FINAL REPORT | JUNE 2022

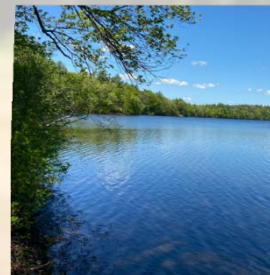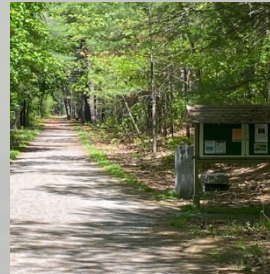## TOWN OF STERLING

Master Plan

Credit: Richard Maki

Credit: Richard Maki

Credit: The Sterling Fair

PREPARED BY

vhb

IN ASSOCIATION WITH

MRPC

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Town of Sterling, Massachusetts

Master Plan

FINAL REPORT

JUNE 2022

Presented to: Sterling Master Plan Committee

Sterling Planning Board

Prepared by: In Association with:

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TOWN OF STERLING
Master Plan Committee
Butterick Building
1 Park Street * Sterling, Massachusetts 01564
Website: www.sterling-ma.gov

Bus: (978) 422-8111 x2301 * FAX (978) 422-0289

To the Residents of the Town of Sterling,

The Sterling Master Plan Committee is pleased to present the Sterling Master Plan, which is the result of several years of work by the committee members, consultants, and Sterling residents.

Our work has been guided by the vision statement that was created early on during the committee meetings:

> **Sterling is a community that values its natural beauty, agricultural history, and can-do spirit. We envision a sustainable and equitable future that protects our town legacy, purposefully promotes growth and development, embraces our ages and abilities, and encourages community engagement to enhance the quality of life for our diverse residents.**

Here's what we learned from the several surveys we conducted over the course of building this Master Plan:

Over two-thirds of survey respondents want Sterling's leaders to:

- Work with the Sterling Municipal Light Department to deliver low-cost renewable energy to the Sterling community.
- Revitalize the town center to provide and/or allow for more sidewalk and outdoor dining.
- Make neighborhoods, especially the town center, more pedestrian friendly.

Sterling survey respondents also support in large numbers some of the recommended actions that address the Master Plan goals. Two goals rose to the top, with five or more recommended actions garnering the support of over 33% of the respondents:

- Implement effective strategies to preserve and protect the Town's water resources and unique ecological habitats.
  - Six recommended actions for this goal received the support of 33% or more of survey respondents, the highest number of recommended actions for one goal.
  - Recommended actions included: fix dams, establish green corridors, maintain/improve biodiversity through forest management, assess level of conserved lands, reduce salt use on major highways, and address nutrient loading to Lake Waushacum.
- Expand pedestrian, bicycle and trail networks inter- and intra-Sterling.
  - 5 recommended actions received over 35% support.
  - Recommended actions included: make neighborhoods more pedestrian friendly, establish a Regional Trail Network and pursue grant funding for trail development, improve pedestrian mobility of rural roads, and fill in gaps in the sidewalk network.

Sterling and its residents are facing multiple challenges: changing demographics, the need to incorporate resilience and sustainability in our public services, the effects of climate change on our natural resources, and evolving to address multiple needs while maintaining what makes Sterling a livable and safe community.

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We hope this Master Plan provides some insight into how Sterling residents want to address those issues and guide the Town's growth in a meaningful way. Sterling residents have a choice to make: 1) support transformative actions to support the goals of this Master Plan, 2) implement action plans that tinker at the edges of the issues described in this plan, or 3) ignore the issues and maintain the status-quo.

The Sterling Master Plan is a living document that should be used to guide strategic planning. It is our hope that the Sterling community and its leaders will continue the work needed to fulfill the Master Plan's vision. Sterling's future relies on strong community engagement and residents who are inspired to lead and serve. We call on all residents to get involved and help build a sustainable community for all, volunteer to serve on a board or committee, participate in defining the priorities and goals for Sterling, and most importantly, learn about the issues facing our Town and come out to vote at Town Meetings.

Sincerely,

Patty Page, Chair
Chuck Plaisted, Vice Chair
Liz Pape, Clerk

Credits and Acknowledgements

The Sterling Master Plan was prepared over the course of several years (2019-2022) - largely during the COVID-19 pandemic, which forced much of the planning process to be conducted virtually. Despite this challenge, this Master Plan was informed by extensive public participation.

Special thanks are due to Patty Page, Chairperson of the Sterling Master Plan Committee, Chuck Plaisted (Co-Chair), and Liz Pape (Clerk), as well as former Town Planner, Domenica Tatasciore. The following additional members of the Master Plan Committee were also responsible for guiding and participating in the development of this Master Plan and reviewing the work performed by the contracted consultant, VHB® (responsible for Land Use and Development Patterns, Economic Development, Natural, Cultural, and Historic Resources, and Public Facilities and Services), as well as the Montachusett Regional Planning Commission (MRPC) (responsible for Housing, Open Space and Recreation, and Transportation and Circulation).

- Blaine Bershad
- Bob Dumont
- Carl Corrinne
- Jim French
- John Kilcoyne
- Maureen Cranson
- Rose Koven

The Town of Sterling and its Master Plan Committee would like to thank the members of the Sterling community and all other participants that contributed to this Master Plan with thoughtful input and feedback.

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Master Plan Process and Vision Statement

1

The Town of Sterling, located in the foothills of Mount Wachusett in Central Massachusetts, completed its last Master Plan in 1962. Over the course of two phases, the first in Spring 2019 and the second in Summer 2020, the Town launched a dynamic process to prepare a new Town-wide Master Plan that would set a shared vision for the community and guide decision-making over the next 10 to 15 years.

This Master Plan updates the data and information presented in the 1962 Master Plan, along with other recently completed strategic planning documents (e.g., 2019 Housing Production Plan). These updates provided an understanding of the Town's context at the local, regional, and global scales, which served to inform the identification of its opportunities and challenges.

Robust public engagement performed throughout the planning process provided an "on-the-ground" perspective on the identified opportunities and challenges, which helped to define the community vision, craft supporting goals, and identify/explore relevant and important actions for implementation. For instance, topics preliminarily identified as being of particular interest to the community, including becoming age and dementia friendly and a more sustainable and climate resilient community, were integrated into the various elements of this Master Plan from the beginning stages of its development.

This first chapter of the Sterling Master Plan goes into greater detail in describing the planning process that was guided by the Sterling Master Plan Committee, including how and when stakeholders were engaged. It also states the Vision Statement that served as a foundational component of this Master Plan.

The Sterling Master Plan Committee was supported by the Town's lead planning consultant, VHB®, as well as the Montachusett Regional Planning Commission (MRPC). Additionally, Barrett Planning Group, LLC laid some important groundwork early in the process, including with respect to engaging stakeholders and synthesizing their feedback.

What is a Master Plan?

Consistent with Chapter 41 Section 81D of the General Laws of Massachusetts, a master plan serves as "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."[1] However, master plans today do more than address just buildings and infrastructure – they also consider the important social, environmental, and economic values associated with them.

A master plan is meant to be a living, dynamic document that records where a community has been, where it is currently, and what it wants to be in the future. In the process, it assesses existing community assets and resources in consideration of current trending and projected future conditions, and puts forth a shared community vision that is translated into goals and a policy framework.

A master plan typically covers a timeframe between 10 and 15 years, though shorter-term evaluations will help keep it current with changing needs of the community. It is also tightly integrated with other municipal plans and initiatives, such as an open space and recreation plan, housing production plan, etc. It is important to note that a master plan is not a zoning ordinance, a subdivision regulation, a budget plan, a capital improvement program, or other regulatory document. Rather, it is meant to guide the development of these implementation tools.

Consistent with Chapter 41 Section 81D of the General Laws of Massachusetts, this Master Plan addresses the following required subject-based elements as they relate to the Town of Sterling: Land Use and Development Patterns (Chapter 2); Economic Development (Chapter 3); Housing (Chapter 4); Natural, Cultural, and Historic Resources (Chapter 5); Open Space and Recreation (Chapter 6); Public Services and Facilities (Chapter 7); and Transportation and Circulation (Chapter 8).[2] Goals and actions relevant to these subjects are included within their respective chapters.

A key outcome of any master plan is its implementation program, which generally defines and schedules the recommended actions that contribute to the achievement of the goals defined under each element. For the Sterling Master Plan, the implementation program is provided in Chapter 9.

Planning Process

The Sterling Master Plan was developed over a period of several years beginning in April 2018 and ending in May 2022. The planning process is summarized below, arranged into seven focused efforts:

---

1   Massachusetts General Laws, Chapter 41, Section 81D.
2   For the Sterling Master Plan, VHB prepared the elements of Land Use and Development Patterns; Economic Development; Natural, Cultural, and Historic Resources; and Public Facilities and Services. MRPC prepared the elements of Housing, Open Space and Recreation, and Transportation and Circulation.

1

▸ **Obtaining Support from Town Leadership**

Initial funding for the hiring of a consultant to guide the master plan process came from Sterling's Community Compact funds, approved by the Select Board. The Select Board continued in its support of the planning process by approving the Sterling Master Plan Committee Charter, and appointing committee members. Two members of the Sterling Select Board served as liaisons to the Committee and the Sterling Town Planner served as staff to the Committee.

2

▸ **Setting Sterling's Shared Vision**

Based on initial community engagements including an open house and accompanying survey conducted in April 2019, which provided an understanding of the community's values and general priorities for its collective future, the Town of Sterling Master Plan Committee drafted and confirmed a Vision Statement (see page 1-8). This Vision Statement set the tone for the development of the rest of the Master Plan and reflects the Town as the community intends it to exist at the end of the planning horizon (i.e., in 10 to 15 years).

Also informing the development of the Vision Statement were "deeper dives" into some of the topics of particular interest to the community. This includes becoming age and dementia friendly and sustainability and climate resilience. Appendix A provides the presentations given to the Sterling Master Plan Committee on these topics early in the planning process.

3

▸ **Identifying Sterling's Challenges and Opportunities**

Baseline assessments were then prepared relevant to the subject-based elements covered in this Master Plan (e.g., Land Use and Development Patterns, Housing, etc.) through a review of past and recent planning documentation; data from local, state, and federal sources; and input received from stakeholders and the community at-large from the open house (April 2019), two community forums (November 2020 and April 2021), and three community surveys (April 2019, September/October 2020, and September/October 2021). The findings of these baseline assessments helped to further identify the opportunities and challenges the Town of Sterling faces, presently and in the future, to allow for more specific goal and action setting.

4

▸ **Preparing Supporting Goals**

Informed by both the Vision Statement and subject-based baseline assessments, and in conjunction with the remaining community engagements, the Sterling Master Plan Committee confirmed sets of goals by element. These goals shall guide the Town in its journey to achieving its preferred future state.

5

▸ **Developing and Prioritizing Supporting Actions**

Consideration of existing initiatives, best practices, and emerging technologies, along with ideas generated by stakeholders and the community at-large, contributed to the development of recommended actions (i.e., policies, programs, and projects) that support the achievement of the goals.

6

In October 2021, through Master Plan Survey #3, the community was asked to support the prioritization of recommended actions based on perceived levels of relative importance.

▸ **Creating an Accountable Implementation Program**

Implementation details for the recommended actions were defined, including their lead implementation entities and supporting partners, timelines, and estimated costs. Actions were further defined by their related subjects to realize potential implementation efficiencies and to maximize co-benefits.

7

▸ **Pulling it All Together for Review and Adoption**

A full draft of the Master Plan was provided to the public in March 2022. The Sterling Planning Board received comments on the Master Plan from that point on through May 2022, and adopted it in June 2022.

Note: The Transportation and Circulation element, prepared by MRPC, was reviewed and adopted by the Planning Board early in the planning process on January 21, 2021.

Engagement Process

Much of this Master Plan was developed during the COVID-19 pandemic, and though this presented challenges with respect to community engagement, many means of soliciting public input and feedback on the Sterling Master Plan were executed. As noted earlier, this involved one open house conducted in April 2019, two online community forums facilitated in November 2020 and April 2021, and three community surveys administered in April 2019, September/October 2020, and September/October 2021. Further, numerous articles/advertisements were published in *The Sterling Meetinghouse News* to keep the community apprised of the planning process, and a dedicated website on the Town's municipal website was established and updated throughout the planning process with draft/final deliverables and related documents. Lastly, in March 2022, the Town's public cable channel carried a presentation of the Sterling Master Plan, highlighting goals of the plan, and soliciting public feedback.

Open House

Early in the process of developing the Sterling Master Plan, the Town contracted with Barrett Planning Group, LLC, who supported obtaining preliminary input from stakeholders at an open house meeting held on April 4, 2019. This open house offered residents the opportunity to provide their thoughts on Sterling's strengths, weaknesses, and future potential.

At the open house, residents were able to vote on various statements about Sterling. Some of the results of this vote revealed that:

▸ Sterling needs new zoning on Route 12 to encourage well-planned commercial development

▸ Sterling needs to make town center revitalization its highest economic development priority

> ‣ Sterling needs to focus on improving the conditions of local roads

More information on the results of this early stakeholder engagement effort can be found in Appendix B.

Sterling Master Plan Committee

Working with Town staff, as well as the planning consultants, a 10-member Sterling Master Plan Committee was established by the Town to provide invaluable guidance and oversight throughout the planning process. Committee members also acted as liaisons to the larger Sterling community, reaching out to relevant local and regional groups and generally raising awareness of the project throughout the planning process.

The Sterling Master Plan Committee included representation from a variety of Town departments, boards, and committees, as well as residents. Membership included:

‣ Patty Page, Chairperson

‣ Chuck Plaisted, Vice Chairperson

‣ Liz Pape, Clerk

‣ Blaine Bershad

‣ Bob Dumont

‣ Carl Corrinne

‣ Jim French

‣ John Kilcoyne

‣ Maureen Cranson

‣ Rose Koven

Over the several year project schedule, the Sterling Master Plan Committee met as a body on more than a dozen occasions. Committee members also actively participated during the community forums.

Screenshot from the September 17, 2020 Sterling Master Plan Committee meeting.

Community Forums

Two community forums were planned, facilitated, and documented – the first on November 12, 2020 and the second on April 15, 2021. Both were widely advertised by the Town through means that included: postings on popular social media group pages; advertisements/articles in the local newspaper, *The Sterling Meetinghouse News*; email blasts to interested persons; announcements on the Town's municipal website and on the dedicated Master Plan webpage; and personal outreach conducted by the Sterling Master Plan Committee.

Advertisement for the first community forum, prepared for social media postings.

Considering in-person restrictions imposed by the State due to the COVID-19 pandemic, both public forums were held virtually. To gain the widest possible audience under these conditions, the public forums were held on Zoom in webinar format and broadcast on Sterling-Lancaster Community Television. Regardless of how participants viewed the meetings, all were provided opportunities to contribute to the discussion. Persons on the Zoom webinar were able to speak or use the platform's chat function, while those viewing via television live broadcast were provided the contact information of the then Town Planner and any comments received during the meeting were shared with the rest of the participants. Finally, all attendees/viewers were invited to participate in live polling through Poll Everywhere (https://www.polleverywhere.com/). Polling responses were accepted via a web browser or through SMS text message and shown in real-time.

What land use development approaches do you think are necessary for Sterling's future? Please choose your top two.

Land use development approach	Percentage
Greater accommodations for mixed use developments	17%
Reducing the loss of natural lands to new developments	23%
Preserving agricultural lands and activities	22%
Limiting development around water resources for water quality protection purposes	14%
Maximizing development potential of vacant/underutilized lands for their highest/best use	15%
Providing greater protections (e.g., buffers) between different types of uses	
Leveraging natural features to enhance community climate resilience	9%

Select live polling result from the first community forum

Community Surveys

Community input and feedback to inform the Master Plan was solicited through three online surveys. The first survey was administered by Barrett Planning Group, LLC in April 2019. This survey asked stakeholders to name/describe the features that make Sterling special and the aspects of the Town that they would like to see improved. A total of 115 persons took part in this first survey, the results of which can be found in Appendix B.

Results from Master Plan Survey #1 – 'What People Love' (Left), 'What People Want Addressed' (Right)

The second survey, administered by VHB and supported by MRPC, asked a broader set of subject-specific questions to assist in identifying Sterling's opportunities and challenges. This survey took place between September and October 2020, and received a total of 274 responses. Appendix C provides the results of this second survey.

A third and final survey was administered between September and October 2021 that sought feedback on the Master Plan's draft goals (Part I of survey) and actions (Part II of survey). Part II also asked stakeholders to identify the actions that are most critical to the success of Sterling to assist in implementation prioritization. A total of 134 persons responded to Part I of the survey, while 97 persons responded to Part II. Appendix C provides the results of both parts of this third survey.
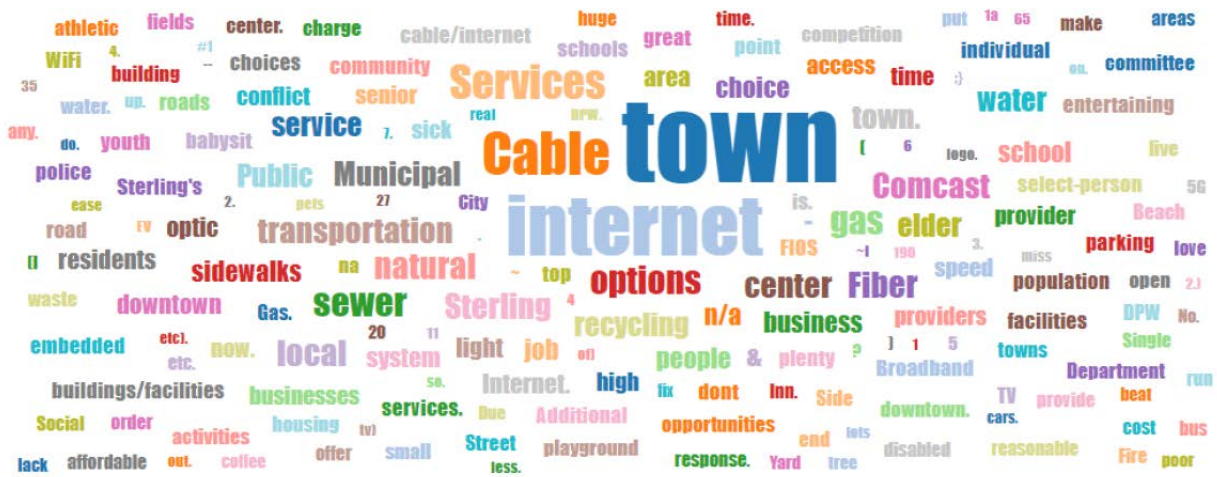
Select results from Master Plan Survey #2 – 'Are there services that you would like to see introduced by the Town or by private utilities?'

