2010 and then increased to 44.7% in 2011-2015.

Table 54: Household Characteristics: 2000, 2010 and 2011-2015

Household Type	2000		2010		2011-2015	
	Number	Percentage	Number	Percentage	Number	Percentage
Family Households	798	86.5	888	83.5	919	78.1
Married - couple family	708	88.7	774	87.2	796	86.6
With related children under 18 years	*391*	*55.2*	*393*	*50.8*	*436*	*54.8*
With no related children under 18 years	*317*	*44.8*	*381*	*49.2*	*360*	*45.2*
Male householder – no spouse	24	3.0	32	3.6	20	2.2
Female householder – no spouse	66	8.3	82	9.2	103	11.2
Non-family households	125	13.5	175	16.5	257	21.9
Householder living alone	95	76.0	136	77.7	235	91.4

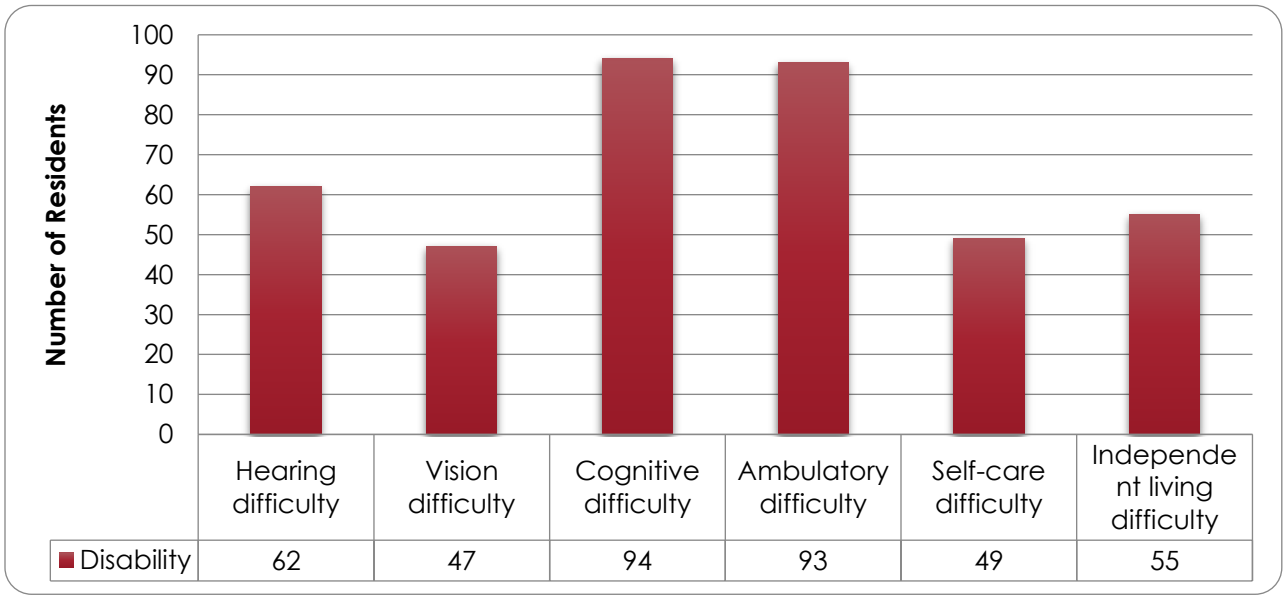
Table 54 (cont'd): Household Characteristics: 2000, 2010 and 2011-2015

Household Type	2000		2010		2011-2015	
	Number	Percentage	Number	Percentage	Number	Percentage
Householders 65 and older living alone	*34*	*35.8*	*44*	*32.4*	*115*	*44.7*
Householder living with others	30	24.0	39	22.3	22	8.6
Total Households	923	100.0	1,063	100.0	1,176	100.0

Source: 2000 and 2010 U.S. Census and 2011-2015 American Community Survey

Figure 26 below summarizes some of the characteristics of the disabled community in Dunstable. In 2011-2015 the disabled residents in Dunstable had cognitive difficulty (94), ambulatory difficulty (93), hearing difficulty (62), independent living difficulty (55), self-care difficulty (49) and vision difficulty (47). Disabled residents commonly have multiple disabilities and can be counted more than once in these statistics.

Figure 26: Disabilities Reported for Dunstable Residents (2011-2015)



Source: 2011-2015 American Community Survey

Housing Affordability

Public officials generally agree on a definition of affordable housing as that which costs no more than 30% of a household's total annual income. Households that spend between 30% and 50% of their annual incomes on housing and related costs (including basic utilities and fuels) are said to be moderately burdened, while those spending more than half of their incomes are considered severely burdened. This section analyzes the housing costs for homeowners and renters in Dunstable and provides an overall analysis of the rental market.

Housing Burden

Viewing monthly housing costs for homeowners as a percentage of annual household costs can shed light onto the housing burden faced by Dunstable residents. Based upon data from the 2011-2015 American Community Survey, 28.4% of Dunstable homeowners with a mortgage and 23.4% without a mortgage were considered moderately burdened by their housing costs as shown below in Table 55. In total, 209 households with a mortgage and 96 households without a mortgage are experiencing housing costs of 30% or more. Similarly, 26.1% of homeowners with a mortgage and 16.3% without a mortgage are considered to be slightly burdened since their housing costs fall within the 20-29% range.

Table 55: Monthly Housing Costs as a Percentage of Annual Household Income: 2011-2015

Characteristics	Households in Dunstable	No Burden (Less than 20%)		Slightly Burdened (20%-29%)		Moderately Burdened (30% or more)	
		Number	Percent	Number	Percent	Number	Percent
Households with a mortgage	737	336	45.6	192	26.1	209	28.4
Households without a mortgage	411	248	60.3	67	16.3	96	23.4

Source: 2011-2015 American Community Survey

Rental Market

Renters can also be burdened by monthly rental payments. According to data collected in the 2011-2015 ACS, 23 rental households in Dunstable, or 82.2% of all rental households, are moderately burdened due to the housing costs being 30% or more of their income. Table 56 below summarizes the level of burden for rental households in Dunstable in the 2011-2015 period. Similar to the ownership households, rental households can be slightly burdened as well when the overall housing costs fall within the 20-29% range. In the case of Dunstable, no households were considered slightly burdened.

Table 56: Gross Rent as a Percentage of Household Income (2011-2015)

Rent as a Percent of Income	Number of Rental Households	Percent of Rental Households
Less than 10%	0	0.0
10% to 19%	5	17.9
20% to 29%	0	0.0
30% to 49%	18	64.3
50% or more	5	17.9
Total	**28**	**100.1**

Source: 2011-2015 American Community Survey

Foreclosures

Based upon data provided by the Warren Group, the foreclosure petitions in Dunstable from 2009 to 2016 are summarized below in Table 57. The number of foreclosure petitions decreased from 9 foreclosures in 2009 to 3 foreclosures in 2016, which is consistent with declining foreclosure trends statewide. Single-family homes comprise 99% of the foreclosures during this period with other residential units showing one foreclosure in 2007. Compared to the other communities in the Greater Lowell region, the number of foreclosure petitions in Dunstable has been relatively low.

Table 57: Foreclosure Petitions in Dunstable (2007-2014)

Year	Number of Single-family Foreclosures	Total
2009	9	**9**
2010	6	**6**
2011	6	**6**
2012	6	**6**
2013	1	**1**
2014	2	**2**
2015	2	**2**
2016	3	**4**
Total	**35**	**36**

Source: The Warren Group, 2017

Affordable Housing Efforts in Dunstable

The Dunstable Affordable Housing Committee worked diligently through 2015 and submitted the *2016-2020 Housing Production Plan* for approval to the Massachusetts Department of Housing and Community Development (DHCD) in February 2016 and received final approval from DHCD on April 1, 2016. The Committee had identified five (5) privately-owned sites and six (6) publically-owned sites as potential housing sites that could generate 75-135 affordable housing units over the next five years. More information on these sites can be found in the Appendix of this document. The affordable housing production timelines showed that based on Dunstable's average housing growth during the past ten years, it could develop 16 affordable units or 1.8% by 2020. By utilizing the 0.5% and 1.0% targets, the Town would have 20 affordable units or 2.4% under the 0.5% target and 44 affordable units or 5.3% under the 1.0% target by 2020. The Town would also qualify for "safe harbor" status for one year if it produced 5 units during the calendar year or for two years if it produced 11 units during the calendar year. Currently, Dunstable has no affordable housing units, but the Dunstable Affordable Housing Committee has been working to generate affordable housing.

Within the *2016-2020 Housing Production Plan*, Affordable Housing Goals and Strategies were outlined that received the overall support of the Dunstable Board of Selectmen and Planning Board. These goals and strategies will be incorporated within the Housing section of the Master Plan to reflect the community support for the development of affordable housing. The Affordable Housing Goals and Strategies were as follows:

Housing Goals

1. Provide a variety of housing opportunities that serve all segments of the community, especially those below 80% of the area median income.
2. Maintain the rural, residential and historic character of the town through housing development.
3. Create diverse rental units, in terms of types of units (duplexes vs. multi-family) and number of bedrooms (three or more) for Dunstable residents.
4. Support the creation of workforce housing units and broaden the range of potential home-buyers and tenants.
5. Develop rental and ownership options for senior citizens, disabled residents and veterans that allow them to live independently.
6. Encourage new housing development consistent with community character and identified needs.
7. Update the zoning bylaw, development review processes and permitting policies so they are clear and consistent.
8. Coordinate the activities of the Affordable Housing Committee, Planning Board, Board of Selectmen and Zoning Board of Appeals to achieve consistency in the interpretation and administration of affordable housing requirements.
9. Ensure that affordable housing development in Dunstable adheres to the Commonwealth's Sustainable Development Principles.
10. Utilize the DHCD-approved *Housing Production Plan* as a management tool to develop new housing opportunities in meeting the Town's annual production goals.

Housing Strategies

1. Maintain Existing Housing and Expand Housing Opportunities
    a. Upon the development of affordable housing units, be proactive in monitoring and maintaining them.
    b. Develop more affordable rental housing (less than 30% of annual income) with the increased availability of 3- and 4-bedroom units.
    c. Encourage re-use or redevelopment of underutilized property.
    d. Document the specific needs of Dunstable veterans and construct affordable veterans housing units that meet those needs.
    e. Consider Chapter 61 properties as potential affordable housing opportunities in the future.
    f. Promote inclusion of affordable housing development under the Open Space Development Bylaw.

g. Incorporate the *Housing Production Plan* into future updates to the Dunstable Master Plan.
h. Work with State agencies and other stakeholders to develop group homes to provide supported, supervised living arrangements for citizens with mental and physical disabilities.
i. Utilize the Dunstable Affordable Housing Committee to implement the DHCD-approved *Housing Production Plan.*

2. Policies, Programs and Services
   a. Evaluate and revise existing development regulations and guidelines for fairness and efficiency through the development of an Affordable Housing Permitting Guide to assist applicants in navigating the review process.
   b. Working in conjunction with the Planning Board, Board of Selectmen, Zoning Board of Appeals and other town committees and boards, build upon the approved zoning changes so as to provide more affordable housing opportunities, such as through special permits for multi-family units, accessory apartments, assisted living facilities and retirement communities.
   c. Utilize available Community Preservation Funds to support affordable housing development with a focus on the following programs and services:
      - Community education regarding affordable housing programs;
      - First-time home buyer's assistance program;
      - Rental assistance;
      - Renovation and sale of properties as affordable unit(s) from town tax lien properties acquired;
      - Purchase of property for use as an affordable housing development;
      - Provide betterment to donated buildings and/or land for use of affordable housing; and
      - Partnerships with private developers and public agencies for affordable housing initiatives that address the housing needs of the community.
   d. Support legislative and/or regulatory reforms at the state level that recognize the efforts of communities like Dunstable to proactively provide "workforce housing" to serve households at 80-120% of the area median income (AMI), in addition to current efforts supporting households earning below 80% of the AMI.
   e. Adopt local selection preferences that are consistent with DHCD Affirmative Fair Housing Marketing Plan (AFHMP) Guidelines and all applicable State and Federal laws/regulations. The project will justify the extent of the local preference (the percentage of units proposed to be set aside for local preference, but in no event will a local preference exceed 70% of the (affordable) units in a project.
      - Allowable Preference Categories:

i. Current residents: A household in which one or more members is living in the town at the time of application. Documentation of residency should be provided, such as rent receipts, utility bills, street listing or voter registration listing.
ii. Municipal employees: Employees of the municipality, such as teachers, janitors, firefighters, police officers, librarians, or town hall employees.
iii. Employees of Local Businesses: Employees of businesses located in a municipality.
iv. Households with children attending the locality's schools, such as METCO students.

3. Education
   a. Provide affordable housing training and educational opportunities to local Board and Committee members and staff, including the Affordable Housing Committee. These training opportunities could include updates on current policies to support affordable housing (i.e. the Comprehensive Permit Guidelines) and any revisions to state law or regional opportunities. This will allow boards and committees to provide guidance to the development community so as to improve the quality of proposals and result in a more expedited permitting process.
   b. Increase public awareness of and support for affordable housing through increased outreach and public education.

4. Funding
   a. Pursue the purchase of units and provide a subsidized buy-down on the purchase price to qualified first-time homebuyers.
   b. Develop local partnerships with developers to utilize the State's Local Initiative Program (LIP) as a means to develop "friendly 40B" development projects.
   c. Research federal and state grant opportunities for the enhancement of affordable housing including, HUD's Housing for the Elderly (Section 202) Program, the Community Economic Development Assistance Corporation (CEDAC) and Neighborworks Capital (NWC).

5. Regional Coordination
   a. Participate in a Regional Housing Committee to create a Regional Housing Plan for the Greater Lowell region.
   b. Work with non-profit entities, such as the Common Ground Development Corporation, a subsidiary of Community Teamwork, Inc. and the Coalition for a Better Acre to develop and manage affordable housing projects.

c. Collaborate with other communities to promote First-Time Homebuyer Program opportunities in the region and State to make existing homes more affordable.
d. Research and promote Foreclosure Assistance Programs through the State's Emergency Homeowners Loan Program (EHLP) or Community Teamwork, Inc. to help homeowners avoid foreclosure and maintain strong residential neighborhoods.

The implementation of the HPP has fallen under the purview of the Dunstable Affordable Housing Committee. Since the HPP was approved in April 2016, the Dunstable Affordable Housing Committee has completed a Housing Feasibility Study for the development of affordable housing units in the MUD district. The Committee is working on a Request for Proposals for the actual development of affordable housing units at 160 Pleasant Street, to be issued as soon as water infrastructure becomes available in the district. The housing strategies outlined in the HPP are designed to help the Town reach its 10% DHCD affordable housing target.

Public Input

At the Dunstable Master Plan Visioning Session II meeting on September 20, 2016, participants were asked to provide responses to a number of questions related to Land Use and Zoning, Economic Development and Housing. The major focus of the responses was on the Land Use and Zoning questions although there were some tie-ins with Economic Development and Housing. Outlined below are the responses to the Housing questions:

1. How can the Affordable Housing Committee and Town move forward to develop affordable housing opportunities? Which priority development sites should be focused upon and what funding sources should be utilized? Should funds from the Community Preservation Act (CPA) be utilized to encourage the development of affordable housing?

- State funding does not fix the problem. Keep it local if you want it to stay local. (Housing Authorities are no longer legal).
- Town's inclusionary bylaw is not part of the zoning bylaw. It is in the general bylaws. May have to be revisited.
- It is in the Town's best interest to be able to control the development of 40B housing.

5. What infrastructure improvements will be needed to accommodate housing production in town (water, public transit, etc.)?

- Currently the Town's water infrastructure can't handle any increase significant in demand (104 out of 120 connections available?).

The results of the written survey for the Master Plan indicated that Dunstable residents felt there was a need for more housing opportunities in the community, as indicated below:

- Nearly half of the residents felt that there are poor housing options (47.45%) for seniors, while 38.04% were unable to respond to this item.
- Over half (57%) of the respondents rated housing affordability as either fair (19%) or poor (38%).
- The need for affordable housing ranked ninth on the list of 17 top issues facing the town, while senior housing ranked number 14. Approximately 78% of respondents favor creating additional senior housing, and 57% of respondents favor creating additional affordable housing.
- Upgrading/expanding the water system ranked number 7 among the top 17 issues facing the town over the next 10 years. Improving public water infrastructure was identified by 68% of the respondents.

Issues and Opportunities

The Town of Dunstable has an opportunity to diversify its housing stock to address the gaps between its housing needs and its existing housing supply. The Dunstable Affordable Housing Committee has focused on the affordable housing needs of the community through the development of the Town of Dunstable Housing Production Plan (HPP) for 2016-2020, prepared by NMCOG, and the Town of Dunstable Age Restricted Housing Supply and Demand Study prepared by the LDS Consulting Group, LLC. These documents have established a "blueprint" for the production of affordable housing to address the housing needs of the elderly, young families and low- and moderate-income families. Within the Dunstable HPP, specific Housing Goals and Strategies were developed and potential housing sites (see site information and Map in the Appendix) were identified to address the fact that the Town has no affordable housing units.

As outlined in Affordable Housing Efforts in Dunstable section, the Town determined, that based on the average housing growth rate for the past ten year, it was possible to produce 16 affordable units by 2020. If you adjust the number of affordable housing units produced by the 0.5% formula used by the State, 20 affordable units would be created by 2020. Under the State's 1% formula, the number of affordable housing units would increase to 44 housing units. If the Town produces six (6) affordable housing units within one year, it would be eligible for "safe harbor" status that would protect the Town from excessive

development by a private developer. A draft pro forma was orally presented to the Master Plan Committee that outlined a way by which six affordable ownership units could be developed through the availability of one acre of land from the Town and funding from the Community Preservation Committee and the Department of Housing and Community Development. This would provide an opportunity to have safe harbor status while plans were finalized and the water infrastructure for the MUD District was implemented. The Dunstable Affordable Housing Committee agreed to issue an RFP for the production of affordable housing units at the Best Triangle site once the new Town Administrator was hired.

The Housing Supply and Demand Study focused on the affordable and market-rate housing in Dunstable and Surrounding Communities from a marketing perspective and identified potential housing and commercial development opportunities for the MUD District. These two documents have formed the basis for producing future affordable and market-rate housing units in Dunstable.

The Commonwealth of Massachusetts recently announced its Housing Choice Initiative program administered by the Department of Housing and Community Development (DHCD). This program represents a partnership between the State and local communities to encourage the production of more housing units to support a growing economy and provide new housing choices. The Housing Choice Initiative provides incentives, such as Housing Choice Capital Grants and priority access to capital funding programs at the State level, including MassWorks, Complete Streets, MassDOT capital projects and LAND and PARC grants. Designation of Housing Choice Communities is similar to the Green Communities Act, whereby the communities meet specific requirements and are designated by DHCD. Under this program, communities must have permitted either 5% (or 500 units) or 3% (300 units plus four of nine Best Practices) of its year-round housing units over the past five years. In reviewing Dunstable's eligibility for this program, it was determined that the residential building permits issued between 2013 and 2017 fell eight units short of the 54.25 housing units required. Dunstable could meet this goal next year if the number of residential building permits issued is eight units higher in 2017 than it was in 2013. The only other potential complication may be the Town's Housing Growth Rate Limitation bylaw, which has been viewed by the State as a partial housing moratorium. With $ 1 million set aside for communities with less than 7,000 residents, this program could provide an opportunity to access water infrastructure funds to address the infrastructure needs in the MUD District.

There are extensive opportunities to modify the zoning bylaw to encourage reasonable and appropriate housing production. Based upon the initial work of the Master Plan Committee, the Inclusionary Zoning bylaw has already been moved by Town Meeting from the General Bylaw to the Zoning Bylaw. In addressing the need for additional senior

housing, it has been recommended that the zoning bylaw be modified to more clearly accommodate assisted living facilities. Addressing the Housing Growth Limitation portion of the Zoning bylaw will be needed in order to quality for designation as a Housing Choice community.

In addressing the water infrastructure issue, the Town should apply for MassWorks funding and research funding opportunities under USDA Rural Development. Designation as a Housing Choice Community could open up other funding opportunities as well. Working with private and non-profit developers could create some funding for water infrastructure improvement. Once the water infrastructure issues are addressed, the Affordable Housing Committee can move forward with its Request for Proposals (RFP) related to the MUD District.

Within the Dunstable Housing Production Plan, specific potential housing sites were identified. In addition to these sites, the Best Triangle, property and the Pelletier property were identified as potential housing development sites. The partnership with the Community Preservation Commission would be important in accessing funds to purchase property. Additionally, partnerships with non-profit developers, such as Common Ground or Habitat for Humanity, would reduce the development costs for affordable housing. Partnerships with private developers through the use of Local Initiative Projects (LIP) would encourage the development of "friendly" 40B projects. Design guidelines could be established for the affordable housing developments so that they benefit the community. Home buyer and homeowner education programs would also benefit Dunstable residents.

RECOMMENDATIONS

- Use the DHCD-approved Housing Production Plan as a management tool to develop new housing opportunities in meeting the Town's annual housing production goals.
- Implement the recommendations of the Dunstable Age Restricted Housing Supply and Demand Study.
- Address the housing needs of the elderly, young families and low- and moderate-income families. Partner with non-profit and private developers to develop new housing units.
- Revisit the Growth Management Bylaw to determine whether it should be continued or removed from the Town's zoning regulations. Retaining the bylaw impacts the Town's ability to leverage some state grant funds, such as Housing Choice capital funds.
- Apply for designation as a Housing Choice Community if the Town meets the housing production eligibility.

- Apply for Housing Choice Capital and Technical Assistance Grants if designated as a Housing Choice Community.
- Modify the Zoning Bylaw to more clearly accommodate assisted living facilities.
- Review the opportunities available under an Act to Promote Housing Choices to determine if the Town wants to take advantage of the simple majority voting provision for Town Meeting actions on certain zoning changes. (proposed legislation)
- Apply for MassWorks funding and research funding opportunities under USDA Rural Development to address water infrastructure issues.
- Encourage the Affordable Housing Committee to issue its Request for Proposals (RFP) for the MUD District once the water infrastructure issue has been addressed.
- Focus on the potential development sites identified in the Dunstable HPP, as well as the Best Triangle and Pelletier property, for housing development.
- Establish design standards for Comprehensive Permit projects to ensure that such development projects maintain and protect the town's rural character, and benefit the community.
- Evaluate the zoning classifications for eleven parcels identified in the Housing Production Plan as potential sites for future affordable housing to determine whether zoning changes are appropriate.
- Utilize homebuyer and homeowner education programs to encourage home ownership.

VI. Open Space And Recreation

Open space is essential to the quality of life within Dunstable and should be viewed as the "green infrastructure" that supports and links the built and natural environments. Open space consists of a network of waterways, wetlands, woodland and forests, parks, conservation lands, and working farms. It provides ecological, social, economic, and health benefits that can be described as follows: [13]

- **Ecological benefits**: Open space provides natural water filtration, drinking water protection, aquifer recharge, flood and erosion control, wildlife habitat, migration stopovers, and biodiversity. Biodiversity includes genetics, species, ecosystems and ecological processes.

- **Social benefits:** Open space contributes to residents' quality of life, by providing opportunities for recreational, civic, social and educational interactions. It contributes to community identity and sense of place, by connecting residents to their natural and cultural heritage, and by linking neighborhoods to the larger community.

- **Economic benefits:** Open space is important for attracting and maintaining businesses in a community and a region. Proximity to open space often increases land values, and recreation and leisure activities can make significant economic contributions. In addition, natural processes such as water filtration are much less expensive than engineered alternatives such as water treatment plants.

- **Health benefits:** Access to parks, greenways and trails creates recreational opportunities and encourages a physically active lifestyle. Open space helps to ensure

Open Space and Recreation Goals

- Continue to acquire open space, as opportunities arise and resources allow
- Connect Dunstable's open space and recreation lands through a network of trails and pathways
- Educate residents on the value and importance of open space.

[13] American Planning Association, "Seven Principles of Green Infrastructure".

clean and safe water supplies and food production resources. It also mitigates air, light and noise pollution.

Dunstable's green infrastructure should be managed and enhanced on an ongoing basis, in order to support natural systems, protect groundwater, minimize flooding, build community, and increase the well-being of its residents. This section of the Master Plan provides an overview of the Town's lands of conservation and recreation interest, and articulates the needs of the community, based on input received during the public input and plan development processes.

History of Open Space and Recreation Planning in Dunstable

Dunstable has been engaged in Open Space and Recreation Planning since the completion of its first Open Space and Recreation Plan in 1976. The 1976 plan described residents' concerns regarding the vulnerability of the town's rural character as a result of future land development. In 1990, the Town formed the Rural Design Study Committee, comprised of representatives from the Board of Selectmen, Historical Commission, Conservation Commission and Planning Board. The Committee hired a consultant to prepare a Rural Landscape and Design Study and to formulate recommendations for revising the town bylaws and regulations.

In 2005, the Town prepared an updated Open Space and Recreation Plan that laid out goals for preserving open space lands, creating recreation opportunities, maintaining the town's agricultural and scenic landscape, and protecting natural resources. The 2005 Plan resulted in the adoption of the Community Preservation Act (CPA), the purchase of Flat Rock Conservation Area, an improved entrance to the Arched Bridge Conservation land, improvements at Blanchard Hill, improved management of several forested conservation parcels, development of a Forest Management Plan for the Flat Rock Hill Conservation Area, and the purchase of the Howard's Brook Conservation Area.

In 2010, the Town updated the *2005 Open Space and Recreation Plan*. The new Plan stressed the importance of preserving Dunstable's many hilltops, including Blanchard, Drake, Horse, Nuttings and Spectacle Hills. The 2010 Plan also focused on the protection of scenic roads through the preservation of shade trees, stone walls, historic sites, and open fields. The protection of marsh and pond shorelines, preservation of forest lands, and addressing the visual quality of new residential development were also identified as priorities.

The most recent update to the Open Space and Recreation Plan was drafted in December 2017, with state approval anticipated in 2018. Protecting Dunstable's natural resources and preserving its rural character are the two primary conservation goals in the 2018

update. Among the priorities identified in the document are the completion of the Salmon Brook and Unkety Brook Greenways, protection of the town's hilltops and the Route 113 Gateway, linkages between the Pierce Town Forest and the Spaulding Proctor Reservation, and connecting the Farnsworth Wildlife Refuge and Fitch Wildlife Management area to Massapoag. Protecting the eastern bank of Salmon Brook is also a priority.

Existing Conditions

For purposes of the Master Plan, open space is defined as land that, for the most part, is free of structures. As shown in Table 58 below, 4,882.89 acres within Dunstable are classified as open space, of which 3,045.20 acres are considered to be permanently protected. Forty years ago, Dunstable only had 341 acres of Conservation Land, according to the town's *1976 Open Space and Recreation Plan*. By 1998, there were 1,600 acres of permanently protected open space in Dunstable, and by 2010, that number increased to 2,763 acres.[14]

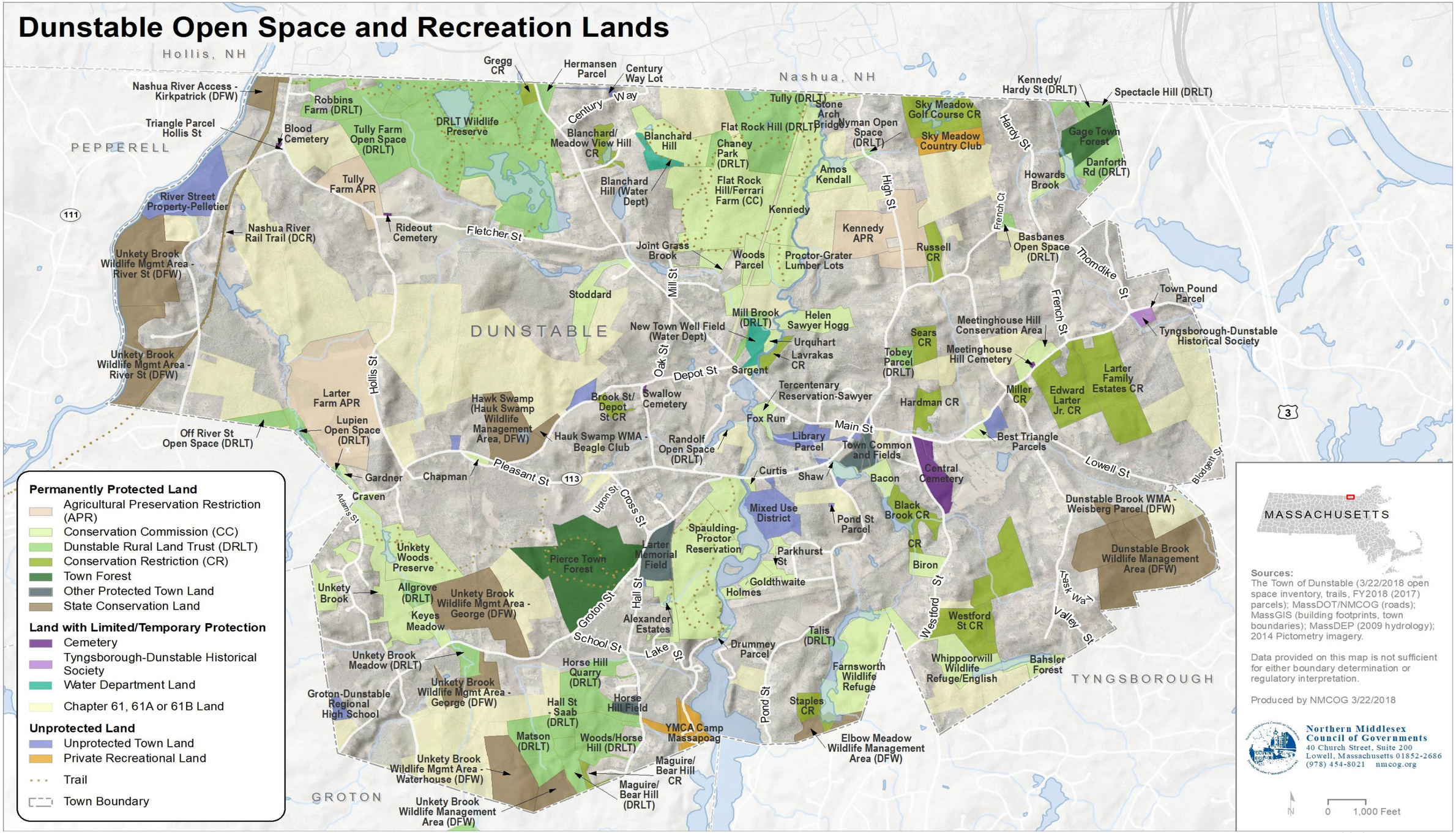
Table 58: 2017 Open Space Acreage by Ownership/Category

Ownership/Category	Acreage
Commonwealth of Massachusetts	586.70
Town of Dunstable (protected)	1,139.37
Dunstable Rural Land Trust	785.59
Conservation Restrictions	398.07
Water Department Lands	25.28
Cemeteries	28.23
Chapter 61	421.86
Chapter 61A	1,146.07
Chapter 61B	30.44
Institutional, Other Non-profit, Private	50.89
Agricultural Preservation Restrictions	249.04
Other Town-owned (unprotected or protection status unknown)	73.26
	Total 4,882.89

As part of the Master Plan process, NMCOG staff updated the town's inventory of lands of conservation and recreation interest through an analysis of the Assessor's database, with input from town staff and officials, and from the Master Plan Committee. A copy of the complete inventory can be found in the town most recent Open Space and Recreation Plan. The open space and recreation parcels are shown on Map 8 on the following page.

[14] Town of Dunstable, *2010 Open Space and Recreation Plan*, p. 75.

MAP 8


Dunstable Open Space and Recreation Lands
Hollis, NH
Nashua, NH
PEPPERELL
DUNSTABLE
TYNGSBOROUGH
GROTON
Nashua River Access - Kirkpatrick (DFW)
Triangle Parcel Hollis St
Robbins Farm (DRLT)
Blood Cemetery
Tully Farm Open Space (DRLT)
DRLT Wildlife Preserve
Gregg CR
Hermansen Parcel
Century Way Lot
Century Way
Blanchard/ Meadow View Hill CR
Blanchard Hill
Blanchard Hill (Water Dept)
Tully (DRLT)
Stone Arch Bridge
Flat Rock Hill (DRLT)
Chaney Park (DRLT)
Flat Rock Hill/Ferrari Farm (CC)
Nyman Open Space (DRLT)
Amos Kendall
Kennedy
Sky Meadow Golf Course CR
Sky Meadow Country Club
Kennedy/ Hardy St (DRLT)
Spectacle Hill (DRLT)
Hardy St
Gage Town Forest
Danforth Rd (DRLT)
Howards Brook
High St
French Ct
Basbanes Open Space (DRLT)
Thomdike St
Town Pound Parcel
Tyngsborough-Dunstable Historical Society
French St
Meetinghouse Hill Conservation Area
Meetinghouse Hill Cemetery
Larter Family Estates CR
Edward Larter Jr. CR
Miller CR
Best Triangle Parcels
Lowell St
Blodgett St
Dunstable Brook WMA - Weisberg Parcel (DFW)
Dunstable Brook Wildlife Management Area (DFW)
Task Way
Valley St
Westford St
Westford St CR
Whippoorwill Wildlife Refuge/English
Bahsler Forest
Russell CR
Kennedy APR
Proctor-Grater Lumber Lots
Woods Parcel
Joint Grass Brook
Mill St
Stoddard
Mill Brook (DRLT)
Helen Sawyer Hogg
New Town Well Field (Water Dept)
Urquhart
Lavrakas CR
Sargent
Depot St
Oak St
Sears CR
Tobey Parcel (DRLT)
Hardman CR
Tercentenary Reservation-Sawyer
Fox Run
Library Parcel
Main St
Town Common and Fields
Central Cemetery
Bacon
Shaw
Curtis
Black Brook CR
CR
Biron
Mixed Use District
Pond St Parcel
Parkhurst St
Goldthwaite
Holmes
Spaulding-Proctor Reservation
Larter Memorial Field
Pierce Town Forest
Hall St
Alexander Estates
Drummey Parcel
Talis (DRLT)
Farnsworth Wildlife Refuge
Staples CR
Pond St
Elbow Meadow Wildlife Management Area (DFW)
Cross St
Upton St
Pleasant St
Chapman
Brook St/ Depot St CR
Swallow Cemetery
Randolf Open Space (DRLT)
Hawk Swamp (Hauk Swamp Wildlife Management Area, DFW)
Hauk Swamp WMA - Beagle Club
Hollis St
Larter Farm APR
Lupien Open Space (DRLT)
Off River St Open Space (DRLT)
Gardner
Craven
Adams St
River Street Property-Pelletier
Nashua River Rail Trail (DCR)
Tully Farm APR
Rideout Cemetery
Fletcher St
Unkety Brook Wildlife Mgmt Area - River St (DFW)
Unkety Brook Wildlife Mgmt Area - River St (DFW)
Unkety Woods Preserve
Unkety Brook
Allgrove (DRLT)
Unkety Brook Wildlife Mgmt Area - George (DFW)
Keyes Meadow
Groton St
School St
Lake St
Unkety Brook Meadow (DRLT)
Unkety Brook Wildlife Mgmt Area - George (DFW)
Groton-Dunstable Regional High School
Horse Hill Quarry (DRLT)
Hall St - Saab (DRLT)
Horse Hill Field
Matson (DRLT)
Woods/Horse Hill (DRLT)
YMCA Camp Massapoag
Unkety Brook Wildlife Mgmt Area - Waterhouse (DFW)
Maguire/ Bear Hill CR
Maguire/ Bear Hill (DRLT)
Unkety Brook Wildlife Management Area (DFW)
111
113
3
Permanently Protected Land
Agricultural Preservation Restriction (APR)
Conservation Commission (CC)
Dunstable Rural Land Trust (DRLT)
Conservation Restriction (CR)
Town Forest
Other Protected Town Land
State Conservation Land
Land with Limited/Temporary Protection
Cemetery
Tyngsborough-Dunstable Historical Society
Water Department Land
Chapter 61, 61A or 61B Land
Unprotected Land
Unprotected Town Land
Private Recreational Land
Trail
Town Boundary
MASSACHUSETTS
Sources:
The Town of Dunstable (3/22/2018 open space inventory, trails, FY2018 (2017) parcels); MassDOT/NMCOG (roads); MassGIS (building footprints, town boundaries); MassDEP (2009 hydrology); 2014 Pictometry imagery.
Data provided on this map is not sufficient for either boundary determination or regulatory interpretation.
Produced by NMCOG 3/22/2018
Northern Middlesex Council of Governments
40 Church Street, Suite 200
Lowell, Massachusetts 01852-2686
(978) 454-8021 nmcog.org
N
0 1,000 Feet

Permanently Protected Open Space

Permanently protected lands include state lands and municipal properties subject to Article 97, a conservation restriction or other deed restriction, as well as private properties subject to a conservation restriction, agricultural preservation restriction or deed restriction. Unprotected lands of conservation and recreation interest include those that are held for open space, historic, or recreation purposes, but are not permanently protected. Parcels that are under a Chapter 61, 61A or 61B agreement are considered to have limited protection.

Protected open space provides a number of important benefits to the community, including water supply protection, flood prevention, reducing the impacts of climate change, preservation of natural resources and wildlife habitat, creation of recreational opportunities, and retention of rural character.

Town-owned lands

The Conservation Commission holds 922.75 acres within 46 parcels, as shown in Table 59 below. These parcels have been acquired through various means including by gift/donation, acquisition using town budget appropriations, state grants, CPA funding, private funding, and by tax title. Properties held by the Conservation Commission are protected under Article 97 of the state constitution. Article 97 provides that land held for conservation and natural resource purposes may not be transferred, disposed of, or used for other municipal or private purposes without a majority vote of the Board of Selectmen, a two-thirds vote of Town Meeting, a two-thirds roll call vote of both Houses of the State Legislature, and the Governor's signature.

Table 59: Land Held by the Dunstable Conservation Commission[15]

Site Name	Location	Acreage
Alexander Estates	0 Hall St	15.12
Amos Kendall Conservation Area	422 High St	25.16
Bacon Conservation Area	0 Westford St	11.4
Bahsler Forest Conservation Area	580 Forest St	17.78
Best Triangle Parcels	350 and 360 Main St	4.36
Biron Conservation Area	0 Westford St	10
Blanchard Hill Conservation Area	95 Sky Top Ln	39.38
Chapman Conservation Area	0 Pleasant St	1.7
Craven Conservation Area	0 Pleasant St	2.22
Curtis Conservation Area	184 Pleasant St	2.0

[15] Some conservation areas are comprised of more than one tax parcel.

Table 59 (cont'd): Land Held by the Dunstable Conservation Commission

Site Name	Location	Acreage
Drummey Parcel	0 Lower Dam Way	0.2
Farnsworth Wildlife Refuge	0 Westford St	94.3
Flat Rock Hill/Ferrari Farm (CC)	0 Mill St	148.0
Fox Run Conservation Area	0 Pleasant St	2.14
Gardner Conservation Area	0 Pleasant St	3.0
Goldthwaite Conservation Area	0 Pond St	1.3
Helen Sawyer Hogg Conservation Area	0 High St	27
Holmes Conservation Area	0 Pond St	5.0
Howards Brook Conservation Area and CR	73 Hardy St	10.89
Joint Grass Brook Conservation Area	45 Mill St	21.16
Kennedy Conservation Area	0 Main St	17.0
Kennedy Conservation Area	0 High St	33.0
Keyes Meadow Conservation Area	0 Groton St	18.0
Meeting House Hill Conservation Area	0 Main Street	13.48
Parkhurst Street Conservation Area	0 Parkhurst Rd	16.58
Proctor-Grater Lumber Lots	0 Mill St	30.0
Sargent Conservation Area	0 Main St	3.0
Shaw Conservation Area	0 Pleasant St	5.0
Spaulding-Proctor Reservation	0 Groton St	94.0
Spaulding-Proctor Reservation	0 Pond St	2.44
Stoddard Conservation Area and CR	934 Main St	32.01
Stone Arch Bridge Conservation Area	0 High St	12.24
Tercentenary Reservation-Sawyer	0 Main St	5.0
Unkety Woods Preserve	65 Woods Ct	62.0
Unkety Brook Conservation Area	89 Adams St	27.04
Unkety Brook Conservation Area	20 Adams St	61.82
Urquhart Conservation Area	0 Main St	4.0
Whippoorwill Wildlife Refuge/English	0 Westford St	34.0
Woods Parcel	0 Main St	10.0
	Total	**922.75**

Source: NMCOG GIS and Dunstable Assessor database 11/13/17

In addition to the above parcels, the Town also owns the 37-acre Gage Town Forest located on Hardy Street and the 131-acre Pierce Forest located on Groton Street. Other town-owned lands that are unlikely to be developed in the future include the cemeteries (28.23 acres) and Larter Recreation Area (26.3 acres) located on Groton Street. The Dunstable Water Department owns two parcels: Blanchard Hill on Skytop Lane (10.89 acres) and the new town well field located on Main Street (14.39 acres). Table 60 on the following page lists other deed-restricted lands that are protected from development.

Table 60: Other Deed Restricted Lands Protected From Development

Parcel Description	Address	Owner	Acreage
Horse Hill Field (2 parcels)	203 and 213 Hall Street	Town of Dunstable	6.25
Larter Memorial Field (2 parcels)	80 Groton Street	Town of Dunstable	26.30
Town Common and Fields	Main and Pleasant Streets	Town of Dunstable	15.88
			Total 48.43

State Lands

The Commonwealth of Massachusetts owns fifteen (15) parcels of open space in Dunstable, comprising 586.7 acres within seven (7) conservation/recreation areas. These lands are permanently protected, and most are controlled by the Division of Fisheries and Wildlife (DFW), with the exception of the Nashua River Trail right-of-way, which is controlled by the Department of Conservation and Recreation (DCR). As shown in Table 61, , the three largest areas include the Dunstable Brook Wildlife Management Area on Lowell Street (125.04 acres), River Street Wildlife Management Area (140.4 acres) on River Street and Chapman Street, and the Unkety Brook Wildlife Management Area (formerly known as George) on Groton Street (102 acres).

Table 61: State-owned Open Space in Dunstable

Conservation Area/Facility	Agency	Location	Acres
Dunstable Brook Wildlife Management Area-Larter	DFW	Lowell Street	160.79
Dunstable Brook Wildlife Management Area-Weisberg Parcel	DFW	Forest Street	10.0
Elbow Meadow Wildlife Management Area-Fitch	DFW	Pond Street	12.83
Hauk Swamp Wildlife Management Area	DFW	Pleasant Street	55
Hauk Swamp Wildlife Management Area-Beagle Club	DFW	275 Depot Street	6.0
Nashua River Access-Kirkpatrick	DFW	Hollis Street	14.97
Nashua River Rail Trail	DCR	Hollis Street	20.2
River Street Wildlife Management Area	DFW	211 River Street/ Chapman Street	140.41
Unkety Brook Wildlife Management Area	DFW	Kemp Street	17.5
Unkety Brook Wildlife Management Area-George	DFW	Groton Street	102.0
Unkety Brook Wildlife Management Area-Waterhouse	DFW	Kemp Street	47.0
		Total	**586.7**

Source: NMCOG GIS and Dunstable Assessor database

Conservation Restrictions (CR)

A Conservation Restriction is a voluntary and legally binding document whereby a land owner agrees to limit the use of the landowner's property in order to protect the conservation value of the land. The landowner receives a tax deduction, and the grantee, usually a non-profit or municipality, is assured that the land will not be developed. There are forty-six (46) privately-owned parcels, totaling 398.07 acres, subject to a CR, as shown in Table 62 on the following page.

Table 62: Conservation Restrictions in Dunstable

Conservation Restrictions	Location	Acreage
Black Brook CR (11 parcels)	Westford Street	25.50
Blanchard Hill CR (9 parcels)	Sky Top Lane	13.36
Brook Street/Depot Street CR (5 parcels)	98 Brook Street	6.95
Edward Larter Jr. CR	194 Main Street	53.72
Gregg CR	1230 Main Street	6.63
Hardman CR	437 Main Street	14.33
Larter Family Estates CR	134 Main Street	75.52
Lavrakas CR	102 High Street	10.40
Maguire/Bear Hill CR (5 parcels)	19, 25,32 and 36 Bear Hill Rd	4.0
Miller CR	280 Main Street	4.67
Miller CR	214 Forest Street	2.05
Russell CR	Thorndike Street	14.74
Sears CR (2 parcels)	171 High Street	15.00
Sky Meadow Golf Course CR	Hardy Street	49.27
Staples CR	328 Pond Street	15.06
Westford Street CR (4 parcels)	Westford Street	86.87
	Total	**398.07**

Source: NMCOG GIS and Dunstable Assessor database 11/30/17

Land Trust Parcels

As shown in Table 63 below, the Dunstable Rural Land Trust (DRLT) owns thirty-nine (39) parcels totaling 785.59 acres within Dunstable. The largest land area held by the Trust is the DRLT Wildlife Preserve (318.32 acres) on Main Street and Hollis Streets. The mission of the Dunstable Rural Land Trust is to preserve and protect the rural character of the Town by preserving open spaces. The DRLT also owns land in Groton and Pepperell.

Table 63: Dunstable Lands Held by the Dunstable Rural Land Trust

DRLT Properties	Location	Acreage
Allgrove Open Space	Groton Street	15.00
Basbanes Open Space (2 parcels)	5 and 15 French Court	4.03
Chaney Park	Main Street	8.00
Danforth Road Parcel	Danforth Road	24.10
DRLT Wildlife Preserve (8 parcels)	Main Street and Hollis Street	318.32
Flat Rock Hill Quarry Open Space	Main Street	86.00
Hall Street (Saab) Open Space	Hall Street	18.00
Hermansen Parcel	Main Street	6.05
Horse Hill Quarry Open Space & CR	Hall Street	38.15
Kennedy/Hardy Street Open Space (3 parcels)	Hardy Street	11.87
Lupien Open Space	Pleasant Street	6.00
Maguire/Bear Hill	Hall Street	17.69
Matson Open Space	Hall Street	45.00
Mill Brook Open Space & CR	721 Main Street	7.24
Nyman Open Space	427 High Street	1.03
Off River Street Open Space	River Street	11.50

Table 63 (cont'd): Dunstable Lands Held by the Dunstable Rural Land Trust

DRLT Properties	Location	Acreage
Randolph Open Space	Sweets Pond Road	0.16
Robbins Farm Open Space	Robbins Farm Road	36.86
Spectacle Hill	Hardy Street	1.04
Talis Open Space	296 Pond Street	4.70
Tobey Parcel	High Street	6.72
Tully Farm Open Space (2 parcels)	Hollis Street	61.18
Tully Open Space	High Street	3.00
Unkety Brook Meadow-McGovern (2 parcels)	Groton Street	14.00
Woods/Horse Hill Open Space (3 parcels)	Hall Street	39.95
	Total	**785.59**

Source: Dunstable Assessor database 11/10/17

Agricultural Preservation Restrictions

High real estate values have increased pressure to develop what remains of agricultural lands in our communities. These lands are generally clear of forest and have topography well-suited to a variety of land use developments. Furthermore, while communities have a right of first refusal under existing Chapter 61 programs, they often lack the funds to purchase large tracts of valuable open space. Often the result is that farmlands are converted into residential subdivisions at the expense of open space, local agricultural production and community character.

As discussed in the Land Use chapter, nearly 15% of Dunstable's land area is in agricultural use. The Agricultural Preservation Restriction (APR) Program is designed to protect productive agricultural lands by establishing permanent deed restrictions, thereby protecting them from any use that might diminish the area's agricultural potential. These deed restrictions are purchased with state funds that can be matched by municipal and federal funding.

In Massachusetts, the Agricultural Preservation Restriction (APR) Program is a voluntary program intended to offer a non-development alternative to farmers and other owners of "prime" and "state important" agricultural land who are faced with a decision regarding future use and disposition of their farms. Towards this end, the program offers to pay farmland owners the difference between the "fair market value" and the "agricultural value" of their farmland, in exchange for a permanent deed restriction that precludes any use of the property that will have a negative impact on its agricultural viability. As shown in Table 64 on the following page, 249.04 acres of land within Dunstable have been protected through the APR program.

Table 64: Agricultural Preservation Restrictions in Dunstable

APR Lands	Location	Acreage
Kennedy APR (3 parcels)	High Street	83.45
Larter Farm	Hollis Street	127.00
Tully Farm (2 parcels)	Hollis Street	38.59
	Total	**249.04**

Source: Dunstable Assessor database, 11/30/17

FIGURE 27: TULLY FARM

Unprotected Lands and Lands with Limited Protection

Unprotected and limited protection lands include public lands currently held as open space, historic parcels, cemeteries, schools, parks, or recreation land without legal permanent protection, as well as private parcels with limited or no restrictions on development. Limited protection open space includes land covered by revocable restrictions against development or a change in use. A farm that is under a Chapter 61A agreement is an example of temporarily protected open space. Similarly, school athletic fields, or other open space on school grounds, could be converted to another use and is included within this category.

School Lands

There are 8.08 acres of school property in Dunstable that are not permanently protected. This includes the Swallow Union Elementary School (1.08 acres) located on Main Street, and a portion of the Groton-Dunstable Regional High School (7 acres) located on Groton Street, near the Groton line.

Water Supply Lands

Land under the ownership of the Water Department is protected from development while the associated water supply is in use. It is important to note, however, that development of facilities related to water treatment, distribution and maintenance are allowed on these parcels, and should a drinking water source be decommissioned, the land could be sold and developed. One parcel, known as Blanchard Hill and totaling 10.89 acres, is owned by the Dunstable Water Department and classified as having limited protection. The New Town Well Field located at 711 Main Street is also included in the Water Department land holdings and encompasses 14.39 acres.

Cemeteries

Burial ground and cemeteries are important public spaces that link us with our past. As open space becomes developed in the future, these places will remain as a haven for quiet and reflection. As shown in Table 65 below, Dunstable contains 28.23 acres of cemetery lands that are unlikely to be developed in the future. Dunstable's cemeteries contain gravestones, monuments, memorials and tombs that commemorate the lives of many generations of residents, including founding members of the community, soldiers from the Revolutionary War and Civil War, veterans from other wars and conflicts, settlers, farmers and immigrants who helped build the community and the nation.

Table 65: Dunstable Cemeteries

Cemetery	Location	Acreage
Blood Cemetery	Hollis Street	0.34
Central Cemetery (4 parcels)	Westford Street	26.42
Meetinghouse Cemetery	Main Street	0.43
Rideout Cemetery	Fletcher Street	0.51
Swallow Cemetery (2 parcels)	Brook Street	0.53
	Total	**28.23**

Source: Dunstable Assessors database

Other Public and Private Lands With Unprotected or Unknown Status

As shown in Table 66 on the following page, there are several town-owned properties, totaling 72.24 acres, that are either unprotected or the protection status is unknown at this time. In addition, there are two lots, totaling seven acres, that are unprotected and under the ownership of the Tyngsborough-Dunstable Historical Society. The Greater Lowell YMCA also owns and operates Camp Massapoag, which comprises 21.79 acres, and is unprotected from potential future development.

Table 66: Other Public and Private Lands with Unprotected or Unknown Status

Parcel Description	Address	Owner	Acreage
160 Pleasant Street	160 Pleasant Street	Town of Dunstable	1.01
30 Pond Street	30 Pond Street	Town of Dunstable	1.50
Best Triangle Parcels (3 parcels)	320,330, and 340 Main Street	Town of Dunstable	7.69
Century Way lot	86 Century Way	Town of Dunstable	2.12
Dump parcels (3 parcels)	205, 225, and 245 Depot Street	Town of Dunstable	7.69
Hall Street property (parcel 13-23)	0 Hall Street	Town of Dunstable	1.24
Library parcel	588 Main Street	Town of Dunstable	9.70
Old Town Wellfield/Old Town Scales (3 parcels)	0 Pleasant Street	Town of Dunstable	1.59
River Street Property-Pelletier	91 River Street	Town of Dunstable	39.00
Triangle parcel	0 Hollis Street	Town of Dunstable	0.30
Town Common and Fields (4 parcels)	Main and Pleasant	Town of Dunstable	15.88
Camp Massapoag (3 parcels)	Hall Street	Greater Lowell Family YMCA	21.79
Pond Street parcel	0 Pond Street	Town of Dunstable	0.40
Sky Meadow Land	Hardy Street	Sky Meadow Country Club	21.99
Tyngsborough-Dunstable Historical Society schoolhouse (2 parcels)	64 Main Street	Tyngsborough-Dunstable Historical Society	1.00
Tyngsborough-Dunstable Historical Society	0 Main Street	Tyngsborough-Dunstable Historical Society	6.00
			149.66

Source: Dunstable Assessor database, 11/30/17

FIGURE 28: TOWN COMMON BANDSTAND

Chapter 61, 61A and 61B Properties

Under Chapters 61, 61A and 61B of the Massachusetts General Laws (M.G.L.), a land owner who has ten (10) contiguous acres being actively used as forest (Chapter 61), or five (5) contiguous acres in active agriculture (Chapter 61A), or five (5) contiguous acres of open space/ recreational land (Chapter 61B), is entitled to certain local tax abatements. These abatements are given in exchange for the property owner retaining the land in its current use as agriculture, forest, recreation or open space. Table 67 below lists all parcels classified under Chapters 61 and 61A. There is only one parcel enrolled in Chapter 61B (parcel 19-1), totaling 9.56 acres.

Table 67: Chapter 61 and 61A Parcels

Chapter 61-Forest		
Parcel location	**Map Block Lot**	**Acreage**
0 High Street	15-3	48.29
52 French Court	15-42-2	75.58
0 Lowell Street	22-50	22.00
O Pleasant Street	8-39	12.00
391 Pond Street	14-9	12.99
0 High Street	15-2	5.00
0 Forest Street	23-4	37.00
0 Main Street	10-25	60.00
0 River Street	3-3	1.00
0 Lowell Street	22-1	25.00
0 Westford Street	19-2	43.00
0 Main Street	21-2	18.00
0 Fletcher Street	5-7	20.00
		Total Chapter 61: 379.86
Chapter 61A-Agriculture		
Parcel location	**Map Block Lot**	**Acreage**
0 Pleasant Street	12-40	15.00
0 Hollis Street	1-20	22.00
0 Hollis Street	1-21	23.00
0 Depot Street	11-18B	16.00
0 Main Street	11-18C	17.50
O Main Street	11-89	12.34
0 Depot Street	12-105	22.55
0 High Street	17-123	6.00
0 Forest Street	17-124	9.43
0 River Street	2-10	15.00
0 River Street	1-4	100.00
0 French Street	21-18	4.00
0 Blodgett Street	21-3	20.00
0 Hollis Street	6-1	8.00
0 Hollis Street	6-2	15.00
0 Hollis Street	6-22	121.00
0 Hollis Street	6-23	10.00
0 Hollis Street	6-3	120.00
0 Depot Street	7-56	82.00

Table 67 (cont'd): Chapter 61 and 61A Parcels

Chapter 61A-Agriculture		
Parcel location	**Map Block Lot**	**Acreage**
0 Groton Street	8-36	2.05
0 Groton Street	8-37	35.10
0 Groton Street	9-1-1	7.36
0 Kemp Street	9-10	41.00
0 Groton Street	9-11	7.00
0 Groton Street	9-12	15.00
0 Kemp Street	9-13	6.00
265 Depot Street	12-103	67.00
401 Pleasant Street	12-88	5.55
99 Kemp Street	9-8	2.72
0 Kemp Street	9-9	70.00
0 Pleasant Street	12-83	12.00
476 Main Street	17-30	5.06
426 High Street	15-9	11.47
221 Thorndike Street	21-22	24.40
325 Main Street	17-139	1.11
0 Blodgett Street	22-52	12.00
0 Pleasant Street	7-44	17.96
116 Thorndike Street	16-40-1	5.33
94 Forest Street	16-65, 22-86	24.57
0 Pond Street	17-51	16.00
0 Main Street	11-85	22.00
0 River Street	3-1	57.57
0 Groton Street	9-38	9.00
0 Kemp Street	9-21	2.00
0 Kemp Street	9-19	13.00
10 Kemp Street	9-20	5.00
0 Kemp Street	9-17, 9-18	20.00
0 Westford Street	18-6A	5.00
		Total Chapter 61A: 1161.07

Source: NMCOG GIS and Dunstable's Assessor Database, 5/9/2017

Dunstable currently has 1,550.49 acres of private land enrolled in the Chapter 61, 61A and 61B tax abatement programs. Over 74% of this land is in agricultural use and enrolled in the Chapter 61A program. Should the current land owners decide to sell or develop property covered under these programs, the Town of Dunstable will have an opportunity to exercise its right-of-first-refusal, or may alternatively elect to assign this right to a non-profit conservation organization or the Commonwealth of Massachusetts.

A land owner who has his property classified under Chapter 61, 61A or 61B, must notify the Chief Elected Official (Board of Selectmen Chairman), the Board of Assessors, the Planning Board, the Conservation Commission, and the State Forester, when all or a portion of the land is being sold or converted to a disqualifying use.

Unfortunately, small towns in high growth areas have found that when a strong housing market drives up the value of land, farm and forest landowners have little incentive to make permanent fixed investments that might increase the productivity of traditional rural land uses but add no market value for potential future development. For this reason, Chapter 61 and Chapter 61A land is particularly vulnerable to development.

Recreation Facilities and Programs

The primary recreation goals set forth in the Town's 2018 Open Space and Recreation Plan include the following:

- Provide adequate fields for athletic and other outdoor recreational uses;
- Assure access to the town's water bodies for fishing and boating;
- Protect and improve the town's system of trails for hikers, bicyclers, and horseback riders;
- Encourage residents to enjoy the natural environment by providing opportunities to understand nature as an interrelated living system (ecosystem), thereby advancing environmental awareness and a deeper appreciation for conservation efforts.

Most of Dunstable's outdoor recreation areas are owned and maintained by the Town, the State, or private entities. As outlined previously, the Town is fortunate to have many conservation lands with trail networks. Residents appreciate the trails that exist in Dunstable today, and they are concerned about losing access to trails as new development occurs. The many open space properties in Dunstable offer a variety of passive recreation opportunities, including hiking, jogging, bird watching, mountain biking, horseback riding, and cross-country skiing. The Nashua River Rail Trail provides hiking, bicycling, jogging and horseback riding opportunities for residents. The facility is owned and managed by the Massachusetts Department of Conservation and Recreation. It extends over eleven miles, from Ayer to Nashua, New Hampshire. Hiking trails on River Street connect the Rail Trail to the Robbins Farm parcels and the DRLT Wildlife Refuge.

Many of the trails would benefit from improvements, such as brush clearing and trail blazing. Improving and promoting these facilities has the potential to attract visitors and generate support for local businesses. Together, the region's visitor attractions comprise a pattern of activities commonly known as eco-tourism, a sector of the tourism industry that capitalizes on access to open space and natural areas. Dunstable could collaborate with businesses, institutions and state agencies with ties to eco-tourism to benefit the local economy.

Dunstable has an informal bridle path network that extends across public and private lands. Most of the system lies on private property, and many of the trails are on old logging

roads. Users request permission to use the trails from private property owners. As the town continues to grow, some of the trail network may be lost unless efforts are undertaken to acquire easements from private owners.

Massapoag Pond, Salmon Brook and Unkety Brook are the main fishing areas in Dunstable. The Massachusetts Division of Fisheries and Wildlife stocks these waterbodies annually. Access is available on several conservation areas owned by the Town and the Dunstable Rural Land Trust (DRLT). Winter ice fishing is enjoyed on Lower Massapoag Pond and on the ponds located within the DLRT Wildlife Refuge. Massapoag Pond is the most heavily used waterbody in Dunstable, but there is no public access to the Pond within Dunstable. A boat launch and access is located in Tyngsborough.

Salmon Brook is navigable throughout most of the year, by canoe or small boat. The Nashua River is also navigable, and can be accessed via the boat access/canoe launch on the Fitzpatrick Wildlife parcel. Eating the fish from the Nashua River is not advisable due to high mercury levels.

Town-owned lands used for active recreation are concentrated at the Town Fields located near the Swallow Union School or at the Larter Memorial Recreation Area. The Town Fields contain facilities for baseball, soccer, basketball, and tennis. The area also has a playground.

While the survey distributed for the 2018 Open Space and Recreation Plan showed that residents prefer basic recreational activities, such as walking and bicycling, with many residents pointing to the need for additional sidewalks, bicycle facilities, and trails, organized sports and activities were also important for young families. Larter Field appears to meet the need for most organized sports, with Horse Hill Field having recreation potential as well. In 2000, the Town voted to fund construction of the Larter recreational fields and facilities on land donated by the Larter family. The Groton-Dunstable Athletic Association also contributed $10,000 to help the town with the construction of the fields.

Larter Field opened in 2003 and remains a popular community-gathering place. It is has been the site of Dunstable's Annual Fire Cracker Road Race, which was held on July 4th each year. Residents use the facility for walking, bicycling, roller blading, running, and sledding during the winter months. The area also contains a playground. The fields are used for youth soccer and other recreational programs. Larter Field abuts one the town's largest conservation areas, the Spaulding Proctor Reservation.

There are two privately owned recreational facilities in Dunstable. Camp Massapoag is located on Massapoag Pond and serves as a summer camp for school-aged children.

Operated by the Greater Lowell YMCA, campers enjoy archery, boating, swimming, arts and craft, rock wall climbing, sports, and games. Established in 1987, Sky Meadow Golf Course is located partly in Dunstable and partly in Nashua, New Hampshire. The 18-hole, par-72 course is privately owned and much of the property in Dunstable is protected through a Conservation Restriction.

FIGURE 29: LARTER FIELD

YOUTH SPORTS PROGRAMS

There are a number of youth sports programs available for Dunstable residents, including a farm league, little league, and youth basketball. Many of these sports activities are run jointly by Groton and Dunstable, which naturally evolved from the regional school district. The list of available programs includes the following:

- Groton-Dunstable Youth Basketball
- Groton-Dunstable Softball
- Groton-Dunstable Youth Baseball
- Groton-Dunstable Crusader Basketball Camp
- Groton-Dunstable Youth Football and Cheerleading
- Groton-Dunstable Youth Lacrosse
- Groton-Dunstable Youth Soccer
- Junior Crusader Soccer Camp

LOCAL CAPACITY

Dunstable has several organizations working to preserve open space and enhance recreation within the community. The various Town departments, boards and organizations work together to ensure that these resources are protected for future generations. Joint leadership is important in that each of the parties listed below has a role to play and represents different interest:

- The Dunstable Conservation Commission administers the Massachusetts Wetland Protection Act and the local wetlands bylaw. The Commission also acquires, holds and maintains property on behalf of the Town, in order to protect land and water resources. The Commission has one staff person who administers the permitting process and oversees day-to-day activities.

- The Planning Board is responsible for implementing the Town's Zoning Bylaw and working with developers to ensure that important conservation land and natural resources are protected during the development process.

- The Dunstable Rural Land Trust is a non-profit organization, founded in 1974, which focuses on land preservation in Dunstable. The Trust works with local landowners in an effort to determine appropriate ways to preserve the Town's remaining undeveloped properties and open areas.

- The Recreation Commission oversees the active recreation programs that use town fields, in cooperation with the Groton-Dunstable Regional School District. The Commission focuses on organized sports for school-aged children.

- The Dunstable Parks Commission is responsible for maintaining the town fields.

Dunstable residents have long valued the Town's open space and recreation resources, and have consistently demonstrated their commitment through actions, such as the approval of local funding for open space acquisition and the adoption of the Community Preservation Act (CPA). As discussed in the Cultural and Natural Resources section, the Community Preservation Act (CPA) provides a source of funding for Open Space Preservation, Historic Preservation and Affordable Housing through a surcharge on the property tax. Dunstable voters have funded the following open space and recreation projects using CPA funds:

- Purchase of Ferrari Farm
- Preservation of the historic Stone Arched Bridge
- Clearing of Blanchard Hill
- Purchase of 10-acre Howard's Brook Conservation Area
- Purchase of 12-acre Best Triangle
- Agricultural Preservation Restriction (APR) for Tully Farm
- Conservation restriction for the Miller property
- Westford Street Conservation Restriction
- Middle School track improvements
- The Swallow Union Playground.

Public Input

The results of the written survey for the Master Plan indicated that the Town's residents are pleased with the open space and recreation assets in Dunstable, as indicated below:

- Over 60% of the respondents rated the number of recreational facilities and opportunities as excellent or good;
- Approximately 87% of the respondents rated the amount of protected open space as excellent or good;
- 52% of respondents favored acquiring additional open space; and
- 69% of respondents favored protecting additional agricultural lands.

The input received at the March 21, 2017 Visioning Session on Open Space and Recreation indicated that the Town's greatest strengths lie in:

- Accessible open space
- Distinctive, unique, rural character
- Farms
- Salmon Brook
- Community Preservation Funds
- Town Common
- Community support/volunteerism
- Larter Field
- Good Air Quality
- Low level of noise pollution
- Contiguous open space.

The top weaknesses identified by participants included the following:

- The town is not bikeable/walkable
- Lack of athletic facilities for older children/adults
- Limited parking at open space areas
- Tennis courts are not maintained
- Lack of funds for operation and maintenance

The top opportunities identified included:

- Farm-to-Table restaurants
- Connecting trails and pathways
- Bed and breakfast establishments
- Walking and biking improvements
- Promoting the farming community

- Creating playing fields next to conservation land
- Community supported agriculture (CSA)
- Eco-tourism
- Trail stewardship

The top threats included:

- Uninformed voters
- Lack of income to support initiatives
- Proposition 2 ½

Issues and Opportunities

Dunstable adopted its first Open Space and Recreation Plan in 1976 to guide policy and decision-making in a way that offers genuine protection of natural resource areas and recreation assets. Over the years, the Town has regularly updated the document and pursued opportunities to acquire and protect additional properties throughout town. Throughout the input process for the Master Plan, it was evident that the Town's passion for protecting scenic areas, rural and agricultural landscapes, environmental resources, historical resources, wildlife, forests and other habitat areas has not faded over the years. In fact, continued development pressures have increased awareness of the need to protect those resources that remain undisturbed.