Sterling Meetinghouse News

The Sterling Master Plan Committee kept the public informed on the planning process by publishing frequent articles in the *Sterling Meetinghouse News*. These notices served to advertise opportunities for the community to get engaged and to share the results of those engagements. Example article titles included:

▸ Residents Weigh in on Master Plan – November 2020

▸ More Survey Responses Needed – September 2021

▸ Residents Choose Top Priorities for Master Plan – November 2021

TOWN NEWS

Residents Choose Top Priorities for Master Plan

By Liz Pape, Master Plan Committee

Thanks to the Sterling residents who filled out the latest Sterling Master Plan surveys. Here's what residents feel is most important to Sterling's future:

There were over 100 comments on the draft Goals and Recommended Actions.

Land Use:
- Expand Agricultural Preservation Restrictions (APRs) in Sterling.
- Consider adopting a bylaw to facilitate and regulate the development of ground or roof-mounted solar systems.

Housing:
- Expand housing options for Sterling's aging population.
- Adopt an Open Space Residential Development (or Cluster Development) Bylaw as a way to promote efficient land use for housing while preserving sensitive spaces.
- Update and revise the Protective Bylaws to permit senior, assisted-living housing and alternative housing types.

Economic Development:
- Revitalize the town center to include new or redeveloped dining establishments, bars, cafes, and ice cream shops. Provide and/or allow for more sidewalk and outdoor dining.
- Improve streetscapes: more pedestrian and bicycle accommodations, streetlights, landscaping, custom pavers.

Natural Resources:
- Advance efforts to fix the dams that are designated as a significant hazard.
- Establish green corridors that would connect natural areas and areas of open space for the purposes of providing habitat for wildlife and enhanced mobility and recreational opportunities for the town's residents and visitors.

Cultural/Historic Resources:
- Support year-round arts and cultural programming.
- Assess the need to repurpose Town-owned facilities for community need.

Open Space and Recreation:
- Plan a network of interconnecting hiking trails
- Create a maintenance plan for all town playing fields.

Public Facilities and Services:
- Work with the Sterling Municipal Light Department to deliver low-co renewable energy to the Sterling community.
- Expand high-speed internet access throughout Sterling.

Circulation and Transportation:
- Make neighborhoods, especially the town center, more pedestrian friendl
- Develop a Pavement Management System.

Want to learn about the other draft Goals and Recommended Actions f Sterling? All draft chapters of the Sterling Master Plan are available on the town website at https://www.sterling-ma.gov/sterling-master-plan/pages/maste plan-topics-meeting-documents

One last time to give your feedback on the Master Plan. Public comments on th full draft Master Plan are being requested between November 22 and Decembe 13. Watch the Master Plan website for information on how to submit you comments.

Article on the Sterling Master Plan in the November 10, 2021 issue of the *Sterling Meetinghouse News*

Sterling Master Plan Committee Website

In addition to the direct engagements described above, the Sterling Master Plan was supported by a dedicated website (https://www.sterling-ma.gov/sterling-master-plan-committee) within the Sterling municipal website. On this website, the Town provided information on the planning process and how/when to get engaged. This website also served as a document repository for the draft and final chapters of the Master Plan, as well as for related reports and studies.

Screenshot of the Sterling Master Plan Committee website.

Vision Statement

As previously described, based on early community input, the Sterling Master Plan Committee developed a Vision Statement that set the tone for the development of this Master Plan. This Vision Statement characterizes the community's shared ideal future for itself, and is written as follows:

Sterling is a community that values its natural beauty, agricultural history, and can-do spirit. We envision a sustainable and equitable future that protects our town legacy, purposefully promotes growth and development, embraces our ages and abilities, and encourages community engagement to enhance the quality of life for our diverse residents.

Land Use and Development Patterns

2

Introduction

Land use refers to how land is utilized by the community for activities such as economic and cultural development. Development patterns refer to how land uses are organized within a community - including the arrangement of agricultural, residential, industrial, commercial, and recreational uses, among other uses - and is the product of many years' worth of human interactions with the natural setting. An examination of a community's mix of land uses and development patterns helps to inform a fundamental understanding of its history and determine its needs relative to housing, economic development, environmental and cultural resources, open space and recreation, public facilities and infrastructure, and transportation.

This chapter of the Sterling Master Plan functions as an overarching component that incorporates considerations of all other elements. It presents historical and current day perspectives on land use in Town of Sterling to facilitate decision-making on how land resources should be strategically used to address the issues and opportunities identified through this planning process.

Baseline Conditions Analyses

Regional Context

The Sterling is a rural community in the north-central portion of Worcester County, Massachusetts, within the administrative area of the Montachusett Regional Planning Commission (MRPC) (see **Figure 2-1**). It is surrounded by the Town of Princeton to the west, City of Leominster to the north, Towns of Clinton and Lancaster to the east, and Towns of Boylston, Holden, and West Boylston to the south.

Sterling is one of 32 other communities within the Nashua River Watershed. As a result of the Town being at the confluence of two tributaries to the Wachusett Reservoir, namely the Quinapoxet and Stillwater Rivers, approximately 56% of the Town lies within the Wachusett

Reservoir watershed and falls under the jurisdiction of the Massachusetts Department of Conservation and Recreation's (DCR) Division of Water Supply Protection, with water body buffers being subject to Watershed Protection Act (WsPA) regulation and oversight. Other regionally significant water bodies intersecting Sterling's boundaries include Wekepeke Brook to the north, which flows to the Nashua River, and the related Wekepeke Aquifer. Given Sterling's important role in safeguarding regional water resources, approximately 25% of the Town is controlled by the DCR Division of Water Supply Protection. More information on Sterling's water resources can be found in Chapter 5, *Natural, Cultural, and Historic Resources*.

From a transportation perspective, Interstate 190 (I-190) bisects Sterling on a northeast-southwest course, while regional connections are also made through Route 12 (north-south), 62 (east-west), and 140 (north-south). Another regional connector is the privately-owned Sterling Airport, which is located north of I-190 along Greenland Road. This airport records approximately 135 general aviation operations per day, among which 71% are local (i.e., the aircraft are based at the airport) and 28% are transient (i.e., the aircraft are not based/are visiting the airport).[3] Sterling is not currently served by a public transit service; however, fixed route bus service is provided by the Montachusett Regional Transit Authority in neighboring Leominster. Additionally, Sterling is located equidistant between two commuter rail lines, the Fitchburg Rail Line which runs to North Station in Boston, and the Worcester/Framingham Rail Line which runs to South Station in Boston. More information on Sterling's transportation networks can be found in Chapter 8, *Transportation and Circulation*.

Other regional partnerships include the Town's participation in the Wachusett Regional School District, along with the Towns of Holden, Rutland, Paxton, and Princeton, as well as regional outdoor recreation areas including at East Lake Waushacum, Leominster State Forest, and the Sterling Rail Trail, which is a component of the larger Mass Central Rail Trail system.

Historical Land Cover/Land Use

Sterling has and continues to be a rural community predominantly defined by its forests, farms, and vast open spaces, alongside its scenic roadways offering views of the Nashua River Valley and Wachusett Mountain, as well as agricultural operations. As shown in **Table 2-1** and **Figure 2-2**, however, trends in land cover/land use between 1971 and 2005 have shown significant declines on a percentage basis in agriculture (-37.3%) and open undeveloped lands (-26.4%), with the most significant gains in industrial/transportation/mining (165%) and commercial (153.8%) lands.[4, 5] This underscores the community's unease about such land use conversions. As demonstrated by the results of Master Plan Survey #2, over two-thirds of survey respondents indicated that they were "very concerned" or "extremely concerned" with the loss of natural lands to new development.

_____

3   AirNav.com. (2020). 3B3 – Sterling Airport. Retrieved 21 January 2021, from https://www.airnav.com/airport/3B3. December 31, 2020.
4   MassGIS (Bureau of Geographic Information). MassGIS Data: Land Use (1951-1999).
5   MassGIS (Bureau of Geographic Information). MassGIS Data: Land Use (2005).

Town of Sterling Master Plan

Figure 2-1. Regional Context

Legend

Town of Sterling
MRPC* Communities
Municipal Boundaries

MRPC = Montachusett Regional Planning
Commission

STERLING

MASTER PLAN

Date Created: 02/09/2021

Reference System: NAD 1983 State Plane
Massachusetts Mainland FIPS 2001

New Hampshire

WARWICK · ROYALSTON · WINCHENDON · ASHBURNHAM · ASHBY · TOWNSEND · PEPPERELL · DUNSTABLE · ORANGE · ATHOL · TEMPLETON · GARDNER · FITCHBURG · LUNENBURG · SHIRLEY · AYER · GROTON · TYNGSBOROUGH · WESTFORD · PHILLIPSTON · WESTMINSTER · LEOMINSTER · LITTLETON · NEW SALEM · PETERSHAM · HUBBARDSTON · PRINCETON · HARVARD · LANCASTER · BOXBOROUGH · ACTON · STERLING · BOLTON · MAYNARD · STOW · BARRE · CLINTON · BERLIN · HUDSON · SUDBURY · RUTLAND · WEST BOYLSTON · HOLDEN · BOYLSTON · HARDWICK · OAKHAM · NORTHBOROUGH · SOUTHBOROUGH · FRAMINGHAM · NEW BRAINTREE · PAXTON · MARLBOROUGH · WARE · WEST BROOKFIELD · NORTH BROOKFIELD · WORCESTER · SHREWSBURY · WESTBOROUGH · ASHLAND · BELCHERTOWN · SPENCER · LEICESTER · HOPKINTON · EAST BROOKFIELD · GRAFTON · AUBURN · MILLBURY · PALMER · WARREN · BROOKFIELD · MILFORD · MEDWAY · MONSON · BRIMFIELD · STURBRIDGE · CHARLTON · OXFORD · SUTTON · NORTHBRIDGE · HOLLISTON · FRANKLIN · SOUTHBRIDGE · UXBRIDGE · MENDON · BELLINGHAM

0 · 0.5 · 1 Miles

Sources: Esri, Airbus DS, USGS, NGA, NASA, CGIAR, N Robinson, NCEAS, NLS, OS, NMA, Geodatastyrelsen, Rijkswaterstaat, GSA, Geoland, FEMA, Intermap and the GIS user community

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With respect to residential lands, Sterling has, and continues to be, dominated by low-density residential development. Between 1971 and 2005, in each year that Bureau of Geographic Information (MassGIS) has documented land cover/land use data, low-density residential (i.e., units on lots larger than 1/2 acre) has accounted for approximately 70% or more of all residential lands in the Town. Overall, residential lands in Sterling increased by 49.1% between 1971 and 2005, playing a more substantial role in the historical conversion of open undeveloped lands and agriculture during this period than commercial and industrial uses combined.

As shown in **Table 2-1** and **Figure 2-2**, based on MassGIS land cover/land use data, Sterling saw an increase of 96.3% in low-density residential (i.e., units on lots larger than 1/2 acre), while medium density residential (i.e., units on lots between 1/4 acre and 1/2 acre) and high density residential (i.e., units on lots less than 1/4 acres) fell by 63.4% and 46.7%, respectively. These data show that the declines in medium and high density residential can be largely attributed to low-density residential conversions. This is potentially the result of a rezoning of the Rural Residential and Farming (RRF) district that occurred in the late 1990s. This rezoning saw minimum lot requirements increase from 1 acre to 2 acres and frontage limits increase from 180 feet to 225 feet. Another potential explanation lies in how the data were derived, as more detailed delineations were provided in 2005 based on parcel-specific data.

In addition to larger increases in commercial and industrial/transportation/mining, urban open/institutional/recreation lands also increased significantly on a percentage basis (158.7%). Principally contributing to this increase was opening of the Sterling National Country Club (and golf course) in 1991, the site of which was formerly natural land/undisturbed vegetation, as well as the development of recreational fields at Chocksett Middle School and the conversion of some areas of Davis Farmland from agriculture to recreation.

Table 2-1. Breakdown of Land Cover/Land Use; Town of Sterling (1971, 1985, 1999, 2005)

Land Use/Cover Type	1971 (acres)	1985 (acres)	1999 (acres)	2005 (acres)	Change (%)
Agriculture	3,533.5	3,272.5	2,774.5	2,214.4	-37.3%
Open Undeveloped Land	779.6	736.8	871.1	574.1	-26.4%
Commercial	41.3	51.8	73.2	104.8	153.8%
Industrial/Transportation/Mining	218.7	800.3	795.6	579.5	165.0%
Higher Density Residential (multi-family developments and units on lots smaller than 1/4 acre)	51.9	51.9	84.2	27.7	-46.7%
Medium Density Residential (units on 1/4 - 1/2 acre lots)	386.0	608.1	831.2	141.4	-63.4%
Low Density Residential (units on lots larger than 1/2 acre)	1,020.6	1,550.4	2,126.2	2,005.2	96.5%
Urban Open/Institutional/Recreation	123.0	228.0	336.6	318.1	158.7%
Natural Land/Undisturbed Vegetation	13,271.1	12,122.8	11,529.9	13,393.6	0.9%

Land Use/Cover Type	1971 (acres)	1985 (acres)	1999 (acres)	2005 (acres)	Change (%)
Water	805.8	808.9	808.9	872.7	8.3%
Total	20,231.5	20,231.5	20,231.5	20,231.5	0.0%
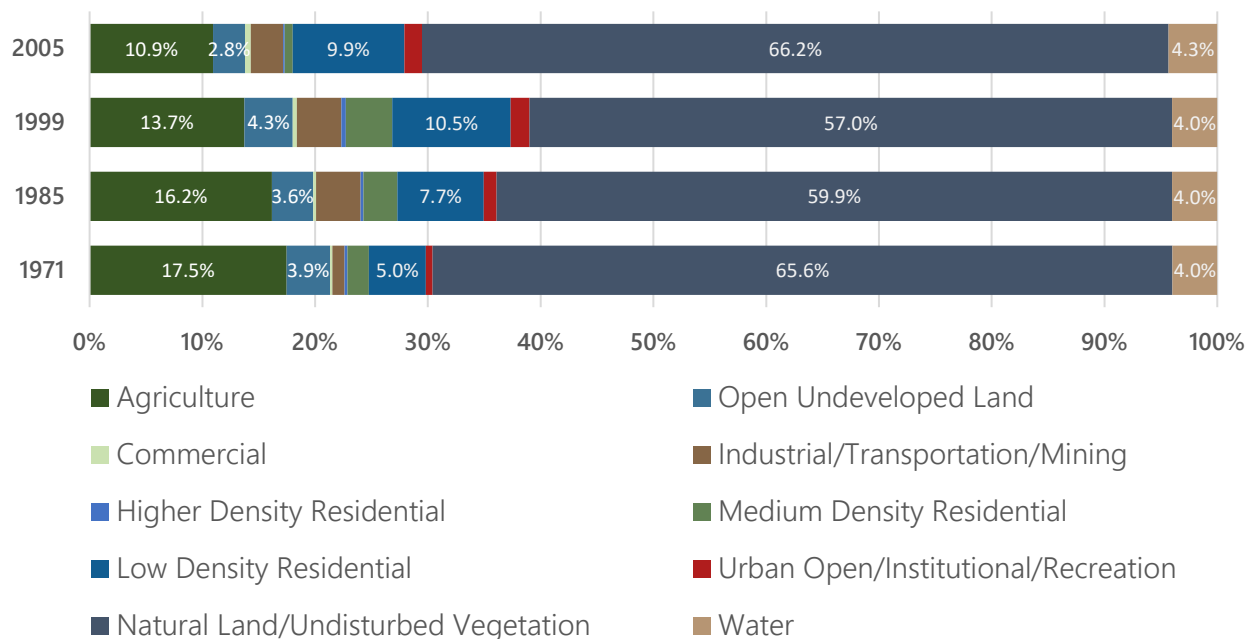
Figure 2-1. Breakdown of Land Cover/Land Use; Town of Sterling (1971, 1985, 1999, 2005)

Source: MassGIS

For additional historical reference, a breakdown of land cover/land use data for 2016 is illustrated in **Figure 2-3**. These data also derive from MassGIS; however, based on the manner by which they were developed, the dataset does not conform to the classification schemes or the boundaries of the datasets presented above (i.e., 1971, 1985, 1999, 2005). Accordingly, it cannot be directly compared. Nevertheless, **Figure 2-3** continues to show the Town's dominant development pattern, generally defined by an abundance of forests, farms, and open spaces, and primarily low-density residential development and limited commercial and industrial activities.