Dunstable residents find it difficult to envision a future in which many of the Town's most revered qualities all but disappear. Since the Town has been successful in protecting so much land, some residents deceptively believe that the Town's beauty is timeless. In fact, the primary threat to Dunstable's character is the incremental loss of open space land to low-density housing. Unfortunately, a strong housing market in high-growth regions drives up the value of land. Farm and forest landowners have little incentive to make permanent fixed investments that might increase profitability but add no market value for potential future development. For this reason, Chapter 61A parcels are particularly vulnerable to development. As shown in the Master Plan survey, residents feel strongly that agricultural land and landscapes should be protected. Many areas of prime farmland lack even the temporary protection of Chapter 61A.

As was discussed in that Natural and Cultural Resources chapter, the Town needs to be prepared to act quickly when a parcel of Chapter 61A land becomes available. This could be accomplished by prioritizing future open space acquisitions using an agreed upon process with established criteria. The 2018 Open Space and Recreation Plan outlines one possible methodology using a conservation matrix that would be vetted through Town

Boards and Committees with the input of other stakeholders, such as the land trust and local sports organizations.

In addition to the need to address agricultural preservation, many of the town's natural heritage sites, hilltops and gateways remain unprotected. The Master Plan Committee recommends that a Resource Protection Strategy be developed to identify priority parcels for potential future acquisition, possible financing mechanisms, and to inform residents as to why certain parcels have been prioritized for preservation.

Given the challenges of funding open space acquisition, one mechanism for protecting open space at little to no cost is to institutionalize and strengthen the Open Space Design Bylaw so that it is mandatory for all projects over a certain size threshold. As outlined in the Natural and Cultural Resources chapter, the current project size threshold outlined in this section of the Zoning Bylaw should be reduced.

Encouraging more forested landowners to enroll in Chapter 61 would benefit open space preservation. The community also needs to be educated about forestry practices that create forest openings for wildlife, leave dead trees for nests and dens, and provide hedgerows for small mammals and birds. Owners of forested lands should also be made aware of available assistance from the Conservation District and the New England Forestry Foundation.

Given the rural nature of the town, the 2018 Open Space and Recreation Plan focuses on making it easier for residents to enjoy the natural environment. Dunstable is well suited to integrate recreation and environmental protection through initiatives, such as nature walks, establishment of an environmental education center, and interpretative trails. More should be done to promote the Town's conservation and recreation areas, through an updated guide map linked to the Town's website. Winter access to the conservation and recreation areas has been identified as a need due to a lack of plowing at most parking areas.

The need for increased water access for boating, kayaking, canoeing and fishing, could be improved through the enhanced greenways along the town's waterways. The State stocks some of the waterways each year to benefit anglers. Although Massapoag Pond is the most heavily utilized waterbody in town, there is no public access in Dunstable.

The need to link Dunstable's conservation areas through an integrated trail system has been discussed at many of the Master Plan Committee meetings and at some of the public meetings. As development occurs, some of the opportunities for future linkages may be lost. To ensure that such linkages remain a possibility, the Conservation Commission, Planning Board, and the Recreation Commission should formulate a strategy for

establishing a town-wide network. The local permitting boards should then work with proponents of future development projects on preserving the easements/right-of-way needed for these connections.

The town has identified the potential for creating a bike lane along Route 113 from Railroad Square in Pepperell to Dunstable Center. The Town is participating in MassDOT's Complete Streets Program that could fund such a project. The Town could also ask NMCOG to undertake a feasibility study to determine whether such a project is viable and meets state criteria.

Concerns have been expressed regarding the illegal use of ATVs and other off road vehicles. The Town's 2018 Open Space and Recreation Plan suggests that a separate regional trail be established to accommodate off-road vehicle use, perhaps along electric power lines. This concept would require the cooperation of National Grid, and would need to be pursued collaboratively with adjoining communities.

Presently, the Town has ongoing dialogue with the Nashua River Watershed Association, the Department of Fish and Game and the City of Nashua regarding open space issues. However, more could be done to open up a dialogue with other adjacent communities, such as Pepperell, Groton, Tyngsborough and Hollis, NH.

The Recreation Commission and the Parks Commission oversee Dunstable's recreation land, with the former overseeing the use of facilities and the latter overseeing maintenance. Given the close relationship between the level of use a facility receives and the need for ongoing maintenance, it would likely be more efficient to combine the two commissions into one body that develops a comprehensive plan that addresses the use, management, and maintenance of these facilities. It does not appear that additional playing fields are needed at this time, however, an evaluation of future demand should be conducted in concert with Groton. The establishment of a stewardship program would be beneficial to ensure that these properties are well-maintained, while developing an appreciation for Dunstable's natural and recreational resources. In Dunstable, a maintenance commitment is needed from proponents of new athletic facilities.

RECOMMENDATIONS

- Continue to acquire key parcels for the protection of natural resources, wildlife, agricultural lands, water protection, heritage landscapes, and historical resources, and to meet recreation needs.
- Support agricultural preservation through the promotion of the Agricultural Preservation Restriction Program (APR), farmers market, an agricultural coop, food processing facility and other initiatives that promote local agriculture.

- Continue the establishment of greenways along the town's waterways.
- Establish linkages between conservation areas and pursue easements needed for future linkages.
- Promote the Town's conservation and recreation areas, through an updated guide map linked to the Town's website.
- Establish connections between local and regional trails to create an interconnected network, and work with proponents of future development projects on preserving the easements/right-of-way needed for these connections.
- Integrate recreation and environmental protection through initiatives, such as nature walks, establishment of an environmental education center, and interpretative trails.
- Develop a Resource Protection Strategy to identify priority parcels for potential future acquisition, outline possible financing mechanisms, and inform residents as to why certain parcels have been prioritized for preservation.
- Create a process for prioritizing lands under Chapter 61, 61A and 61B for potential future acquisition, and outline a cooperative process for moving forward with future acquisitions in a timely manner.
- Continue to address the protection of the Route 113 Gateway through the designation as an historic district.
- Institutionalize and strengthen the Open Space Residential Development Bylaw so that it is mandatory for subdivisions over a certain size.
- Create a steep slope bylaw and work toward preserving hilltop lands, such as Forest Hill, Drake Hill, Spectacle Hill and Nuttings Hill.
- Encourage forest landowners to enroll in Chapter 61 and provide information on available assistance from the Conservation District and the New England Forestry Foundation.
- Continue to pursue the merger of the Recreation Commission and Parks Commission.
- Develop a Use, Management and Maintenance Plan for all municipal recreation facilities and parks.
- Monitor and assess future demand for additional playing fields.
- Examine the feasibility of establishing a bike lane along Route 113 from Railroad Square in Pepperell to Dunstable Center.
- Work with neighboring towns on conservation and recreation issues, including the possible establishment of a regional trail for off-road vehicles, such as ATVs and snowmobiles.
- Improve winter access to the conservation and recreation areas for cross-country skiing, snowshoeing, and winter hiking by plowing parking areas.

- Increase water access for boating, kayaking, canoeing and fishing through enhanced greenways along the town's waterways.

VII. Natural and Cultural Resources

Dunstable residents cherish the town's agricultural landscapes, open spaces, natural resources and historic buildings. Each of these attributes contributes to Dunstable's visual character and sets it apart from other area communities. Some of Dunstable's natural and cultural resources are permanently protected, but many are not protected at all. Finding a means to protect the resources most valued by the community is one of the Town's greatest challenges. The value placed on the preservation of natural and historic resources can play a significant role in defining a community's unique sense of place.

As outlined in this chapter, natural resources include land, surface water, streams, wetlands, aquifers, wildlife habitat, open space and riparian corridors, and other ecologically sensitive areas. Cultural resources include historic buildings and their settings, outbuildings, such as sheds and barns, archaeological remnants and features, and archaeologically sensitive areas. Landscape features such as stonewalls and foundations, burial grounds and cemeteries, glacial features, agrarian heritage fields, trails and historic trees are also an important part of the town's history, contribute to its inventory of cultural resources and are key public assets.

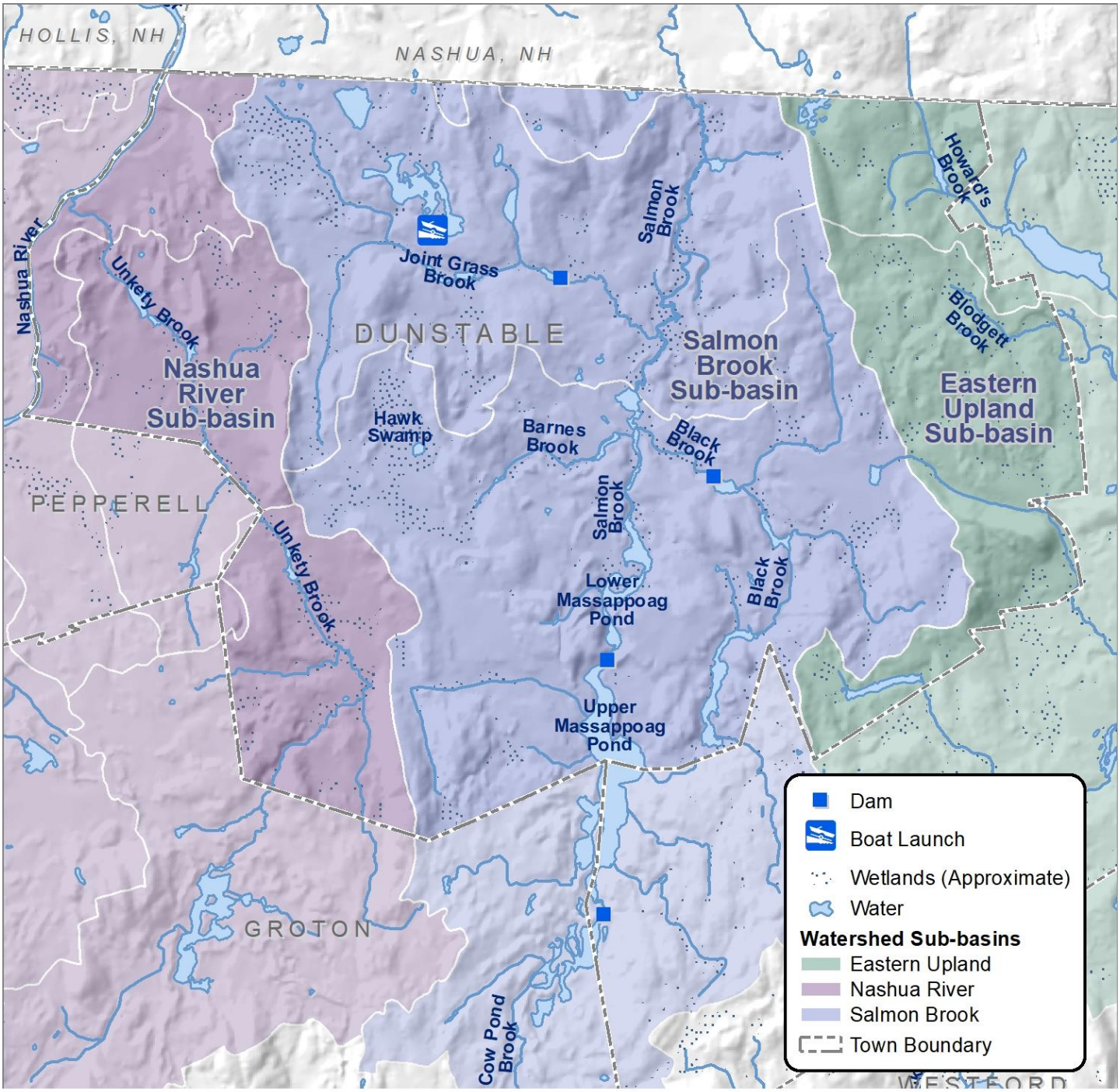
WATER RESOURCES

Dunstable has an extensive hydrological system that includes groundwater, ponds, lakes, rivers, brooks, aquifers, and wetlands, as shown on Map 9. The town is located within the Merrimack River basin, and falls within three subwatersheds of the river basin: the Nashua River watershed, the Salmon Brook watershed and the Eastern Upland watershed. The Nashua River watershed covers 538 square miles within

Natural and Cultural Resource Goals

- Preserve, maintain, and continue to document Dunstable's legacy of historic farmsteads, buildings and landmarks.
- Preserve Dunstable's historical artifacts and documents.
- Continue to institute policies and practices that protect and enhance water resources, wildlife habitat, farmland, and forests.
- Protect the visual features, agricultural landscapes, and view sheds that give Dunstable its unique character.

Map 9: Dunstable Watershed Sub-basins



Sources:
NMCOG (dams); MassDEP/NMCOG (2009 hydrography, wetlands); MassGIS/USGS (sub-basins with 2010 OSRP names); MassDOT/NMCOG (2013 roads, town boundaries, shaded relief); NH GRANIT (roads, political boundaries)

Data provided on this map is not sufficient for either boundary determination or regulatory interpretation.

Produced by NMCOG: 11/13/2017

0 2,000 Feet

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The Northern Middlesex Council of Governments
40 Church Street, Suite 200
Lowell, Massachusetts 01852
(978) 454-8021 nmcog.org

thirty-one communities. All the precipitation that falls on Dunstable eventually drains into the Merrimack River.

The benefits of clean water cannot be overstated. Adequate supplies of clean water are vital to the survival and propagation of fish and other aquatic life, as well as to wildlife and humans. The cost to society of not maintaining or restoring water quality, in terms of public health, economic impact, and other factors, is incalculable.

Rivers and Streams

The Nashua River is 56 miles in length and is a tributary of the Merrimack River. It is formed in eastern Worcester County near Lancaster and flows generally north-northeast, eventually joining the Merrimack River in Nashua, New Hampshire. The river was not always as clean as it is today. In the past, the river was heavily used for industry, and the paper mills located along the river discharged dye and other waste into the water, resulting in significant pollution downstream. In the mid-1960s, local activists initiated a cleanup campaign, and formed a coalition with labor and business leaders. Eventually, eight treatment plants were constructed or upgraded along the river, using federal funding. By the 1990s, many parts of the river were found to be swimmable.

On January 23, 2013, Congresswoman Niki Tsongas introduced a bill to begin the process of designating the river as a national Wild and Scenic River. The bill was signed into law on December 19, 2014 and authorized the Nashua River Wild and Scenic Rivers Study Committee. Upon completion of a three-year planning process, and with the approval of local communities, Congress will vote on whether to designate sections of the river as Partnership Wild and Scenic Rivers.

Overall, there is a lack of public access to the Nashua River in Dunstable, with the only access point being through property owned by the Massachusetts Division of Fish and Wildlife and the Town. The River is nearly invisible to residents since the town's roadway system does not cross over or closely parallel the river at any point. The section of the river within Dunstable is suitable for canoeing and kayaking, but the closest access points are in Pepperell and Hollis, New Hampshire.

The Nashua River is classified as a Class B waterway. Designated uses for Class B waterways, as established by the Massachusetts Department of Environmental Protection (DEP), include recreation uses, fishing and wildlife habitat, agricultural and industrial uses, and navigation. While the River meets Class B standards, it is negatively impacted by combined sewer overflows (CSOs) from upstream wastewater treatment plants. One of the remaining primary threats to water quality in the Nashua River is untreated stormwater runoff. Rain water and melting snow carry pollutants, such as nitrogen, phosphorus, bacteria, heavy metals, oil, grease and sediment into nearby waterways. These pollutants

originate in lawns and agricultural fields, roadways, parking lots, and from uncollected pet waste, and erosion from construction projects.

The Federal Water Pollution Control Act of 1972 and its amendments require that states classify waterbodies according to the degree of threat or impairment for designated uses. In December 2015, the Massachusetts Department of Environmental Protection (MADEP) produced the *Massachusetts Year 2014 Integrated List of Waters*, listing the condition of waters under Sections 305(b), 303(d), and 314 of the Clean Water Act. The list identifies two bodies of water in Dunstable as impaired for one or more uses, requiring the establishment of a Total Maximum Daily Load (TMDL) to set the maximum allowable pollution from point, non-point and natural sources. The Nashua River is considered impaired based on the assessment of macroinvertebrates and total phosphorus. Massapoag Pond is also considered impaired due to the presence of non-native aquatic plants and mercury levels in fish.

Unkety Brook flows into the Nashua River downstream of the Pepperell Wastewater Treatment Facility. Like the Nashua River, Unkety Brook is classified as a Class B waterbody and flows through significant wetlands. The Nashua River Watershed Association's Volunteer Water Quality Monitoring Program has noted that Unkety Brook shows perennially low dissolved oxygen (DO) levels, probably due to low flow and increased oxygen demand in wetland areas.[16] Access to Unkety Brook is available at the Gardner Conservation Area on Pleasant Street, at Unketynasset Brook Meadow on Groton Street, the Nashua River Trail crossing, and at the 91 River Street parcel owned by the Town.

Salmon Brook runs from Massapoag Pond to Nashua, New Hampshire. The brook is slow running and carries a considerable volume of water, even during dry spells. Much of the Salmon Brook watershed is an aquifer recharge area. Joint Grass Brook, Barnes Brook and Black Brook are tributaries of Salmon Brook. These streams provide residents with areas for fishing, hiking, and canoeing. In addition, they serve as wildlife corridors and habitat for many species. Access to Salmon Brook is provided at Spaulding-Proctor Reservation on Pleasant Street, the Sargent Conservation Area on Main Street, and at the Arched Bridge Conservation Area on High Street.

Natural buffers around water bodies form effective barriers against pollution that might otherwise enter the water from surface runoff or through groundwater discharge. Vegetated buffers absorb nitrogen and phosphorus, neutralize organic and hydrocarbon chemicals, and detain sediment, including heavy metals that often adhere to sediment. The Massachusetts Rivers Protection Act is a tool that restricts development within 200 feet of

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[16] www.nashuariverwatershed.org

any perennial river or steam, and the Conservation Commission should utilize this tool to the greatest extent possible to ensure that the town waterways are protected. For ponds and intermittent streams that are not protected by the Rivers Protection Act, the Town should consider reviewing its development policies and practices relative to natural land buffers. This is particularly important for seasonal drainage channels that fill with water during major storm events when pollutant and sediment loads are high. The protection of land around intermittent streams could be identified as a performance standard for residential and non-residential development.

Surface Water Bodies

The quality of surface waters is influenced by the natural ecology, hydrology and geomorphology of the land area they drain, and also the land use patterns resulting from human activities within their respective basins and watersheds. Massapoag Pond is one of only a few ponds located across Dunstable. This pond extends into Tyngsborough and Groton, however there is no public access located within Dunstable.

Wetlands

The importance of wetlands to public health and the natural environment is well-known and protected by state and federal law. The Massachusetts Wetlands Protection Act gives the Commonwealth and the local Conservation Commission the authority to regulate activities affecting wetlands for the following specific purposes: protection of public and private water supply; protection of groundwater supply; flood control; prevention of storm damage and pollution; protection of land containing shellfish; protection of fisheries; and protection of wildlife habitat. The Town of Dunstable contains approximately 3,223 acres of wetlands and floodplain.[17] Many of the town's wetland areas are associated with its rivers and streams.

The Town of Dunstable enacted a local wetlands bylaw in 1985. The bylaw was last updated in 2006. The stated purpose of the bylaw is: "to allow the citizens of the Town, through the office of the Dunstable Conservation Commission, to have a set of locally enforceable wetlands regulations. They are to complement the wetlands regulations currently in effect under the authority of the Massachusetts Department of Environmental Protection. The DEP regulations are subject to change without regard to the interests and needs of Dunstable, and in some ways do not presently protect local interests. A local bylaw offers protection against the erosion of environmental protection of wetland resources by any changes of the state regulations." Under the bylaw "no person shall remove, fill, dredge ,alter or build upon or within one hundred feet of any bank, fresh water

[17] 2009 MassDEP Hydrography and FEMA 1% annual chance floodplain (zones A and AE)

wetland, beach, flat marsh, meadow, bog, swamp or lands bordering on any creek, river, stream, pond or lake or any land under said waters or any land subject to flooding or inundation, or within one hundred feet of the 100-year storm flow line…without first filing a written application for a permit…and receiving and complying with a permit issued by the Conservation Commission; nor shall any new permanent structure or impervious surface be permitted within 60 feet of any freshwater wetland".

Aquifer Recharge Areas

Groundwater recharge is part of the hydrologic cycle in which aquifers are recharged by precipitation, surface water infiltration, or hydrologic exchange with other aquifers. Since the recharge of aquifers generally occurs through inflow from the surrounding drainage basin and nearby surface water bodies, the quality of surface water is critical to the quality of ground water, and therefore, to drinking water.

The aquifers in Dunstable are extensive and closely correspond to Salmon Brook and Unkety Brook. The most significant groundwater resources are along Salmon Brook and bordering both sides of Massapoag Pond. At Joint Grass Brook, this area branches out and crosses the former gravel site off Fletcher Street. Unkety Brook is also a substantial groundwater resource. The aquifer bordering the Nashua River is probably less productive as the alluvial material from the river may limit recharging.[18]

While most of Dunstable's residents draw their drinking water from private wells, all of the drinking water originates from aquifers. The Town also has two gravel packed wells, located off Main Street, that serve the Town Center. In 2003, DEP evaluated the Dunstable Water Department. The assessment examined hydrology, land use, water testing and land ownership and protection. Massachusetts drinking water regulations require that the water supplier, through either land ownership or a conservation restriction, control 400 feet (Zone I) around the wellhead. Currently, either the Water Department or the Conservation Commission owns this area.

Approximately half of the area of contribution to the wells (Zone II) consists of residential properties. To protect this area, the Town adopted a Water Supply Protection Bylaw in 2008. The bylaw restricts certain uses, including landfills, junkyards, the use, storage or disposal of hazardous waste or materials, petroleum terminals or bulk stations, septage, deicing chemicals, animal manure, earth removal, or the stockpiling and disposal of snow containing deicing materials. It also requires a permit for creating an impervious surface of over 15% or 2,500 square feet on any lot.

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[18] 2010 Dunstable Open Space and Recreation Plan, prepared by the Town of Dunstable, p.57.

Flood Hazard Areas

The Nashua River forms the western boundary of the Town of Dunstable. Its embankments are relatively steep, therefore impacts on the Town are minimal when the River is at flood stage. The principal cause of flooding along the Nashua River is runoff from spring snowmelt. This melting is greatest during heavy spring rains, when the still frozen ground cannot absorb the runoff. The worst such storm was recorded in 1936, but flooding occurs yearly with varying severity. Hurricanes are also a source of flooding conditions, especially when accompanied by wet autumns when the soil is already saturated. Severe storms of this nature occurred in 1938, 1954, and 1958.

The Town's *Open Space and Recreation Plan* prioritizes the protection of the Nashua River watershed within Dunstable through:

- The protection of the river embankment and adjoining flood prone areas;
- Preservation and protection of those watershed characteristics which reduce flooding, especially of wetlands adjoining Unkety Brook and its tributaries; and
- Adoption of development controls which will modify peak runoff and lessen the danger of pollution.

Unkety Brook, a tributary to the Nashua River, is prone to flooding caused primarily by backwater from the Nashua. The brook itself has an extensive floodplain, however, there is no development located in the floodplain considered to be at risk. Salmon Brook runs south to north through the geographic center of the Town. Its main tributaries in Dunstable are Joint Grass Brook, Barnes Brook, and Black Brook. Salmon Brook is bordered by adjoining marshes and during flood stage no man-made structures are considered to be at risk.

The upland till area of Dunstable is drained by three streams which flow into Locust and Flint Ponds in Tyngsborough. Because soils in this watershed are generally slowly permeable, wetlands small in area, and slopes generally steep, water runoff characteristics are relatively fast. As the area develops, the impacts of heavy rain will be felt more quickly in this area than in the other watersheds. Because of this, and because soils in this area tend to be hardpan types with limitations for septic systems and complicated by slopes, protection strategies emphasized in the town's *Open Space and Recreation Plan* include:

- Development controls which limit construction to hazard-free areas;
- Controls which regulate peak discharge of storm water; and
- Preservation of wetlands as natural storage basins and pollutant modifiers.

Local officials identified flooding concerns at the following locations, as outlined in the *Hazard Mitigation Plan for the Northern Middlesex Region*[19]:

- River Street: Repeated flooding has occurred in this location, even after replacing a problematic culvert on several occasions. The low profile of the roadway, along with beaver activity, has caused washouts a few times. The local highway department is considering elevating the roadway at the Unkety Brook Crossing in an attempt to rectify the problem.
- Main Street: Repeated flooding has occurred near Sweets Pond at the Salmon Brook crossing.
- Lowell and Forest Street: Local officials are concerned about potential flood problems that may impact new homes constructed in this area.

The Town participates in the National Flood Insurance Program (NFIP), although there are no repetitive flood loss structures in Dunstable. The Town adopted a Floodplain District Bylaw in 2010 that applies to Zone A and AE flood hazard areas. The Bylaw prohibits construction or fill in the 100-year floodplain. The floodplain locations are shown on Map 10.

There are three dams within Dunstable as shown on Map 9. The Massapoag Pond Dam is classified as a significant hazard, given the downstream population, as shown in Table 68 below.

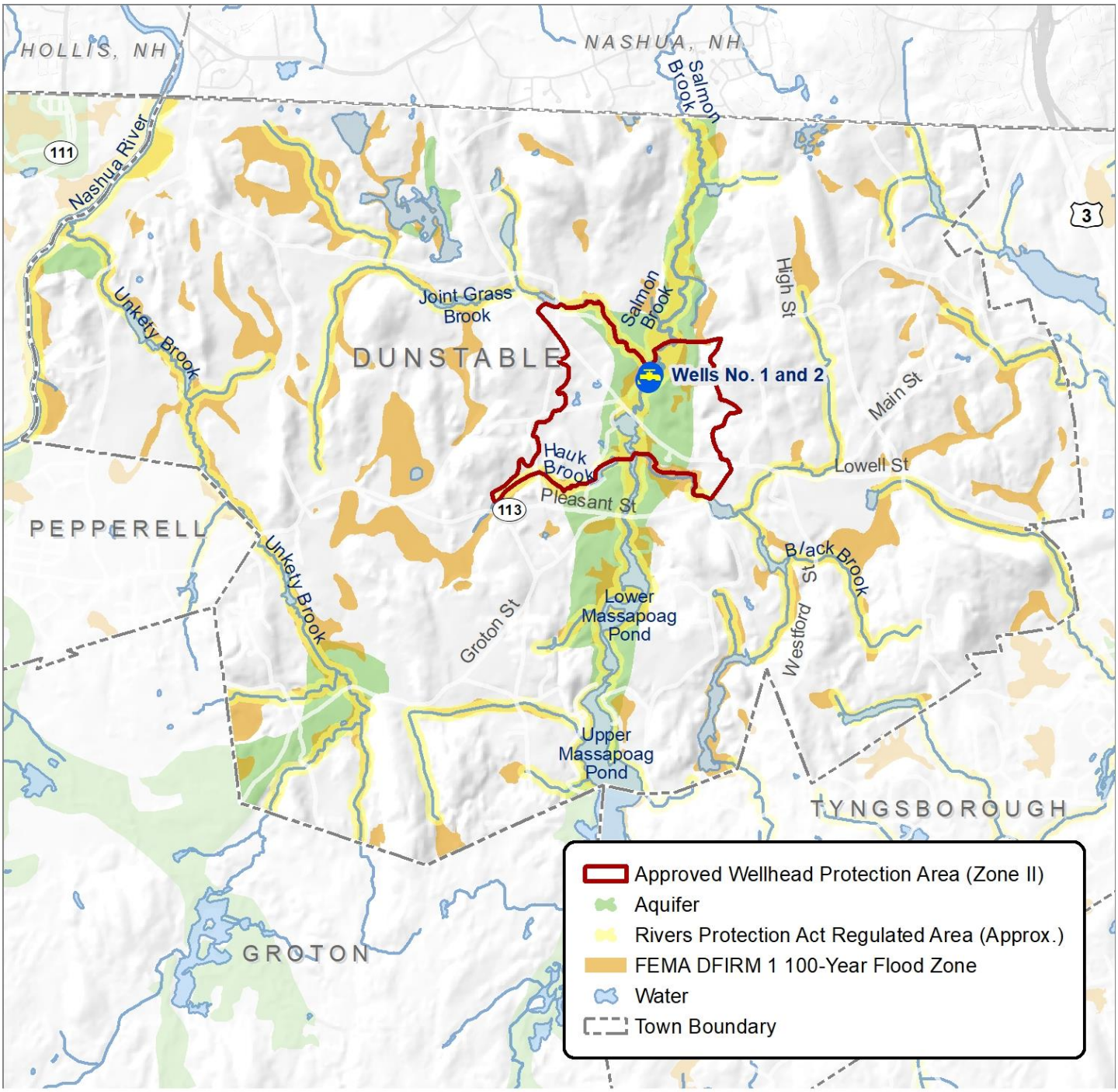
Table 68: Hazard Classification of Dunstable Dams

Dam Name	Impoundment Name	Hazard Class	Downstream Population
Woodward's Mill	Woodward's Pond	Low	NA
Massapoag Pond Dam	Massapoag Pond	Significant	200
Swallow Mill Dam	Morgan's Pond	Low	NA

Source: DCR Dam Inventory

[19] Hazard Mitigation Plan for the Northern Middlesex Region-2015 Update, prepared by Northern Middlesex Council of Governments, p.117

MAP 10: DUNSTABLE WELLHEAD PROTECTION AREA, FLOODPLAIN AND AQUIFERS



Sources:
MassDEP (2009 hydrography, Zone IIs, Aquifers); FEMA (DFIRM flood zones A, AE); MassGIS (aquifers, shaded relief); NMCOG (Rivers Protection Act areas); MassGIS/NMCOG (2013 roads, town boundaries); NH GRANIT (roads, boundaries)

Data provided on this map is not sufficient for either boundary determination or regulatory interpretation.

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Geology and Landscape

Dunstable's terrain generally varies from 150 to nearly 400 feet above sea level, with the highest point in town being Forest Hill at 388 feet located on the edge of Tyngsborough. The western and central sections of town are generally flat, while the eastern section has a more varied topography. The areas along the town's waterways are generally less than 200 feet in elevation. A considerable portion of the town has slopes of 10% or more. The surficial geology of Dunstable is the result of glacial actions during the previous ice ages. The landscape reveals features of glacial deposition and erosion from the advance and retreat of past continental ice sheets. The direction of ice movement, as discerned from bedrock striations and drumlin orientations, was generally from northwest to southeast.

The topography was shaped during the late Wisconsin glaciation, when the Laurentide Ice Sheet descended from Canada into New England about 25,000 years ago. The glacier shaped a variety of geologic features, including glacial erratics, drumlins and eskers. The receding ice sheet left behind fresh water springs, kettle holes and glacial till.

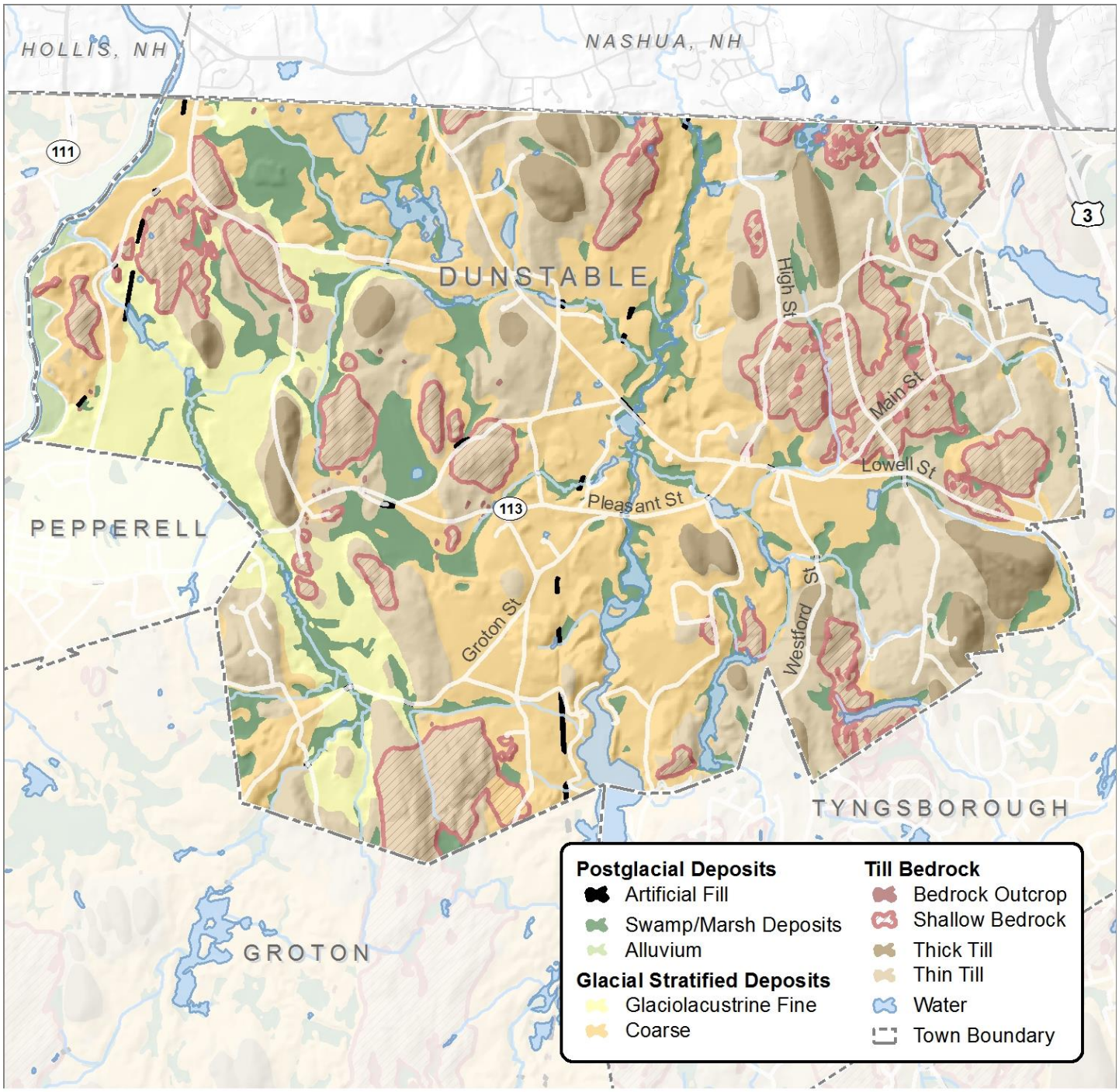
The landforms created in Dunstable by the deposit of glacial till include two types:

- The western sector of scattered drumlins running from northwest to southeast; and
- The eastern sector of rolling hills known as ground moraine.

There is evidence from U.S.G.S. survey data that the drumlins in Dunstable are composed of phylitte bedrock and contain a high percentage of silty material with low permeability, such as been found at Blanchard Hill.[20] In other locations, deposits of sand and gravel left behind by glacial melt water are found in sedimentary layers comprising eskers, kames and deltas. These formations exist in the central north-south axis in a broad irregular band parallel to Salmon Brook. The older and coarser deposits lie in the southern end of town, and more recent and finer deposits are found in the northern section of town. The geologic attributes of the town are shown on Map 11 on the following page.

[20] 2010 Dunstable Open Space and Recreation Plan, prepared by the Town of Dunstable, p. 29

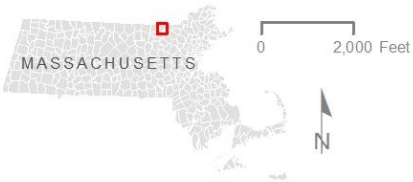
Map 11: Dunstable Geology



Sources:
MassGIS (surficial geology 1:24,000, shaded relief);
MassGIS/NMCOG (2013 roads, town boundaries); NH GRANIT (roads, boundaries)

Data provided on this map is not sufficient for either boundary determination or regulatory interpretation.

Produced by NMCOG: 4/18/2017



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SOILS

The glacial deposits provided the parent material from which soils formed. Soil is an important resource that affects hydrology, supports plant life and is critical to agriculture. Soils are vulnerable to erosion, which can influence streams and water quality. Soils are classified according to their origin, formation and identifiable properties. Soils with similar properties comprise a soil association. As shown on Map 12, four predominant soils associations are found in Dunstable[21]:

- Mucky;
- Paxton, Hollis, Woodbridge;
- Scituate, Essex; and
- Windsor, Hinckley.

The well-drained Hollis soils are on hilltops and ridges. Stones and boulders cover up to 15 percent of the surface. The shallow Hollis soils have low potential productivity for both eastern white pine and northern red oak given the severe hazard of wind throw. The Hollis soil has severe limitations for dwellings and for road construction because of slope and because the bedrock is at a depth of less than 20 inches. This soil has severely limited suitability for septic tank absorption fields, due to slope, seepage, and shallowness. Installation of septic system distribution lines across the slope is necessary for the system's proper operation.

Gently sloping to steep, well drained Paxton soils are located on top slopes and side slopes of drumlins. Typically, the soils have a surface layer of dark yellowish brown, fine sandy loam about 7 inches thick, with subsoil that is about 15 inches thick. It is friable, yellowish brown fine sandy loam in the upper part and friable, olive yellow sandy loam in the lower part. The substratum is about 43 inches thick with firm, light olive brown sandy loam in the upper part and very firm, grayish brown fine sandy loam in the lower part. This soil is well suited to cultivated crops, orchards, and pasture. Susceptibility to erosion is a management concern, however, farming on the contour, strip-cropping, and using cover crops, grasses, and legumes help to reduce runoff and control erosion.

Paxton soils have moderate limitations for dwelling construction, with wetness being the main limitation. Constructing basement floors above the seasonal high water table or installing footing drains can reduce damage caused by high ground water. Constructing roads on well-compacted, coarse-textured base material, and providing adequate side ditches and culverts, will help protect from damage caused by soil wetness and frost action. This soil type has severe limitations for septic tank absorption fields, due to the shallow

[21] USDA/NRCS 2012 SSURGO certified soils data

depth to the saturated zone. Restricted permeability in the substratum prevents the soil from readily absorbing sewage effluent. The installation of a larger-than-average leach field helps to overcome this limitation.

Nearly level to strongly sloping, moderately well drained Woodbridge soils are found in drainage swales and on top slopes, upper side slopes, and toe slopes of drumlins. Typically, the soils have a surface layer of very dark brown, fine sandy loam about 2 inches thick. The subsoil is about 26 inches thick, and contains friable, yellowish brown fine sandy loam with distinct strong, brown and yellowish red masses of iron accumulation, and light brownish gray depletions in the lower part. The substratum is about 37 inches thick, and is firm, light olive brown fine sandy loam with prominent strong brown and yellowish red masses of iron accumulation and faint light brownish gray depletions. This soil is well suited to cultivated crops or pasture. The perched high water table may delay planting in spring or harvesting in fall. Drainage is necessary for optimum crop growth and the most efficient use of machinery.

Woodbridge soils have severe limitations for the construction of dwellings with basements, and moderate limitations for the construction of dwellings without basements. Constructing without basements or above the seasonal high water table and landscaping to drain surface water away from buildings will help to avoid interior damage caused by the seasonal high water table. Where basements extend to more than 2 feet below the surface, placing footing drains around foundations will help to remove excess subsurface water. Constructing roads on well-compacted, coarse-textured base material, and providing adequate side ditches and culverts, will help protect the roads from damage caused by soil wetness and frost action. Because of the seasonal high water table and restricted permeability in the substratum, this soil has severe limitations for septic tank absorption fields. Installing a larger-than-average distribution system in a mound of more suitable fill material will help to overcome these limitations. This soil type is well suited for woodland wildlife habitat.

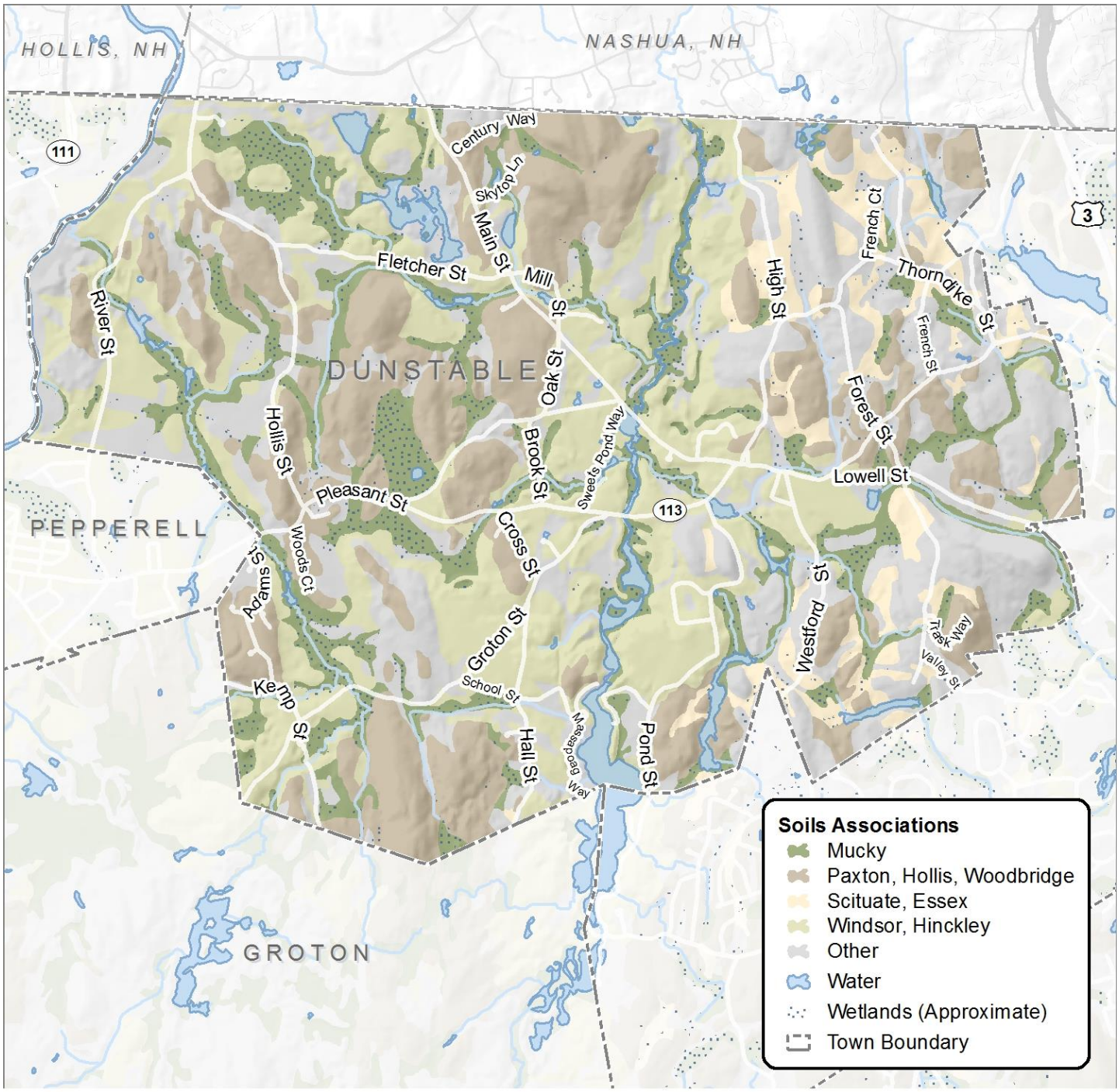
Nearly level to strongly sloping, excessively drained Windsor soils are found on glacial outwash plains, and the tops of terraces and deltas. Typically, the soils have a surface layer of dark brown, loamy sand about 8 inches thick. The subsoil is about 15 inches thick. It is comprised of loose, yellowish brown loamy sand in the upper part and loose, light olive brown sand in the lower part. The substratum is about 42 inches thick, with loose, light yellowish brown gravelly sand and sand. This soil association has only slight limitations for the construction of dwellings or local roads. It has severe limitations for septic tank absorption fields, as the soil readily absorbs, but is a poor filter of sewage effluent. This inadequate filtration capacity can result in the pollution of ground water. Low-density development and larger lot sizes can help reduce the impact on ground water. This soil is not well suited for woodland wildlife habitat.

Deep, strongly sloping, and moderately well drained Scituate soil is found on side slopes, toe slopes, and broad drainage swales of uplands. This soil type has severe limitations for dwellings with basements due to slope and soil wetness limitations. Constructing without basements or above the seasonal high water table, and designing landscaping to drain surface water away from buildings, will help avoid damage caused by the seasonal high water table. Designing buildings and lots to conform to the natural shape of the land will address the slope limitation, reduce the need for extensive land shaping, and minimize erosion. Slope, a seasonal high water table, and frost action are moderate limitations for roadway construction. Designing roads so that they run along the contours of the land will reduce runoff and erosion. Due to the seasonal high water table and restricted permeability, this soil has severely limited potential for septic tank absorption fields. The installation of a larger-than-average distribution system in a mound of more suitable fill material will help overcome these limitations. This soil type is highly suitable for woodland wildlife habitat.

Nearly level to steep, excessively drained Hinckley soils are found on glacial outwash plains and terraces. Typically, the soils have a surface layer of dark brown loamy sand about 7 inches thick. The subsoil is loose, yellowish brown very gravelly loamy sand about 10 inches thick. The substratum is loose, olive brown very gravelly sand about 48 inches thick. This soil has slight limitations for the construction of dwellings and of local roads. It has severe limitations for septic tank absorption fields, as it readily absorbs but is a poor filter of sewage effluent. The soil's inadequate filtering capability can result in pollution of ground water.

Mucky soils are hydric soils formed under conditions of saturation, flooding, or ponding long enough to develop anaerobic conditions in the upper part. Hydric soils, along with hydrophytic vegetation and wetland hydrology, are used to define wetland boundaries. These soils are found along the waterways and wetlands across Dunstable. This soil is not suitable for development due to ponding water.

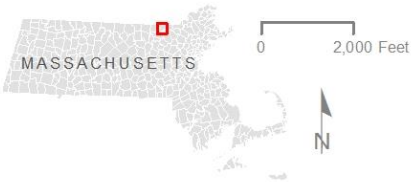
Map 12: Dunstable Soil Associations



Sources:
MassGIS/USDA/NRCS (2012 SSURGO-certified soils);
MassDOT/NMCOG (2013 roads, town boundaries, hillshade);
MassDEP (2009 hydrology); NH GRANIT (roads, boundaries)

The depicted soil boundaries and interpretations derived are for planning purposes only and do not eliminate the need of onsite sampling, testing, and detailed study of specific sites.

Produced by NMCOG: 4/24/2017



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40 Church Street, Suite 200
Lowell, Massachusetts 01852
(978) 454-8021 nmcog.org

Prime Farmland

Prime farmland, as defined by the U.S. Department of Agriculture, is land that "has the best combination of physical and chemical characteristics for producing food, feed, forage, fiber, and oilseed crops and is available for these uses."[22] It could be cultivated land, pastureland, forestland, or other land, but it is not urban or built-up land or water areas. The soil qualities, growing season, and moisture supply are those needed to produce sustained high yields of crops economically, when proper management, including water management, and acceptable farming methods, are applied. In general, prime farmland has an adequate and dependable supply of moisture from precipitation or irrigation, a favorable temperature and growing season, acceptable acidity or alkalinity, an acceptable salt and sodium content, and few or no rocks. It is permeable to water and air. It is not excessively erodible or saturated with water for long periods, and either is not frequently flooded during the growing season or is protected from flooding. Slopes range mainly from 0 to 6 percent.

As shown on Map 13 on the following page, Dunstable is fortunate to have lands that are considered by USDA and Natural Resources Conservation Service (NRCS) to be categorized as Prime Farmland, Farmland of Statewide Importance, or Farmland of Unique Importance. Land classified within these categories comprises over 4,750 acres, with nearly 995 acres considered to be prime farmland, 2,696 acres classified as Farmland of Statewide Importance, and 1,060 acres classified as Farmland of Unique Importance, as shown in Table 69 below. Map 14 on page 177 shows the prime agricultural soils within Dunstable.

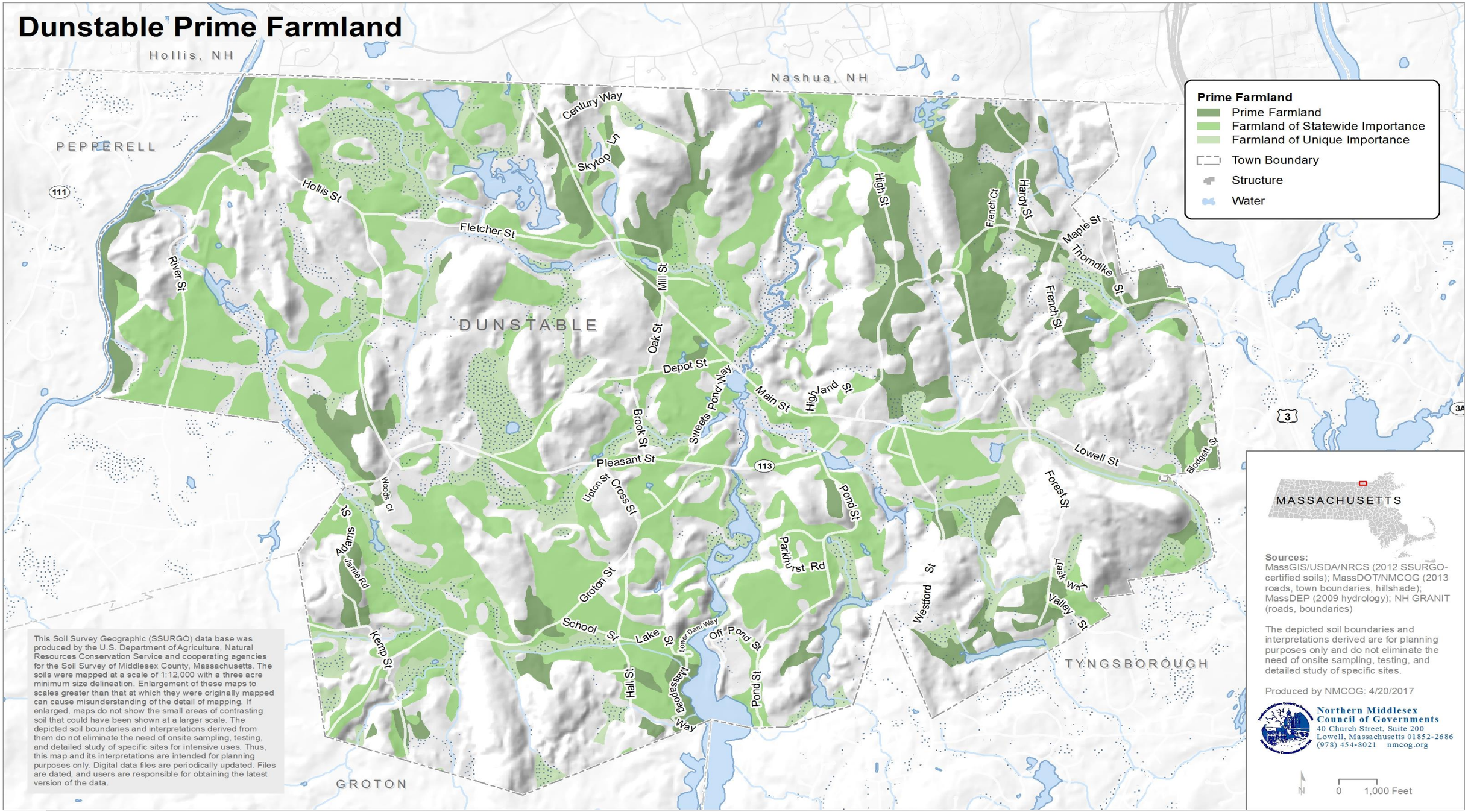
Table 69: Prime Farmland in Dunstable

Category	Acres
Prime Farmland	994.91
Farmland of Statewide Importance	2,696.54
Farmland of Unique Importance	1,060.77
Total	**4,752.22**

Source: USDA and NRCS, 2012

[22] Soil Survey of Middlesex County, USDA, NRCS, and University of Massachusetts, 2005, p. 172

MAP 13


Dunstable Prime Farmland
Hollis, NH
Nashua, NH
PEPPERELL
DUNSTABLE
TYNGSBOROUGH
GROTON
Prime Farmland
Prime Farmland
Farmland of Statewide Importance
Farmland of Unique Importance
Town Boundary
Structure
Water
Century Way
Skytop Ln
Hollis St
Fletcher St
River St
Mill St
Oak St
Depot St
Sweets Pond Way
Main St
Highland St
High St
French Ct
Hardy St
Maple St
Thorndike St
French St
Brook St
Pleasant St
Upton St
Cross St
Woods Ct
Adams St
Jamie Rd
Groton St
Kemp St
School St
Lake St
Lower Dam Way
Off Pond St
Hall St
Massapoag Way
Pond St
Parkhurst Rd
Westford St
Lowell St
Forest St
Blodgett St
Fast Way
Valley St
111
113
3
3A
MASSACHUSETTS
Sources:
MassGIS/USDA/NRCS (2012 SSURGO-certified soils); MassDOT/NMCOG (2013 roads, town boundaries, hillshade); MassDEP (2009 hydrology); NH GRANIT (roads, boundaries)
The depicted soil boundaries and interpretations derived are for planning purposes only and do not eliminate the need of onsite sampling, testing, and detailed study of specific sites.
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Northern Middlesex Council of Governments
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Lowell, Massachusetts 01852-2686
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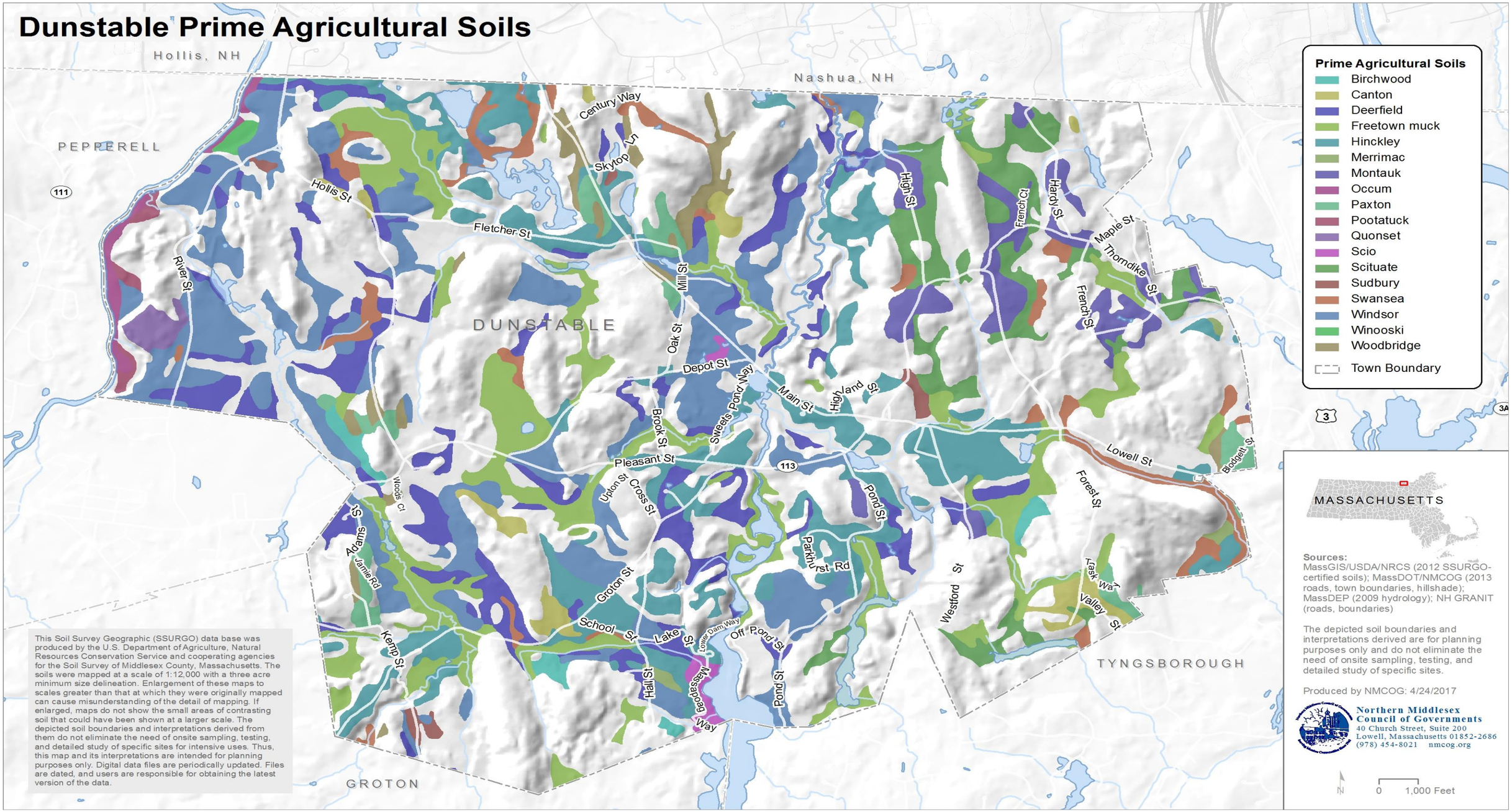
N
0 1,000 Feet
This Soil Survey Geographic (SSURGO) data base was produced by the U.S. Department of Agriculture, Natural Resources Conservation Service and cooperating agencies for the Soil Survey of Middlesex County, Massachusetts. The soils were mapped at a scale of 1:12,000 with a three acre minimum size delineation. Enlargement of these maps to scales greater than that at which they were originally mapped can cause misunderstanding of the detail of mapping. If enlarged, maps do not show the small areas of contrasting soil that could have been shown at a larger scale. The depicted soil boundaries and interpretations derived from them do not eliminate the need of onsite sampling, testing, and detailed study of specific sites for intensive uses. Thus, this map and its interpretations are intended for planning purposes only. Digital data files are periodically updated. Files are dated, and users are responsible for obtaining the latest version of the data.

MAP 14


Dunstable Prime Agricultural Soils
Hollis, NH
Nashua, NH
PEPPERELL
DUNSTABLE
TYNGSBOROUGH
GROTON
Prime Agricultural Soils
Birchwood
Canton
Deerfield
Freetown muck
Hinckley
Merrimac
Montauk
Occum
Paxton
Pootatuck
Quonset
Scio
Scituate
Sudbury
Swansea
Windsor
Winooski
Woodbridge
Town Boundary
MASSACHUSETTS
Sources:
MassGIS/USDA/NRCS (2012 SSURGO-certified soils); MassDOT/NMCOG (2013 roads, town boundaries, hillshade); MassDEP (2009 hydrology); NH GRANIT (roads, boundaries)
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Century Way
Skytop Ln
Hollis St
Fletcher St
River St
Mill St
Oak St
Depot St
Sweets Pond Way
Main St
Highland St
High St
French Ct
Hardy St
Maple St
Thorndike St
French St
Brook St
Pleasant St
Upton St
Cross St
Woods Ct
Adams St
Jamie Rd
Kemp St
Groton St
School St
Lake St
Lower Dam Way
Off Pond St
Hall St
Massapoag Way
Pond St
Parkhurst Rd
Westford St
Lowell St
Forest St
Blodgett St
Trask Way
Valley St
111
113
3
3A

FIGURE 30: TULLY FARM

VEGETATION

Dunstable's visual character and rural setting are inextricably linked to its forests and agricultural landscape. Forest cover is a critical component of watershed management and a defining feature of Dunstable's open lands and rural roads. Forest management is critical to maintain the character that Dunstable residents value deeply.

Dunstable lies within the Central Hardwoods-White Pine-Hemlock forest zone, as designated by the Commonwealth. These forests are comprised of a mix of hardwood and coniferous species, predominated by white pine, hemlock, oak, ash, maple, hickory, locust and birch. Sassafras, ferns, wildflower, and assorted shrubs form the understory. Grasses and cover crops populate fallow agricultural fields.

The diversity of plant communities within the town provides food and habitat for wildlife, Table 70 on the following contains a list of common plant species found within the community, according to the Town's most recent *Open Space and Recreation Plan*.

Table 70: Common Plant Species Found Within Dunstable

Forested Areas	
Black Cherry (Prunus serotine)	Lowbush blueberry (Vaccinium augustifolium)
Birch, Black (Betula lenta)	Maple-leaf Viburnum (Viburnum acerifolium)
Cedar, Red (Juniperus virginiana)	Barberry (Berberis thunbergii)
Maple, Red (Acer rubrum)	Canada Mayflower (Maianthenum canadense)
Pine, White (Pinus Strobus)	Fern Bracken (Pteridium aquilinum)
Oak, Red (Quercus rubra)	Fern Marginal Wood (Dryopteris marginalis)
Hazelnut (Corylus americanan)	Indian-pipe (Monotropa uniflora)
Honeysuckle (Lonicera tatarica)	Partridgeberry (Mithcella repens)
Huckleberry, Black (Gaylussacia baccata)	Hornbeam/Ironwood (Carpinus caroliniana)
Poison Ivy (Toxicodentron radicans)	
Wetland Areas	
Arrowwood (Viburnum recognitum)	Fern Royal (Osmunda regalis)
Elderberry (Sambucus Canadensis)	Fern Interrupted (Osmunda calytoniana)
Dogwood Silky (Cornus amomum)	Fern Sensitive (Onoclea sensibilis)
Highbush blueberry (Vaccinium corymbosum)	Fern Cinnamon (Osmunda cinnamomea)
Fringed Sedge (Carex crinite)	Spicebush (Lindera benzoin)
Joe-Pye-Weed (Euratoriadedelphus maculate)	Steeplebush (Spiraea tomentosa)
Woolgrass (Scirpus cyperinum)	Blueflag Iris (Iris versicolor)
Skunk cabbage (Symplocarpus foetidus)	Blue Vervain (Verbena hastate)
Soft Rush (Juncus effuses)	Big Bluestem (Andropogon gerardi)
Tall Meadow Rue (Thalictrum pubescens)	Boneset (Eupatorium perfoliatum)
Tussock Sedge (Carex stricta)	Cardinal Flower (Lobelia cardinalis)
Cattail (Typha latifolia)	Maple, Red (acer rubrum)

Source: *Dunstable Open Space and Recreation Plan*, 2010

According to the Natural Heritage and Endangered Species Program (NHESP), Dunstable is known to have two endangered plant species: Low bindweed and Pod-grass, as shown in Table 71 below. Both of these species have not been seen for nearly a century.

Table 71: Endangered Plant Species in Dunstable

Common Name	Scientific Name	Designation	Date Last Observed
Low bindweed	*Calystegia spithamaea*	Endangered	1928
Pod-grass	*Scheuchzeria palustris*	Endangered	1928

Source: Natural Heritage and Endangered Species Program

Invasive species are found in Dunstable, such as multiflora rose, Norway maple, Russian Olive, Garlic Mustard and Oriental bittersweet. Some of these species can be found in hedgerows, along roadsides, in pastures, and in fallow fields. Purple loosestrife and Phragmites can be found in wetland areas. Stands of Japanese Knotweed have been found on several Conservation properties, including Blanchard Hill and Flat Rock Conservation Area. Bittersweet is a major problem throughout town, and phragmites are also becoming a significant issue in the wetland areas.

Fisheries and Wildlife

Dunstable's substantial woodlands, waterways, wetlands, pastures, and fields support a rich and diverse population of birds, mammals, amphibians, reptiles, fish and other wildlife. In addition to common species, there have been sightings of less common mammals, such as moose and black bear. An extensive list of wildlife species found within the community can be found in the Appendix.

There are a number of habitat types within Dunstable. Forest-streambed habitat supports white-tailed deer, fox, squirrels, snowshoe hare, cottontail rabbit, raccoon, mink, beaver, otter, small rodents and carnivores. The woodland-field habitat is especially important to gamebirds and songbirds. Species found in Dunstable include partridge and woodcock. The woodland-wetland areas are important for songbird and waterfowl, as are the marsh-open water habitat areas. Dunstable's woodlands still contain whippoorwills, and the fields and grasslands provide habitat for bobolinks. Aquatic habitats support a diverse fish population that includes bass, perch, pickerel and trout. The Division of Fisheries and Wildlife stocks Unkety and Salmon Brooks.

FIGURE 31: ELBOW MEADOW NATURAL HERITAGE AREA

Dunstable's major wildlife corridor is the Nashua River, which is part of the international migratory bird flyway and is identified as a priority on the North American Waterfowl Management Plan (an agreement between the US, Canada and Mexico). Salmon Brook and Massapoag Pond also serve as a wildlife corridor. The Town's *Open Space and Recreation*

Plan points out the need to link wildlife corridors between conservation lands, such as between the Pierce Town Forest and the Spaulding Proctor Reservation, and between the Farnsworth Wildlife Management Refuge and Massachusetts Elbow Meadow Wildlife Management Area near Massapoag Pond. Salmon Brook's wildlife corridor is well protected on the western bank, but large areas of unprotected land exist on the eastern bank.

As of April 2017, the Massachusetts Natural Heritage and Endangered Species Program (NHESP) has certified twelve (12) vernal pools in Dunstable. These pools, shown on Map 15, are critical habitat for amphibians and invertebrate animals that use them to breed. They typically hold water in the winter and spring due to rising groundwater and rainfall, remain wet through the spring and into the summer, and dry out completely by mid- to late summer. Many more vernal pools within Dunstable have yet to be certified.

The NHESP reports that Dunstable is home to eight species listed as threatened (T) or of special concern (SC). This list, shown in Table 72, consists of one amphibian, three reptiles, one fish, one mammal and two insects. NHESP Program priority and estimated habitat areas are shown on Map 15.