Town of Sterling Master Plan

Figure 2-3. Land Cover/Use (2016)

Legend

Land Cover/Land Use (2016)

- Residential - Single Family
- Residential - Multi-Family
- Residential - Other
- Commercial
- Industrial
- Mixed Use - Primarily Residential
- Other Impervious
- Right-of-way
- Cultivated
- Pasture/Hay
- Developed Open Space
- Deciduous Forest
- Evergreen Forest
- Grassland
- Scrub/Shrub
- Bare Land
- Forested Wetland
- Non-forested Wetland
- Water
- Aquatic Bed

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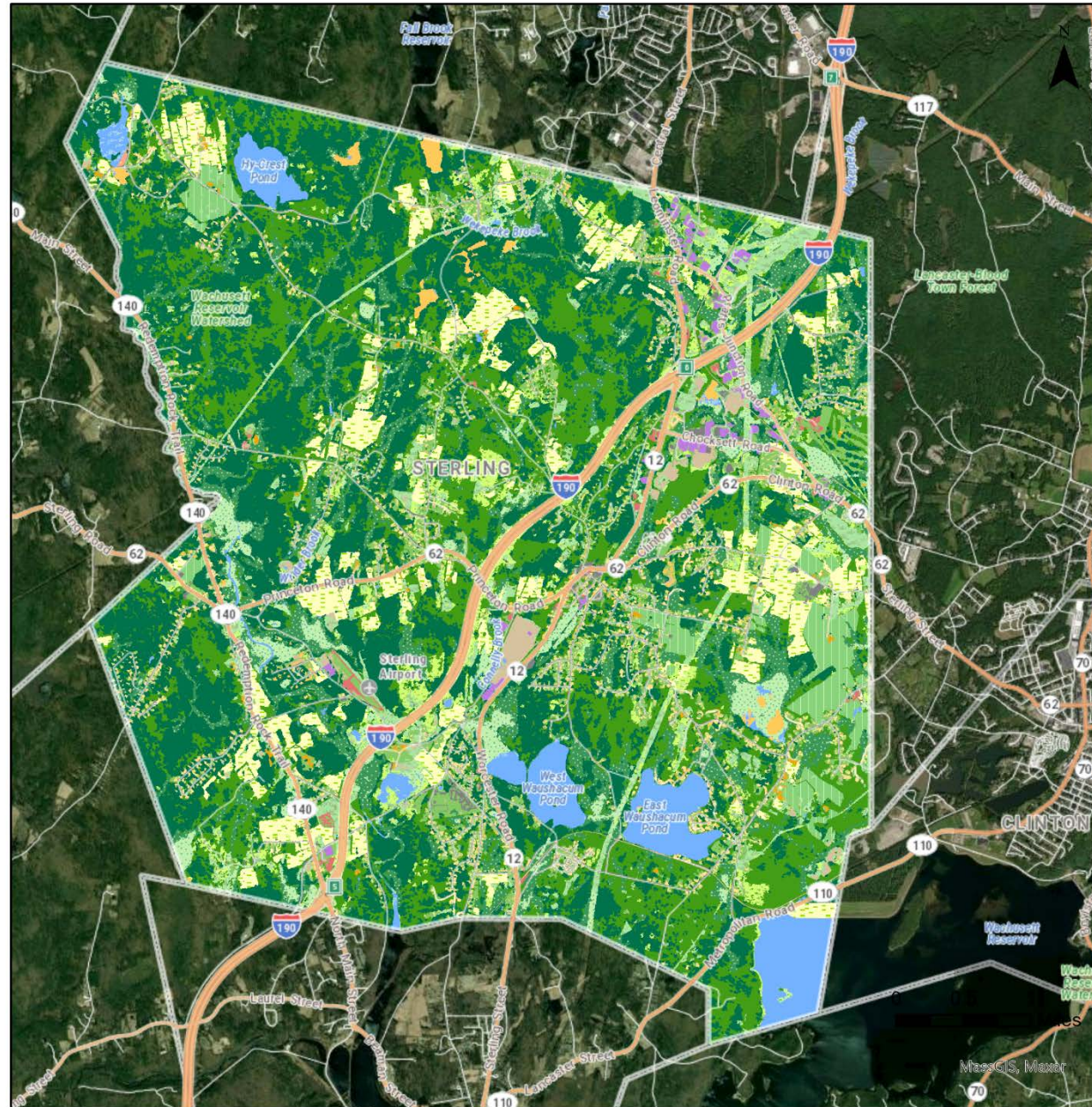
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Existing Land Use

Based on property classification codes embedded within the Town's 2019 Assessors database, **Figure 2-4** illustrates, and **Figure 2-5** breaks down current land uses in Sterling. The largest land uses in the community are residential, which comprises 44% of all land, and exempt property (i.e., land totally exempt from taxation), which comprises 31.6%.

Among the residential land uses, 58.4% is single family with another 22.9% classified as condominiums (i.e., land held in common). In terms of multifamily housing, 2.4% of residential properties contain two-family units, 1.1% contain three-family units, and 0.9% contain four or more units. In addition, Sterling has four mobile home units.

The vast majority of exempt property includes lands owned by the Commonwealth of Massachusetts, some of which are zoned for – but are prohibited from - commercial (approximately 50 acres) and light industrial uses (more than 200 acres). This ownership by the State eliminates the development potential of these properties, generally reducing the Town's ability to generate economic value. Most of these properties fall under the jurisdiction of the DCR, specifically the Division of Water Supply Protection. This is on account of the presence of the Wachusett Reservoir and its watershed, which has been afforded Outstanding Resource Water (ORW) protection under the Massachusetts Surface Water Quality Standards (WQS), 314 Code of Massachusetts Regulations (CMR) 4.00. In accordance with the WsPA, DCR regulates land use and activities within critical areas of the Wachusett Reservoir watershed. These include areas within 400 feet of the reservoir and 200 feet of its tributaries and surface waters (i.e., the Primary Protection Zone) and between 200 and 400 feet of its tributaries and surface waters, and on land within flood plains, over some aquifers, and within bordering vegetated wetlands (i.e., the Secondary Protection Zone). Notably, aside from the DCR, the Town of Clinton owns over 450 acres in the vicinity of the Heywood Reservoir and the Lynde, Spring, and Fitch Basins.

One identified trend in residential development, is the "McMansionization" (i.e., the development of homes that feel too large for its property and out of scale with the homes that surround it) on parcels around East Lake Waushacum. Such homes are being developed through Special Permits issued by the Zoning Board of Appeals.

Though limited in comparison to its residential and exempt properties, commercial activities in Sterling predominantly occur along Route 12, with some large outliers such as the Sterling National Golf Course along Albright Road and Sterling Village along Dana Hill Road. Industrial activities are largely concentrated along Chocksett Road and Pratts Junction Road – in the vicinity of the CSX Fitchburg Secondary freight rail line – and include operations such as Biomedical Polymers. The community has expressed interest in broadening the Town's economic base, while maintaining its character, and sees the areas along Route 12 and near Chocksett Road/Pratts Junction Road as being suitable for such development. For more information on commercial and industrial activities in Sterling, see Chapter 2, *Economic Development*.

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Town of Sterling Master Plan

Figure 2-4. Existing Land Use

Legend

Land Use Type

- Mixed Use
- Residential Single Family
- Residential - Other
- Commercial
- Industrial
- Chapter 61 - Forest Land
- Chapter 61A - Agricultural
- Chapter 61B - Recreational
- Exempt Property

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Date Created: 02/09/2021
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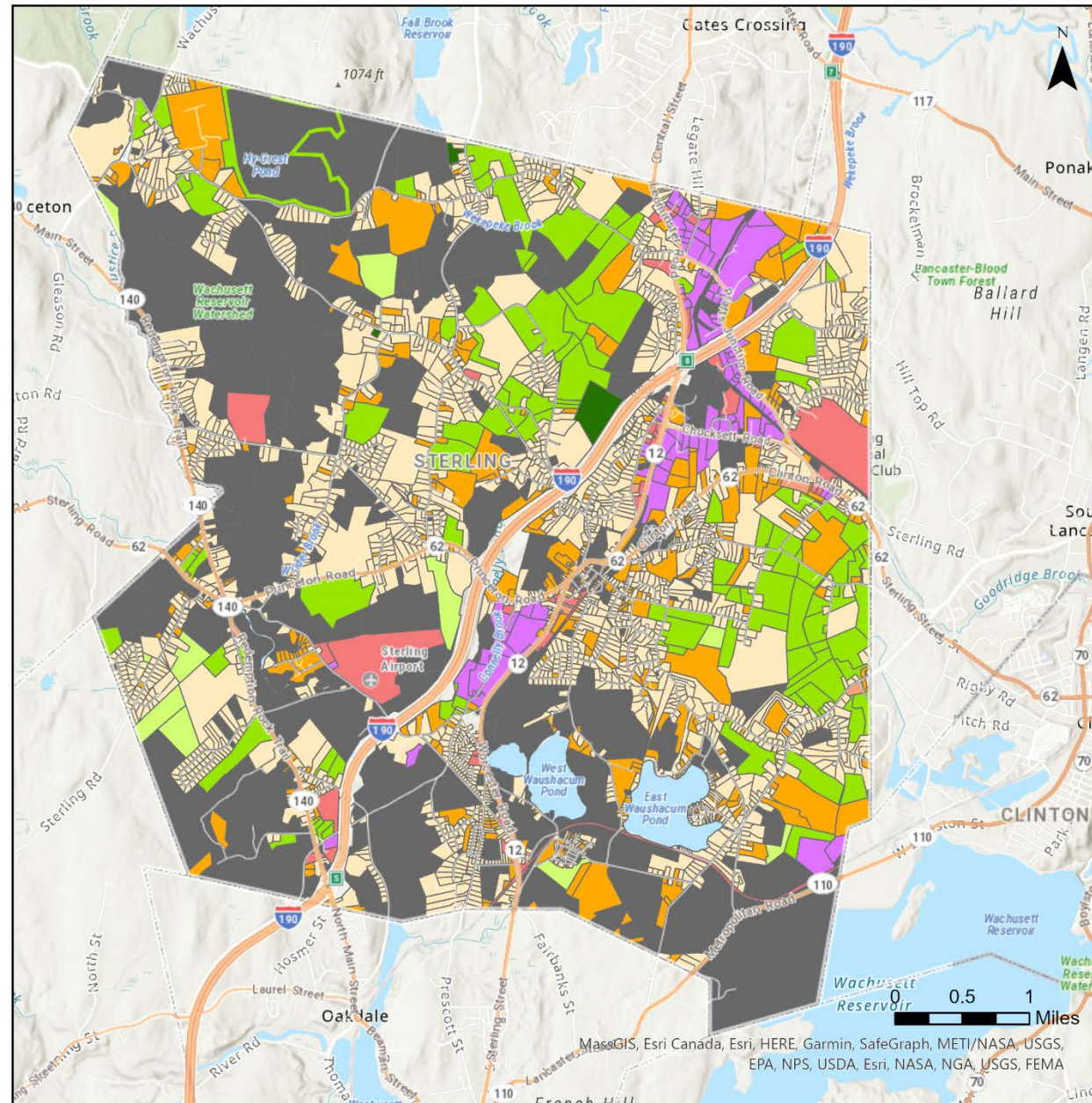
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The importance of agriculture to Sterling is evident through its many productive lands, including truck crops (i.e., vegetables), field crops (i.e., hay, wheat, tillable forage cropland, etc.), orchards, productive woodlands, pastures, and nurseries. Such lands are widely distributed throughout the Town, but general concentrations exist in the central portion, north of Interstate 190 and along the Town's eastern edge in the vicinity of Davis Farmland. Aside from Davis Farmland, some of the other larger agricultural operations in Sterling include Meadowbrook Orchards on Chace Hill Road, Sunny Crest Orchard on Hawkins Lane, and Clearview Farm on Kendall Hill Road
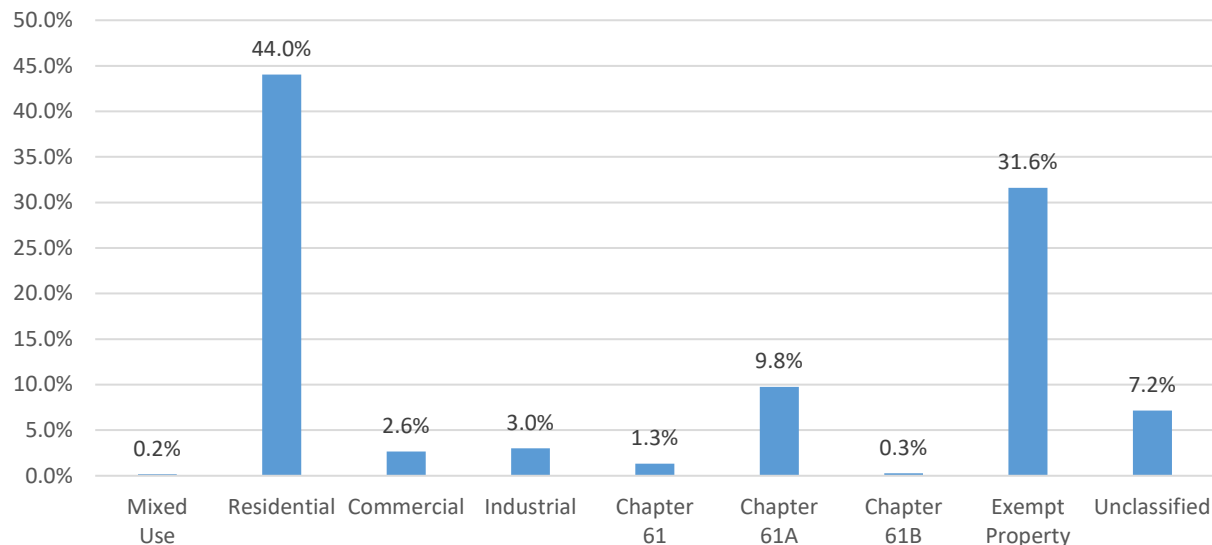
Source: Town of Sterling Assessors' Office, 2019 Property Database

Note: Properties categorized as "Unclassified" represent lands that are transportation-based (i.e., roads) and waterbodies.

Figure 2-2. Breakdown of Property Type Classification Codes by Land Area; Town of Sterling (2019)

Chapter 61 Program Land

Chapter 61 programs (61 for forest land, 61A for agricultural land, and 61B for open space and recreational land), are afforded by the state to assist landowners with the cost of maintaining their working forests, farms, and natural areas. They provide property tax incentives in exchange for keeping some or all of a qualifying property undeveloped for a specified time period. In Sterling, Chapter 61 program lands accounted for 11.4% of the Town's jurisdictional area in 2019, with lands under the Chapter 61A program accounting for 85.9% of that value.[6]

The community in Sterling has raised concern about recent small releases and subsequent residential conversions of lands under the Chapter 61A program, particularly in the area of Justice Hill Road. With some exceptions, the Chapter 61 programs afford towns with a first refusal option that is triggered when a chapter parcel is converted to non-chapter use while enrolled or within one year of program withdrawal. Though presented with its right of first refusal, Sterling has not purchased any of the lands in the area of Justice Hill Road, as they

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[6] Values represent full parcel acreage and do not account for any exclusions (e.g., residences and other structures).

have been too small to be cost-beneficial. The community has expressed an interest in developing a more proactive process by which the Town can address Chapter 61 program withdrawals, such as by prioritizing currently enrolled Chapter 61 program lands for purchase and developing strategies to fund these purchases well ahead of any withdrawal requests.

Vacant Land

As of 2019, parcels in Sterling classified as some form of vacant amounted to about 1,272 acres or 5.6% of Sterling's total acreage. Most of these lands (1,067.2 acres) are classified as residential, while vacant industrial lands account for just 174.5 acres and vacant commercial lands account for 30.6 acres. With respect to development potential, 53.3% of vacant lands in Sterling have been determined to be developable or potentially developable, while the remaining 46.7% has been determined to be undevelopable (e.g., properties with an existing easement).

Table 2-2 breaks down Sterling's vacant land uses as classified by the Town's 2019 Assessors' database (i.e., parcels with land use codes 130, 131, and 132 [residential]; 211, 220, and 230 [open space]; 390, 391, 392, and 393 [commercial]; and 440, 441, and 442 [industrial], as present). In addition to these properties, the Town owns approximately 344 acres of land classified as vacant (i.e., parcels with land use code 930). The largest of these municipally owned vacant properties, however, are set aside for conservation purposes or are otherwise heavily forested (e.g., the West Sterling Woods, Sterling Town Forest), and are not likely to be released for development.

Further, as mentioned, the Town has many properties currently enrolled in the Chapter 61 programs, amounting to nearly 2,600 acres. The Chapter 61 programs, however, are only temporary land protection measures, and accordingly, enrolled properties are vulnerable to market pressures for development. In Sterling, these market pressures have primarily driven new residential developments.

Table 2-2. Breakdown of Vacant Lands; Town of Sterling (2019)

Land Use	Vacant Acres	% of Total Vacant Acres	% of Total Town Acres
Residential	1,067.2	83.9%	4.7%
Developable Land	364.8	28.7%	1.6%
Potentially Developable Land	152.0	11.9%	0.7%
Undevelopable Land	550.4	43.3%	2.4%
Commercial	30.6	2.4%	0.1%
Developable Land	17.7	1.4%	0.1%
Potentially Developable Land	1.6	0.1%	0.0%
Undevelopable Land	11.3	0.9%	0.1%
Industrial	174.5	13.7%	0.8%
Developable Land	58.5	4.6%	0.3%
Potentially Developable Land	83.6	6.6%	0.4%
Undevelopable Land	32.4	2.5%	0.1%
Total	1,272.4	100%	5.6%

Source: Town of Sterling Assessors' Office, 2019 Property Database

Figure 2-6 illustrates the geographic distribution of the vacant lands in Sterling determined to be "Developable" or "Potentially Developable." It also shows properties enrolled in the Chapter 61 programs that are vulnerable to development.

Existing Land Use Policies and Regulations

Protective (Zoning) Bylaws

First adopted in February 1957 and last revised in May 2019, Sterling's Protective Bylaws aim to promote the general welfare of the Town; protect the health and safety of its inhabitants; encourage the most appropriate use of land; preserve the cultural, historical, and agricultural heritage of the community; increase amenities; and reduce the hazard from fire by regulating the location and use of buildings and the area of open space around them. To do so, these bylaws provide use, dimensional, and timing regulations (see Article 2 of the Protective Bylaws).