Table 72: Species Classified as Threatened or of Special Concern

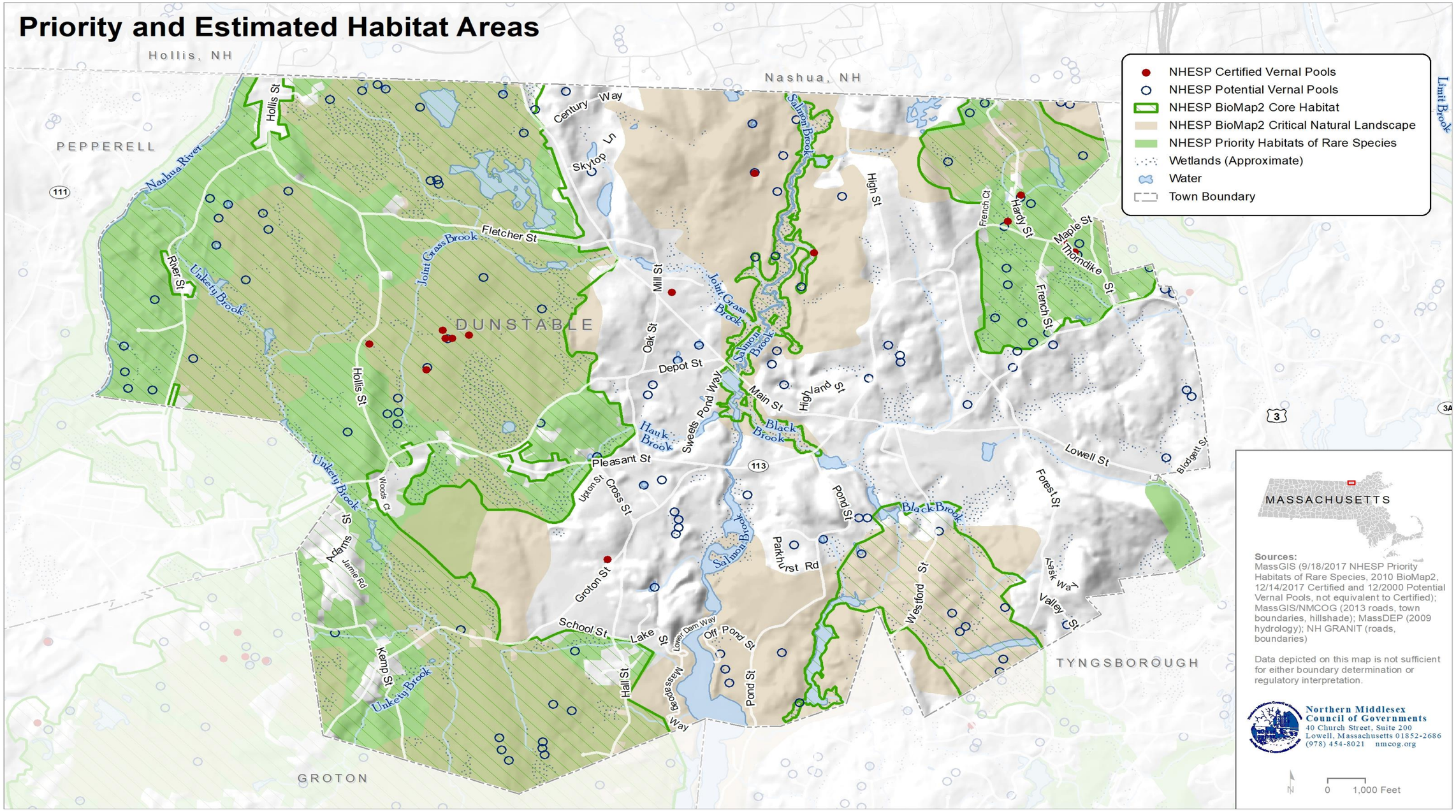
Common Name	Scientific Name	Type	Status	Date Last Observed
Blue-spotted Salamander	*Ambystoma laterale*	Amphibian	SC	2000
Spine-crowned Clubtail	*Gomphus abbreviatus*	Dragonfly/Damselfly	SC	2015
Brook Snaketail	*Ophiogomphus aspergus*	Dragonfly/Damselfly	SC	2011
Bridle Shiner	*Notropis bifrenatus*	Fish	SC	1988
Southern Bog Lemming	*Synaptomys cooperi*	Mammal	SC	1976
Eastern Box Turtle	*Terrapene carolina*	Reptile	SC	2017
Wood Turtle	*Glyptemys insculpta*	Reptile	SC	2017
Blanding's Turtle	*Emydoidea blandingii*	Reptile	T	2017

Source: Natural Heritage and Endangered Species Program and Dunstable Conservation Commission

Petapawag Area of Critical Environmental Concern

An Area of Critical Environmental Concern (ACEC) is a place in Massachusetts that receives special recognition because of the quality, uniqueness, and significance of its natural and cultural resources. Such an area is identified and nominated at the community level and is reviewed and designated by the state's Secretary of Energy and Environmental Affairs. The Department of Conservation and Recreation (DCR) administers the ACEC Program on behalf of the Secretary. Designation of an ACEC increases environmental oversight by increasing state permitting standards through elevated performance standards and lowering thresholds for review. The western portion of Dunstable is part of the Petapawag ACEC, which is located along and to the east of the Nashua River, from the Town of Ayer north to New Hampshire.

MAP 15


Priority and Estimated Habitat Areas
Hollis, NH
Nashua, NH
PEPPERELL
DUNSTABLE
GROTON
TYNGSBOROUGH
NHESP Certified Vernal Pools
NHESP Potential Vernal Pools
NHESP BioMap2 Core Habitat
NHESP BioMap2 Critical Natural Landscape
NHESP Priority Habitats of Rare Species
Wetlands (Approximate)
Water
Town Boundary
MASSACHUSETTS
Sources:
MassGIS (9/18/2017 NHESP Priority Habitats of Rare Species, 2010 BioMap2, 12/14/2017 Certified and 12/2000 Potential Vernal Pools, not equivalent to Certified); MassGIS/NMCOG (2013 roads, town boundaries, hillshade); MassDEP (2009 hydrology); NH GRANIT (roads, boundaries)
Data depicted on this map is not sufficient for either boundary determination or regulatory interpretation.
Northern Middlesex Council of Governments
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0 1,000 Feet
Nashua River
Unkety Brook
Joint Grass Brook
Salmon Brook
Black Brook
Hauk Brook
Limit Brook
Hollis St
Century Way
Skytop Ln
Fletcher St
River St
Mill St
Oak St
Depot St
Sweets Pond Way
Main St
High St
Highland St
French Ct
Hardy St
Maple St
Thorndike St
French St
Lowell St
Blodgett St
Forest St
Pleasant St
Upton St
Cross St
Woods Ct
Adams St
Jamie Rd
Groton St
School St
Lake St
Lower Dam Way
Off Pond St
Pond St
Hall St
Massapoag Way
Kemp St
Parkhurst Rd
Westford St
Kask Way
Valley St

Environmental Issues

Dunstable is fortunate that there are few environmental challenges facing the community. There are no contaminated sites within the town that need to be addressed, although in the past, there were small releases of petroleum products. Those releases have been remediated and pose no danger to the community.

Landfill Issues

There is one Superfund site at the former Charles George Landfill (located at the Tyngsborough-Dunstable line) where groundwater contamination occurred in the mid-1980s as is shown on Map 16 on page 185. Beginning in 1955, the landfill was used for the disposal of municipal wastes. Both household and industrial wastes were accepted from 1967 to 1976. The facility had a license to accept hazardous waste from 1973 to 1976 and primarily accepted drummed and bulk chemicals containing volatile organic compounds (VOCs) and toxic metal sludges. In 1982, volatile organic compounds (VOCs) and heavy metals were detected in the drinking water supply wells of the Cannongate condominium complex located approximately 800 feet southwest of the site. Polycyclic aromatic hydrocarbons (PAHs) and heavy metals were also detected in soils and sediments around the site. The Commonwealth of Massachusetts ordered the closure of the site in 1983 and, that same year, the landfill was listed as a Superfund Site.

Remedial activities included capping of the landfill and installation of collection and treatment systems for landfill leachate and gases, extraction and treatment of contaminated groundwater, and extension of public water supply to address contamination of drinking water wells. An on- and off-site ground water monitoring program has been in place since 1992 and will continue until ground water cleanup goals have been met.

High levels of inorganic contaminants have been found in groundwater, including arsenic, cadmium, chromium, copper, cyanide, lead, mercury, nickel, silver, and zinc. High levels of chromium and zinc were detected in surface waters of the brooks and wetlands adjacent to the landfill and Flint Pond. Elevated levels of arsenic, cadmium, copper, lead, mercury, and zinc were measured in the sediments of Dunstable Brook and associated wetlands. Organic contaminants, particularly polycyclic aromatic hydrocarbons (PAHs), were also detected at elevated levels in the sediments of the Dunstable Brook system.

The Charles George Landfill cleanup was completed in 1998 through the construction of a full synthetic landfill cap, but the collection and treatment of leachate and gas continues. Part of the landfill was recently reused as a solar farm.

Dunstable's Town Landfill was closed and capped in 1998. Groundwater monitoring has been performed but no contamination has been found. The Town currently utilizes this site as a transfer station for collecting residential waste and recyclables.

Non-point Pollution/Stormwater Management

Non-point source pollution impacts the environment through stormwater runoff entering surface water bodies and groundwater. Such sources of pollution include the following:

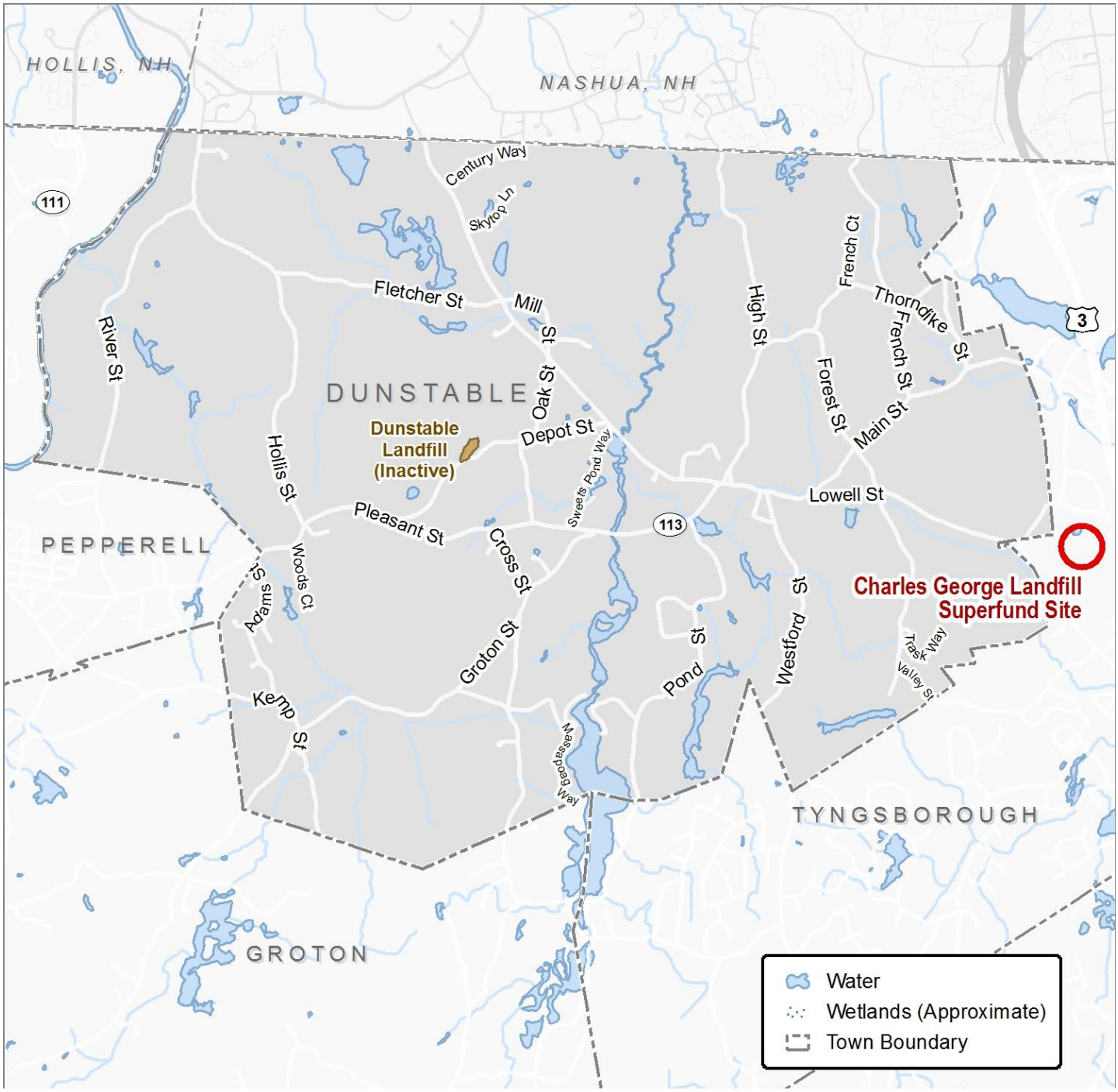
- Fertilizers, herbicides, and insecticides from lawns and farmland;
- Oil, grease and toxic chemicals from transportation sources, roadways, fueling stations and parking lot runoff;
- Sediment from improperly managed construction sites; and
- Pathogens and nutrients from livestock, pet waste, and failing septic systems.

These sources of pollution are more difficult to control than point source pollution, and are best addressed through proper land management and agricultural practices, effective maintenance of motor vehicles, land use controls, and homeowner education.

In 2016, EPA and DEP issued a new MS4 Stormwater permit for Massachusetts that took effect on July 1, 2018. This permit requires the operators of a regulated small municipal separate storm sewer system (MS4), including Dunstable, to obtain National Pollutant Discharge Elimination System (NPDES) permit coverage. MS4s are considered point sources because they discharge storm water into discrete conveyances, including roads with drainage systems and municipal streets. Under the permit, Dunstable will be required to develop and implement a storm water management program that includes six minimum control measures, and there are water quality testing, monitoring , mapping, maintenance and reporting requirements contained within the permit as well. The six minimum control measures include the following:

- Public Education and Outreach;
- Public Involvement/Participation;
- Illicit Discharge Detection and Elimination;
- Construction Site Runoff Control;
- Post-Construction Storm Water Management in New Development and Redevelopment; and
- Pollution Prevention/Good Housekeeping for Municipal Operations.

Map 16: Dunstable Landfills



Sources:
MassGIS (BWP solid waste disposal sites); EPA (CERCLA Superfund sites); MassDOT/NMCOG (2013 roads, town boundaries); MassDEP (2009 hydrology); NH GRANIT (roads, boundaries)

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As the operator of a regulated small MS4, Dunstable must select best management practices (BMPs) and measurable goals for each minimum control measure, and design and implement a comprehensive program to reduce pollutants to the maximum extent practical (MEP). To assist in meeting the requirements of the new EPA permit, Dunstable adopted a Stormwater Management and Erosion Control Bylaw in 2015. The Planning Board is charged with administering and enforcing the bylaw. The Town is also a member of the Northern Middlesex Stormwater Collaborative (NMSC), an organization of thirteen communities that work collaboratively to address the requirements of the new MS4 permit. NMCOG staff serves as the administrative and technical staff for the NMSC.

Cultural and Historic Resources

Cultural resources are the places, structures and institutions that contribute to a community's unique identity and sense of place. From its historic homes to the barns and stone walls of rural farms, Dunstable is fortunate to retain vestiges of its past. Recognizing the role of cultural resources has been vital to maintaining rural character. Therefore, it is critical that the Town continue to inventory, document and preserve what remains.

A master plan is not meant to serve as a comprehensive preservation plan for the community. Instead, it is a planning tool to document the town's preservation efforts and define the importance of such efforts in the future of the town. The visioning sessions and the survey undertaken for this Master Plan clearly highlighted the fact that residents and town officials highly value the town's historic assets. The Town is very fortunate to have historic preservation groups and a cultural community that advocates for the protection of these assets.

A Brief History of Dunstable[23]

The documented Native American history of Dunstable dates to the Late Archaic period (6,000-3,000 B.P.) with two confirmed sites from this period. In the late 1600s, the Nipmuc tribe was probably active in the Dunstable area, particularly along the Nashua River and Salmon Brook, and around the ponds. European settlers arrived in the area in the late 17th century. It is believed that these settlers arrived via the Merrimack River to trade with natives. The town of Dunstable was established in 1673 with a total area of 200 square miles, extending from Londonderry, New Hampshire to Chelmsford.

[23] Compiled from the National Register of Historic Places Nomination Forms and the Dunstable Reconnaissance Report prepared through the Massachusetts Heritage Landscape Inventory Program

In 1711, there were seven garrisons and thirteen families in town. The area was unstable after King Philip's War and conflicts between the Native Americans and European settlers continued into the 1730s. The boundaries of Dunstable fluctuated throughout the 18th century, with large sections split off as new towns, several of which are now part of New Hampshire. Dunstable annexed a portion of Groton in 1747, and the eastern portion of Dunstable was broken off as Tyngsborough District in 1789, and was later incorporated as the Town of Tyngsborough in 1809.

The first meetinghouse in what is now Dunstable was built in 1753 east of the present town center, near the intersection of Forest and Main Streets. The Town Pound was located further to the east. The population of the town remained low until the Revolutionary War. Most residents lived on outlying farms and many supplemented their income with lumbering and related activities, such as the production of shingles or barrel hoops. One of Dunstable's early economic activities was the bleeding of pine trees for pitch and turpentine. Bog iron was also extracted from swamps and sent for processing. Peat and clay were extracted for the production of brick.

During the American Revolution, a company of fifty Dunstable men fought at the Battle of Bunker Hill. After the Revolutionary War, the meetinghouse was moved to the site of the present Town Hall. A village center formed along High Street and Main Street, about one-half mile west of the original meetinghouse. The population grew slowly and the road system gradually improved, but the remote location of the town limited economic growth. The economy remained primarily agricultural, with a few small sawmills and gristmills.

Public schools were built in five districts throughout town in 1805. Sixty-nine Dunstable residents served in the Civil War. The arrival of the Nashua, Acton and Boston Railroad in 1873 made the town more accessible, and allowed more milk products to be shipped to markets in Boston and Lowell. The railroad station was located at the corner of Main Street and Depot Street. In 1889, Dunstable reduced the number of school districts from five to three. By 1893, there were ninety farms in Dunstable. In 1896, the Dunstable Public Library was located on the first floor of the Union School.

The Dunstable Town Hall was constructed in 1907 through a generous donation provided by Sarah Roby. The town's population had reached 590 by 1850 but declined to 408 by 1910, as some residents left to pursue better opportunities working in nearby mill towns, such as Lowell. The railroad ceased operating in the 1920s. The town remained rural and largely agricultural until the 1950s and the advent of the highway system. Today, Dunstable's economy is closely linked with the regional economy, and as a result, the majority of residents commute to other locations to seek employment opportunities. Dunstable retains some of its agricultural heritage, although the number of working farms

has declined significantly over the past decades. A century ago, there were over one hundred farms within the community, while today there are less than one dozen.

Historic Architecture

Dunstable has an impressive inventory of historic buildings, spanning three centuries with the oldest structure dating back to c.1700. These historic structures include residences, religious and institutional structures, barns and outbuildings. Most of the town's historic buildings are privately owned, but there are also some that are owned by the Town and non-profit entities. Many post-war homes are not perceived as historic in contemporary opinion, yet they provide a sense of Dunstable's development pattern through the 20th century.

FIGURE 32: MCLOON BARN

The town's architecture includes many styles that were popular in the 18th, 19th, and 20th centuries. Architectural styles include Colonial, Federal, Greek Revival, Georgian, Gothic Revival, Victorian, Classic Revival, Italianate, and Craftsman. Most of these buildings are well-preserved and maintained, and contribute to the visual character of the town. Several of the town's oldest homes reflect the characteristics of early farmhouses with large barns and outbuildings. Throughout Dunstable, the town's older homes define the views from its roadways. These homes are clustered in recognizable groupings that developed in response to both geographic limitations and historic roadway patterns.

National Register of Historic Places Designations

The National Register of Historic Places is the official list of the nation's historic places worthy of preservation. Authorized by the National Historic Preservation Act of 1966, the National Park Service's National Register of Historic Places is part of a national program to coordinate and support public and private efforts to identify, evaluate and protect America's historic and archaeological resources. Currently, Dunstable Town Hall is the only property listed on the Register. The Town Hall/Sarah Roby Memorial Building stands in what was once the town common. The building was constructed in 1907 and is a blend of Richardson Romanesque, Queen Anne, and Classical Revival styles. It was designed by Warren L. Floyd, who also designed the Union School. In addition to the building, the National Register listing also includes the World War II monument, the Civil War memorial, a small monument commemorating those who served in World War I, a flagpole, and the granite post that holds the sign identifying the building. More recently, monuments have been added to honor those who served in the American Revolution, Korea, and Vietnam.

The Historical Commission has focused its most recent efforts on inventories and National Register applications for East Main Street and the Town Center, as described below.

East Main Street

The East Main Street Area is located between the Town Center and the Tyngsborough town line. Buildings on East Main Street include Colonial, Federal, Victorian Eclectic, Craftsman and Cape Cod style residences, a Federal period schoolhouse, several barns, and two windmills. Other resources in the area include a colonial period burial ground, centennial trees, and stone walls with distinctive wooden gates. A handful of modern buildings have been built in the area at a scale that does not negatively impact the historic resources.

Dunstable Center Historic District

The core of the historic district is located at the junction of High, Main, and Pleasant Streets and is comprised of residential, commercial, institutional and civic buildings. It also includes limited adjacent sections of Common Street, Hillcrest, and Highland Streets. Architectural styles include Colonial, Federal, Greek Revival, Gothic Revival, Victorian Eclectic and Colonial/Classical. Dunstable's present town center developed after the Revolutionary War, with many buildings constructed in the 19th century.

FIGURE 33: RESIDENCE ON HIGH STREET

Massachusetts Cultural Resources Information System

Massachusetts Cultural Resources Information System data are compiled from a variety of records and files maintained by the Massachusetts Historical Commission (MHC), including but not limited to, the Inventory of Historic Assets of the Commonwealth, National Register of Historic Places nominations, State Register of Historic Places listings, and local historic district study reports. The historic resources are organized into the following categories: buildings, areas, structures, objects and burial grounds.

Buildings

There are 134 buildings listed in the MACRIS database for Dunstable. Table 73 below identifies that name, address, and year of construction for each structure.

Table 73: Historic Buildings in Dunstable

Property Name	Street	Year
Swallow, Florence House and Chicken Farm	121 Depot Rd	c 1900
NA	15 Fletcher St	c 1820
Fletcher, Francis House	34 Fletcher St	c 1825
Rideout, David F. House and Farm	291 Fletcher St	c 1885
Rideout, David F. Dairy Barn	291 Fletcher St	c 1900
Kendall, Capt. Jonas House	85 Forest St	c 1813
Butterfield, Leonard S. House	167 Forest St	c 1850
Butterfield, Leonard S. Barn	167 Forest St	c 1850
Brooks, Lawrence House	20 French St	c 1855
Brooks, Lawrence Chicken Coop	20 French St	c 1855
French, John House and Farm	94 French St	c 1800

Table 73 (cont'd): Historic Buildings in Dunstable

Property Name	Street	Year
French, Benjamin Shop	94 French St	c 1861
French, Benjamin Barn	94 French St	c 1861
Udot, Alexander House	Hall St	c 1905
Hall, Ira House	Hall St	r 1850
Camp Massapoag Cabin	Hall St	c 1940
Camp Massapoag Cabin	Hall St	c 1940
Camp Massapoag Cabin	Hall St	c 1940
Camp Massapoag Cabin	Hall St	c 1940
Camp Massapoag Cabin	Hall St	c 1940
Camp Massapoag Cabin	Hall St	c 1940
Camp Massapoag Cabin	Hall St	c 1960
Camp Massapoag Cabin	Hall St	c 1960
Camp Massapoag Cabin	Hall St	c 1960
Camp Massapoag Cabin	Hall St	c 1960
Camp Massapoag Cabin	Hall St	c 1960
Camp Massapoag Cabin	Hall St	c 1960
Kately, J. H. House	95 Hardy St	c 1734
NA	38 High St	c 1980
Taylor, Dea. Isaac C. House	40 High St	c 1827
NA	140 High St	c 1920
NA	140 High St	c 1920
Roby Apple Shed	166 High St	c 1890
Sargent, John B. House	346 High St	c 1896
Kendall, Dea. Zebedee House	473 High St	c 1775
NA	473 High St	c 1870
NA	473 High St	c 1870
Woodward, Jonathan House	73 Highland St	1760
Marshall, Clement House	62 Hollis St	c 1839
Tulley, Henry House	301 Hollis St	1873
Drake House	401 Hollis St	r 1880
Cummings, C. House and Farm	82 Kemp St	c 1850
Cummings, C. Barn	82 Kemp St	c 1850
Lake Massapoag Ticket Booth	Pond St	c 1955
NA	Lowell St	c 1925
Fairview Farm	Lowell St	r 1820
Fletcher, Dea. Joseph House	Main St	1735
Dunstable Congregational Church	Main St	1912
Nevins, John House	Main St	1731
Dunstable Public Library	Main St	1998
NA	21 Main St	c 1960
McLoon, Alfred P. House	59 Main St	c 1920
Winslow, Sarah Tyng Schoolhouse	64 Main St	1798
Cummings, Capt. Josiah House	104 Main St	c 1790
Butterfield, Capt. Leonard House	155 Main St	1783

Table 73 (cont'd): Historic Buildings in Dunstable

Property Name	Street	Year
Butterfield Farm Apple Cider Mill	158 Main St	c 1850
Larter House	194 Main St	c 1800
Butterfield, Asa House	285 Main St	c 1790
NA	310 Main St	c 1960
NA	380 Main St	c 1960
Dickenson, Charles House	383 Main St	c 1870
NA	404 Main St	c 1950
Brigham, Rev. Levi - Bennett, James House	416 Main St	c 1837
Kendall, Ebenezer House	425 Main St	c 1743
NA	458 Main St	c 1960
NA	466 Main St	c 1970
Proctor, Ebenezer House	485 Main St	1733
NA	490 Main St	c 1970
Proctor House and Chicken Farm	493 Main St	1865
Proctor, Jasper House	503 Main St	1812
Hall, Ira House and Turkey Farm	504 Main St	c 1880
Dunstable Town Hall	511 Main St	1907
Calmore	519 Main St.	C 1812
Calmore Barn	519 Main St	c 1812
Union School	522 Main St	1895
Cummings, Jeptha House	529 Main St	c 1790
First Evangelical Church Parsonage	546 Main St	c 1859
Dunstable New Evangelical Church Parsonage	550 Main St	c 1950
NA	553 Main St	c 1830
NA	557 Main St	c 1980
Kendall, William House	558 Main St	c 1750
Dunstable Cornet Band Hall	563 Main St	c 1860
NA	573 Main St	c 1980
NA	589 Main St	c 1980
Starr, Dr. Ebenezer House	601 Main St	c 1778
NA	726 Main St	1948
Fletcher House	993 Main St	1755
NA	65 Mill St	c 1935
NA	65 Mill St	c 1935
Read, Capt. Caleb - Parkhurst, Jacob House	67 Mill St	c 1805
Swallow House	95 Mill St	c 1825
NA	155 Off Pond St	c 1930
Proctor, Ebenezer Jr. House	Pleasant St	1751
Parkhurst, George House	Pleasant St	1820
Dunn, William House and Store	1 Pleasant St	c 1850
Proctor House	7 Pleasant St	1812
Whitcomb, Lowell House - Brow's Store	17 Pleasant St	c 1850
Roby, Sarah S. House	22 Pleasant St	c 1880
Dunstable Fire House	28 Pleasant St	c 1950

Table 73 (cont'd): Historic Buildings in Dunstable

Property Name	Street	Year
Woodward, James C. House	29 Pleasant St	c 1850
West Auto Service	30 Pleasant St	c 1970
Wright, Rueben - Davis, Moses House	31 Pleasant St	c 1850
NA	46 Pleasant St	c 1940
Woodward, Jonathan Jr. House	56 Pleasant St	1790
Woodward, C. N. House	57 Pleasant St	c 1850
Parkhurst, Benajah House	70 Pleasant St	1823
Parkhurst, Americus House	87 Pleasant St	1823
NA	92 Pleasant St	c 1950
NA	101 Pleasant St	c 1980
Dunstable District Schoolhouse #2	107 Pleasant St	c 1825
NA	160 Pleasant St	c 1920
Curtin House and Farm	446 Pleasant St	c 1878
Blodgett, Josiah House	Pond St	c 1726
Taylor, Cyrus House	Pond St	1790
Parkhurst, Leonard House	Pond St	1812
Kendall, Peter House	Pond St	1823
NA	352 Pond St	c 1875
Blood, Eber House	158 River St	1700
Robbins, R. House	69 River St	r 1720
Wright, George Dairy Barn	Thorndike St	1853
Kendall, Jonas House	1 Thorndike St	c 1860
Kendall, Jonas Barn	1 Thorndike St	c 1860
Kendall, Jonas Shop	1 Thorndike St	c 1860
Kendall, Temple House	4 Thorndike St	1756
Swallow, Amaziah House	68 Thorndike St	c 1780
Cummings, Isaac P. House	222 Thorndike St	c 1825
Davis, Moses House	14 Valley St	c 1840
Cummings, Capt. John House	Westford St	c 1740
Steele, John House	Westford St	1740
Spaulding, Josiah House	Westford St	1795
Woods, Sumner House	64 Woods Ct	c 1825
Woods, Sumner Barn	64 Woods Ct	c 1861
Woods, Sumner Shed	64 Woods Ct	c 1861

Source: http://mhc-macris.net

These buildings include residences, barns, outbuildings, schools, town hall, churches, cabins and chicken coops. The Eber Blood house, located at 158 River Street, is the oldest structure and was constructed in 1700. Remarkably, there are 23 structures located in Dunstable that date back to the 18th century.

FIGURE 34: DUNSTABLE TOWN HALL

Historic Areas

According to the Massachusetts Historical Commission (MHC), Dunstable has seven areas that are considered to be historically significant:

- Pond and Pleasant Streets Area;
- Meetinghouse Hill;
- Dunstable Center;
- West Dunstable-River Road Area;
- YMCA Camp Massapoag Family Outdoor Center;
- Dunstable Center (Expanded); and
- East Main Street Area.

The Town Center and East Main Street areas were discussed previously on page 189. The Pond and Pleasant Streets area was the site of a gristmill and cooper shop, a wheelwright, and blacksmith shop. Two of the homes in this area were constructed c. 1730. Part of this area is included in the National Register application prepared for the Town Center Historic District.

FIGURE 35: CONGREGATIONAL CHURCH

Meetinghouse Hill includes a cemetery that was established around the same time that the meetinghouse was constructed that formerly occupied the hilltop. The cemetery is the final resting place for those who lost their lives in the French and Indian War and for Revolutionary War soldiers. The area also includes the site of the first church built in Dunstable in 1753. The church was moved to the center of town in 1791. It is also the site of the Lawrence Brooks wheelwright shop and the George Wright blacksmith shop, located at the intersection of Thorndike and Main Streets. The town pound was established here in 1750. This area is incorporated within the pending National Register application for East Main Street.

The West Dunstable-River Road area contains 700 acres that once belonged to the Blood family and encompasses portions of Hollis Street, Fletcher Street and River Road. The Blood and Rideout cemeteries are now maintained by the town. An old grist mill was established near Joint Grass Brook around 1760, and the area formerly contained two school houses. The 1876 map of Dunstable shows that there were five one-room schoolhouses within the town boundaries during the 19th century, including one that lies within the Center District at 107 Pleasant.

Camp Massapoag was established early in the 20th century as a summer fresh-air camp for city children. The camp is rustic and includes 24 acres on the shore of Massapoag Pond. The oldest building is the dining hall, which was constructed in 1919. Most of the remaining structures are hipped-roof cabins that were built in the 1940s.

Historic Structures

There are six (6) structures within Dunstable listed on the MACRIS. They include structures related to the former Nashua, Acton and Boston railroad, the stone walls along East Main Street, the Rideout Feed silos, the East Main Street gates and the town pound. Table 74 contains a listing of these structures, the oldest of which is the Dunstable Town Pound that dates back to 1754. The Rideout Feed Silos, which were constructed in 1925, are the newest listing under this category.

Table 74: Historic Structures

Structure Name	Address/Location	Year Built
Salmon Brook Railroad Bridge	Salmon Brook	1870
Dunstable Town Pound	Main Street	1754
East Main Street Gates	Main Street	1900
East Main Street Stone Walls	Main Street	1800
David F. Rideout Feed Silos	291 Fletcher Street	1925
Nashua, Acton and Boston Railroad Bed		1871

Source: http://mhc-macris.net

Historic Objects

The Jonas H. French Memorial Fountain is the only historic object in MACRIS. Jonas H. French, a Bostonian descendant of Dunstable's French family, donated the fountain in 1888 as a public watering place. Made of granite, in the classical style, the monument features multiple drinking troughs for horse, oxen, man and dog. The fountain is located at the intersection of Main Street and Pleasant Street.

Burial Grounds and Cemeteries

The Town has four historic burial grounds listed in MACRIS, as shown on Table 75. The Swallow Cemetery has not been included in the state's inventory but is certainly eligible for inclusion. This is a small burial ground with forty-six occupants located on Brook Street where it intersects Depot Street. The earliest burial dates back to the pre-Revolutionary period.