Sterling's Protective Bylaws divide the Town into six districts:

▸ Rural Residence and Farming (RRF)

▸ Neighborhood Residence (NR)

▸ Commercial (C)

▸ Town center (TC)

▸ Light Industrial (LI)

▸ Performance Zone I

2-16

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Town of Sterling Master Plan

Figure 2-6. Vacant Land

Legend

☐ Parcel Boundaries

🟩 Chapter 61 Program Lands

Developable or Potentially
Developable Vacant Lands

🟧 Residential

🟥 Commercial

🟪 Industrial

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Date Created: 02/09/2021
Date Revised: 05/10/2021

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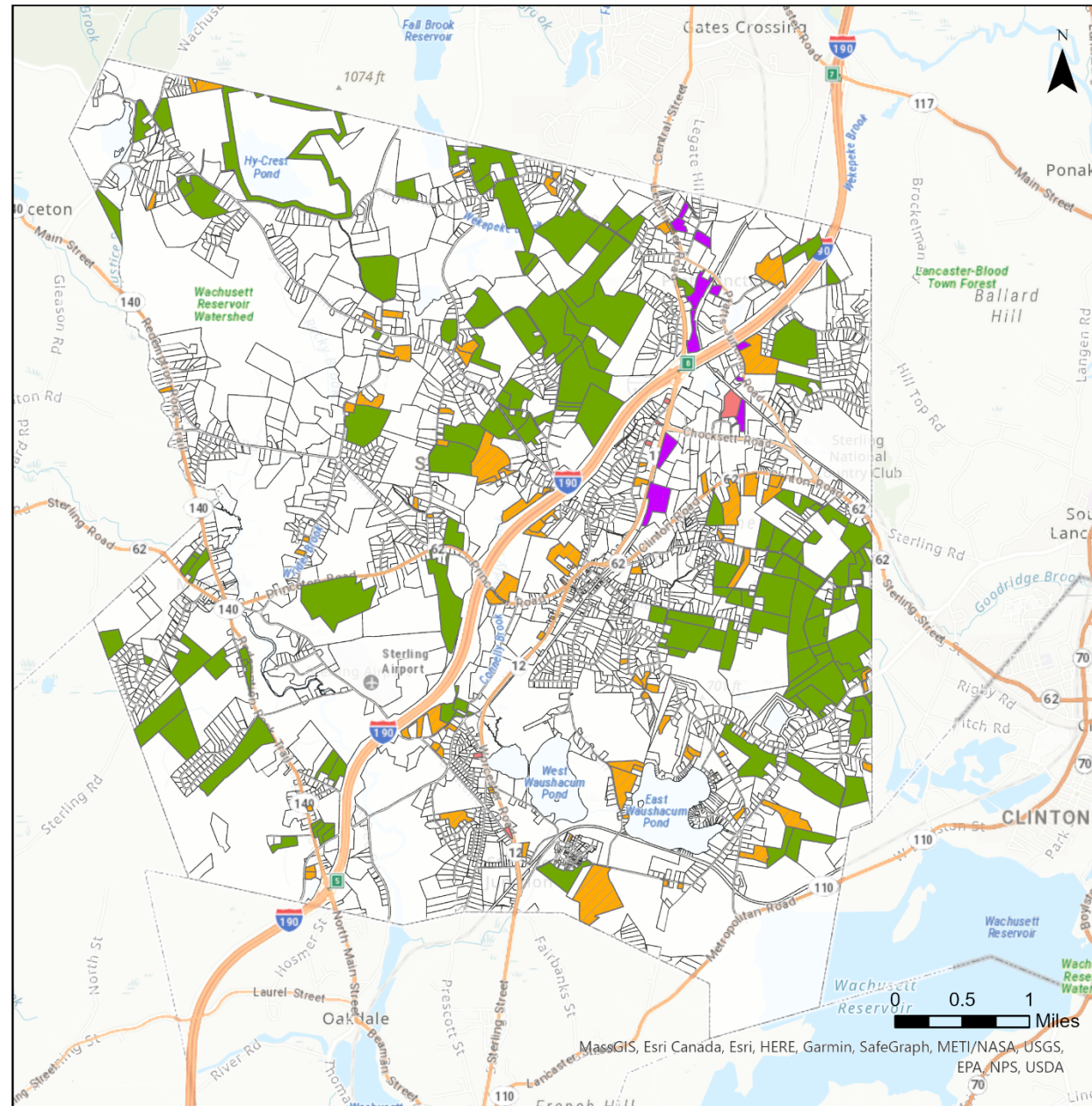
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As quantified in **Figure 2-7** and illustrated in **Figure 2-8**, among the six districts, RRF is by the far the most prevalent, accounting for nearly 88% of Sterling. This is both indicative of, and a contributor to the Town's rural character. In Master Plan Survey #1, the rural character was the top response for what people love most about Sterling.
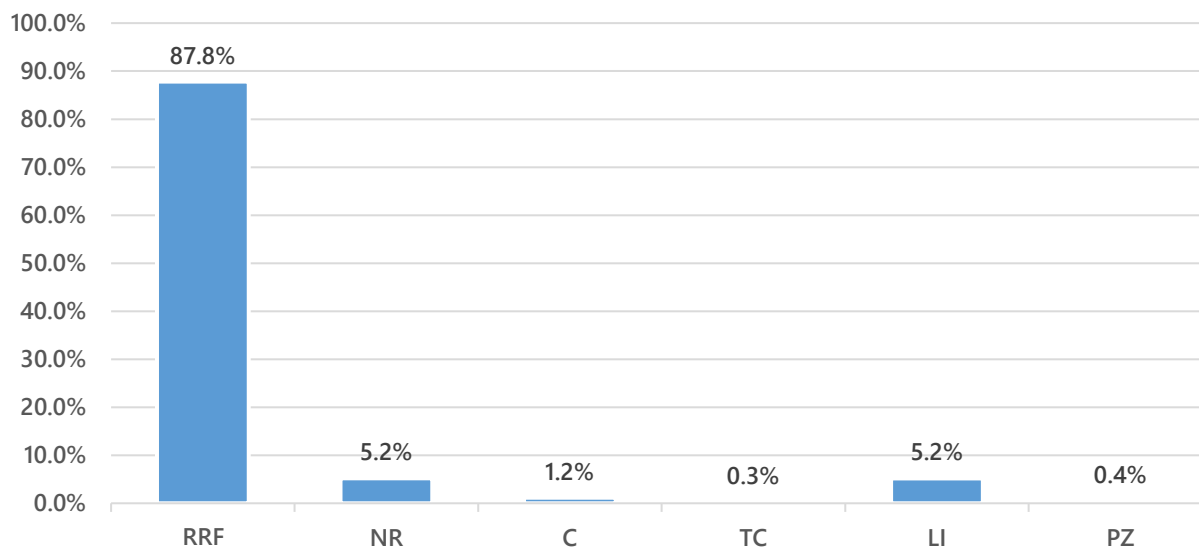
Source: CAI Technologies, 2020

Figure 2-3. Breakdown of Base Zoning Districts; Town of Sterling (2020)

Single-family and two-family homes are the only residential uses allowed by-right (in the RRF, NR, and C districts), and such uses require a minimum lot size of 2 acres with 225 feet of frontage in the RRF district[7] and 0.5 acre with 125 feet of frontage the NR district. Notably, multi-family dwelling units and accessory apartments are only allowed in the RRF, NR, and TC districts by Special Permit; accessory apartments are additionally allowed in the C district by Special Permit. As noted in the 2019 Update to the Town *of Sterling Housing Production Plan*, these factors combined have historically incentivized developers to produce single-family homes, which do not serve all households.

It should be noted that the Town adopted a new bylaw at the 2021 Annual Town Meeting, whereby accessory dwelling units are allowed by right within a single-family dwelling unit, including an attached garage, in the RRF, NR, C and TC districts (not to exceed 800 square feet) or allowed via Special Permit if detached in the RRF, NR, C and TC districts (not to exceed 800 square feet). If counted towards the Town's Subsidized Housing Inventory, accessory dwelling units would be able to exceed 800 square feet (up to 1,200 square feet).

The Housing Production Plan also notes that there are vacant parcels in Sterling that cannot be developed because they do not meet minimal dimensional requirements (e.g., minimum lot size, frontage, rear, and side yard requirements), as well as calls attention to the lack of by-right cluster zoning or open space residential/natural resource protection bylaws that would provide mutual benefits to housing development and open space protection.

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7   In 1998, Town Meeting passed a zoning amendment to increase the minimum lot size in the RRF district from 1 to 2 acres and increased frontage from 180 feet to 225 feet.

Performance Zone I, which encompasses 23 parcels in the vicinity of the intersection of Dana Hill Road and Route 140, is a form of performance zoning. Performance zoning focuses on quantifying performance standards to avoid or minimize impacts to adjacent or proximate properties, as opposed to regulating general classes of use. In Sterling, Performance Zone I was introduced for growth management purposes in the 1990s.

Within Performance Zone I, uses are classified as "Prohibited" (i.e., uses prohibited because of difficulty in predicting or mitigating adverse impacts, or the likelihood of non-compliance); "Non-Performance" (i.e., uses allowed in the RRF district without a Special Permit); "Performance" (i.e., uses except Prohibited and Non-Performance Uses); and "Special Permit Performance" (i.e., uses for which there is a secondary, less stringent Performance Standard). Performance and Special Permit Performance Uses require review and approval by the Planning Board, a process that is based on:

▸ Protecting the Town's environmental resources and aesthetic values by minimizing traffic congestion and nuisances.

▸ Protecting the municipal services and infrastructure capacities by limiting impacts on them.

▸ Encouraging appropriate land uses by permitting highway corridor uses sensitive to existing residences.

▸ Encouraging site design sensitive to environmental constraints, adjacent land uses and traffic impacts.

In practice, Performance Zone I has not been utilized as originally envisioned when it was adopted in July 1995. This is likely due, in part, to its complexity; it has been reported to be difficult to understand. Consequently, in 2021, the Town sought to re-zone a portion of this district to the Commercial zoning district. This measure was not approved at the Annual Town Meeting that year, but may be revisited in the future.

Overlay Districts

In addition to these base districts, four overlay districts provide supplemental regulations and standards. They include the Flood Plain district, the Stillwater River Protection district, the Groundwater Protection districts, and the Wireless Communications Facilities district (see **Figure 2-9**). The Flood Plain district primarily includes all special flood hazard areas designated as Zone A, A1-30 on the Sterling Flood Insurance Rate Maps (FIRMs), which includes areas of base flood elevation (BFE) - also referred to as the 1% annual chance flood or 100-year flood. The purpose of the Flood Plain district is to protect the public health and general welfare from the hazards of flooding, and to this end, uses within this overlay district are required to meet additional requirements, including those of the State Building Code concerning construction within floodplains. It is important to note that, in consideration of a changing climate and associated future impacts, good practice in planning has been to also consider moderate flood hazard areas, i.e., areas between the 100-year flood and the 500-year flood.

Town of Sterling Master Plan

Figure 2-8. Base Zoning Districts

Legend

☐ Parcel Boundaries

Zoning Districts (Base)

- 🟩 Commercial
- 🟪 Light Industrial
- 🟥 Neighborhood Residential
- 🟨 Performance Zone I
- ☐ Rural Residential and Farming
- 🟧 Town Center District

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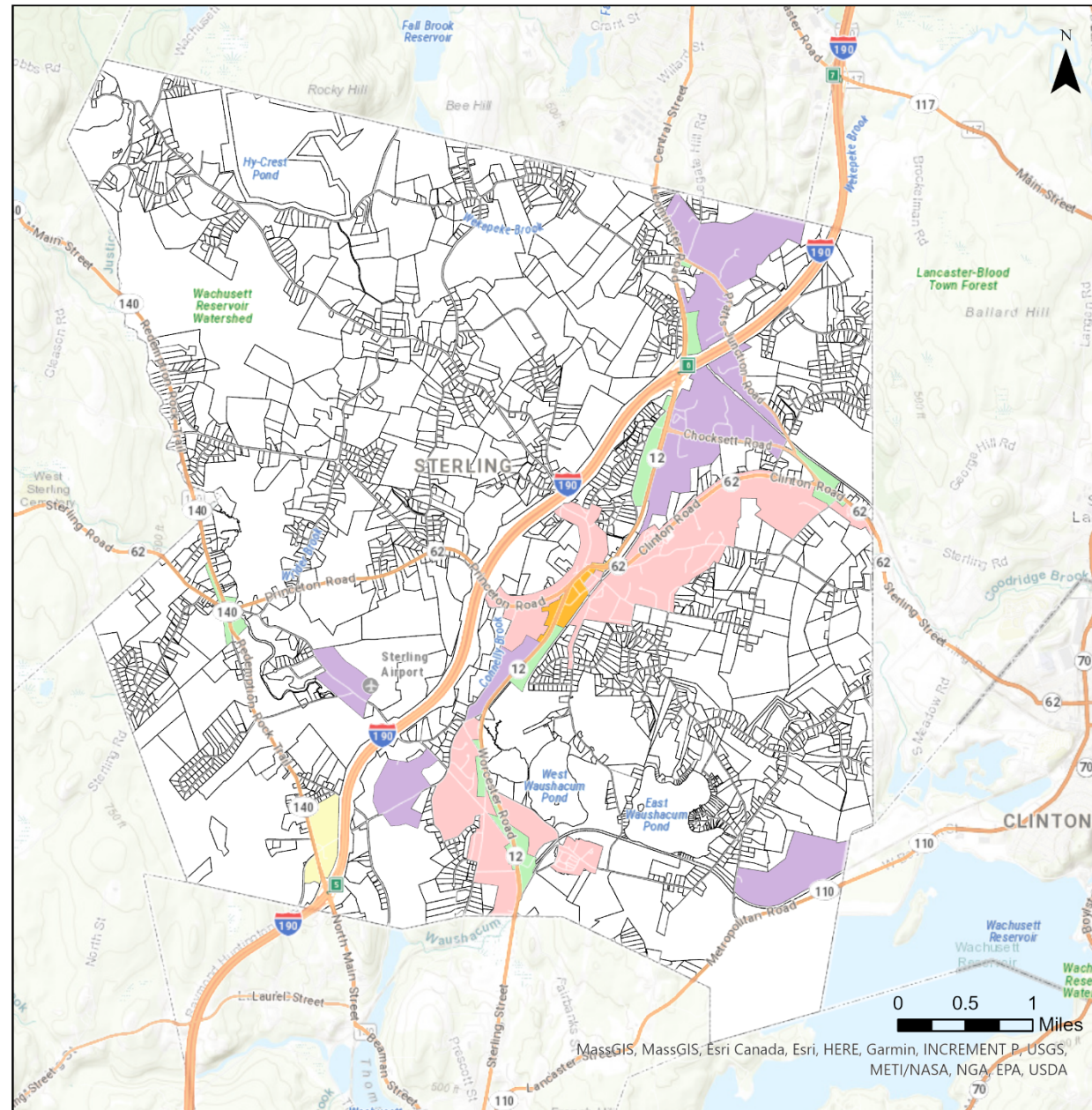
Town of Sterling Master Plan

Figure 2-9. Zoning Overlay Districts

Legend

| | Parcel Boundaries |

Zoning Districts (Overlay)

| | Floodplain |
	Water Protection
	Wireless Communication
	Groundwater Protection

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Date Revised: 08/31/2021

Reference System: NAD 1983 State Plane
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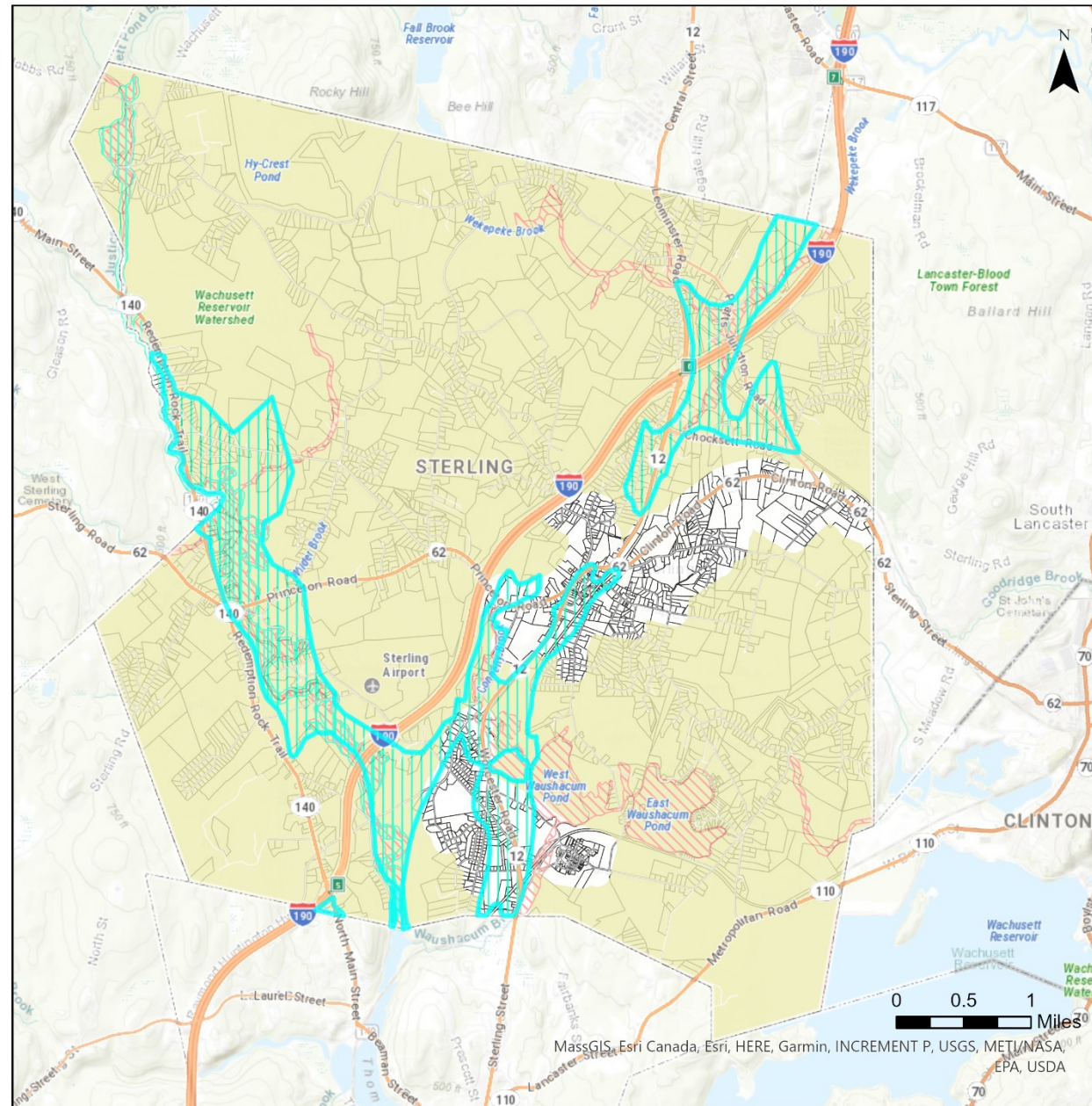
The Stillwater River Protection district covers the waters of the Stillwater River, Justice Brook, and Washington Pond, as well as a 100-foot buffer from each bank. It also covers a 100-foot buffer from the edge of wetlands contiguous to these waterbodies included in Zones A and A5 on the Sterling FIRMs. The purpose of the Stillwater River Protection district is to preserve the Stillwater River, associated wildlife and river resources, and other public interests protected by the Wetlands Protection Act. No structure of any kind may be located within this district with the exception of docks which may be constructed, with prior approval of the Sterling Conservation Commission, in keeping with state and local law.

The Groundwater Protection districts primarily seek to preserve and maintain the quality and quantity of the groundwater underlying Sterling. Groundwater Protection districts cover all land areas that overlie portions of the Stillwater Aquifer that have a potential well yield greater than 100 gallons per minute as shown on the U.S. Geological Survey Hydrological Investigation Atlas 276, as well as all land areas which are within either a delineated Zone II or are within a one-half mile radius of an existing municipal well which has no delineated Zone II. Sterling's Protective Bylaws outline prohibited uses within any Groundwater Protection district, as well as detail additional requirements for permitted uses. The Groundwater Protection districts supersede the former Aquifer and Water Resource Protection district, which was characterized by many in the community as onerous, at the 2021 Annual Town Meeting. The new Groundwater Protection districts are based on the Massachusetts Department of Environmental Protection's Model Groundwater Protection District Bylaws.

The Wireless Communications Facilities district aims to protect Sterling's unique community character by establishing areas in which wireless communications facilities (e.g., cell towers) can be located. This district provides for the safe and appropriate siting of such facilities consistent with the Telecommunications Act of 1996, as well as minimizes visual impacts from such facilities on residential districts and scenic areas. In RRF, LI, and C districts, no wireless communication facility is allowed within 500 feet from the boundary of a NR district.

Route 12 Zoning Analysis

In 2016, MRPC, with assistance from the Sterling Economic Development Committee, completed the *Route 12 Corridor Economic Development and Zoning Analysis*. The scope of this study was to review and analyze the zoning along Route 12 within Sterling and develop recommendations for any changes to the pre-existing zoning. Among its findings, this study identified the following issues and opportunities:

▸ The northern portion of Route 12 intersects with Interstate 190, and accordingly, presents opportunities for large commercial and industrial developments and redevelopments.

▸ The TC district is surrounded on three sides by the NR district, which prohibits most commercial uses.

▸ The TC district prohibits mixed use developments, which would promote economic activity and diversity. Further, the district has a 40-foot setback that does not adhere to

the existing built environment; lacks design guidelines for commercial developments, and is predominantly regulated on only one side of Route 12.[8]

▸ Zoning is inconsistent along Route 12, particularly in the southern portion; commercial districts are limited in their ability to develop.

▸ From a process standpoint, in many cases both a Special Permit and Site Plan Review are required. This can create an unnecessary regulatory barrier to development.

Subsequent to this study, in 2019, the TC district was expanded in areas to the west of Route 12 and south of Princeton Road. This area includes, among other properties, the abandoned Sterling Inn.

Smart Growth

As evidenced by the outcomes of the public engagement conducted as part of the development of this Master Plan, the promotion of smart growth development is a land use theme generally supported by community. In fact, smart growth is one of the goals presented in the Town *of Sterling Housing Production Plan – 2019 Update*. Smart growth is a land planning concept covering strategies that steer development and conservation in a manner that prioritizes the protection of human health and the natural environment, while encouraging the aesthetic attractiveness of places, economic strength, and social diversity.

Smart growth is generally guided by the following ten principles:

▸ Mix land uses

▸ Take advantage of compact building design

▸ Create a range of housing opportunities and choices

▸ Create walkable neighborhoods

▸ Foster distinctive, attractive communities with a strong sense of place

▸ Preserve open space, farmland, natural beauty, and critical environmental areas (such as enacting open space residential/natural resource protection bylaws)

▸ Strengthen and direct development towards existing communities

▸ Provide a variety of transportation choices

▸ Make development decisions predictable, fair, and cost effective

▸ Encourage community and stakeholder collaboration in development decisions

As noted by the Housing Production Plan, application of the above principles can be challenging in a rural setting like Sterling, due primarily to the lack of infrastructure and transportation options. For instance, Sterling's wastewater is managed through a distributed network of septic systems, as opposed to a public sewer system. Nevertheless, opportunities to integrate the above principles were incorporated into the Goals and Recommended

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8   At the 2021 Annual Town Meeting, the community approved allowing mixed use buildings with residential dwelling units by-right in the TC district and by Special Permit in the Commercial district. Further, the Town approved reducing dimensional requirements in the TC district. Front yard setbacks for commercial and mixed-use buildings were reduced from 40 feet to between 0 feet and 5 feet, side yard setbacks were reduced from 10 feet to 5 feet, and rear yard setbacks were reduced from 25 feet to 5 feet.

Actions presented at the end of this chapter, as well as throughout the remaining chapters of this Master Plan, where applicable.

Goals and Actions

Goal 1: Protect the Town's rural and scenic character, while encouraging vibrancy and economic activity in the town center and along key corridors.

Action Item #1: Using a standard evaluation process with criteria informed by a variety of perspectives (e.g., critical environmental area protection, habitat enhancement, public

As identified from Master Plan Survey #1, the community showed express interest in the Town "Losing Character," with specific focus on the "Downtown or Town Center."

accessibility, carbon sequestration potential, etc.), continually prioritize the properties in town that are enrolled in Chapter 61 programs for municipal purchase. Alongside this process, ensure the Town has the funds necessary to make such purchases by identifying funding mechanisms well ahead of the time a withdrawal request is submitted.

Action Item #2: Steer residential developments within and closer to the town center (and away from the Town's natural, undeveloped, and agricultural areas) using tools such as density bonuses (i.e., allowing developers to increase the maximum allowable development on a parcel in exchange for supporting community goals). Consider including special provisions for affordable housing and green building practices.

Action Item #3: Explore adopting Open Space Design (OSD)/Natural Resource Protection Zoning (NRPZ) that would provide for increased housing development while encouraging the protection of natural resources and open space. Such developments should be allowed by-right, while conventional subdivisions should be required to obtain a Special Permit. Consider including special provisions in the OSD/NRPZ for affordable housing and district energy (e.g., shared geothermal systems).

Action Item #4: Identify split-zoned parcels along Route 12 (i.e., parcels or subdivided lots that have two or more zoning designations) and rezone them based on the community's land use priorities.

Action Item #5: Review parcels zoned for residential along Route 12, particularly to the east between Pratts Junction Road and I-190, and explore rezoning them to promote commercial and/or light industrial activity.

Action Item #6: As the Performance Zone I district has not been utilized as originally envisioned, continue to explore alternative zoning that would promote commercial and/or light industrial activities in this area, consistent with recent developments.

Action Item #7: Ensure the Town's Protective Bylaws adequately promote Pratts Junction Road and Chocksett Road as commercial and light industrial corridors. For example, several properties to the north of Pratts Junction Road are within the RRF district but are not under a residential use.

Action Item #8: Assess the Town's land holdings and develop strategic plans for surplus properties that support the community's land use priorities.

Action Item #9: Update the table of uses, specifically for the Commercial and Light Industrial districts, in the Town's Protective Bylaws to address more modern uses and needs.

Action Item #10: Explore the creation of a lot coverage bylaw pertinent to East Lake Waushacum to address the trend of the "McMansionization" of surrounding parcels.

As part of Master Plan Survey #2, when asked "what do you think makes Sterling a great place to live," the top two selections in terms of number of votes were: "rural nature of Sterling" and "natural and scenic areas."

When asked to rank the level of impact of the "vibrancy of town center" and the "appearance of town center," 51.5% and 59.4% said they were "very impactful" or "extremely impactful," respectively.

Goal 2: Working with the Agricultural Commission, expand protections for Sterling's agricultural lands that significantly contribute to the Town's sense of place and provide substantial economic value.

Action Item #1: Engage owners of productive agricultural land, as well as owners of "prime" and "state important" agricultural land, in

Action 2-1 was the highest priority for residents who filled out the Land Use section of Master Plan Survey #3 - Part II.

expanding Agricultural Preservation Restrictions (APRs) in Sterling. APRs would pay farmland owners the difference between the "fair market value" and the "agricultural value" of their farmland in exchange for a permanent deed restriction.

Goal 3: Ensure the processes and procedures associated with administering the Town's Protective Bylaws are accessible, easily understood, and streamlined.

Action Item #1: Continue to roll out the Town's online permitting system and conduct regular reviews, including through the solicitation of user feedback, to ensure it is functioning as intended.

Action Item #2: Continue past efforts of the Sterling Economic Development Committee to develop a "business development guide" that would explain in easily understandable terms the Town's permitting requirements and associated procedures. Update and revise this document as required.

Action Item #3: Conduct a review of the Town's Protective Bylaws to identify areas where permitting requirements are redundant (e.g., where both a Site Plan Review and Special Permit are required). Reduce or remove the redundancy by determining the most appropriate mechanism based on the intent of the original requirements. Note that Special Permits can act as a deterrent to development unless market conditions provide enough incentives to offset the additional effort required to obtain local approval.

Action Item #4: For priority sites with development opportunities (refer to Chapter 3, Economic Development), explore the potential of adopting MGL Ch. 43D - Expedited Permitting, which generally improves the marketability of the targeted commercial or industrial zoned sites and increases the transparency and efficiency of municipal permitting. If adopted, it would commit

the Town to rendering decisions on local permits within 180 days of application. Being site specific, this provision does not affect town-wide permitting.

Goal 4: Through effective land use regulations, development incentives, and building codes, mitigate the community's contributions to climate change and build community resilience to its impacts.

Action Item #1: Explore revising the Flood Plain district to address relevant climate change projections, namely regulating to the 0.2% annual chance flood or more studied indicator. Work with local partners, including the Sterling Land Trust, to purchase such lands for conservation purposes, as available.

As part of Master Plan Survey #2, when asked "how concerned are you with development in hazard areas (e.g., floodplains)," 55.4% said they were "very concerned" or "extremely concerned."

Action Item #2: Review the Town's Protective Bylaws to ensure they are not creating unintended effects that increase the community's risks to climate hazards. For instance, excessive requirements for impervious surfaces can increase exposure to flood hazards.

Action Item #3: In coordination with the Sterling Municipal Light Department, consider adopting a bylaw that would facilitate and regulate the development of ground mounted or roof mounted solar systems. Refer to resources such as the Massachusetts' Department of Energy Resources' "Model Zoning for the Regulation of Solar Energy Systems."

Action Item #4: As applicable, ensure all future plans address resiliency for the community's top climate hazards. These hazards were identified through its 2020 Community Resilience Building Workshop, enabled by the Commonwealth's Municipal Vulnerability Preparedness program, and include extreme weather events, loss of biodiversity and agriculture, high intensity rainfall, and droughts.

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Economic Development 3

Introduction

Economic development is coordinated strategic planning, involving the municipal government, businesses, and the community, to stimulate long-term investment and sustainable economic growth. As a first step in identifying the best economic development strategy for the Town of Sterling, it is critical to develop an understanding of baseline demographic and economic conditions.

This chapter provides regional context, followed by a summary of local conditions in relation to population, education, income, businesses, employment, tax policy, and economic development resources.

Baseline Conditions Analyses

Regional Context

The Montachusett Regional Planning Commission (MRPC) consists of 22 member communities located in North Central Massachusetts. While some of these member communities have mixed-use suburban and urban districts, most of the region possesses a low-density, rural character.

MRPC, one of the state's 14 regional planning agencies, carries out comprehensive planning at the regional level. In 2019, MRPC prepared the most recent Comprehensive Economic Development Strategy (CEDS) for the region, identifying key trends with an impact on the regional economy.

The report highlights several positive trends. For instance, the population of the region is increasing at a steady pace, driven by high-growth towns such as the Town of Ayer, the Town of Groton, the Town of Lunenburg, and the City of Leominster – and as the population grows, it is becoming more diverse. The workforce is also getting stronger, as educational attainment continues to improve.

The CEDS report emphasizes the importance of three job categories driving the region's economic activity, and showing the most significant growth as a share of the region's jobs:

▸ Arts, entertainment, recreation, accommodation, and food services

▸ Professional, scientific, and management, and administrative and waste management services

▸ Educational services, health care, and social assistance

The health of the manufacturing sector should also be noted. Although the number of manufacturing jobs fell region-wide by 33% from 2000 to 2017, it still represents a much higher share of jobs than statewide or nationwide averages. A key advantage of manufacturing is that it offers a career pipeline for unskilled labor, and thus helps reduce income inequality.

The report also highlights enduring regional challenges, including:

▸ Physical infrastructure, especially horizontal infrastructure like roads and bridges, are in poor condition throughout the region.

▸ The supply of quality housing is limited, and it is weighted too heavily toward detached, single-family units.

▸ The median age is significantly higher than the state or the nation and will continue to increase over the coming decades.

In response to these and other enduring challenges, MRPC has identified a series of strategic initiatives to move the region forward into the new decade. Chief among them is to push for targeted investment in the region's failing infrastructure, by identifying and prioritizing strategic projects, pursuing federal dollars for improvements, and working with municipalities to mobilize projects.

Additionally, MRPC is working to maintain and develop support services and resources to strengthen the region's business ecosystem. This includes enhanced regional cooperation and promotion of the regional "brand."

Local Context

By many measures, Sterling's local economy is doing well. For example, in 2017, according to MRPC's 2019 CEDS Report, Sterling had the third-highest median household income in the region. It also had the third-highest percentage of residents with a bachelor's degree or higher (over 50%), and the third highest median home value ($340,500). Sterling's median household income in 2018 was $107,348 – notably higher than the county (higher by 49.3%) and the state (higher by 38.7%). Additionally, in 2017, Sterling's unemployment rate was 3.8% - significantly lower than the county (5.4%) and the state (5.5%).

The following sections further describe economic conditions and impact factors associated with Sterling's local economy.

Population

The Town of Sterling grew at a relatively consistent pace throughout the 20th century, with residential development peaking in the 1970s. In recent years, although residential

development has slowed, the population has continued to grow at a steady pace. Between 2010 and 2018, Sterling's population grew by 333 people, or 4.3%. For reference, over the same eight-year period, Worcester County's population grew by 3.8%, and the population of Massachusetts grew by 5.6%. Population growth is important for a local economy, as it expands the tax base and allows for greater investment in shared resources.

Sterling's population trends older. Whereas the median age in 2018 was 39.4 across Massachusetts, it was significantly higher in Sterling at 47. This trend has myriad impacts on the local economy, as there is a lower prevalence of employed residents and a higher prevalence of residents with specialized needs for housing and services.

Many of Sterling's residents are well-educated and live comfortably in high-income households. However, Sterling's low-income residents, many of whom are not highly educated, and some of whom are unemployed, cannot be overlooked. As of 2018, 253 persons or 3.2% of the population for whom poverty status is determined, were living below the poverty level.

Housing

Housing options are very limited in Sterling, primarily due to zoning restrictions and lack of infrastructure (e.g., public sewer) – these factors are further described later in this chapter under *Geography and Infrastructure*. In fact, as of 2018, Sterling only had 45 housing units located in buildings with five or more units; 85.2% of the housing units in town were single-family detached housing and 76.6% of the housing stock consisted of units with three or more bedrooms. With the prevalence of larger, detached units, Sterling's housing inventory is ideal for large, family households – but nationwide, households are getting smaller, and the share of householders who live alone is increasing.

As reported earlier, Sterling has a high median home value relative to its region. The median home value in Sterling is significantly higher than Worcester County and roughly equal to the state (See **Figure 3-1**). While values have continued to increase in the past few years statewide, values appear to have stabilized in Sterling. Meanwhile, Sterling's residential property tax rate in fiscal year 2021 was $16.52 per thousand dollars of valuation. In the same year, the average residential tax rate in the state was $15.24 per thousand dollars of valuation.

Relatedly, low-income households in Sterling (in addition to many middle-income households) struggle to meet the challenges associated with rising property values. In fact, 71.9% of households in Sterling are cost-burdened, which refers to households that spend more than 30% of their income on housing costs.
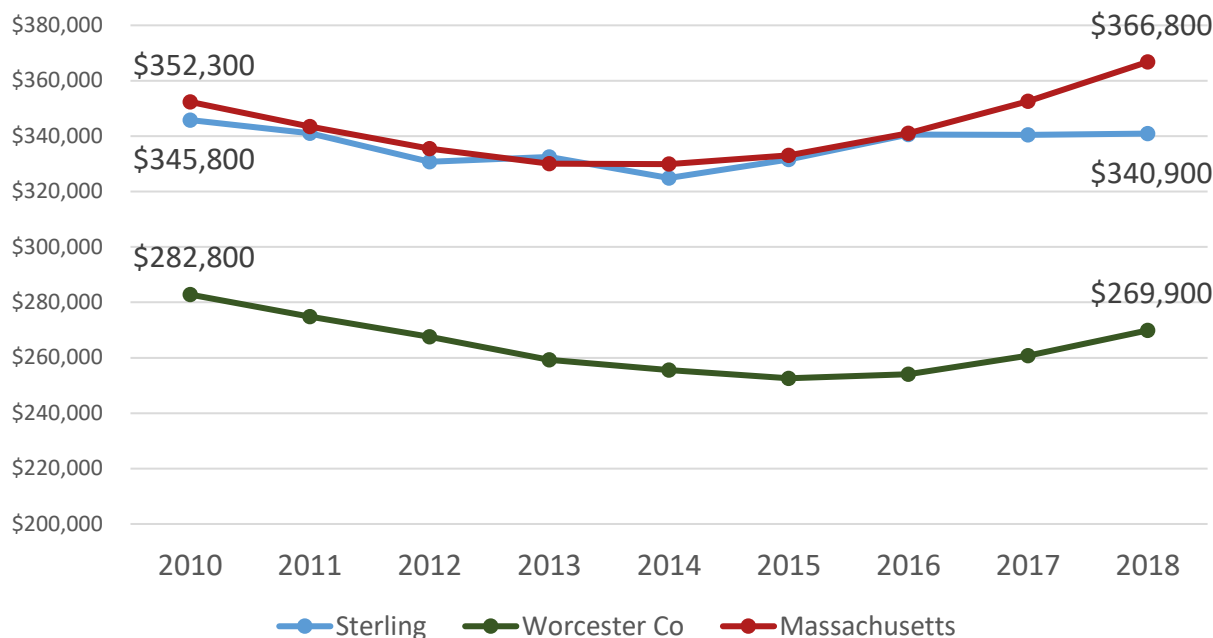
Source: U.S. Census, 2014-2018 American Community Survey, 5-Year Estimates

Figure 3-4. Median Home Value; Town of Sterling, Worcester County, State of Massachusetts (2010 to 2018)

Businesses and Employment

Very few of Sterling's residents (307 or 7.4% of the working population) are employed within the Town. The remaining 3,863 of Sterling's working residents work outside of town. The number of working people who live outside of Sterling, but are employed in Sterling is significantly lower, at 2,131. Thus, there are more people commuting away from Sterling than there are commuting into Sterling. These data points reflect the community's perception of employment opportunities in Sterling, as 47.8% of respondents to Master Plan Survey #2 felt that such employment opportunities were "not at all" or "not so impactful" (i.e., positively contribute) to their quality of life (see **Appendix A**).