Table 75: Burial Grounds and Cemeteries

Name	Address	Established
Rideout Family Cemetery	Fletcher Street	1844
Dunstable Central Burial Ground	Main Street	1754
Meetinghouse Hill Cemetery	Main Street	1754
Blood Cemetery	River Street	1823
Swallow Cemetery	Brook Street	1766

Source: http://mhc-macris.net

The Blood Cemetery is located in the western part of Dunstable at the intersection of River and Hollis Streets. This small cemetery was turned over to the town in 1834. Many individuals related to the Blood family are buried here. The earliest death recorded on the gravestones is 1827.

FIGURE 36: BLOOD CEMETERY

The Rideout Cemetery is a very small and may be the final resting place for six members of the Rideout and Blood families. The cemetery is located on Fletcher Street, close to where it intersects Hollis Street. The earliest death recorded on the gravestones is 1844.

FIGURE 37: RIDEOUT CEMETERY

Meetinghouse Hill Cemetery is located off Main Street in the eastern part of Dunstable. In 1757, the town voted to secure land for "a Burying Place & to take a Deed of ye same." The

cemetery was established on the westerly slope of Meetinghouse Hill, the location of Dunstable's first meetinghouse. Many of the original founders of the church lie buried here. The earliest death recorded on the gravestones is 1754.

FIGURE 38: MEETINGHOUSE CEMETERY

The Central Cemetery is located at the southeast corner of Main Street and Westford Street. It was created as a family burial ground, but the town purchased the land for a public burial ground in 1801. Between 1821 and 1843, residents built tombs at the northern edge of the cemetery immediately adjacent to Main Street. The cemetery was enlarged in 1848. Ninety-four plots with the names of those interred are shown on a plan drawn in 1884. Sixty-nine additional plots were added in 1933. In 1949, nineteen additional acres were purchased from Lizzie Swallow, and at the turn of the 21st century, a triangular parcel of land was added to the cemetery, across from the former Kendall Tavern. Individuals buried in the 18th and 19th century section of the cemetery include locally prominent names such as Butterfield, French, Bennett, Kendall, Proctor and Cummings.

FIGURE 39: CENTRAL CEMETERY

Preservation Planning in Dunstable

Dunstable is fortunate to have a number of municipal and private non-profit organizations dedicated to preserving historic resources. Town boards such as the Conservation Commission, Planning Board, Historical Commission, Agricultural Commission, Community Preservation Committee, and Cemetery Commission work collaboratively to ensure that the character and resources of the community are protected. Non-profit entities such as the Dunstable Rural Land Trust, the Tyngsborough-Dunstable Historical Society, the Cultural Council, and the Dunstable Grange also contribute resources and add support to these initiatives. Dunstable has also been proactive through the acceptance of the Community Preservation Act, the adoption of a Scenic Roads bylaw and the adoption of a Right to Farm Bylaw.

The Dunstable Historical Commission consists of six members appointed by the Board of Selectmen and is charged with identifying and preserving the historical heritage and resources of the town. The Commission is also an information resource for property owners who are rehabilitating their structures. The Commission is responsible for administering the town's Demolition Delay Bylaw.

Tyngsborough-Dunstable Historical Society is a non-profit membership organization, open to those interested in learning about local history and sharing that history with others. The Society was created in 1930 by a group of Tyngsborough residents who came together to study local history. In 1945, Dunstable residents with similar interest joined them. The organization became known as the Tyngsborough-Dunstable Historical Society in 1951 and was formally incorporated in 1967. The mission of the Society is to: stimulate wider interest in the history of Tyngsborough and Dunstable; Collect and preserve books, manuscripts and objects of antiquarian and local interest, and encourage interest in the same; and disseminate historical information.

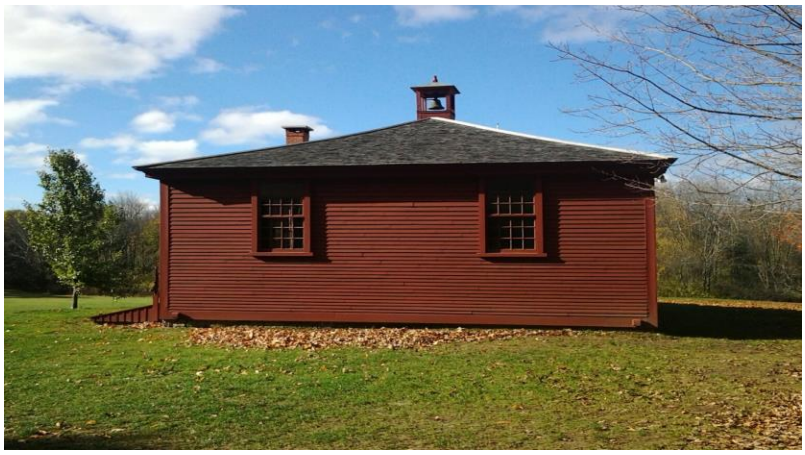
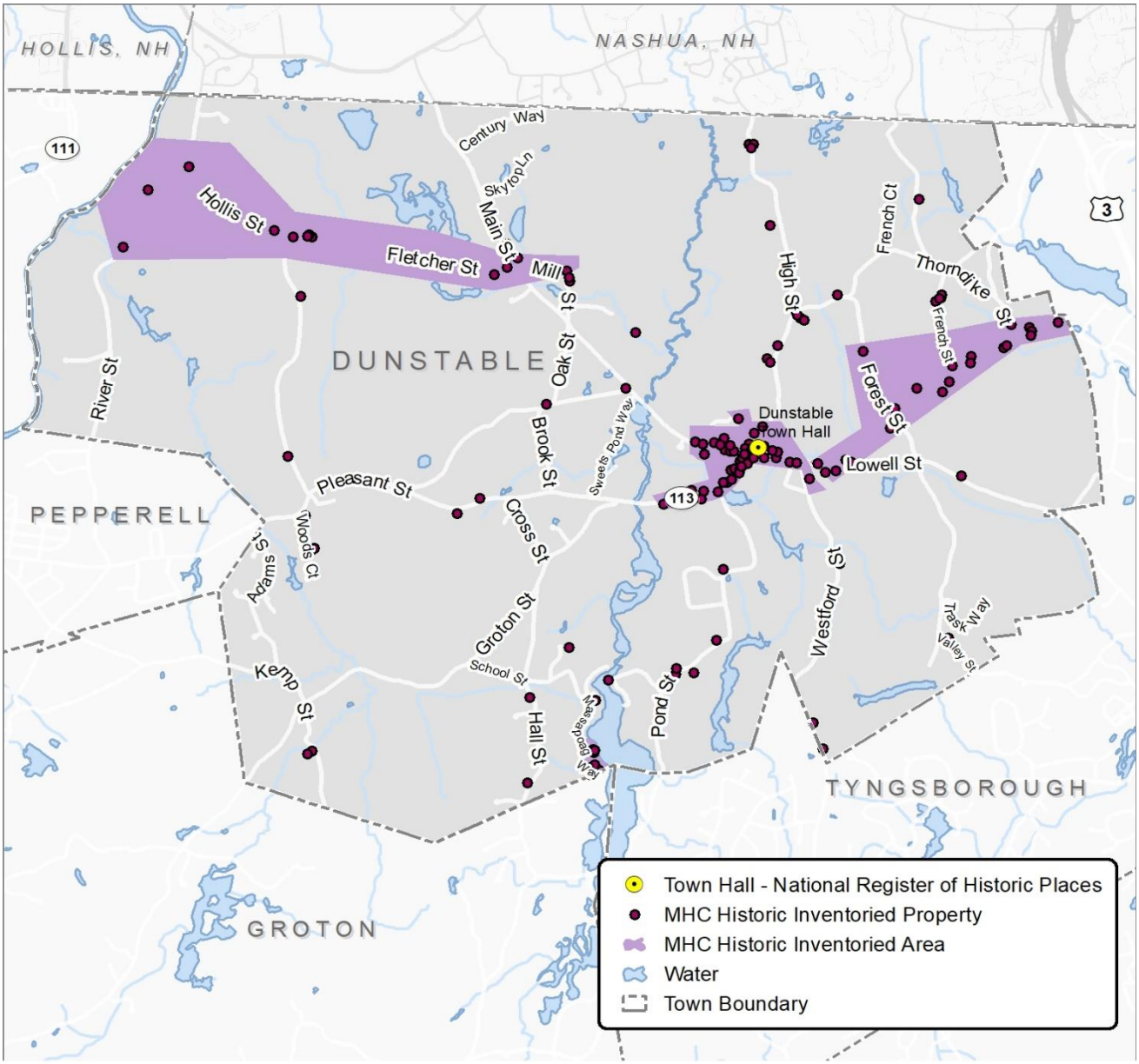


FIGURE 40: SARAH TYNG WINSLOW SCHOOL HOUSE

Map 17: Dunstable Historic Resources



Sources:
MassGIS (Massachusetts Historical Commission MACRIS); MassGIS/NMCOG (2013 roads, town boundaries); MassDEP (2009 hydrology); NH GRANIT (roads, boundaries)

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The Northern Middlesex Council of Governments
40 Church Street, Suite 200
Lowell, Massachusetts 01852
(978) 454-8021 nmcog.org

The Agricultural Commission consists of five members appointed by the Board of Selectmen. The purpose of the Agricultural Commission is to "preserve, protect and promote agriculture in Dunstable; to provide leadership, technical guidance, vision, planning and coordination to help support, define, promote and enable new agricultural opportunities, stability and enhancement of ongoing operations; as well as foster strong community and regional support needed to create a sustainable agricultural community in Dunstable." [24]The Commission also works to protect existing agricultural lands, identify new lands for agricultural use, both public and private, and assist in natural resource management that is consistent with sustainable agricultural practices.

The Dunstable Grange is an agriculturally-oriented organization of men, women and children who serve the community in many ways. The Grange provides a scholarship to a graduating high school senior from Dunstable each year, provides refreshments for the Memorial Day Parade, donates memorial benches and gifts, and provides donations to a number of charities and community organizations. The Grange have organized and hosted an annual fair in Dunstable for over ninety years.

The Dunstable Rural Land Trust was established in 1974 by a group of Dunstable residents who came together to protect a 175-acre parcel of land from development. The organization now has 400 members who support preservation, conservation, and education initiatives in the community. The Trust currently holds over 800 acres of land, most of which is located in Dunstable.

The Community Preservation Committee was established in 2006 and consists of nine members, including the following:

- One member of the Conservation Commission designated by the Commission to serve a one-year term;
- One member of the Historical Commission designated by the Commission to serve a one-year term;
- One member of the Planning Board designated by the Board to serve for a one-year term;
- One member of the Parks Commission designated by the Commission to serve for a one-year term;
- One member of the Affordable Housing Committee designated by the Committee to serve for a one-year term;
- One member of the Board of Selectmen designated by the Board to serve for a one-year term; and

[24] Dunstable Town website

- Three members at large appointed by the Board of Selectmen, one for an initial one-year term and thereafter for a term of three years; two others to be appointed for an initial term of two years and thereafter for a term of three years.

The Committee makes recommendations to Town Meeting on the expenditure of Community Preservation Act funds relative to historic preservation, affordable housing, and open space.

Demolition Delay Bylaw

In May 2006, Dunstable Town Meeting adopted a demolition delay bylaw that allowed the Historical Commission to stay for nine months the demolition of structures determined to be historically significant. Historically significant structures are generally defined as having been listed on the National Register of Historic Places, or having one or more of the following criteria: historical importance; architectural importance or geographic importance. The demolition delay provides time for an owner to explore and develop alternatives to demolition, such as seeking out a person or entity willing to purchase, preserve or restore the building or structure rather than demolish it. A demolition delay bylaw does not guarantee that historic buildings will be saved, as buildings may be demolished after the delay period has expired if the property owners fail to identify a feasible alternative to demolition.

Community Preservation Act

The Community Preservation Act (CPA) provides a source of funding for Open Space Preservation, Historic Preservation and Affordable Housing through a surcharge on the property tax. The Town keeps the money in a separate CPA account. Each category (Open Space, Historic Preservation and Affordable Housing) must receive a minimum of 10% of the CPA funds available each year. The remaining 70% may be allocated for any one of the three categories, as Town Meeting sees fit.

Dunstable adopted the Community Preservation Act in May 2006 with a 3% surcharge. Over the past ten years, Dunstable has leveraged over $3.5 million in CPA funding, which includes $2 million in local surcharge plus $1.5 million in Trust Fund distributions. The funds have allowed the town to complete the following projects:

- Ferrari Farm purchase
- Watering Trough rehabilitation
- Stone Arched Bridge repairs
- Blanchard Hill Clearing
- Town Hall Slate Roofing
- National Register Project

- Howard's Brook Conservation Area purchase
- Union School windows repairs
- Inclusionary Zoning By-Law
- McGovern's Farm Wall repair
- Central Cemetery monuments restoration
- Best Triangle land purchase
- Town Records Preservation Project
- Tully Farm Agricultural Preservation Restriction purchase
- Miller Property Conservation Restriction purchase
- Portrait Frame Restoration
- Dunstable Master Plan Update: Housing Chapter
- Town Hall: Building Evaluation
- Westford St. Conservation Restriction purchase
- Middle School Track
- Housing Feasibility Study for MUD
- Christopher Roby Portrait Restoration
- Recreation Space at the Swallow Union Fields
- Historic Sign Restoration
- Town Hall Stage Backdrop Curtain Restoration
- Kendall Cranberry Bog acquisition

Right to Farm Bylaw

Dunstable adopted a Right to Farm Bylaw in 2006. The bylaw was created to protect farmers from nuisance complaints and thereby preserve the open space that made the community attractive in the first place. The bylaw encourages the pursuit of agriculture, promotes agriculture-based economic opportunities and farmlands, by allowing agricultural uses and related activities to function in minimal conflict with abutters and town government. Massachusetts passed the first right to farm law in 1979.

FIGURE 41: MCGOVERN FARM

Scenic Road Bylaw

Dunstable adopted its Scenic Road Bylaw in 1995. The purpose of the bylaw is to help the town maintain and enhance its rural character, by ensuring that work done to trees and walls within the public right-of-way on designated scenic roads is reviewed and permitted by the town. The Scenic Road bylaw applies to nearly every roadway in town, except Route 113. The Planning Board administers the bylaw.

FIGURE 42: HISTORIC STONE WALLS ON MAIN STREET

Public Input

The results of the written survey for the Master Plan indicated that Dunstable residents feel the town is doing a good job protecting its natural and cultural resources, as indicated below:

- Approximately 87% of the respondents rated the amount of open space protected as excellent or good;
- 52% of survey respondents favored acquiring additional open space;
- 69% of survey respondents favored protecting additional agricultural lands;
- 90% of respondents rated the protection of wetlands, wildlife habitat and water resources as excellent or good;
- 89% of respondents rated agricultural preservation as excellent or good;
- 83% of the respondents rated forestry as excellent or good;
- 81% of the respondents rated historic preservation as excellent or good;
- 68% of the respondents rated cultural/community events as excellent or good; and

- 81% favored agri-tourism and eco-tourism.

The input received at the March 21, 2017 Visioning Session on Natural and Cultural Resources indicated that the greatest strengths lie in:

- The Route 113 corridor leading into town;
- Historic homes and barns;
- The town's rural character;
- Small town feel and ambiance; and
- Salmon Brook and other waterways.

The top weaknesses identified by Visioning Session participants included the following:

- Antiquated water system;
- Lack of Protection for historic properties;
- Lack of bicycle and pedestrian facilities;
- Lack of protection and maintenance for stone wall; and
- Invasive species.

The top opportunities identified included:

- Farm to table restaurants;
- Adaptive reuse for historic barns/buildings;
- Bed and Breakfasts;
- Connecting trails and open spaces; and
- Promoting the farming community.

The top threats identified included:

- Lack of a full-time fire department;
- Uninformed voters;
- Proposition 2 ½;
- Not enough revenue to support initiatives; and
- Unfunded mandates, such as EPA stormwater requirements.

Issues and Opportunities

Dunstable residents obviously cherish the town's rural character, agricultural heritage and scenic landscapes. A comprehensive strategy is needed to ensure that the Town does not face a future where these revered qualities gradually disappear. Residents fear that the future sales of large undeveloped lots, or the development of a large comprehensive permit project, will forever alter the character of the community. While these threats are real, the most significant threat to Dunstable's character comes from the incremental loss of open land as residential homes are constructed throughout town on two-acre lots, eventually transforming the community into a conventional suburb.

While Dunstable's Open Space Development regulation allows residential development in the R-1 district, the tract of land must be at least fourteen acres in area. Under the bylaw, at least 35% of the land must be retained as open space conveyed to the Town, a non-profit or a homeowners association. As discussed in the Land Use chapter of this document, the Master Plan Committee recommends that the Open Space Development bylaw be modified to include lots smaller than fourteen acres, with five acres seeming like a reasonable threshold. In addition, formally requiring within the Zoning Bylaw that all subdivisions of five acres or more be designed as Open Space subdivisions would help promote resource protection, by setting aside additional open space. The Open Space Bylaw revision should include language encouraging the location of designated open space in an area that allows for connectivity to adjoining open space areas, if possible. The Open Space bylaw should be revised in a manner that maintains the same density as required for a conventional subdivision. Without these types of regulation changes, Dunstable rural ambiance will erode over time, as multiple divisions of land result in fragmented open space and loss of habitat.

The Master Plan Committee has considered the potential threats to the town's historic resources, such as historic homes, barns, stone walls, and foundations. Threats from future development and neglect need to be addressed, in order to protect such irreplaceable resources. In Massachusetts, local Historical Commissions and Historic District Commissions are responsible for most historic preservation efforts. Historic Commissions are charged with updating and expanding their historic property survey, submitting nominations to the National Register for eligible properties, educating the public about historic resources, advocating for significant historic resources, and establishing and/or administering local bylaws that protect historic resources. Local District Study Committees investigate the establishment of local historic districts.

Dunstable has pursued the creation of two National Register Historic Districts, as discussed in earlier portions of this chapter. The Master Plan Committee recommends that the feasibility of establishing other National Register districts be investigated, in areas such as Hollis Street, Fletcher Street, River Road, and Pond Street. However, the strongest form of protection is a local historic district created through a local bylaw. In a local historic district, before any architectural feature visible from a public way is altered, a local district commission must first approve the alteration. Local historic districts have three major purposes, as outlined in Chapter 40C of Massachusetts General Law:

- To preserve and protect the distinctive characteristics of buildings and places significant in the history of the Commonwealth and its cities and towns;
- To maintain and improve the settings of those buildings and places; and
- To encourage new designs compatible with existing buildings in the district.

Dunstable should consider the establishment of one or more local historic districts, most notably along Main Street. The formal historic district process generally begins with a request from the Historical Commission to the Board of Selectmen for the appointment of a Historic District Study Committee. The Historic District Study Committee is responsible for studying the desirability of establishing a local historic district, developing a report on its findings and recommendations, and conducting a public hearing on the proposal, prior to consideration by Town Meeting.

Local historic districts do not prevent all change from occurring, nor do they prevent all demolition, new construction or development. The intent is to make changes and additions that are harmonious, and to prevent the intrusion of incongruous elements that detract from the aesthetic or historic value for the district. Historic District Commissions are only allowed to review changes to exterior architectural features, and the bylaw creating the district may exclude certain categories from review, such as paint color, storm windows and doors, and window air conditioning units.

The Community Preservation Act specifically calls for perpetual Preservation Restrictions, established under Chapter 184 of Mass General Laws, whenever CPA funds are used to purchase a real property interest. Therefore, when purchasing or buying an interest in an historic property, a Preservation Restriction is required. The Act is not specific as to whether a Preservation Restriction is required when CPA money is expended on an historic preservation project. Many towns have chosen to require a Preservation Restriction when any amount of CPA funds are awarded for rehabilitation or restoration of an historic property. This protects the Town's investment should the property change hands or become subject to additional development pressures. A Preservation Restriction is required whenever CPA funds are used to rehabilitate or restore historic properties, regardless of the property ownership.

A Preservation Restriction may be held by any governmental body or charitable corporation or trust capable of acquiring interests in land and whose purposes include historic preservation. Local Historical Commissions are empowered to hold preservation restrictions under the state's Historic District Act (M.G.L. Chapter 40C), but they cannot hold a preservation restriction on a town-owned property. Non-profit historical organizations, such as the Town’s Historical Society, the Trustees of Reservations, and Historic New England, may also hold preservation restrictions.

Dunstable’s old barns represent significant landmarks that document the town’s agrarian past. For those barns still in use, the structures appear to be relatively sound. However, many of the underutilized barns show evidence of deterioration. The Town should work to encourage the preservation of these structures by their owners. CPA funds could be utilized for this purpose, in exchange for an executed preservation agreement with the

property owner. The Master Plan Committee feels that the expenditure of CPA funds should be allowed for historic preservation and restoration projects on both public and private property, based on established qualifying criteria. Structures that are owned by a non-profit and eligible for listing on the State Register are also eligible for Massachusetts Preservation Project funds for stabilization and restoration projects. Dunstable does not have an inventory of farms, farmhouses, outbuildings, stone walls and other resources that symbolize the town's agrarian heritage. The Historical Commission should undertake such an inventory and identify those resources most at risk.

The Historical Commission should also initiate a program to collect and archive all known historical documents and records, particularly those that pre-date Town Hall (1907 and earlier). Many of these items are presently in the hands of private residents or non-profit organizations. The possible establishment of a museum to archive and display the documents and artifacts important to the town's history should be explored. The Master Plan Committee suggests that the McLoon House or the old Police Station be investigated as a potential future location for a museum. CPA funds could be used for this purpose.

The Town should promote and market its historical and cultural resources. Such a program would require financial resources, but would generate income for businesses and foster a greater sense of appreciation and stewardship among town residents. To elevate awareness of the Town's rich historic fabric, "Point of Pride" plaques should be provided for display on historic properties. In addition, a "self-guided walking tour" of historic areas in Dunstable, such as the Town Center, could also be developed. A Town Center Committee should be formed to further this concept and address the future planning and protection of the Town Center area.

As discussed in the Land Use Chapter, many of Dunstable's development regulations are in need of updating. Revisions that enhance environmental protection should be undertaken to ensure that the town's critical resources are protected. Such revisions include enhanced erosion control, a steep slopes bylaw, and the strengthening of the town's wetland bylaw to address isolated wetlands, vernal pools and buffer zone requirements.

Dunstable is new to EPA's MS4 Stormwater Permit for Massachusetts, as discussed on page 184 of this chapter. Compliance with the permit represents a sizable effort and expense for the community. Dunstable should continue to work collaboratively with neighboring communities on implementation, thereby reducing some compliance costs. In addition, the Town should develop a long-term financing plan to assist with funding stormwater activities over the next several years. Such a plan could include the establishment of an enterprise fund or a stormwater utility.

Dunstable is fortunate to have significant forested areas. The Town should develop a forestry management plan for the town-owned forests. A forest management plan is a working guide that allows the landowner (in this case the Town) to maximize a mix of forest benefits, including wildlife, timber, recreation, aesthetic value and other benefits. The basic components of a forest management plan include the following:

- Goals and Objectives;
- Maps ;
- A timber inventory complete with fill volume, stocking and species information; an inventory of critical areas and/or endangered species; biological inventory; descriptions of geological features, cultural features, ecological communities and soil data; and
- Detailed actions steps to meet the goals and objectives, including a chronology of activities that will be done each year over the next 10-year period.

Invasive species are one of the greatest threats to the integrity of natural communities, and are also a direct threat to the survival of many indigenous species. The Massachusetts Department of Agricultural Resources recognizes 69 invasive species that are of particular concern in the Commonwealth. Dunstable should establish a "Detection and Response" plan to address invasive plants. For most species, eradication is possible only in the earliest stages of invasion. Therefore, it is important to educate homeowners and the agricultural community on the importance of using only native plantings, and on how to detect and report the presence of invasives.

Occurrences of listed invasive species and candidates for listing can be reported to the Natural Heritage and Endangered Species Program or the Invasive Plant Atlas of New England (IPANE) project. Invasive plant field forms are available from the web sites of both organizations. Such records are very important in mapping the presence, abundance and geographic spread of invasive species. The IPANE program has a well-organized volunteer network and it organizes group management outings. A staff person at the New England Wild Flower Society coordinates these activities.

The Master Plan Committee has concluded that the Town should do more to promote the agricultural economy by encouraging: the preservation of agricultural lands through APRs and Conservation Restrictions; farm-to-table restaurants; a "buy local" campaign; community supported agriculture (CSA); community gardens; and agri-tourism. The Agricultural Commission should work with local farm owners and the Department of Agricultural Resources to identify a funding source for undertaking a local agricultural plan for Dunstable that addresses agricultural preservation, and the growth of the local agricultural economy. Dunstable could collaborate with other nearby communities on this

effort, in order to better understand the regional agricultural economy and identify opportunities that extend beyond town boundaries.

While Dunstable currently has a Scenic Road Bylaw, the Town should also adopt a shade tree bylaw or reference the state's Shade Tree statute within the Scenic Road Bylaw. The Shade Tree Act defines a public shade tree as any tree within the boundaries of a public right-of-way. Removal of a shade tree requires a public hearing and issuance of a permit by the Tree Warden. The law also provides that if anyone objects to cutting down or removing a shade tree, the Tree Warden is prohibited from issuing a permit unless the Board of Selectmen approves the tree removal. Some types of activities are exempt, such as removing trees with a diameter of less than 1.5 inches one-foot from the ground, and the removal of brush/shrubs. The law clearly exempts the removal of trees that endanger the traveling public. When a shade tree falls under the jurisdiction of the Planning Board via the Scenic Roads Act, the Planning Board and the Tree Warden conduct a joint public hearing. Should Dunstable choose to not adopt a shade tree bylaw, improvements are still needed to the existing Scenic Roads Bylaw, in order to provide information on the permitting process, criteria, and the process for designating a roadway.

A plan should be prepared to prioritize lands classified under Chapters 61, 61A and 61B for possible future acquisition, so that the town is not caught off guard when these parcels become available for possible acquisition. In addition, the Town should address those parcels that do not comply with the requirements set forth in Chapters 61, 61A and 61B.

RECOMMENDATIONS

Land Use and Development Regulations

- Modify the Open Space Development regulation to reduce the lot area threshold from fourteen acres to five acres, and require that all subdivisions of five acres or more be designed as Open Space subdivisions. Encourage the location of designated open space in an area that allows for connectivity to adjoining open space areas, if possible. Increase the amount of required open space from 35% to 50% .
- Future revisions to the Town's development regulations should enhance environmental protection by addressing erosion control, steep slopes, impervious surface, and by strengthening of the town's wetland bylaw to include isolated wetlands, vernal pools and buffer zone requirements.
- Adopt a shade tree bylaw or reference the state's Shade Tree statute within the Scenic Road Bylaw. Modify the existing Scenic Roads Bylaw, in order to provide information on the permitting process, criteria, and the process for designating a roadway.

Historic Preservation

- Study the feasibility of establishing additional National Register districts in areas such as Hollis Street, Fletcher Street, River Road, and Pond Street.
- Consider the establishment of one or more local historic districts, most notably along Main Street, through the formation of an Historic District Study Committee.
- The Master Plan Committee feels that the expenditure of CPA funds should be encouraged for historic preservation and restoration projects on both public and private property, based on established qualifying criteria. A Preservation Restriction is required when CPA funds are awarded for rehabilitation or restoration of an historic property, in order to protect the Town's investment.
- The Historical Commission should work to encourage the preservation of barns and other agricultural structures by their owners. CPA funds could be utilized for this purpose, in exchange for an executed preservation agreement with the property owner. As a first step, the Historical Commission should compile an inventory of farms and of farmhouses, outbuildings, stone walls and other resources that symbolize the town's agrarian heritage, and identify those resources most at risk.
- The Historical Commission should initiate a program to collect and archive all known historical documents and records, particularly those that pre-date Town Hall (1907 and earlier). The possible establishment of a museum to house, archive and display the documents and artifacts important to the town's history should be explored.
- Promote and market its historical and cultural resources to foster a greater sense of appreciation and stewardship. As part of this effort, "Point of Pride" plaques should be provided for display on historic properties. In addition, a "self-guided walking tour" of historic areas in Dunstable, such as the Town Center, should be developed. A Town Center Committee could be formed to further this concept and address the future planning and protection of the Town Center area.

Environmental and Conservation Initiatives

- Continue to work collaboratively with neighboring communities on implementation of the EPA MS4 Stormwater Permit, and develop a long-term financing plan to assist with funding stormwater activities.
- Develop a forestry management plan for the town-owned forests.
- Establish a "Detection and Response" plan to address invasive plant species. Educate homeowners and the agricultural community on the importance of using native plantings, and on how to detect and report the presence of invasives.
- Promote the agricultural economy by encouraging: the preservation of agricultural lands through APRs and Conservation Restrictions; farm-to-table restaurants; a

"buy local" campaign; community supported agriculture (CSA); community gardens; and agri-tourism.

- Work with local farm owners and the Massachusetts Department of Agricultural Resources to identify funding for a local agricultural plan that addresses agricultural preservation, and that helps promote the stability and possible growth of the local agricultural economy.
- Develop a prioritization plan for lands classified under Chapters 61, 61A and 61B, so that the Town is prepared when parcels become available for possible acquisition. In addition, the Town should address parcels that do not comply with the requirements set forth in Chapters 61, 61A and 61B.

VIII. Facilities and Services

In Massachusetts, municipalities are responsible for administering and delivering nearly all services. Municipal facilities and services are structured to respond to a community's priorities and desires, in terms of providing a suitable quality of life for its residents. Collectively, public buildings and facilities, land, infrastructure, personnel and financial resources make it possible for the Town's employees, boards, committees, and commissions to provide services for residents and businesses, and to conduct the day-to-day business of the Town.

The Facilities and Services chapter of the Master Plan focuses on the capacity of local government to finance and deliver services. A public facility is any town property that is utilized for a public purpose, such as town hall, the library or the fire station. It also includes utilities, such as the public water infrastructure, parks, playgrounds, and cemeteries. Providing adequate facilities and services depends on the amount of revenue that is available to support local government operations.

Dunstable is a relatively small community. Its FY 2016 expenditures were about $9,000,000, which included municipal services, capital projects and utilities. As shown in Table 76 and Figure 43 on the following page, approximately 60% ($5,383,609) of the Town's FY 2016 budget was dedicated to education expenses. As costs continue to grow, state and federal mandates are put in place, and inflation takes its toll, it is evident that the Town will continue to find it increasingly difficult to provide expected services and maintain the town's infrastructure. Dunstable has many dedicated volunteers engaged in several aspects of the town, however, there are many unmet needs, including personnel, equipment, infrastructure and property management, that need to be addressed in the coming years.

Facilities and Services Goals:

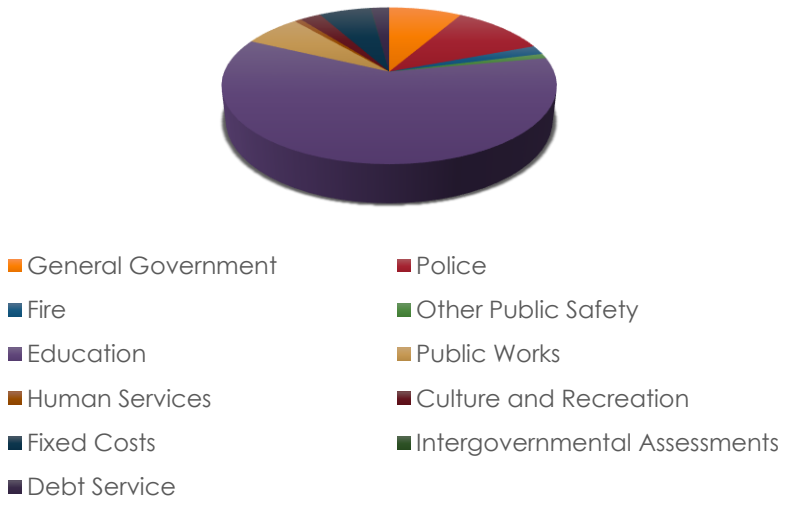
- Evaluate options for generating additional revenue to support town services, including education, and to address infrastructure and facility needs.
- Develop a community-building and engagement program to educate residents on town issues, improve communication between residents and town government, and build trust among community members and local government decision-makers.
- Advocate for a stronger regional school system and improve communication between the Town and the regional school district.
- Improve and develop the Town's municipal water infrastructure to address necessary maintenance and meet future needs.

Table 76: FY 2016 Expenditures for the Town of Dunstable

Budget Category	FY 2016 Expenditures
General Government	$749,952
Police	971,278
Fire	167,638
Other Public Safety	88,005
Education	5,383,609
Public Works	593,337
Human Services	69,951
Culture and Recreation	217,202
Fixed Costs	535,314
Intergovernmental Assessments	3,284
Debt Service	187,723
Total	**$8,964,293**

Source: Massachusetts Division of Local Services, Municipal Databank, October 2017

Figure 43: FY 2016 Expenditures



Source: Massachusetts Division of Local Services, Municipal Databank, October 2017

Due to its low population and other factors, Dunstable receives very little in State Aid ($296,046 in FY 2017), and must rely heavily on local property taxes to meet its needs. As Table 77 below shows, residential properties provide the overwhelming majority (97%) of the tax levy needed to operate the Town, given that there is very little commercial or industrial property within the community.