In 2018, educational services, health care, and social assistance was the top industry among the employed population (16 years and over) in Sterling, with 1,009 jobs (see **Figure 3-2**). This includes, for example, employees of nursing homes such as Sterling Village – the largest employer in Sterling with 260 employees – as well as teachers at the elementary and middle school levels.

Manufacturing was also very strong in Sterling with 645 jobs reported in 2018, a figure that grew nearly 4.0% since 2010, as was professional, scientific, and management, and administrative and waste management services with another 645 jobs. The fastest-growing job categories among Sterling's residents between 2010 and 2018 were:

- ► Wholesale trade (234%)
- ► Agriculture, forestry, fishing and hunting, and mining (67%)
- ► Arts, entertainment, accommodation, and food services (34%)
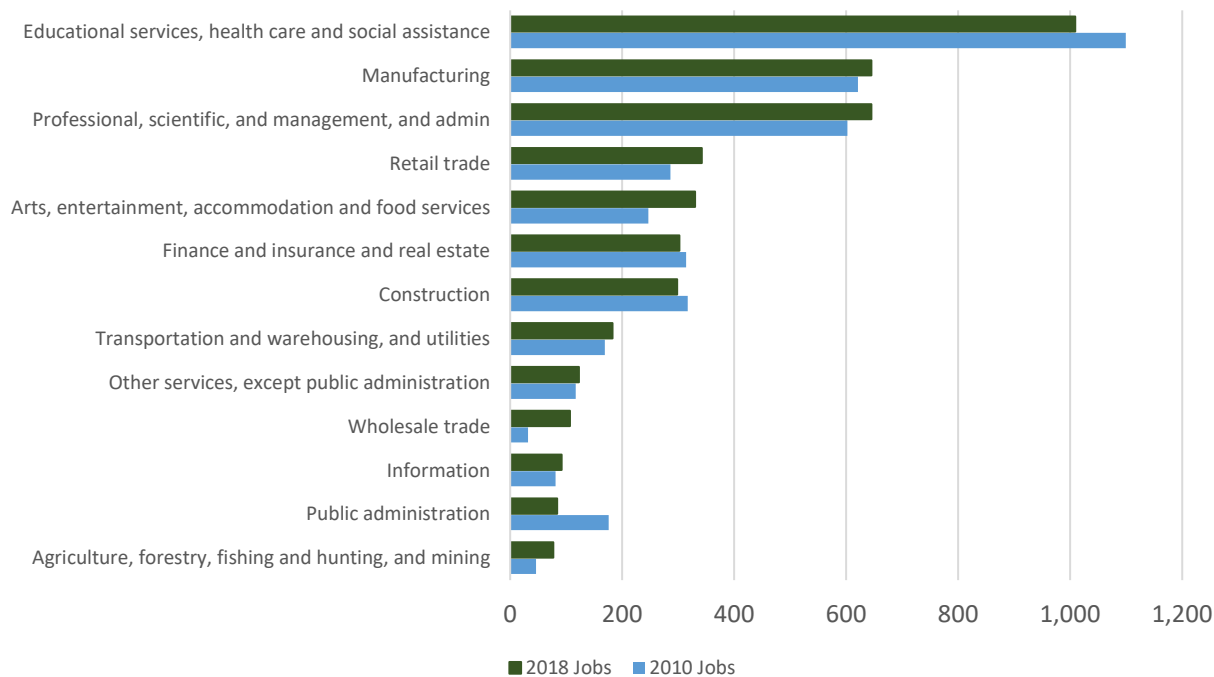
Source: U.S. Census, 2014-2018 American Community Survey, 5-Year Estimates

Figure 3-5. Jobs by Industry; Town of Sterling (2010 and 2018)

Agriculture plays a particularly special role in Sterling. The Town has made a point of recognizing the value that agricultural land use provides to the community. Not only do Sterling's agricultural activities showcase the Town's history and provide an idyllic landscape that attracts residents and visitors alike, but they also have a positive net fiscal impact on the local economy. In the summer of 2009, a report from the American Farmland Trust estimated that the net impact of Sterling's agricultural activities to the local economy was almost $20 million annually, with gross revenues generated per acre of $4,851.[9]

The recent growth in the number of jobs in Wholesale Trade (i.e., the sale of merchandise that is outputted from manufacturing, agriculture, mining, publishing, and information industries, as defined by the Bureau of Labor Statistics) is of particular interest, considering that the earnings typically associated with that industry are high in Sterling. In 2019, the median earnings for individuals working in Wholesale Trade was $72,697, 182% higher than the overall median earnings among all employed people in Sterling ($39,952).

In Sterling, in 2019, median earnings for people employed in each sector were as follows:

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9   American Farmland Trust. (2009). The Economic and Fiscal Contribution of Farm and Open Land in Sterling, Massachusetts.

Table 3-3. Median Earnings by Industry; Town of Sterling (2019)

Industry	Median Earnings (2019)	% of Overall Median
Overall Median Earnings	$39,952	100%
Agriculture, Forestry, Fishing and Hunting, and Mining	$23,487	59%
Construction	$60,500	151%
Manufacturing	$48,625	122%
Wholesale Trade	$72,697	182%
Retail Trade	$16,250	41%
Transportation and Warehousing and Utilities	$78,063	195%
Information	$68,250	171%
Finance and Insurance, Real Estate, Rental, and Leasing	$66,176	166%
Professional, Scientific, Management, and Administration	$52,578	132%
Educational, Health Care, and Social Assistance	$37,266	93%
Arts, Entertainment, Recreation, Accommodation, Food	$8,226	21%
Public Administration	$73,162	183%

Source: U.S. Census Data

Sterling Village, with 260 jobs is Sterling's largest employer. It is a 143-bed nursing home, providing medical, nursing, and rehabilitative care for senior residents. Northeast Poly Bag on Northeast Boulevard is also a large employer, with 150 employees. **Table 3-2** lists the largest employers (with at least 60 employees) in Sterling by number of employees.

Table 3-4. Largest Employers with At Least 60 Employees; Town of Sterling (2019)

Employer Name	Address	# of Employees
Sterling Village Nursing Home	Dana Hill Road	260
Northeast Poly Bag	Northeast Boulevard	150
Houghton Elementary School	Boutelle Road	90
Anderson Power Products Inc	Pratts Junction Road	85
Barbers Crossing North	Leominster Road	85
Chocksett Middle School	Boutelle Road	60

Source: Esri Community Analyst, 2019

As shown in **Figure 3-3**, the largest cluster of jobs are located in the northern section of Sterling, in the vicinity of the intersection of 190, 12, and 62. Jobs in this area primarily involve a mix of manufacturing, industrial, distribution, and auto repair activities.

As Sterling's businesses know, coordination between businesses is a vital component of local economic development strategy. The Wachusett Area Chamber of Commerce (operating across seven towns, including Sterling) and the North Central Massachusetts Chamber of Commerce (operating across seventeen towns, including Sterling) are major

players in this regard. These groups organize local programing events and acts as a shared platform for information-sharing and coordinated advertising resources.

At the local level, the Sterling Economic Development Committee (EDC), created in 2012, plays an active role in advancing the local economy. In addition to organizing events and bringing the business community together, the EDC defines broad economic development initiatives, and seeks funding from outside sources to support businesses and invest in the built environment. Additionally, the Sterling Business Forum, which first convened in 2019 and again in 2020, is a platform for local business owners to discuss shared concerns and define collective strategies for sustainable growth.

Geography and Infrastructure

The majority of land in Sterling is zoned as Rural Residential and Farming (see **Figure 3-4**) and consists of large agricultural properties. Interstate 190 and Route 12 bisect the Town's pastoral landscape and form a north-south corridor, connecting Sterling with the Leominster to the north, and the Town of Holden, Town of West Boylston, and the City of Worcester to the south. This north-south corridor is developed in clusters, primarily distributed between the Neighborhood Residential, Light Industrial, or town center zoning districts.

The southernmost cluster is centered around the Sterling Village Nursing Home on Dana Hill Road and at Chocksett Middle School, areas that include historical homes, as well as several small business and retail operations. Moving north, the Sterling Center Historic District also contains a mix of suburban homes, small businesses, restaurants, and churches. And along the northeastern corner of town is the largest cluster of economic activity, centered around the intersection of Interstate 190 and Route 12, which includes several dozen businesses, restaurants, retail operations, and light industry.

Although there is a variety of uses within the north-south corridor, the Town has developed at a very low density. This character is reinforced by Sterling's Protective Bylaws, in which no building taller than 36 feet is permissible by right (excluding churches), commercial and light industrial zones are restricted to floor area ratios of 0.5 and 0.4, respectively, and Aquifer and Water Protection district covering much of the Town places operational restrictions on commercial and industrial activity (see **Figure 3-5**).[10]

For a more comprehensive discussion of the Sterling's zoning districts and Protective Bylaws, see Chapter 1, *Land Use*.

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10 At the 2021 Annual Town Meeting, the community approved replacing the existing Aquifer and Water Resource Protection district with a new Groundwater Protection district based on the Massachusetts Department of Environmental Protection's Model Groundwater Protective Bylaws.

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Town of Sterling Master Plan

Figure 3-3. Businesses and Employment

Legend

☐ Parcel Boundaries

● All Businesses

Number of Employees
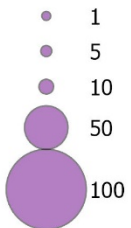
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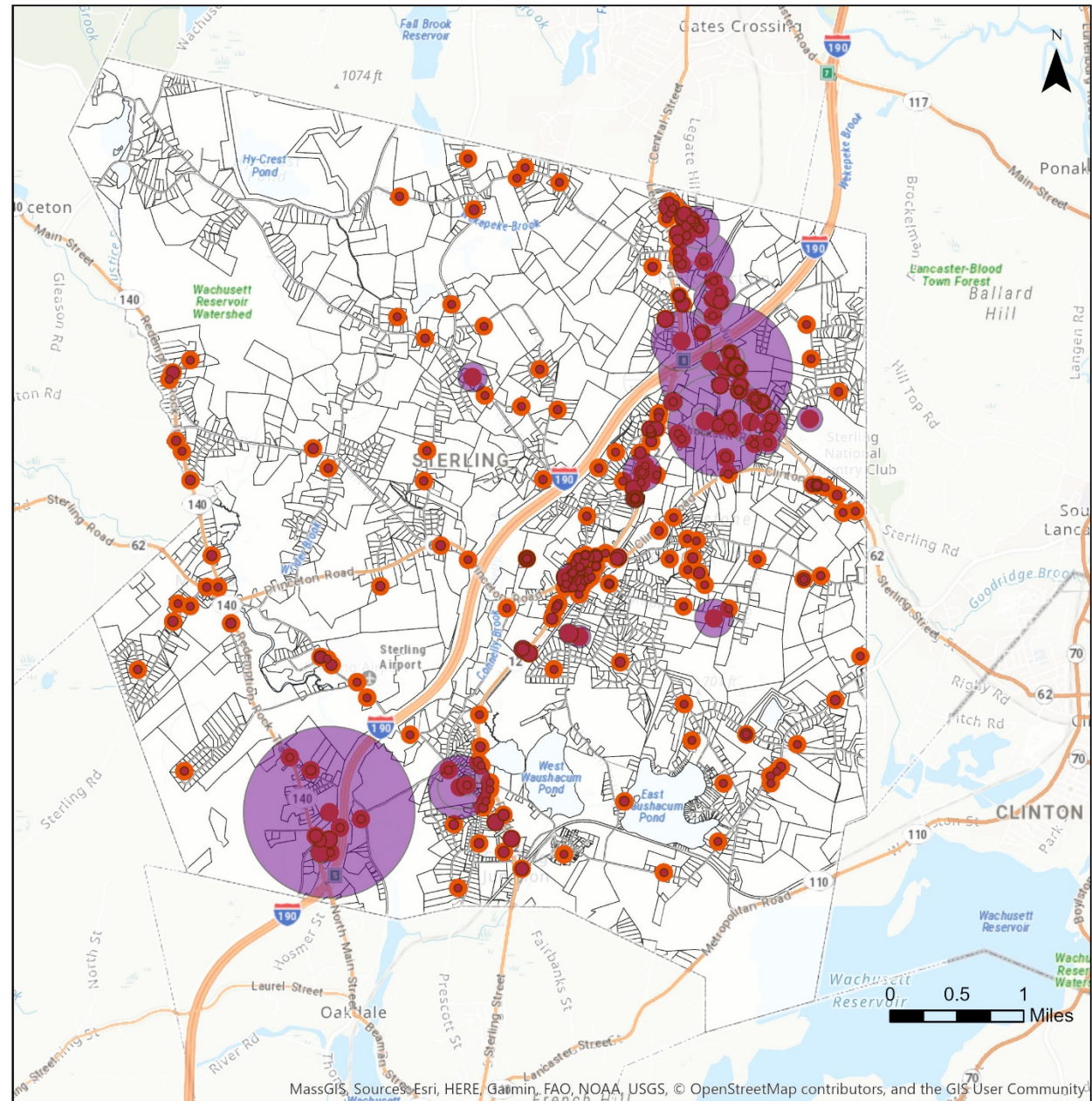
Town of Sterling Master Plan

Figure 3-4. Base Zoning Districts

Legend

Parcel Boundaries

Zoning Districts (Base)

- Commercial
- Light Industrial
- Neighborhood Residential
- Performance Zone I
- Rural Residential and Farming
- Town Center District

Date Created: 02/09/2021
Date Revised: XX/XX/XXXX

Reference System: NAD 1983 State Plane
Massachusetts Mainland FIPS 2001
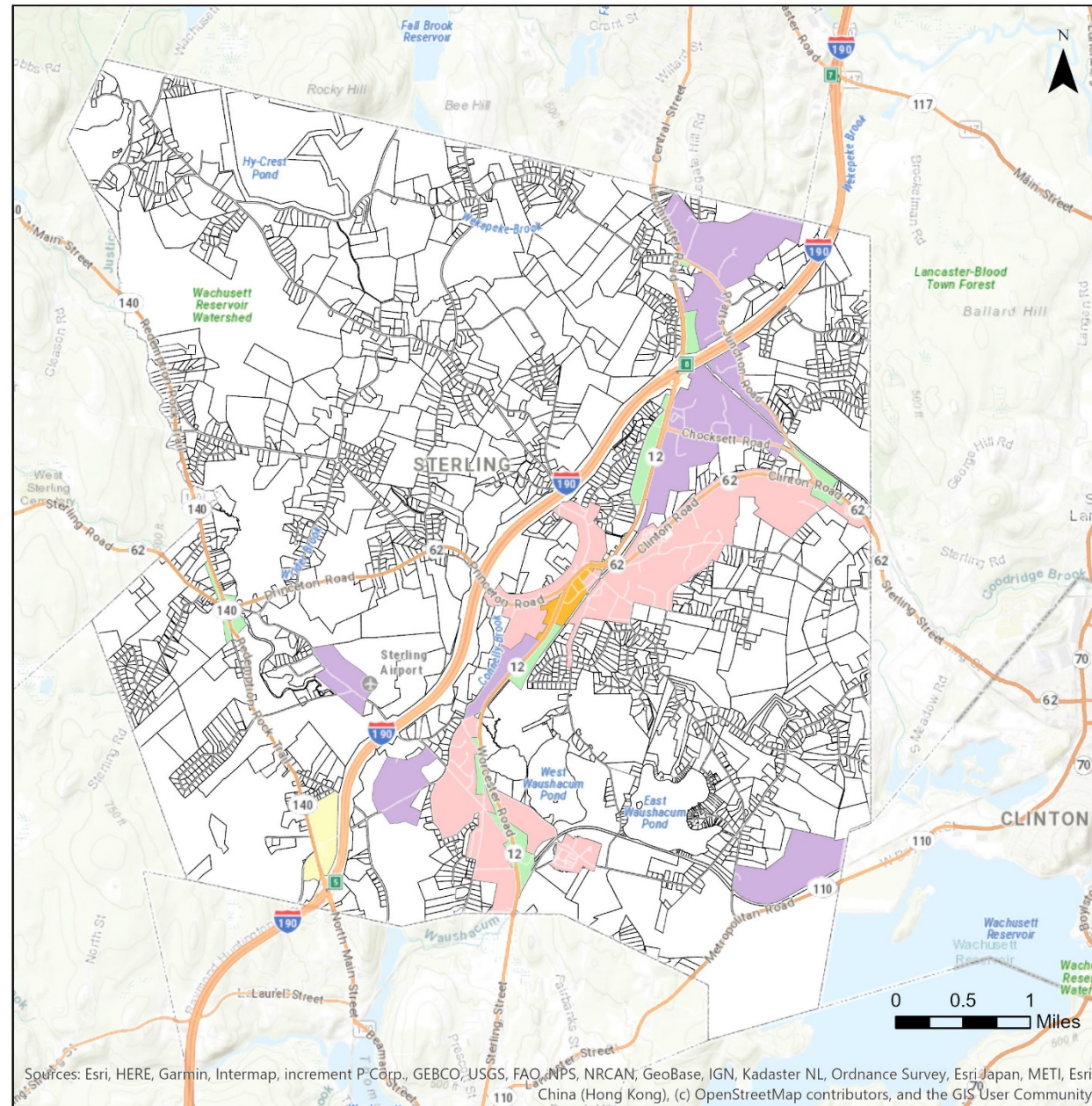
Town of Sterling Master Plan