Table 77: FY 2017 Tax Classification

Tax Classification	Assessed Values	Tax Levy
Residential	$482,972,280	$8,220,188
Commercial	4,753,654	80,907
Industrial	3,098,300	52,733
Personal Property	7,928,024	134,935
Total	**$498,752,258**	**$8,488,763**

Source: Division of Local Services, At a Glance Report, October 2017

With no industrial base and only limited commercial and personal property, Dunstable's new growth is driven by the construction and renovation of single-family homes. Like most communities, Dunstable saw a sharp decline in values after the 2008 recession, and while there has been some growth since the market bottomed out in FY 2011, growth has not returned to pre-recession levels.

With a current operating budget of about $11 million, Dunstable has 24 full- and part-time permanent employees, and 40 part-time seasonal employees. Over the past several years, town residents have approved debt exclusion overrides for construction and limited equipment purchases, plus a few operational overrides.

From FY 2005 to FY 2017, Dunstable's tax levy grew from $5.4 million to $8.6 million. This increase included four operational overrides totaling $975,252, in addition to debt exclusions for capital projects. In 2005, over $1 million in excluded debt accounted for 19% of the tax levy. In 2017, the total levy was composed of only 7% excluded debt.[25]

Governmental Structure

Dunstable does not have a charter, and like most small towns in Massachusetts, operates under the general laws of the Commonwealth, special acts of the legislature, and local bylaws. Dunstable's legislative power is vested in open town meeting, while executive authority falls to its three-member Board of Selectmen. The selectmen are responsible for setting town goals, establishing policy, managing the affairs of the town, appointing local officials, and ensuring that town government is responsive to community needs. Dunstable has many elected and appointed committees and individual office holders, such as the Town Moderator, all performing a public service.

Recently, some functions of town government were professionalized, most notably the Town Administrator. The Town Administrator serves as the designated budget coordinator, personnel director, chief procurement officer, community liaison, public affairs director, and general manager of municipal affairs.

Dunstable participates in a K-12 regional school district with the Town of Groton, which consists of a high school, two middle schools and three elementary schools. The total enrollment for the Groton-Dunstable Regional School District (GDRSD) was 2,425 for the 2016-2017 school year, while the percentage of Dunstable students within the School District was 22%. A seven-member School Committee oversees the District, with representatives from each town. GDRSD's budget has been exceeding net school spending

[25] Town of Dunstable Financial Forecast, MA Department of Revenue, March 2017

(NSS) requirements, thereby requiring annual supplemental assessments based on each town's percentage of student enrollment. Two additional components make up the annual assessment: (1) the debt service payments for the middle and high schools which are allocated on the student enrollment in each building; and (2) the transportation costs apportioned on student enrollment. Enrollment in the school district has been declining over the past few years and that trend is expected to continue. However, due to the escalating costs of education, assessments have increased about 5% per year.

Dunstable children also attend the Greater Lowell Technical High School (GLTHS) in Tyngsborough, as well as a number of private, parochial and charter schools, such as Lawrence Academy (Groton), Bishop Guertin (Nashua), Country Day School (Groton), the Academy of Notre Dame (Tyngsborough), Innovation Academy (Tyngsborough) and Parker Charter (Devens). Dunstable is assessed for the GLTHS based on net school spending and the required district contribution.

Public Buildings

Dunstable owns and manages several buildings and some accessory structures in various locations throughout town. The major facilities include the following:

- **Town Hall**, located at 511 Main Street, is an architecturally eclectic 1.5 story brick-and-stone building that was built in 1908. The 10,408-square foot structure was designed by Warren Lyman Floyd, a local architect, and gifted to the Town by Sarah R. S. Roby, in whose honor the building is named. The building exhibits elements of Queen Anne/Romanesque/late 19th century Classical Revival. Its main block is essentially rectangular in plan, with asymmetry provided by a polygonal corner tower; there is also a broad rear ell. The building is protected by a hipped roof sheathed in slate. The building was listed on the National Register of Historic Places in 1999, and a preservation restriction has been in place since 2002. Town Hall houses most town departments, with the exception of public safety, the highway department and the library.

  A recent evaluation of the building by A Point Design, Inc. has documented the need for repairs, maintenance and energy upgrades, including the following:
  - Repair and replace slate roofing tiles;
  - Replace vinyl windows with historically appropriate windows and repair sealant to existing sills, jambs and heads;
  - Repair/replace/paint vinyl tiles and cove base, crowns, trims, soffits, fascia, ceilings and gutters;
  - Repair chimney and brick efflorescence and main sill deterioration;
  - Relocate two condensing units to prevent damage from falling ice;
  - Repair air conditioning units in the basement;

- Maintain and clean air handling units;
- Remove rust from gas hot water boilers;
- Replace lighting and EXIT signs with LED lighting/style units;
- Install variable speed drives on the hot water pumps to reduce energy use by 50%; and
- Replace existing thermostats with programmable thermostats.

The Town's FY 2018-2022 Capital Improvement Program includes $140,000 to repair the Town Hall roof and address window and door energy efficiencies.

- **The Dunstable Free Public Library** is located at 588 Main Street. The 9,243 square foot concrete block and brick building was constructed in 1998. A recent evaluation of the building noted the need for the repair and maintenance of the roof and ceiling, the need to repair or replace doors and flooring at the main book and media room, and the need to repair and paint the fascias/rakes. It was noted that several of the condensing units are at the end of their life expectancy and should be replaced soon, and that the unit serving the special collections area is not functioning presently and should be replaced. Duct work is also in need of repair. Energy savings would result by replacing lighting fixtures and EXIT signs with LED units. The FY 2018-2022 Capital Improvement Program identifies $100,000 in funding for a new roof and repairs to the portico.

Figure 44: Dunstable Free Public Library

- **Dunstable Highway Department** is located at 589 Pleasant Street in a 3,754 square foot structure that was constructed in 1978. The foundation is made of

concrete, the frame is wood, and the walls are primarily drywall. An evaluation of the building performed by A Point Design, Inc. noted that the roof is in need of repair, some of the windows and doors need to be replaced, ceiling tiles need replacement, and window sills and doors need painting. In addition, one of the air conditioning units needs to be replaced, and duct work should be cleaned, repaired and insulated. Lighting and EXIT signs should be replaced with LED fixtures to conserve energy. The restrooms are in very poor condition and need to be addressed. Thermostats should also be replaced with programmable units.

- **The Fire Department** is located at 28 Pleasant Street in a 2,440 square foot structure that was constructed in 1956. Minimal modifications have been made since that time, except for the recent addition of an 800 square foot 2-bay garage to house apparatus equipment behind the existing facility. The foundation is made of concrete, the frame is wood, and the exterior is made of concrete block. An assessment performed on the building has identified several repairs and improvements that are needed to the existing structure. The windows in the main office and engine room need to be replaced, as do water stained ceiling tile. Several areas within the building need to be cleaned, caulked and painted. A deteriorating and bowing masonry block wall needs to be further evaluated, repaired and painted. The gas unit heaters will need to be replaced soon, as they are at the end of their useful life. Lighting fixtures and EXIT signs should be replaced with LED units. Hot water lines need to be insulated.

  The available usable area in both the administrative area and the apparatus bay area is significantly undersized to accommodate the equipment and operational storage needs of the department. The structure is not fireproofed, and does not feature any fire suppression system. In addition, the building does not meet ADA standards.

- **The Police Department** is located at 23 Pleasant Street in a 2,804 square foot building that was constructed in 1960 and renovated in 2002. The building is significantly undersized for the operational needs of the department. The foundation is made of concrete, the frame is wood, and the exterior is vinyl. A recent inspection of the building has determined that the roof needs to be replaced, as do the side door and entry window. In addition, the entry area tile needs to be replaced, ceiling tiles need replacement, and the air conditioning unit is reaching the end of its life. Lighting fixtures and EXIT signs should be replaced with LED fixtures, and hot water lines should be insulated. Entry doors and posts should be repaired and painted. The FY 2018-2022 Capital Improvement Program identifies $10,000 in

funding for the replacement of the Police Department roof, $10,000 to replace the HVAC, and $10,500 for parking lot expansion and repairs.

Figure 45: Dunstable Police Station

Other Public Facilities

The Town of Dunstable owns other facilities that serve the public. These facilities include many parcels of open space and Larter Fields, which are described in more detail in the Open Space and Recreation section of the Master Plan. The Town also owns public cemeteries, which are discussed on page 196 and in the Cultural and Natural Resources section.

Community Services

While buildings and facilities provide physical space for delivering local governmental services, actual service delivery depends on town staff and volunteers. Such people include town employees, volunteer firefighters, special police officers and election workers. In addition, many committees, boards and commissions rely on a dedicated group of elected and volunteer residents.

Administration and Finance

The Town Administrator manages and coordinates Dunstable's day-to-day operations with the assistance of the town accountant, tax collector/treasurer, and assessor. Their work is supported and guided by several elected and appointed boards, including the Board of Selectmen, the Advisory Board, the Capital Planning Committee, Board of Assessors, and

Commissioners of Trust Funds. Each of these entities has a specialized and statutory role in financial and administrative policy. The Board of Selectmen oversees and reviews the budgets for departments that are under their direct authority, such as Police and Fire. They also examine the Town's overall financial situation and make recommendations to Town Meeting. The Advisory Board reviews and analyzes the overall budget, and forecasts the Town's financial position for the future fiscal year based on prior trends. They also identify and recommend funding sources for proposed capital items, and review and make recommendations on warrant articles.

Plans and special projects carried out by other town committees and boards have an impact on operating and spending decisions, such as projects proposed by the Roads Commission. Each year the Capital Planning Committee develops a five-year capital plan and makes recommendations on which items should be funded in the upcoming fiscal year. Capital items are those which have a life span of five years or more, and that cost at least $10,000.

Under state law, the Dunstable Town Clerk serves as the official keeper of records, and maintains the roster of registered voters, the jury list, and the annual census. The Town Clerk also records town meeting and election votes, organizes and oversees the election process, issues a variety of licenses and certificates, maintains and catalogues records of all town property, serves as the repository of meeting and public hearing minutes of boards and committees, and maintains the official record of decisions by the Planning Board, Board of Appeals, and others. In Dunstable, the Town Clerk is elected every three years.

Public Safety

There are thirty-seven public safety personnel in Dunstable, including seven full-time police officers and twenty-three volunteer firefighters. The Dunstable Police Department provides full-time law enforcement services. The Department staff includes the Chief, a lieutenant, a sergeant, four full-time patrol officers and seven reserve officers.

The Dunstable Fire Department is an all-volunteer fire department. The Chief is a full-time town employee, and the remaining twenty-three members are paid-on-call volunteers. In addition to the Chief, the Department includes an Assistant Chief, Deputy Chief, Captain, three sergeants, seventeen firefighters, and six emergency medical technicians. The department vehicles include the Chief's vehicle, two engines, a tanker, a rescue truck and a forestry truck. During FY 2016, the Fire Department responded to 267 incidents, as outlined in Table 78 on the following page. Nearly half of the calls each year involve emergency medical services.

Table 78: FY 2016 Fire Department Response by Number of Incidents

Incident Type	No. of incidents
Structure Fire	2
Misc. Types of fire	6
Oil Burner Malfunction	3
Mutual Aid	22
Medical Calls	109
Motor vehicle collision	13
Search for missing person	3
Animal rescue	1
Assist the police	7
Gas leak (LPG or natural gas)	2
Flammable liquid spill	5
Carbon monoxide incident	4
Hazardous condition, other	7
Water problem	2
Service call	24
Unauthorized burning	12
Good intent call	7
Odor of smoke investigation	7
Fire alarm activation	27
Weather related	1

Source: Dunstable's 2016 Annual Report

The Fire Department has requested funding to procure a new structural fire engine to replace the existing Engine 2, which is over thirty years old and does not have the tank or pump capacity needed to effectively fight structural fires. The replacement vehicle would provide a new foam system, roof saw, and modern thermal imaging equipment. The FY 2018-2022 Capital Improvement Program identifies $360,000 for the purchase of the new engine, $225,000 for the purchase of a new rescue truck, $27,000 for an off-road firefighting and rescue vehicle, and $110,000 for breathing apparatus (SCBA).

Figure 46: Dunstable Fire Department

There is an ongoing concern in Dunstable regarding the adequacy of the public water infrastructure in meeting fire suppression needs in the event of an emergency, in that fire hydrants may not have adequate water volumes. Therefore, during an emergency, Dunstable may have to rely on tank trucks to deliver water from other sources. To address this issue, the Water Department has identified a potential site for constructing a water storage tank. Presently, the water storage facility consists of two 5,000 gallon below ground storage tanks, while 300,000 gallons may be necessary to meet fire protection needs.

Dunstable's Emergency Medical Service (EMS) is delivered by a section of the fire department, which provides medical first responder service. A private ambulance company provides 24-hour ambulance coverage for the Town, while the Greater Lowell Paramedics from Lowell General Hospital provide advanced life support services.

The Town of Dunstable does not have a dispatch center. The Groton Police Department is the primary public safety answering point (PSAP) for all 9-1-1 calls initiated in Dunstable. In July 2015, the Town was required to relocate a radio repeater from private property. The repeater was temporary placed at another privately-owned location but radio coverage across town is inadequate. Public safety officials have proposed redesigning the communication system to include three repeaters in order to improve radio coverage town-wide. The repeaters could potentially be funded through a Development Grant from the State 911 Department. Given that the town of Groton provides dispatch services for Dunstable, Groton will need to submit any future application for funding.

Due to its rural nature, the Town of Dunstable has an animal inspector and an animal control officer. The Animal Inspector surveys animals to prevent any diseases from spreading and enforces quarantine when necessary. The Animal Control Officer addresses animal-based complaints and concerns primarily related to dogs, and is responsible for the inspection of kennels. In that capacity, the Animal Control Officer is the enforcing authority of violations against the Town of Dunstable Dog Control Bylaw (Section 3).

While people often view inspection officials as development permitting personnel, but inspectional services are a primarily public safety function. Dunstable's Inspections Department consists of part-time building, plumbing/gas and electrical inspectors. The Building Inspector also serves as the Zoning Enforcement Officer. As outlined previously in the Housing Chapter of this document, Dunstable issued an average of five building permits annually for new construction, over the past eleven years. In addition, numerous permits were issued for alterations, additions, solar installations, and renovations. Together, these types of permit fees for new construction, alterations, gas, electrical, plumbing and fire inspection services generate significant revenues that help offset the Inspection Department expenditures.

Public Infrastructure and Utilities

Responsibility for roads, open space, cemeteries, grounds, and infrastructure lies with several different departments, as Dunstable does not have a public works department. The Highway Department provides roadway maintenance services, in coordination with private contractors, to address needed work such as resurfacing, reconstructing, repairing, plowing, and sanding local roadways. The elected Board of Road Commissioners works closely with the Highway Department to secure grants and improve the quality of roadway network.

The Board of Health has negotiated with a waste hauler to provide curbside collection and disposal for Dunstable residents at an annual cost of $300 per household, which must be paid by the resident. The contract between the Town and the hauler is in effect for three years. Refuse generated by commercial property operations, independent tradesman and craftsmen, and individuals or corporations performing professional services within the Town, must be removed by a private hauler at the expense of the generator.

Three elected Cemetery Commissioners govern the Cemetery Department. The department's budget is derived from Town Meeting appropriations, fees and trust fund interest. An appointed superintendent handles interments and maintenance. While four of the town's cemeteries are closed to the general public for burials, the Central Cemetery is open to all Dunstable residents. Additional information on each cemetery can be found in the Cultural and Natural Resources chapter of the Master Plan.

Dunstable has a centralized public water supply that serves 102 connections, the majority of which are residential. The Swallow Union Elementary School, town hall, fire station, police station, library and post office are connected to the system, as are a small number of commercial properties. The Water Department obtains its water supply from two gravel-packed wells located about 200 feet from Salmon Brook. The water supply distribution system covers about five miles and is comprised of a variety of pipe sizes and materials, with some unlined pipes that are over a century old. The system design consists of the main well (DEP #2081000-02G) and a back-up well (DEP -2081000-03G). The primary well was constructed in 1984 and is 90 feet deep. The backup well was added in 1998, and provides redundancy to the system. The estimated daily output of the system is currently 30,000 gallons per day, while the combined wells have an approved pumping rate of 1.5 million gallons per day. The system also includes two pump stations with water treatment facilities and two booster pump stations.

Both water supply wells are considered to be at high risk in terms of susceptibility to contamination from existing land uses within the primary recharge region of the Zone II areas. The Town has taken steps to protect its water supply with an Aquifer Protection District Zoning Bylaw, Water Use Restriction Bylaw, a Board of Health Drain Regulation, a

Cross Connection Bylaw, the approval of Zone II areas around each well, and an emergency backup power supply. The Town has adopted a Water Supply Protection District within the primary recharge area, prohibiting certain noxious land uses.

The Water Department continues to develop and manage a capital improvement plan which targets renovation and upgrade of the current system. The need for a new storage/pressure facility has been identified. There are also sections of water main within the existing distribution system that are in need of upgrading, as many sections are still comprised of 4" to 8" cast iron or asbestos lined pipe. There also "dead end" branches of the system that should be converted to continuous flow. Constraints within the water infrastructure are limiting the Town's ability to accommodate economic development activities, including those with broad community support, such as the development of the MUD district.

In July 2017, DEP cited the Town for deficiencies in the current public water supply system as a result of a Sanitary Survey. These deficiencies must be addressed within DEP's prescribed timeframes or the agency may exercise the full extent of its legal authority to obtain compliance, including the imposition of financial penalties of up to $25,000 per day.

Although most residents are unaware of the Town's stormwater system, the catch basins, outfalls, swales and pipes that handle falling rain and melting snow are part of the Town's infrastructure. Like most communities in eastern Massachusetts, Dunstable is now subject to the requirements of United States Environmental Protection Agency's (USEPA's) 2016 National Pollutant Discharge Elimination System (NPDES) Small Municipal Separate Storm Sewer System (MS4) Permit for Massachusetts, also known as the 2016 Massachusetts Small MS4 General Permit. Regulation under the MS4 Permit is required when the residential population in an area (including adjacent densely settled surrounding communities) exceeds 50,000 and is designated as an urbanized area, and if the urbanized area within a municipality has an overall population density that exceeds 1,000 people per square mile. The area subject to the requirements of the MS4 Permit includes only a portion of Dunstable, given that much of the community has a lower population density and lies outside of an urbanized area.

Under the MS4 permit, municipalities must develop, implement and enforce a stormwater management program that controls pollutants to the maximum extent practicable, protects water quality, and satisfies appropriate requirements of the federal Clean Water Act. The MS4 permit requires implementation of six minimum control measures. Compliance with the permit is expected to increase the Town's stormwater costs substantially, and non-compliance is not an option, as it brings the potential for regulatory action and fines.

While the Massachusetts MS4 final permit was initially scheduled to become effective in 2017, due to ongoing litigation, the U.S. Environmental Protection Agency postponed the effective date until July 1, 2018. During this time, Dunstable prepared for the permit by addressing stormwater system mapping, best management practices (BMPs), illicit discharge detection and elimination, and assessing how the Town can be prepared to meet the established deadlines. Dunstable's stormwater system should be evaluated and assessed, and a cost analysis is needed to quantify the financial challenges associated with permit compliance. Dunstable participates in the Northern Middlesex Stormwater Collaborative, which works to assist communities with compliance activities such as public education, municipal staff training, mapping activities and procurement.

Planning and Development

The Planning Board, Zoning Board of Appeals, Conservation Commission, Board of Health and Historical Commission carry out community planning and development review in Dunstable. The Planning Board is responsible for reviewing proposed subdivisions and site plans, and issuing a limited number of special permits. In 2016, the Planning Board also reviewed six ANR projects, and held four hearings on the Scenic Road bylaw. Although the Planning Board has authority over the preparation of a master plan, Dunstable established a Master Plan Committee with representation from multiple boards. The Committee is co-chaired by representatives from the Planning Board and Board of Selectmen.

The Zoning Board of Appeals serves as the special permit granting authority for some special permits and exercises statutory jurisdiction over variances and comprehensive permits. Currently, Dunstable has no approved comprehensive permit projects (40Bs), but given the community's lack of affordable housing, there is a likelihood that future proposals for such projects will be deliberated.

The Conservation Commission administers the Massachusetts Wetlands Protection Act, MGL c.131 §40, Dunstable's General Wetlands Bylaw, and has responsibility for protecting natural resources. During 2016, the Commission held nine Notice of Intent hearings, conducted ten site visits, and issued eight enforcement orders. The Conservation Commission also oversees open space planning, holds title to open space properties and conservation restrictions, and prepares the town's Open Space and Recreation Plan.

Dunstable does not have a public sewer system, so all homes and businesses rely on private on-site septic systems that require Board of Health approval under Title V of the Massachusetts Environmental Code. Properties with older systems are grandfathered until the point of sale, at which time septic systems must be inspected and brought into compliance with current standards.

The Dunstable Historical Commission's work focuses on historic preservation, mainly by identifying buildings and areas eligible for listing on the National Register of Historic Places and coordinating the nomination process. As discussed in the Cultural and Natural Resources chapter, the Town currently has two applications that are nearing final approval by the National Park Service to establish National Register Districts.

Cultural and Recreation

The Dunstable Free Public Library meets the intellectual, cultural and social needs of the community. In addition to its collection of books and other reading materials, the library offers a number of programs for children and adults, such as adult reading group, quilter's group, cook book club, gardening club, knitting and crocheting class, preschool story hour, afternoon story hour, children's crafts, and homework club. The use of the library's Community Room is limited to the hours during which the library is open to patrons. The library's circulation is 34,000 transactions per year. Like most town departments, the library is staffed primarily with part-time personnel and volunteers. The library is overseen by a three-member Board of Trustees and is part of the Merrimack Valley Library Consortium.

The Cultural Council administers grants from the Massachusetts Cultural Arts Council to support and promote local arts. Each year, the Council plans programs in the arts, sciences and humanities for the benefit of town residents.

Most of Dunstable's recreation programs serve young people, which is typical of a small town. Dunstable does not have a staffed Recreation Department, so most activities are offered through the school district or youth sports organizations. The use of town fields is coordinated through a five-member Recreation Commission. Additional information on recreation programs can be found in the Open Space and Recreation chapter of this document.

Human Services

Human services refers to public health and social services provided to residents due to age, income, veteran's status, disability or other special needs. Municipal human service delivery generally focuses on programs for the elderly, public health services, veterans' assistance and tax relief for populations protected by state law.

In Dunstable, the Council on Aging (COA) supplies or coordinates most of the services that directly benefit senior citizens. The COA relies on volunteers who work with the part-time Coordinator who has office hours on Tuesdays and Wednesdays. The mission statement of the COA is to "…advocate for and provide, in a cost-effective manner, a safe, congenial environment where seniors may participate in social, educational and cultural programs

reflective of their needs". Some of the activities offered include a monthly breakfast, book club, line dancing class, quilting class, knitting and crochet group. In addition, the COA offers the following services to seniors: document shredding, bone builders program, well adult clinic, transportation to medical appointments and grocery shopping, meals on wheels, and assistance with applications for food stamps and fuel assistance. Some of these services are only available on a regional basis. Public health services, such as flu shot clinics and nursing services, are provided through the Nashoba Associated Boards of Health.

There is no senior housing available within Dunstable. The Town offers senior property tax relief and an abatement program that allows interested taxpayers age 60 and older to contribute public service hours in exchange for a tax credit of up to $750. The State also requires that cities and towns provide certain types of financial assistance to veterans, the blind, surviving spouses and the elderly. The types and amounts of assistance vary by program and are fully reimbursed by the State.

Each community must appoint a Veterans Agent to help veterans and their dependents with financial, medical or burial benefits. The State reimburses 75% of eligible expenditures through the cherry sheet. Dunstable has a part-time Veterans Service Officer who has office hours on Mondays.

Energy Efficiency and Renewable Energy Initiatives

National and regional studies have shown that investments in energy efficiency and renewable energy substantially reduce energy costs for local governments, businesses and residents. Through zoning, municipal governments, such as Dunstable, play a major role in the siting of renewable energy facilities. The Green Communities Division of the Department of Energy Resources (DOER) works closely with municipalities to help lower energy costs and implement energy efficient technologies, add renewables to the energy mix, and to make vehicle fleets more energy efficient.

As provided for in the Green Communities Act of 2008, the DOER's Green Communities Grant Program uses funding from auctions of carbon emissions permits under the Regional Greenhouse Gas Initiative (RGGI) to reward communities that receive Green Community designation by meeting five clean energy benchmarks:

- Adopting a local zoning bylaw or ordinance that allows "as-of-right-siting" of renewable energy generation facilities, R&D or manufacturing;
- Adopting an expedited permitting process related to the as-of-right facilities;
- Establishing a municipal energy use baseline and a program designed to reduce use by 20 percent within five years;

- Adoption of a Fuel Efficient Vehicle Purchase Program; and
- Requiring all new construction to reduce lifecycle energy costs (i.e., adoption of an energy-saving building "stretch code").

In exchange, being designated as a Green Community provides grant funding to support all or a portion of the cost of the following:

- studying, designing, constructing and implementing energy efficiency activities, including but not limited to energy efficiency measures and projects;
- procuring energy management services;
- installing energy management systems;
- adopting demand-side reduction initiatives or energy efficiency policies; and,
- siting activities and construction of a renewable energy generating facility on municipally-owned land.

To date, 210 communities in the Commonwealth have achieved Green Community designation. Chelmsford, Tewksbury, Tyngsborough, Lowell, and Westford have each received between $777,000 and $958,000 in grant funding through the program. NMCOG recently began the process of assisting the Town with the Green Community designation process, using funding provided under the District Local Technical Assistance (DLTA) program and through DOER's META grant program.

Dunstable also has an opportunity to pursue municipal electric aggregation. Municipal aggregation is the process by which a municipality purchases electricity in bulk from a competitive supplier on behalf of the residents and businesses within the community. There are a number of energy consulting companies that will assist a municipality with this process at no cost. The Town and its residents could benefit by aggregating and lowering the electric generation/supply charges for electric customers.

According to Massachusetts law (M.G.L. c. 164, § 134), municipal aggregation enables a local government to combine the purchasing power of its residents and businesses so that it can provide them with an alternative electricity supply. Once in place, the local government can monitor and set its own energy related goals for the program, such as savings, stability or green options. Consumers are no longer "stuck" with the cost and fluctuation of the utility's Basic Service rates because the program offers another option.

In a municipal aggregation:

1. A municipality will procure competitive electric supply on behalf of participating customers;

2. A municipality may join with other municipalities to procure competitive supply;
3. Customer participation is voluntary, as customers are provided with an opportunity to opt-out of participating in a municipal aggregation program; and
4. National Grid will continue to provide electric transmission and distribution service to participating customers.

In order to take advantage of aggregation a municipality must:

1. Vote to initiate the municipal aggregation program;
2. Prepare a municipal aggregation plan in consultation with the Department of Energy Resources, often in partnership with a consultant;
3. Allow an opportunity for citizen review of the municipal aggregation plan; and
4. Submit a municipal aggregation plan to the DPU for review and approval.

Many communities in the Northern Middlesex region have already taken advantage of this program, including Billerica, Chelmsford, Dracut, Lowell, Tewksbury and Westford.

Public Input

In July 2016, the Master Plan Committee held a Visioning Session which was attended by 60 residents. Attendees participated in a Strengths, Weaknesses, Opportunities and Threats (SWOT) exercise where they identified the following as priorities related to facilities and services: Strong schools (strength); lack of diversified revenue base, lack of large tax base and water system upgrade needs (weaknesses); strengthening schools, renewable energy and attracting businesses (opportunities); and insufficient income to support town needs and failing schools (threats).

Through the written survey, respondents provided the following input relative to facilities and services:

- Taxes, the need for additional revenue, and fiscal responsibility/sound management/cost containment were identified as three of the most critical issues facing the town over the next ten years. In fact, taxes ranked as second on the list of seventeen critical issues, while the need for additional revenue ranked eighth.
- Maintain, improving or restoring the quality of the schools was rated the top issue facing the town over the next ten years. The school budget and rising educational costs ranked number 3 on the list of top seventeen issues.
- Under Question 7 (choice for spending $100 in town funds), the number two response was to spend the money to enhance the schools.

- Upgrading/expanding the water system ranked number 7 among the top 17 issues facing the town over the next ten years, and 68% of the respondents favored improvements to the water infrastructure.
- Road maintenance ranked number 11 on the list of top 17 issues facing the town over the next ten years.
- Public safety funding and staffing ranked number 12 on the list of the top 17 issues facing the town over the next ten years.
- Infrastructure maintenance and improvements ranked number 16 on the list of top seventeen issues, while maintaining and improving municipal service ranked 17th on the list.

Issues and Opportunities

Even in small communities with relatively slow growth, demand for public services responds to changes in household types, demographic and age shifts, household income, and the expectations of residents. Furthermore, state and federal mandates related to education, public safety, public health and environmental protection often impact decision-making, in terms of where financial resources must be or should be invested. When growth in demand and changes in need create cost increases without a corresponding increase in revenue, communities find it extremely challenging to finance improvements and maintain the quality of services that residents expect.

Dunstable's small population, rural development pattern and lack of commercial tax base presents several challenges to providing facilities and services. While choosing to remain small indicates a willingness to forego the convenience of having certain services and amenities, the cost of providing any services results in a fairly high cost per household.

The Massachusetts Department of Revenue developed a financial forecast for Dunstable in 2017, as part of a Community Compact grant. That report indicated that Dunstable will continue to encounter difficulty in maintaining level services as costs increase. Through that forecasting process, town officials established the following goals:

- Educate and unify elected boards, committee and Town Meeting on the town's fiscal condition
- Develop confidence in the town's financial direction
- Accurately depict Dunstable's prospective budget challenges for all stakeholders and community members
- Give the administration an effective budget planning tool to weather revenue fluctuations
- Ween the town off the use of one-time revenues to fund annual budgets and direct available resources to fund capital projects, improvements, and acquisitions.

The Master Plan Committee feels that there is a need to enhance communication among town boards, committees and officials. For example, improved collaboration between the Board of Selectmen, Advisory Committee and the regional school district would benefit the town budgeting process. Similarly, there is a need to improve overall communications with the Regional School District. This could be accomplished by increased attendance by the Dunstable School Committee members at the Board of Selectmen meeting. In addition, encouraging the establishment of "Friends of the School Committee" organization to monitor meetings and report back to the community would also be beneficial.

The Master Plan Committee suggests that the Groton-Dunstable Regional School District consider retaining the services of regional school consultant, such as the Massachusetts Association of Regional Schools (MARS) Consulting Group to assist with a strategic planning process. The MARS consulting group can assist existing regional districts with strategic planning, district expansion, updates to regional agreements, budgeting, year-end reporting and facility planning.

From a facilities and services perspective, Dunstable's most critical need is revenue from a sufficiently diverse mix of land uses to offset the costs of very low-density single-family residential development. Lack of revenue impedes road maintenance, repairs and upgrades to the water infrastructure, repairs and upgrades to town-owned buildings and facilities, open space acquisition, and impacts the Town's ability to provide additional fulltime public safety and town hall staff.

The Town is presently evaluating the feasibility of constructing a new public safety building to house both fire and police. Dore and Whittier has been retained by the town and have proposed a one-story combined department facility for a total gross area of 19,840 sf, including items such as locker rooms, briefing rooms, dorms, storage, administration, armories, and apparatus bays. Also included are future expansion areas for both Fire and Police including a future Apparatus Bay and possible future area for holding cells.

A number of sites have been evaluated as a potential location for the new facility, including the following:

- 160 Pleasant Street
- 28 Pleasant Street (behind fire station)
- 23 Pleasant Street (behind police station)
- 404 Main and Lowell Street
- 476 Main Street
- 41 Lowell Street
- 108 and 114 Pleasant Street – Simmons property.

After the final review, the Building Committee concluded that the 108 and 114 Pleasant Street (Simmons Property) is the preferred site. Figure 47 on page 234 shows one conceptual plan depicting how the building footprint might fit within the surrounding area. The cost of constructing such a facility has been estimated at $13 million, which will be fiscally challenging to finance with grant funding.

Public safety and emergency response has changed considerably since 9/11. Although Dunstable participates in regional emergency response planning, the absence of full-time career fire personnel makes it difficult to train, test, evaluate and improve its emergency response capabilities. In addition, as fewer people work in their own town or close by, it is becoming increasingly difficult to find volunteer fire personnel.

Dunstable will also need to address the communication challenges that currently affect the public safety departments. In order to access State funding to add three repeaters to the radio communication network, Dunstable will need to convince Groton to submit a grant application to the State 911 Department on Dunstable's behalf, given that Groton supplies dispatch services for the Town.

As a result of DEP's most recent Sanitary Survey of the Dunstable water supply, the Town has received a Notice of Noncompliance. A number of corrective actions have been outlined by DEP, many of which are related to recordkeeping, operating procedures, testing practices, and administrative and reporting requirements. As part of its report, DEP has provided the following comments that are not administrative or procedural in nature:

- The Emergency Response Plan is written as though a 250,000-gallon storage tank was installed, however Town Meeting did not fund the installation. The ERP must be rewritten to describe how the Town will handle a failure of the hydro-pneumatic tanks and the delivery of bulk water.
- A new staffing plan must be prepared that is compliant in terms of the DEP licensing requirements for operators.
- Upkeep is needed on the structures that house the wells to address maintenance issues and animal invasions.
- The Water Department should work with a nearby farmer to keep fertilizer and cows out of standing water, in order to reduce slightly elevated nitrogen levels.
- In order to meet compliance standards, the system must be upgraded so that chlorine can be added if needed.
- The hydro-pneumatic tanks were installed in 1901. One tank is leaking, and the site glass is full of iron and manganese precipitate which could cause bacteria contamination. This tank must be addressed. DEP noted that Town Meeting voters twice failed to approve funding for a replacement tank, and added that hydro-

pneumatic tanks are only acceptable for very small systems with a design average daily flow of 7,500 gpd or less. Furthermore, pressure tanks are not considered feasible for fire protection purposes. DEP is requiring that the fire hydrants on the system not be used for fire flow, and that the hydrants be labeled "Not for Use in Fire Protection". The report further finds that an atmospheric storage tank is needed in order for the hydrants to be used for fire protection.

- DEP has recommended that the Dunstable system be interconnected with another town so that if contamination or other issues arise with the existing wells, Dunstable can still have access to water. In the past, Dunstable has explored an interconnection with Tyngsborough and Pepperell, however town meeting voters did not approve either interconnection.

Within the town's Capital Improvement Plan, the Water Department has requested funding to address hydro-pneumatic tanks for the MUD District, make improvements to Well No. 1 (cleaning, electrical upgrades, and chemical feed enhancement), and to improve the well site access road. These upgrades would cost $185,000. In addition, they are seeking $15,000 for assistance with a USDA grant application.

Dunstable will need to financially and logistically plan as to how it will comply with the MS4 permit that went into effect in July 2018. Dunstable will need to determine the condition of its current system, formulate a strategy for compliance and assess whether its program will be funded through property tax revenues or through user fees, such as a stormwater utility or enterprise fund. In addition, responsibility for administering and overseeing the program will need to be assigned, keeping in mind that the area subject to the regulation will likely expand with the upcoming decennial census and the redrawing of urbanized area boundaries.

Dunstable would benefit from a town planner to support the work of the Planning Board, Zoning Board of Appeals and Historical Commission, and to coordinate development reviews with the Conservation Commission and Board of Health. Development has become a more complex process for applicants as well as permitting officials. Although Dunstable is a small community, it has preservation, development design, environmental protection, and technical assistance needs that cannot be met with existing staff resources.

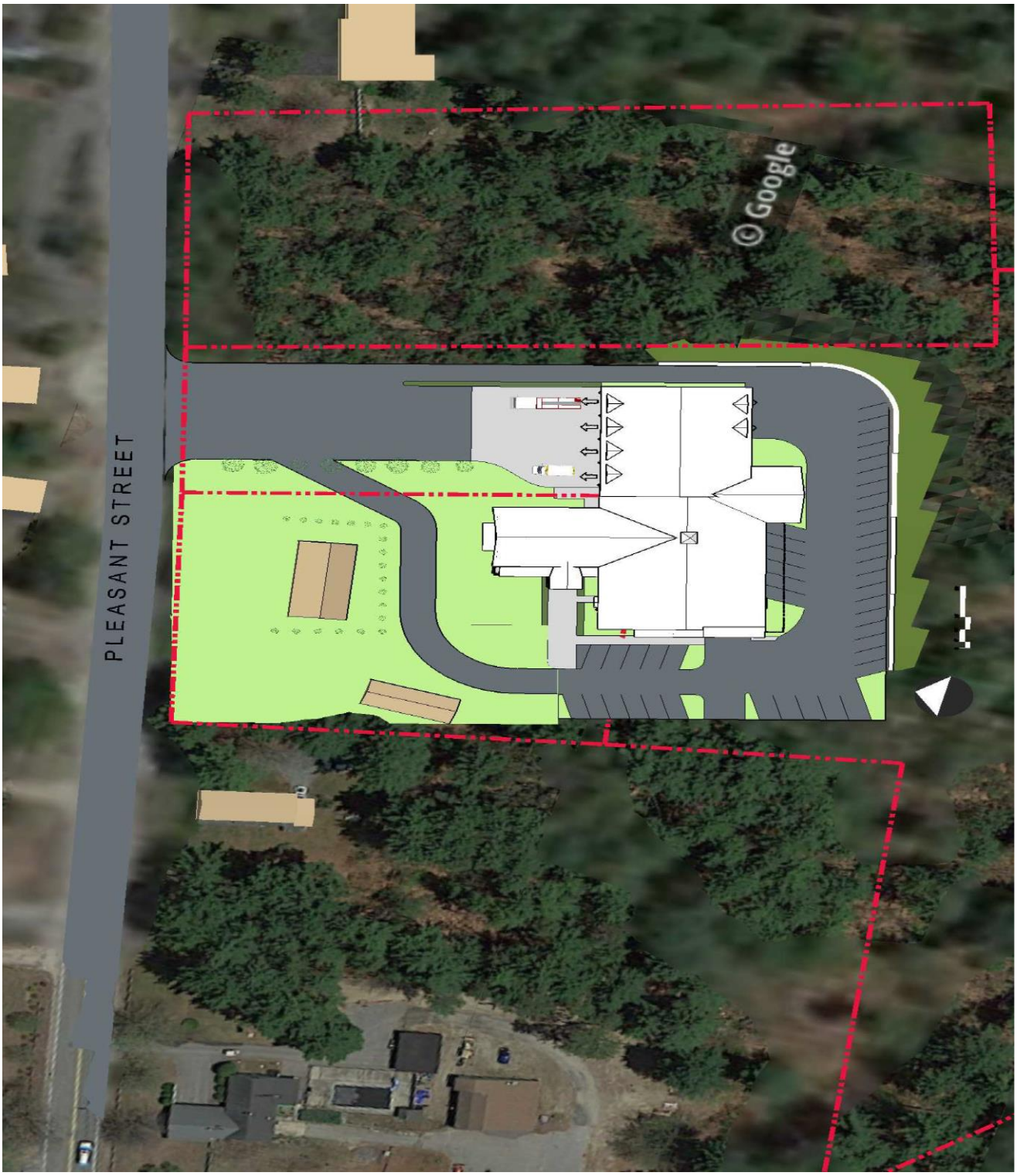


Figure 47: Preferred Alternative for the Combined Public Safety Building
Source: Dunstable Public Safety Feasibility Study, Dore and Whittier, June 2017

RECOMMENDATIONS

- Address the repair, maintenance and energy improvements outlined in the A Point Design Inc. municipal building audit report, as funding becomes available.
- Upgrade the town's water supply infrastructure to address issues outlined by MassDEP and comply with current standards, and to meet the overall drinking water and fire suppression needs of the community.
- Develop and implement a stormwater management program that complies with the requirements set forth in the 2016 Massachusetts Small MS4 General Permit.
- Provide access to the Community Room for town-affiliated meetings and events, even during hours when the library is not open to patrons. Alternatively, a Senior Center/Community Center should be created.
- Continue to support the use of a planning consultant to support the work of local board and to assist with development reviews.
- Improve collaboration between the Board of Selectmen, Advisory Board and the regional school district.
- Encourage the establishment of "Friends of the School Committee" organization to monitor meetings and report back to the community.
- Encourage the Dunstable members of the School Committee to meet more regularly with the Board of Selectmen and department heads to ensure that the School Committee is aware of the needs and limitations of the Town.
- Advise the Groton-Dunstable Regional School District to consider retaining the services of regional school consultant, such as the Massachusetts Association of Regional Schools (MARS) Consulting Group to assist with a strategic planning process.
- Investigate the Dumont property as a possible location for future cemetery expansion.
- Recruit additional volunteer firefighters by reaching out to the High School and Scouts programs relative to the Junior Firefighter program.
- As outlined in the Capital Improvement Plan, address the vehicle replacement needs of the Fire Department.
- Investigate the possible regionalization of fire protection services with the Town of Groton, and study the feasibility of regionalizing other services, such as inspectional services and DPW.
- Design and construct a new public safety building to house police and fire services.
- Work with the Town of Groton and the State 911 Department to resolve dispatch and radio coverage issues that impact emergency response.

- Pursue Green Community designation through the Department of Energy Resources (DOER), and apply for competitive grant funds once designated.
- Pursue electric aggregation with the assistance of an energy consultant.
- Utilize the service of the Massachusetts Department of Revenue to initiate a community discussion on the charter process and potential benefits to the community.
- Provide housing options and better transportation services for seniors.

IX. IMPLEMENTATION PLAN

The final section of the Master Plan contains a multiple-page table outlining the specific recommendations contained in the Master Plan. These recommendations are intended to advance the goals, policies and actions articulated throughout the document. For each specific recommendation, the primary responsibility for implementation is identified. Most often the primary responsibility rests with the Board of Selectmen, Town Administrator, Planning Board, Conservation Commission, Road Commissioners, Zoning Board of Appeals, Community Preservation Committee, Water Commission, Recreation Commission, the Complete Streets Committee or the Historical Commission. It is important to note that many town departments, boards, committees and commissions will play a supportive role in implementing and advancing the recommendations. The Master Plan Committee recommends that the Town establish an Economic Development Committee to oversee the implementation of the recommendations that are related to growing the town's economy in a way that is appropriate for the community.

The following table also provides a suggested timeframe for the implementation of the various recommendations over the next decade. Four timeframes have been considered, based on the priority and urgency of the recommendation, the resources available, and the time required to advance the recommendation. The implementation of some recommendations may be immediate, while other may be implemented on a short-term (1-3 years), intermediate (4-6 years) or long-term basis (7 years or more). Some recommendations will be implemented on an ongoing basis, as indicated in the table.

To promote timely implementation of the recommendations, the Town should appoint a Master Plan Implementation Committee. It is suggested that the Committee membership include a representative of the following entities:

- Planning Board
- Board of Selectmen
- Conservation Commission
- Zoning Board of Appeals
- Affordable Housing Committee
- Community Preservation Committee
- Historical Commission
- Road Commissioners
- Town Administrator
- Complete Streets Committee
- Water Commission
- Economic Development Committee (to be formed)
- A citizen-at-large

The role of the Master Plan Implementation Committee is to serve as a facilitator and coordinator of the implementation process, to advocate for the implementation of the recommendations, and to report annually to Town Meeting regarding the Town's progress in implementing the recommendations. In addition, the Committee will assist the Planning Board with any amendments that may be needed to either the Master Plan document or the Implementation Table over time.

Table 79: Implementation Timeframes and Responsibilities

Recommendation	Applicable Master Plan Elements	Timeframe	Primary Responsibility
Ongoing Recommendations			
Identify the types of businesses that build upon the strengths of the community.	Economic Development	Ongoing	Board of Selectmen, Town Administrator, Economic Development Committee
Encourage agri-tourism and eco-tourism businesses to locate in Dunstable	Open Space and Recreation, Natural and Cultural Resources, Economic Development	Ongoing	Agricultural Commission, Economic Development Committee, Board of Selectmen
Work with local farm owners and the Massachusetts Department of Agricultural Resources to identify funding for a local agricultural plan that addresses agricultural preservation, and that helps promote the stability and possible growth of the local agricultural economy.	Economic Development, Natural and Cultural Resources	Ongoing	Board of Selectmen, Town Administrator, Agricultural Commission, Conservation Commission
Identify federal and state resources to build additional infrastructure and attract private investment.	Economic Development	Ongoing	Town Administrator, Board of Selectmen, Economic Development Committee
Use the DHCD-approved Housing Production Plan as a management tool to develop new housing opportunities that meet the Town's annual housing production goals.	Housing	Ongoing	Board of Selectmen, Affordable Housing Committee
Promote the use of recreational areas for nature tours, environmental studies and cross-country skiing as a means to attract visitors and businesses.	Economic Development	Ongoing	Board of Selectmen, Conservation Commission, Recreation Commission
Address the housing needs of the elderly, young families and low- and moderate-income. Partner with non-profit and private developers to develop new housing units.	Housing	Ongoing	Board of Selectmen, Affordable Housing Committee
Continue the establishment of greenways along the town's waterways. Increase water access for boating, kayaking, canoeing and fishing through the enhanced greenways.	Open Space and Recreation	Ongoing	Conservation Commission, Community Preservation Committee
Utilize homebuyer and homeowner education programs to encourage home ownership.	Housing	Ongoing	Affordable Housing Committee

Recommendation	Applicable Master Plan Elements	Timeframe	Primary Responsibility
Ongoing Recommendations (continued)			
Continue to acquire key parcels for the protection of natural resources, wildlife, agricultural lands, water protection, heritage landscapes, and historical resources, and to meet recreation needs.	Open Space and Recreation	Ongoing	Community Preservation Committee, Conservation Commission
Establish linkages between conservation areas and pursue easements needed for future linkages.	Open Space and Recreation	Ongoing	Conservation Commission, Complete Streets Committee
The Master Plan Committee feels that the expenditure of CPA funds should be encouraged for historic preservation and restoration projects on both public and private property, based on established qualifying criteria. A Preservation Restriction is required when CPA funds are awarded for rehabilitation or restoration of an historic property, in order to protect the Town's investment.	Natural and Cultural Resources	Ongoing	Historical Commission, Community Preservation Commission
Encourage forest landowners to enroll in Chapter 61 and provide information on available assistance from the Conservation District and the New England Forestry Foundation.	Open Space and Recreation	Ongoing	Planning Board, Conservation Commission, Tax Assessor
Continue to maintain and update the forestry management plan for the town-owned forests.	Natural and Cultural Resources	Ongoing	Conservation Commission, Board of Selectmen, Town Forest Committee
Work with neighboring towns on conservation and recreation issues, including the possible establishment of a regional trail for off-road vehicles, such as ATVs and snowmobiles.	Open Space and Recreation	Ongoing	Conservation Commission, Recreation Commission
Continue to work collaboratively with neighboring communities on implementation of the EPA MS4 Stormwater Permit, and develop a long-term financing plan to assist with funding stormwater activities.	Natural and Cultural Resources	Ongoing	Board of Selectmen, Town Administrator, NMCOG
Establish a “Detection and Response” plan to address invasive plant species. Educate homeowners and the agricultural community on the importance of using native plantings, and on how to detect and report the presence of invasives.	Natural and Cultural Resources	Ongoing	Conservation Commission, Agricultural Commission
Increase enforcement of motorist, pedestrian and bicycle safety laws.	Transportation	Ongoing	Public Safety
Address the repair, maintenance and energy efficiency improvements outlined in the A Point Design Inc. municipal building audit report, as funding becomes available.	Facilities and Services	Ongoing	Board of Selectmen, Town Administrator

Recommendation	Applicable Master Plan Elements	Timeframe	Primary Responsibility
Ongoing Recommendations (continued)			
Develop and implement a stormwater management program that complies with the requirements set forth in the 2016 Massachusetts Small MS4 General Permit.	Facilities and services	Ongoing	Board of Selectmen, Town Administrator, Highway Department, Conservation Commission, Planning Board
Continue to support the use of a planning consultant to support the work of the local boards and to assist with development reviews.	Facilities and Services	Ongoing	Board of Selectmen
Improve collaboration among the Board of Selectmen, Advisory Board and the regional school district to improve transparency.	Facilities and Services	Ongoing	Board of Selectmen, Advisory Board, Regional School District
Advise the Groton-Dunstable Regional School District to consider retaining the services of regional school consultant, such as the Massachusetts Association of Regional Schools (MARS) Consulting Group to assist with a strategic planning process.	Facilities and Services	Ongoing	Board of Selectmen, Regional School District
Recruit additional volunteer firefighters by reaching out to the High School and Scouts programs relative to the Junior Firefighter program.	Facilities and Services	Ongoing	Fire Department
Short-term Recommendations			
Establish a Town Center Overlay District to accommodate small-scale retail, restaurants and cafes, a bank, artisan/artist shops galleries, museums and studio space, and personal services. The conversion of older, large homes to allow commercial space on the ground level with residential use above should also be explored.	Land Use	Short-term	Planning Board
Attract small-scale neighborhood style businesses, such as cafes, farm-to-table restaurants, country stores, farm stands, antique shops and artist lofts.	Economic Development	Short-term	Board of Selectmen, Town Administrator
Develop design guidelines for Dunstable Center that emphasize the historic significance of the community, in order to attract the types of businesses desired.	Economic Development	Short-term	Planning Board, Historical Commission
Evaluate the zoning classifications for eleven parcels identified in the Housing Production Plan as potential sites for future affordable housing to determine whether zoning changes are appropriate.	Land Use and Housing	Short-term	Planning Board and Affordable Housing Committee

Recommendation	Applicable Master Plan Elements	Timeframe	Primary Responsibility
Short-term Recommendations (continued)			
Revisit the Growth Management Bylaw to determine whether it should be continued or removed from the Town's zoning regulations. Retaining the bylaw impacts the town's ability to leverage some state grant funds, such as Housing Choice capital funds.	Land Use, Housing	Short-term	Planning Board, Board of Selectmen
Revise the Open Space Development bylaw to include an affordability requirement, and ensure that affordable units are eligible for SHI inclusion and that they are deed restricted in perpetuity. In addition, clarify the density requirements for projects constructed under this section of the zoning bylaw. Consider lowering the project threshold from fourteen acres to five acres. Encourage the location of designated open space in an area that allows for connectivity to adjoining open space areas, if possible. Increase the amount of required open space from 35% to 50%. Institutionalize and strengthen the bylaw so that it is mandatory for subdivisions over a certain size.	Land Use, Housing, Open Space and Recreation, Cultural and Natural Resources	Short-term	Planning Board, Affordable Housing Committee
Revisit the Senior Residential Multi-family District bylaw to ensure adequate protection of set aside open space and to clarify density requirements. Ensure that affordable units created under this section of the zoning bylaw are subject to a deed restriction in perpetuity, and that units are SHI eligible.	Land Use and Housing	Short-term	Planning Board and Affordable Housing Committee
Identify locations for a B-2 zoning district	Land Use	Short-term	Planning Board
Modify the Zoning Bylaw to more clearly accommodate assisted living facilities.	Housing	Short-term	Planning Board
Establish a sidewalk fund through developer contributions.	Transportation	Short-term	Planning Board
Utilize peer review consultants to review development proposals, and establish a process whereby project proponents fund peer review consultant services.	Land Use	Short-term	Planning Board
Work with the Merrimack Valley Visitors and Convention Bureau to identify Dunstable as an historic destination	Economic Development	Short-term	Board of Selectmen, Historical Commission, Town Administrator

Recommendation	Applicable Master Plan Elements	Timeframe	Primary Responsibility
Short-term Recommendations (continued)			
Amend the town's Zoning Bylaw and Subdivision regulations to require developers to provide sidewalks, bike racks, and streetscape amenities, such as benches, pedestrian scale lighting, and street trees, where appropriate. To ensure that the regulations reflect the town's rural character and that they meet current needs, reduce the minimum right-of-way requirement for new roadways (e.g. eliminating the required parking lane), while keeping safety in mind. Revisions should consider the town's desire to protect historical roadside features, such as stone walls, gates and trees. Standards should be modified so that they are compliant with the American with Disabilities Act (ADA).	Transportation	Short-term	Planning Board
Consider allowing Low Impact Development (LID) techniques within the town's subdivision regulations for managing stormwater onsite, to the extent possible.	Land Use, Natural and Cultural Resources	Short-term	Planning Board
Create an Economic Development Committee to implement the Economic Development section of the Master Plan.	Economic Development	Short-term	Board of Selectmen
Streamline the local permitting process and develop a handbook that summarizes the permitting process.	Economic Development	Short-term	Town Administrator, Board of Selectmen
Focus on attracting bed and breakfast facilities and restaurants, and address needed changes to the zoning bylaw, including the "dry" town bylaw	Economic Development	Short-term	Planning Board, Board of Selectmen
Work with local businesses to determine the assets and liabilities related to doing business in Dunstable.	Economic Development	Short-term	Board of Selectmen, Town Administrator
Address the infrastructure issues related to the municipal water distribution system.	Economic Development, Facilities and Services	Short-term	Board of Selectmen, Water Commission
Address the infrastructure issues related to roads and sidewalks.	Economic Development, Transportation	Short-term	Board of Selectmen, Road Commissioners, Complete Streets Committee

Recommendation	Applicable Master Plan Elements	Timeframe	Primary Responsibility
Short-term Recommendations (continued)			
Encourage energy efficiency and renewable energy initiatives, such as being designated as a "Green Community" by the Commonwealth of Massachusetts.	Economic Development, Facilities and Services	Short-term	Board of Selectmen, Town Administrator
Promote workforce development resources available at the Greater Lowell Workforce Development Board (GLWDB) for unemployed and underemployed residents.	Economic Development	Short-term	Town Administrator, Board of Selectmen, Economic Development Committee
Apply for designation as a Housing Choice Community if the Town meets the housing production eligibility requirements.	Housing	Short-term	Board of Selectmen
Apply for Housing Choice Capital and Technical Assistance Grants if designated as a Housing Choice Community.	Housing	Short-term	Board of Selectmen
Apply for MassWorks funding and research funding opportunities under USDA Rural Development to address infrastructure issues.	Housing	Short-term	Board of Selectmen, Town Administrator, Water Commission
Promote the Town's conservation and recreation areas, through an updated guide map linked to the Town's website.	Open Space and Recreation	Short-term	Conservation Commission, Recreation Commission
Create a process for prioritizing lands under Chapter 61, 61A and 61B for potential future acquisition, and outline a cooperative process for moving forward with future acquisitions in a timely manner.	Open Space and Recreation	Short-term	Board of Selectmen, Town Administrator, Conservation Commission, Planning Board
Complete the National Register District designation process for Dunstable Center and East Main Street	Natural and Cultural Resources	Short-term	Historical Commission
The Historical Commission should work to encourage the preservation of barns and other agricultural structures by their owners. CPA funds could be utilized for this purpose, in exchange for an executed preservation agreement with the property owner. As a first step, the Historical Commission should compile an inventory of farms, farmhouses, outbuildings, stone walls and other resources that symbolize the town's agrarian heritage, and identify those resources most at risk.	Natural and Cultural Resources	Short-term	Historical Commission, Community Preservation Commission

Recommendation	Applicable Master Plan Elements	Timeframe	Primary Responsibility
Short-term Recommendations (continued)			
Develop a prioritization plan for lands classified under Chapters 61, 61A and 61B, so that the Town is prepared when parcels become available for possible acquisition. In addition, the Town should address parcels that do not comply with the requirements set forth in Chapters 61, 61A and 61B.	Natural and Cultural Resources	Short-term	Board of Selectmen, Tax Assessor, Community Preservation Committee, Conservation Commission
Continue to pursue the merger of the Recreation Commission and Parks Commission.	Open Space and Recreation	Short-term	Town Administrator, Board of Selectmen
Examine the feasibility of establishing a bike lane along Route 113 from Railroad Square in Pepperell to Dunstable Center.	Open Space and Recreation	Short-term	Road Commissioners, Board of Selectmen, Complete Streets Committee
Develop a plan for improving the connectivity of the town's trail network, pathways and sidewalk network.	Transportation	Short-term	Road Commissioners, Conservation Commission, Complete Streets Committee
Improve winter access to the conservation and recreation areas for cross-country skiing, snowshoeing, and winter hiking by plowing parking areas.	Open Space and Recreation	Short-term	Conservation Commission, Recreation Commission, Highway Department
Continue to work with NMCOG and MassDOT to implement improvements along Route 113 in the Town Center area through the Transportation Improvement Program and MassWorks.	Transportation	Short-term	Road Commissioners, Board of Selectmen, Town Administrator, Water Commission
Work with NMCOG and MassDOT to study and address safety issues along Route 113 to address run-off-the-road crashes.	Transportation	Short-term	Road Commissioners, Board of Selectmen, Town Administrator, Public Safety
Develop a formal process for street acceptance that is consistent with Massachusetts General Law Chapter 82, Section 23.	Transportation	Short-term	Board of Selectmen, Town Administrator, Planning Board
Provide access to the Community Room for town-affiliated meetings and events, even during hours when the library is not open to patrons. Alternatively, a Senior Center/Community Center should be created.	Facilities and Services	Short-term	Board of Selectmen, Library
Encourage the establishment of "Friends of the School Committee" organization to monitor meetings and report back to the community.	Facilities and Services	Short-term	Board of Selectmen, Dunstable members of the School Committee

Recommendation	Applicable Master Plan Elements	Timeframe	Primary Responsibility
Short-term Recommendations (continued)			
Encourage the Dunstable members of the School Committee to meet more regularly with the Board of Selectmen and department heads to ensure that the School Committee is aware of the needs and limitations of the Town.	Facilities and Services	Short-term	Board of Selectmen, Dunstable members of the School Committee, department heads
Investigate the Dumont property as a possible location for future cemetery expansion.	Facilities and Services	Short-term	Board of Selectmen, Cemetery Commissioners
As outlined in the Capital Improvement Plan, address the vehicle replacement needs of the Fire Department.	Facilities and Services	Short-term	Fire Department, Board of Selectmen
Work with the Town of Groton and the State 911 Department to resolve dispatch and radio coverage issues that impact emergency response.	Facilities and Services	Short-term	Board of Selectmen, Police Department, Fire Department
Pursue Green Community designation through the Department of Energy Resources (DOER), and apply for competitive grant funds once designated.	Facilities and Services	Short-term	Board of Selectmen, Town Administrator
Pursue electric aggregation with the assistance of an energy consultant.	Facilities and Services	Short-term	Board of Selectmen, Town Administrator
Intermediate Recommendations			
Modify the town's zoning bylaw to clearly allow agricultural, cultural and eco-tourism related uses and businesses in certain locations. This would include allowing farm retail sales, co-ops, food processing and establishments similar to Blood Farm.	Land Use and Economic Development	Intermediate	Planning Board
Identify locations where more moderate density housing development might be appropriate, in that it is reflective of the existing development characteristics of the surrounding neighborhood, and as a means of addressing non-conforming lots.	Land Use	Intermediate	Planning Board
Re-examine the uses allowed within the B-3 district and consider adding multi-family housing as an allowed use by special permit.	Land Use and Housing	Intermediate	Planning Board

Recommendation	Applicable Master Plan Elements	Timeframe	Primary Responsibility
Intermediate Recommendations (continued)			
Update and revise the town's zoning bylaw and subdivision regulations to provide additional clarity, add appropriate design standards, guidelines and performance standards, including updated standards for landscaping, lighting and signage, as well as more specific building design standards. Update the parking requirements to reflect present day standards for various land uses. Conduct a comprehensive review of the town's development regulations every five years to keep current with community needs.	Land Use	Intermediate	Planning Board
Establish design standards for Comprehensive Permit projects to ensure that such development projects maintain and protect the town's rural character, and benefit the community.	Land Use and Housing	Intermediate	Zoning Board of Appeals
Encourage the Agricultural Commission to work with the Economic Development Committee and agricultural entities in adjoining towns to promote the sale of goods and services from existing farms. Promote and support Dunstable's agricultural economy by encouraging: the preservation of agricultural lands through APRs and Conservation Restrictions; farm-to-table restaurants; a "buy local" campaign; community supported agriculture (CSA); farmers markets, an agricultural coop, food processing facility and community gardens.	Economic Development, Natural and Cultural Resources	Intermediate	Agricultural Commission, Economic Development Committee (to be formed), Conservation Commission
Promote the skill sets of the Dunstable workforce through resources available at UMass Lowell and Middlesex Community College.	Economic Development	Intermediate	Town Administrator, Board of Selectmen, Economic Development Committee
Focus on the potential development sites identified in the Dunstable HPP, as well as the Best Triangle and Pelletier property, for housing development.	Housing	Intermediate	Board of Selectmen, Affordable Housing Committee
Implement the recommendations of the Dunstable Age Restricted Housing Supply and Demand Study.	Housing	Intermediate	Board of Selectmen, Affordable Housing Committee
Review the opportunities available under An Act to Promote Housing Choices to determine if the Town wants to take advantage of the simple majority voting provision for Town Meeting actions on certain zoning changes. (proposed legislation)	Housing	Intermediate	Board of Selectmen, Planning Board

Recommendation	Applicable Master Plan Elements	Timeframe	Recommendation
Intermediate Recommendations (continued)			
Encourage the Affordable Housing Committee to issue its Request for Proposals (RFP) for the MUD District once the water infrastructure issue has been addressed.	Housing	Intermediate	Affordable Housing Committee, Board of Selectmen
Integrate recreation and environmental protection through initiatives, such as nature walks, establishment of an environmental education center, and interpretative trails.	Open Space and Recreation	Intermediate	Conservation Commission, Recreation Commission
Study the eligibility of establishing additional National Register districts in areas such as Hollis Street, Fletcher Street, River Road, and Pond Street.	Natural and Cultural Resources	Intermediate	Historical Commission
Continue to address the protection of the Route 113 Gateway and Dunstable Center through the designation of Local Historic Districts.	Natural and Cultural Resources	Intermediate	Historical Commission
The Historical Commission should initiate a program to collect and archive all known historical documents and records, particularly those that pre-date Town Hall (1907 and earlier). The possible establishment of a museum to house, secure research space, archive and display the documents and artifacts important to the town's history should be explored.	Natural and Cultural Resources	Intermediate	Historical Commission
Create a steep slope bylaw and work toward preserving hilltop lands, such as Forest Hill, Drake Hill, Spectacle Hill and Nuttings Hill. In addition, future revisions to the Town's development regulations should enhance environmental protection by addressing erosion control and impervious surface, and by strengthening of the town's wetland bylaw to include isolated wetlands, vernal pools and buffer zone requirements.	Open Space and Recreation, Natural and Cultural Resources	Intermediate	Planning Board, Conservation Commission
Develop a Use, Management and Maintenance Plan for all municipal recreation facilities and parks.	Open Space and Recreation	Intermediate	Town Administrator, Parks Commission
Create additional parking for the Nashua River Trail and at significant conservation land trailheads.	Transportation	Intermediate	Conservation Commission, Board of Selectmen, Planning Board, Recreation Commission
Adopt a shade tree bylaw or reference the state's Shade Tree statute within the Scenic Road Bylaw. Modify the existing Scenic Roads Bylaw, in order to provide information on the permitting process, criteria, and the process for designating a roadway.	Natural and Cultural Resources	Intermediate	Board of Selectmen, Tree Warden

Recommendation	Applicable Master Plan Elements	Timeframe	Primary Responsibility
Intermediate Recommendations (continued)			
Implement the recommendations outlined in the Town's *Complete Streets Prioritization Plan* and reiterated in the Transportation chapter of this document.	Transportation	Intermediate	Board of Selectmen, Road Commissioners, Highway Department, Complete Streets Committee
Work with the regional school district and public safety officials to implement a bicycle and pedestrian safety education program for school-age children.	Transportation	Intermediate	Regional School District, Public Safety
Promote traffic calming measures along local roadways where needed.	Transportation	Intermediate	Road Commissioners, Board of Selectmen, Public Safety
As resources permit, develop an asset management program to ensure that roadway maintenance and repair is undertaken as cost-effectively as possible.	Transportation	Intermediate	Road Commissioners, Board of Selectmen, Highway Department
Upgrade the town's water supply infrastructure to address issues outlined by MassDEP, comply with current standards, and to meet the overall drinking water and fire suppression needs of the community.	Facilities and services	Intermediate	Board of Selectmen, Water Commission
Investigate the possible regionalization of fire protection services with other nearby towns, and study the feasibility of regionalizing other services, such as inspectional services and DPW.	Facilities and Services	Intermediate	Fire Department, Board of Selectmen, Town Administrator
Design and construct a new public safety building to house police and fire services.	Facilities and Services	Intermediate	Board of Selectmen, Fire Department, Police Department, Town Administrator, Water Commission
Utilize the services of the Massachusetts Department of Revenue to initiate a community discussion on the charter process and potential benefits to the community.	Facilities and Services	Intermediate	Board of Selectmen, Town Administrator
Provide housing options and better transportation services for seniors.	Facilities and Services, Housing and Transportation	Intermediate	Board of Selectmen, Affordable Housing Committee, Council on Aging

Recommendation	Applicable Master Plan Elements	Timeframe	Primary Responsibility
Long-term Recommendations			
Promote and market Dunstable's historical and cultural resources to foster a greater sense of appreciation and stewardship. As part of this effort, "Point of Pride" plaques should be provided for display on historic properties. In addition, a "self-guided walking tour" of historic areas in Dunstable, such as East Main Street and the Town Center, should be developed. A Town Center Committee could be formed to further this concept and address the future planning and protection of the Town Center area.	Natural and Cultural Resources	Long-term	Historical Commission, Board of Selectmen
Focus on the MUD District, Town Center District and the B-3 zoned area adjacent to Tyngsborough to locate small-scale neighborhood style businesses.	Economic Development	Long-term	Board of Selectmen, Planning Board, Economic Development Committee
Establish connections between local and regional trails to create an interconnected network, and work with proponents of future development projects on preserving the easements/rights-of-way needed for these connections.	Open Space and Recreation	Long-term	Conservation Commission, Planning Board and Recreation Commission
Establish a sidewalk snow removal bylaw in the future, when the sidewalk network becomes more expansive.	Transportation	Long-term	Board of Selectmen