Figure 3-5. Groundwater
Protection District

Legend

▢ Parcel Boundaries

Zoning Districts (Overlay)

▥ Groundwater Protection

Date Created: 02/09/2021
Date Revised: 08/31/2021

Reference System: NAD 1983 State Plane
Massachusetts Mainland FIPS 2001
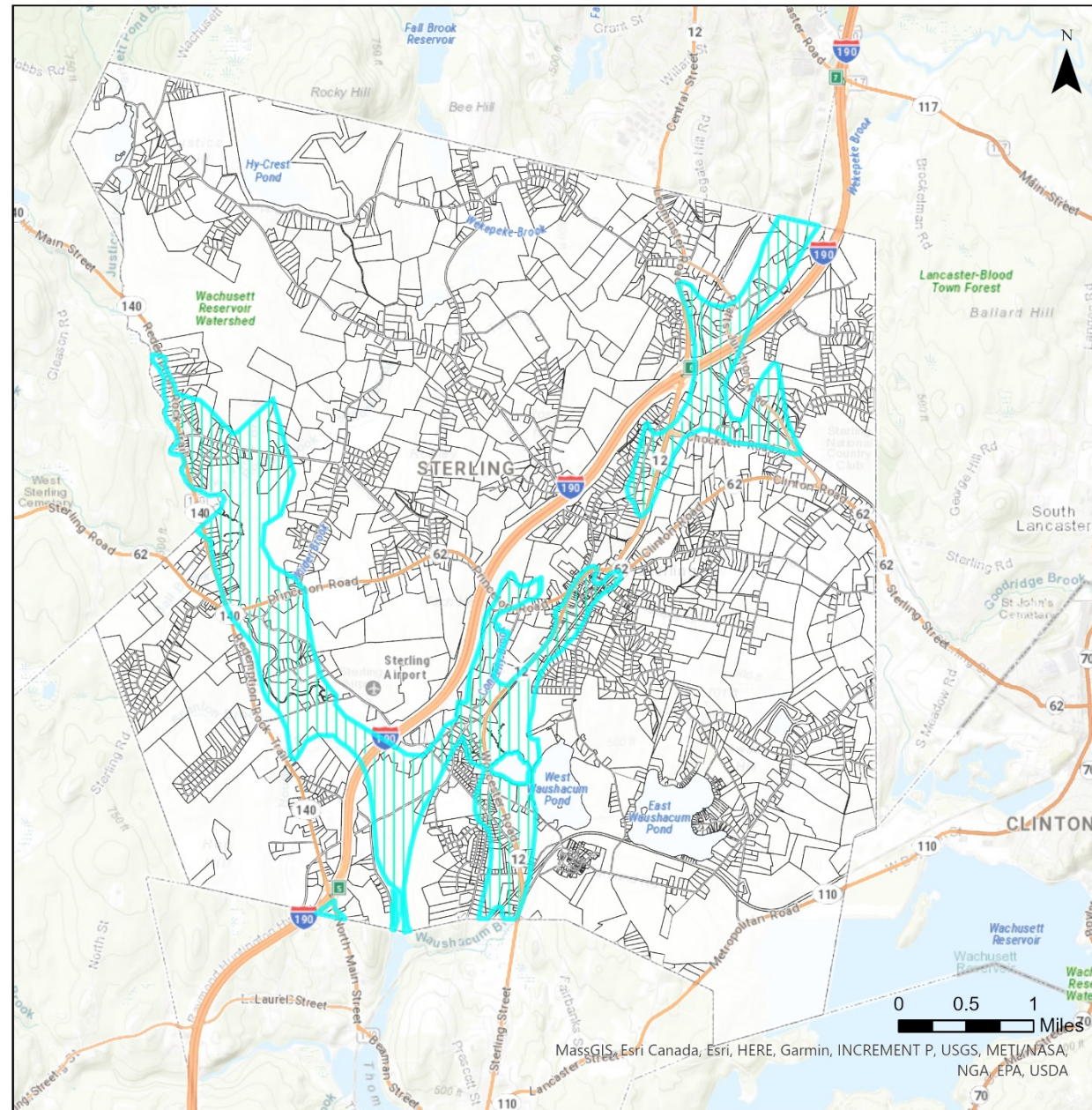
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Sterling's low-density character is further reinforced by a lack of infrastructure. For instance, there is no public sewer system in town, which presents significant challenges to developers wishing to build commercial, institutional, or research and development facilities, and likely keeps Sterling out of the running regionally for large-scale economic development projects. This also inhibits development within the town center, limiting this area's economic vitality and viability. Master Plan Survey #2 showed that residents find the density of development "extremely important" and want to preserve the Town's character.

Economic vitality is also supported by robust pedestrian and bicycle infrastructure. In Sterling, this type of infrastructure is limited. According to Walk Score (www.walkscore.com), the town center area of Sterling has a Walk Score of 47 (on a scale of 0 to 100), indicative of a neighborhood that is "Car-Dependent" where most errands require a personal vehicle, and a Bike Score of 21 (on a scale of 0 to 100), indicative of a neighborhood that is "Somewhat Bikeable" where bike infrastructure is minimal.[11]

Opportunity Sites

Sterling can leverage its position of economic well-being, as well as its community-identified strengths of possessing a rural character, natural and scenic beauty, and a strong school system (see the results of Master Plan Survey #2 in **Appendix A**), and invest in creative ideas to support continued economic growth. This could take any number of forms; for instance, a business incubator, a new life-sciences cluster, a mixed-use village, or a food co-op with apartments on the second and/or third floors. These are all great ideas that have emerged from passionate dialogue among Sterling's business community.

There are a number of specific sites in Sterling that present development opportunities and would provide economic benefit to the broader community. Some sites are natural locations for mixed-use development, including dense housing typologies, while others may be better suited to support retail uses that celebrate Sterling's unique agricultural character. Respondents to Master Plan Survey #1 identified retail and dining options as a top priority for the Town to address. Similarly, whereas some sites are largely vacant, others are already built out but have potential for redevelopment. Whatever form continued economic growth takes, the Town has a demonstrated commitment to the principles of smart growth. For Sterling, this means promoting mixed-use development, preserving natural spaces, and encouraging community collaboration.

In consultation with the community, Sterling has identified the following development opportunity sites as being its most prominent. Although this is not a complete list, it does identify those sites with the greatest potential for transformative development. For each site, further investigation and planning is needed to verify the true development potential. Sterling may also look deeper into which categories of federal, state, and/or regional, financial incentive programs are applicable for each of these sites.

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11   Walk Score. (2020). Walk Score for Sterling, MA – Town Center Area. Retrieved February 9, 2021, from https://www.walkscore.com/score/sterling-massachusetts.
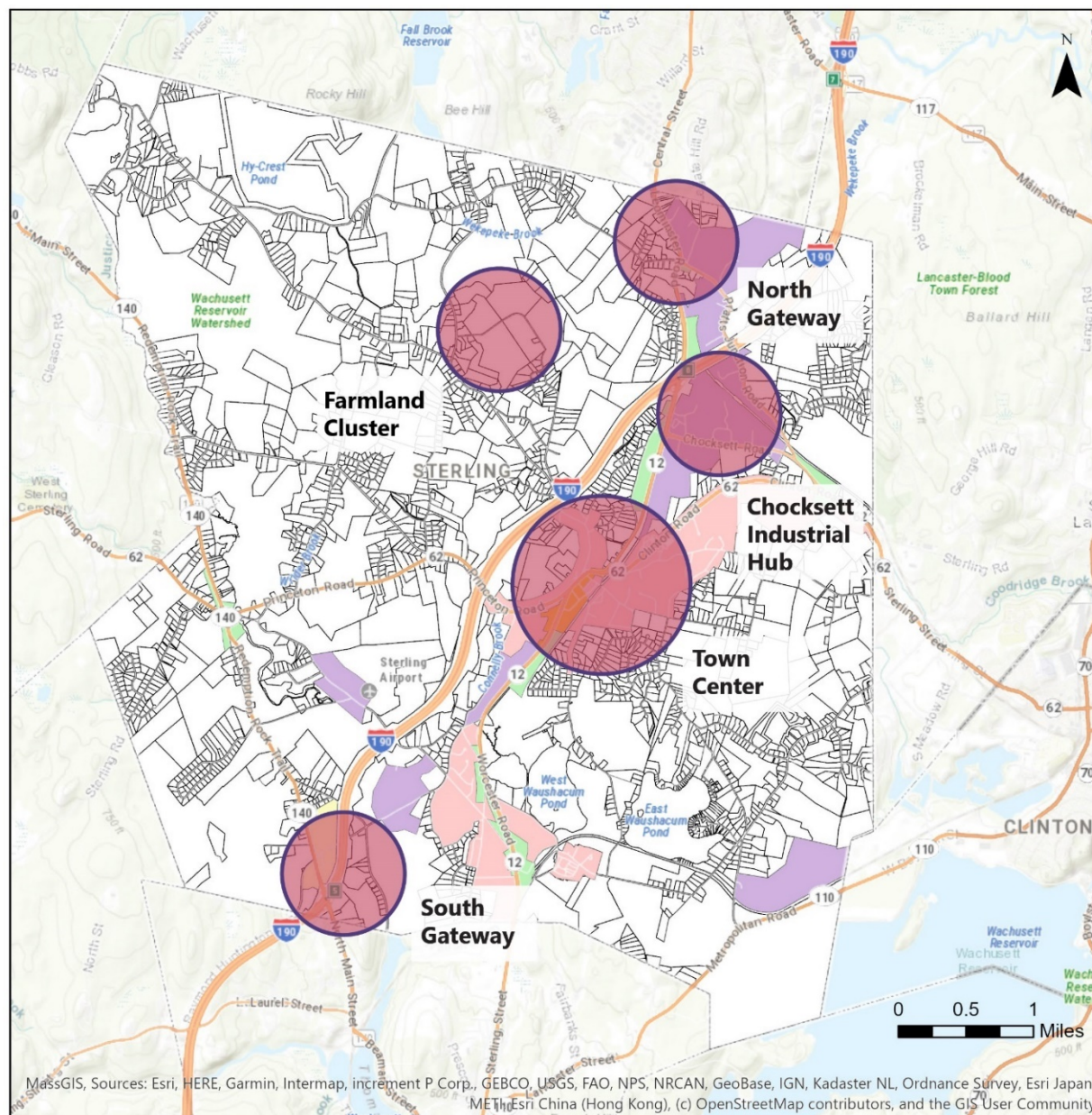
Figure 3-6. Opportunity Sites, Town of Sterling

North Gateway

The North Gateway is a primarily industrial district that welcomes those arriving at Sterling from Leominster to the north, along Route 12. Currently, this area is home to roughly a dozen industrial properties positioned between Route 12 and Legate Hill Road, including auto repair shops, building material suppliers, and a few medical offices. Additionally, the Black Sheep Tavern provides dining at the intersection with North Row Road.

As a gateway to Sterling, the area is rich in potential for industrial redevelopment, with some potential for expanded commercial and retail uses. The area is not densely developed enough to encourage pedestrian or bicycle activity, but commercial uses catering to vehicle drivers would help to enhance the visual experience of arriving in Sterling and could

potentially strengthen nearby industrial property values. As mentioned in Chapter 1, *Land Use and Development Patterns*, there are many split-zoned or landlocked parcels in this general area.

South Gateway

Located at the other end of town, close to the Dana Hill Road/I-190 underpass, is Sterling's South Gateway. Many vehicles coming to town from the south (including Holden and Jefferson, West Boylston, and Worcester), arrive at this location. Although this area is home to a greenery, a nursing home, and a medical supply company, it lacks a cohesive sense of place. There is great potential for expanded commercial uses in this area – particularly uses that require medium- to large-sized properties.

To that end, in 2021, the Town sought to re-zone a portion of Performance Zone district to the Commercial zoning district. This measure was not approved at the Annual Town Meeting that year. Located close to (and highly visible from) Interstate 190, this is a great location for a commercial cluster of a lab, office, or retail character. The Town will need to collaborate with current landowners to develop a concept for the South Gateway and communicate with potential investors.

Further study of the area's potential is warranted, including an analysis of development constraints such as extant wetlands.

Town Center

Sterling's town center, running along Routes 12 and 62, is home to a vibrant mix of municipal facilities (e.g., the public library and fire department), restaurants, businesses, professional offices, and single-family residences. This area functions as a hub of social activity and a cultural nexus for the community, as it hosts a variety of community-building events throughout the year.

The town center is also home to underdeveloped and vacant properties, which weighs down property values and dampens the visitor experience. Notably, south of Waushacum Road along Route 12 is Sterling's most visible vacant building, the old Sterling Inn. Sterling desires to attract investors to the town center, such that it can become more active and vibrant. Ideally, the redevelopment of the Sterling Inn will catalyze more active, intensive uses in nearby properties along the Route 12 corridor.

The 1835 Building (former Sterling Town Hall) holds appeal as a center for fun and family-friendly activity. There is potential to lease the space on the ground floor for a café, ice cream, or candy shop, and the space on the second floor as a performance venue. The purpose of this and any other development based in the town center will be to make this area more of a destination, not only for residents of Sterling, but also for people from further afield. Aside from fun and family-friendly activities, the 1835 Building also holds potential to house more municipal office space and a collaborative workspace hub.

Farmland Cluster

Sterling is known for its pastoral landscapes and productive farmlands. In addition to strengthening the tax base, many of Sterling's farms attract visitors to visit, recreate, and

buy products direct from the source. There is a cluster of farms located along Tuttle Road that have developed a reputation for providing rural/agricultural tourism programming and events. This is complemented by farms in other locations around town, including Davis Farmland, Clearview Farms, and Meadowbrook Orchards to name a few.

Sterling will continue to explore opportunities to partner with local farms with regard to Community Sponsored Agriculture (CSA) programs, farmer's markets, and tie-ins with other local businesses. Master Plan Survey #1 found that as of June 2019, 78% of respondents frequently or sometimes purchase goods at the farm stands.

Chocksett Industrial Hub

The intersection of Pratts Junction and Chocksett Road is the center of an industrial district, home to automotive, building material, landscaping, and other commercial and industrial properties. While some of these businesses are thriving, the district is also characterized by underutilized properties.

Sterling has the opportunity to assess this district's needs in order to catalyze investment and/or reinvestment in the district's properties. Although the district is not within walking distance of any commercial or retail districts, there are opportunities for creative placemaking, branding, and investment in pedestrian and/or bicycle infrastructure.

Goals and Actions

Goal 1: Advance effort to keep and attract younger residents and families. Sterling's median age is 47 years old, seven years older than the statewide median. Sterling should find ways to enhance the Town's appeal for younger populations, who can support the next wave of retail and commercial investment and provide long-term economic vitality.

Action #1: Encourage Sterling's younger residents/families to play active roles in local government, boards and committees, volunteer groups, and civic organizations. For example, by creating a Youth Council that would partake in municipal decision-making, provide education to how the local government works, and promote community service.

Action #2: Enhance local infrastructure in a visible way to demonstrate Sterling's enthusiasm for new trends (e.g., expanded sidewalks, bicycle lanes, traffic-calming devices, public wi-fi, electric vehicles and electric vehicle charging stations, carsharing).

Action #3: Engage younger populations from around the region to identify opportunities and barriers for attracting them to (or keeping them in) Sterling (e.g., availability and attainability of diverse housing types, public school performance, retail, and dining options, etc.).

Action #4: Define – and promote – the types of commercial developments that hold appeal for younger populations, including art and culture, "experience"-based retail, cafes, microbreweries, etc.

Action #5: Create and promote entrepreneurial opportunities, for instance, produce markets (potentially in partnership with local farmers), pop-up retail stores, publicly accessible makerspaces, business incubators, and shared/collaborative workspaces.

Action #6: Establish partnerships between Sterling's business community and the local/regional student population, to promote paths toward successful employment and careers.

Goal 1 reflects several responses in Master Plan Survey #3 Part I that state the need for development that encourages younger populations to either stay in Sterling or to move to Sterling. This is reinforced in Part II where Actions 1-4 and 1-5 were ranked as high priorities, at the fifth and sixth ranking respectively.

Goal 2: Bring more visitors into town, focusing on the activities within the town center and the farmland attractions. The population of the region is growing, driven by high growth communities like Ayer, Groton, Leominster, Lunenburg, and Worcester. Capitalize on this regional growth by promoting commercial and recreational activities in Sterling and developing a fresh narrative around what makes Sterling special.

Action #1: Leverage the Town's willingness to make public space in the "1835 Town Hall" building available for retail, dining, or pop-up spaces, to showcase Sterling's historic fabric while promoting a spirit of communal enjoyment.

Action #2: Identify and pursue state and/or federal grant opportunities to improve streetscapes (e.g., more pedestrian and bicycle accommodations, streetlights, landscaping, custom pavers, etc.), or conduct site-readiness work. Potential sources of funding include MassWorks, MassDevelopment, and the Department of Housing and Community Development.

As part of Master Plan Survey #2, when asked "what type of future economic development do you feel is most needed in Sterling," the top ranked choice was "small retail," followed by "restaurants."

Action #3: Explore opportunities to limit vehicle activity in the town center at strategic times throughout the year, to enhance the pedestrian experience.

Action #4: Complete and enact the Design Review Guidelines that will provide recommendations on the design of signage and facades in building projects taking place in the town center. Consider making them regulatory, as opposed to advisory.

Action #5: Revitalize the town center by promoting investment that attracts shoppers and visitors from Sterling and beyond, including new or redeveloped dining establishments, bars, cafes, and ice cream shops. Provide and/or allow for more sidewalk and outdoor dining.

Action #6: Create marketing materials (e.g., pamphlets, videos, social media, and other web content) to promote the Town's assets/resources throughout the region and state.

Goal 3: Focus on opportunities to unlock Sterling's industrial and commercial districts. Encourage the growth of "market clusters," where nearby businesses can complement and support one another and become greater than the sum of their parts. Advance strategies that promote strategic development opportunities with the potential for widespread economic benefits.

Action #1: Work with local property owners and regional partners to identify prime development sites throughout the Town and develop clear visions and marketing strategies for their redevelopment. Explore statewide resources for promoting development sites, such as those sponsored by MassDevelopment and MassEcon.

Action #2: Engage regional partners to conduct an economic development study to understand how Sterling performs against, and complements, other communities within the region. Identify opportunities to cross-promote economic development with other municipalities, potentially including a focus on the Montachusett region's significant manufacturing employment base.

Action #3: In coordination with the Land Use and Development Patterns Chapter, explore opportunities to expand upon the supply of parcels available for industrial development, within proximity of existing industrial districts (e.g., Chocksett, the North Gateway, etc.).

Action #4: Work with local and regional organizations to develop strategies for building upon the strength of Sterling's agricultural businesses (e.g., farm-to-table, CSA programs, food research, etc.).

Action #5: To encourage the growth of small businesses in alignment with envisioned economic development, create a Sterling Development Guide. Such guidance may identify and describe local resources, permitting and zoning processes, tax policies, and available financing (e.g., business loans and/or grant opportunities).

Action #6: In coordination with the Public Facilities and Services Chapter explore opportunities to implement public sewer, especially in the town center area.

Goal 4: Get organized to drive economic development opportunities throughout Sterling. Keep the conversation moving forward, so that Sterling can benefit from collaborative enthusiasm and shared ideas.

Action #1: Leverage the positive and productive energy of the Sterling Economic Development Committee to continue to build the narrative presented in this chapter. The EDC can determine action items, and assign roles and responsibilities, for carrying out the Master Plan's recommended strategies, tapping into other departments and committees, as necessary.

Action #2: Continue tapping into the regional network through active participation in the Wachusett Area Chamber of Commerce and North Central Massachusetts Chamber of Commerce. These cross-municipal partnerships will drive economic growth in a powerful way.

Action #3: Explore possible collaboration/agreements with neighboring towns for mutual beneficial utility expansions and development at town boundaries. For example, the development of a potential business park at the Clinton town on vacant lands on Metropolitan Road line zoned for light industrial.

Action #4: Encourage the Sterling Business Association to keep up momentum and meet on a regular basis.

Housing

4

Introduction

The Town of Sterling is primarily a rural, residential community; housing is the most prevalent land use, with 90% of single-family residential housing. Population growth has put significant pressures on the Town, local services, and the housing market, especially between the years of 1960 and 1990 when the population nearly doubled in size. In fact, Sterling has experienced a relatively higher rate of growth in comparison to neighboring municipalities, as well as Worcester County and the state.

Much of this growth has resulted from the outward movement of people from population centers, such as Boston, in search of more affordable living conditions. This increased pressure on the existing housing market leads to increased costs of housing making it more difficult for existing residents or those who were raised in town to secure affordable living options locally. Limited housing choices prohibit young families, young professionals, empty nesters, and seniors from finding affordable housing in Sterling. Seniors who have raised families and have established long term friendships, family, and support systems are unable to remain in the community due to the limited availability of smaller affordable units. Respondents to Master Plan Survey #2 identified the impact of housing options as mostly "somewhat impactful" (32%) and "very impactful" (21%), as well as identifying the impact of the cost of living as "somewhat impactful" (34%), "very impactful" (31%), and "extremely impactful" (19%). Providing a wide range of housing choices such as accessory dwelling units, condominiums, apartments, and affordable housing allows a diverse community to live in a community such as Sterling.

An analysis of the housing stock considers three important aspects: 1) housing structures; 2) population inhabiting housing; and 3) environment in which the housing is located. The following sections examine Sterling's housing stock in terms of age, condition, cost, and the demographic trends as well as the specific needs of different population groups. The data and analysis in this chapter are based on information obtained from Sterling's Housing Production Plan (HPP), the Montachusett Regional Planning Commission (MRPC), the State, and the U.S. Census Bureau.

Summary of Housing Needs Assessment

Housing Key Findings

With an increase in the over-55 population there will be an increasing need for senior housing in Sterling. While Sterling has met some of the need for senior housing there are limited options for residents to stay in the community as they age. During the Master Plan survey process residents expressed a desire to create more affordable housing and housing for seniors to stay in the community as they age. Community members encouraged the development of housing in the town center that could attract both seniors and young people and may be an opportunity for the Town to develop additional affordable housing. Moreover, it can have a positive economic effect on the town center. By balancing housing options for various age groups, the community can possess a more resilient housing market and steer away from becoming a stagnant town serving the needs of only one demographic.

The following findings are key to the development of a comprehensive housing program for the Town:

▸ Pressure of outward movement of people from population centers in search of more affordable living.

▸ Population growth has put significant pressure on the Town and local services. Sterling has a higher rate of growth in comparison to neighboring municipalities and well as the county and state.

▸ Demographically, Sterling is a small but growing community which is true for many Commonwealth communities, the increase is more heavily weighted towards the older population segments. Sterling is also a community predominantly made of family households, and Sterling's housing stock is predominately single-family dwellings.

▸ Limited housing choices prohibit young families, young professionals, empty-nesters, and seniors from finding affordable and adequate housing that meets their needs.

▸ Sterling has infrastructure issues that present a challenge to denser development.

▸ Currently, transit options are limited as Sterling is not served by either the Massachusetts Bay Transportation Authority (MBTA) or Regional Transit Authority.

▸ Sterling has forecasted population growth with an aging baby boomer population that has increased 38.11% from 2010 to 2019 and 55% over age 55 during this same time period, while ages 20-44 have decreased which is attributed to job loss and shortage of affordable housing for young adults.

▸ Household size and average family size is higher than the county, state, and national averages.

▸ 84.7% of occupied housing units are owner occupied with only 12.31 renter occupied.

▸ Owner occupied households are larger (2.82) than rental households (2.12).

▸ Highest percentage of housing was built during the period of 1970-1979. During the period of 1970-2009 more than half of Sterling's housing was built.

▸ The median household income is $121,458 with 42.5% of households making under $100,000. 2.8% of Sterling households are in poverty.

‣ Median monthly housing costs for ownership is $1,997 with 18.1% of Sterling residents paying more than 30% of income on housing costs.

‣ Median monthly housing costs for rental is $1,304 with 43.8% of Sterling residents paying more than 30% of income on housing costs.

Housing Goals

Ensure that housing opportunities are available for a broad range of income levels and household types including affordability, homeownership, and condition of the housing stock while maintaining the community character, as follows:

‣ Meet local needs across the full range of incomes, sustaining social and economic diversity and promoting the stability of individuals and families in Sterling.

‣ Maintain Sterling's small-town, rural character and ensure that new housing creation is harmonious with the existing community.

‣ Provide a wider range of housing alternatives and types to reflect community needs.

‣ Leverage other public and private resources to the greatest extent possible.

‣ Strive to meet the 10% state standard for affordable housing.

‣ Preserve the existing affordable stock to the greatest extent possible.

‣ Promote outreach and education to the community to provide information on affordable housing and to engage residents in local initiatives.

‣ Promote smart growth development.

‣ Promote sustainability through zoning bylaws, building design requirements and low impact design for housing over a certain size.

Master Plan Survey #1 evaluated the attitudes of respondents about housing. 23% believe new housing positively contributes to the Town; 19% believe the new housing does not match the character of the area; and 40% do not see a need for new housing.

Population and Demographic Profile

Sterling Geography

According to the United States Census Bureau, Sterling has a total area of 31.6 square miles (82 km), of which 30.5 square miles (79 km) is land and 1.1 square miles (2.8 km^2), or 3.42%, is water. Population density is 254.9 people per square mile.

When did Sterling grow? Historic Population Data

Sterling's population was 1,502 in 1930 and 8,174 in 2019, adding 6,672 residents during this time-period. Sterling's population more than doubled from 1960 to 2010, increasing from 3,193 residents to 7,808.
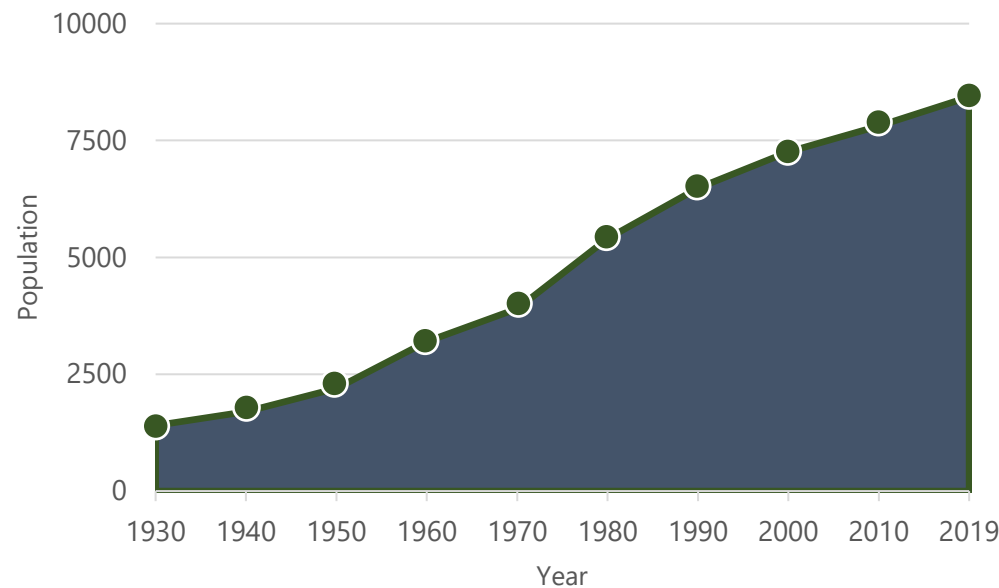
Figure 4-7: Population Change Sterling (1930-2019)

Population Growth by the Region, State and Nation

During 2000 and 2010, Sterling added 551 residents, an increase of 7.0%. Comparing population growth of communities surrounding Sterling, the Montachusett Region, and Massachusetts; Sterling grew at a faster rate than the region, the state, and all abutting communities, except for the Town of Boylston which grew by 8.0%, over this 10-year period.

Since 1970, Sterling's population has grown at a faster average rate than that of the state, more than twice that of Massachusetts from 2000 to 2010, while still growing at a slower rate than the nation.

Population Growth Projections

Table 4-1 presents projected population for Sterling and the Montachusett Region out to 2035 according to the U.S. Census. Population is estimated to increase by 157 people during the 5-year period from 2020-2025 which is the closest projection available for the beginning of the 5-year period that covers the HPP 2019-2024.

Table 4-5. Projected Population

Years	2000	2010	2019	2020	2025	2030	2035
Sterling	7,257	7,808	8,091	8,122	8,279	8,436	8,593
Montachusett Region	228,005	236,475	240,000	243,000	247,000	251,000	255,000

Source: U.S. Census

Population by Age of Residents

According to the U.S. Census as shown in **Table 4-2**, in the ten-year time span from 2010 to 2019, Sterling lost a total of 254 persons up to the age of 45, despite the significant growth in the overall population of the Town.

However, during the same period, the Town gained 620 residents in the age group of 45 and above. This increase is, in part, due to the aging of the baby boomer generation. The reduction in persons between the ages of 20 and 44 in particular, (130 persons) may also be attributed to a lack of local jobs available in the community and a shortage of housing affordable to young adults.

From 2000 to 2019 Sterling's median age rose from 38.10 to 46.8, as compared to Massachusetts over the same period, the median age rose from 36.9 to 39.7. The continued aging of the baby boomers is reflected in Sterling's over 65 population which increased 38.11% from 2010 to 2019. This aging of the Town's population indicates a need to consider the development of more senior housing in the community to accommodate the Town's current population and enable them to continue to live in Sterling in the future, in line with Sterling's commitment to being age and dementia friendly. Focus should also be given to ways to attract younger populations to the Town to help keep a robust community age demographic.

Table 4-6. Sterling Age Distribution

Age Group	2000	2010	% Change	2019	% Change
<5 Years Old	483	421	-14.73%	398	-5.78%
5-19 Years	1,648	1,746	5.61%	1,645	-6.14%
20-34 Years	1,051	888	-18.35%	852	-4.22%
35-44 Years	1,454	1,089	-33.51%	995	-9.45%
45-54 Years	1,302	1,681	22.54%	1,482	-13.43%
55-64 Years	664	955	30.47%	1,192	19.88%
65-74 Years	608	449	-35.41%	1,157	61.19%
75 Years and Over	303	496	38.91%	370	-34.05%
Median Age	38.1	44.0		46.8	
16 Years Old and Over				6,621	
18 Years Old and Over	5,260	5,706	7.81%	6,214	8.17%

Age Group	2000	2010	% Change	2019	% Change
21 Years Old and Over		5,450		6,032	9.65%
62 Years and Over*		1,218		1,936	37.09%
65 Years and Over*	655	945	30.69%	1,527	38.11%

Source: 2010 U.S. Census; 2015-2019 5-Year ACS

Household and Housing Characteristics

Family Households

The proportion of family households, families with children under 18, married couple family is higher in Sterling than in the county, state, or nation. Households with a married couple with children under 18 is lower than the county but higher than the state or nation. The proportion of female householders with no spouse present and with children under 18 years is higher than the county but lower than the state or nation.

Table 4-7. Family Households

Households by Type	Sterling #	Sterling %	Worcester County %	State %	U.S. %
Family Households (families)	2,170	68.9%	65.64%	63.0%	66.4%
With children under 18	976	30.2%	30.11%	28.3%	29.8%
Husband-wife Family	1,866	55.3%	45.38%	46.3%	48.4%
With Children under 18 years	840	22.7%	23.11%	19.7%	20.2%
Female householder, no husband present	203	9.4%	7.36%	12.5%	13.1%
With children under 18 years	98	5.1%	4.82%	6.8%	7.2%

Source: 2015-2019 5-Year ACS

Non-Family Households

Sterling has higher non-family (28.5% or 803) and single-person households (17.2% or 484) when compared with the County but lower than state and national averages.

Households with Individuals 18 Years and Younger and 65 Years and Older

Sterling's percent of households with individuals 18 years and younger is 23.2% and 18.9 of households 65 or over. This is lower than the county, state, and nation.

Household Size

Sterling's average household size of 2.74 is larger than the county, state, and nation while its average family size is lower than the county and the nation but the same as the state.

Housing Stock Inventory

Table 4-4 provides the status of housing units within the Sterling as of the 2019 5-Year American Community Survey (ACS). In 2019 there were a total of 2,920 housing units within the Town with occupied units comprising 94.77% (2,810 units) of the housing stock. Of the occupied housing units, 84.72% (2,512 units) were owner-occupied while 12.31% (365 units) were renter occupied. The average household size of the owner-occupied units was 2.90 persons per unit (ppu) while the average household size of renter-occupied units was smaller at 2.42 ppu.

Total Housing Units and Homeownership 2000-2019

A comparison of total, occupied, and vacant housing units in Sterling and surrounding communities, the number of housing units in Sterling increased by 283 units from 2000 to 2010, to 2,920 total units in 2019. Of these, 143 units or 4.9% were vacant in 2019, an increase of 79 vacant units over 2000.

Table 4-8. Housing Stock Inventory

Housing Occupancy	#	%
Total housing units	2,920	
Occupied housing units	2,777	94.77%
Vacant housing units	143	5.23%
For rent	24	0.8%
Rented, not occupied	5	0.16%
For sale only	35	1.18%
Sold, not occupied	2	.06%
For seasonal, recreational, or occasional use	47	1.58%
All other vacant	42	1.41%
Homeowner vacancy rate (percent)	0.0	
Rental vacancy rate (percent)	0.0	
Housing Tenure	**#**	**%**
Occupied housing units	2,777	93.66%
Owner-occupied housing units	2,512	90.5%
Population in owner-occupied housing units	6,890	
Average household size of owner-occupied units	2.90	
Renter-occupied housing units	265	9.5%

Housing Occupancy	#	%
Population in renter-occupied housing units	773	
Average household size of renter-occupied units	2.42	

Source: 2015-2019 5-Year ACS

Age of Housing Stock

The period from 1970 to 2009 saw substantial construction activity. More than half of Sterling's housing stock was constructed during this period, 63% or 1,847 new homes. The highest percentages of units in Sterling, 21.9%, were built between 1970 and 1979. 13.2% of the Town's housing stock was constructed between 2000 and the present, a period when much of the nation was experiencing a building boom. The percentage of pre-1940 housing stock in Sterling is less than Massachusetts and the nation, apart from structures built between 1940 and 1949 as compared to the national average.

Housing Units by Number of Units in Structure

87.8% or 2,565 consist of a single-family detached housing unit. 6.25% or 183 units consist of 2 units or more.

Table 4-9. Units in Structure

Units in Structure	#	%
Total housing units	2,920	
1-unit, detached	2,565	87.8%
1-unit, attached	172	5.9%
2 units	85	2.9%
3 or 4 units	53	1.8%
5 or 9 units	33	1.1%
10 or more units	12	0.4%
Mobile home	0	0%

Source: 2015-2019 ACS 5-Year ACS

[1] According to Sterling's Assessors there are 4 mobile homes in Sterling.

Housing Affordability – Income, Tenure, and Affordability

Do people of all incomes live in Sterling?

The availability of various housing arrangements in a community can have a significant impact on who can live there. Tenure of households (rental versus ownership) is often closely tied to income, and the availability and price of both rental and ownership units in Sterling likely has implications on housing affordability. A housing affordability assessment

examines the overall demographic profile of Sterling, along with the household income of the population and housing costs to determine how the Town can best meet its needs for providing a diverse and affordable housing stock for its citizens. The Master Plan Survey #3 Part I identified affordable housing as a priority, specifically for younger populations, and aging populations looking to downsize.

Household Income

The 5-Year American Community Survey ACS data for the 2015-2019 period, indicates that the 5-year estimate of median household income for Sterling was $121,458 and mean $154,804. Data shows that 42.5% of Sterling's households have an income under $100,000, as compared to Worcester County (71.5%), Massachusetts (59%) and U.S (77.8%). Only 2.8% persons in Sterling are at or below the poverty level (the weighted average for a family of four is $26,172 as of 2019).

Table 4-10. Household Income

Households	Sterling #	Sterling %	Worcester County %	Massachusetts %	U.S. %
< $15,000	62	2.2%	9.4%	9.4%	10.3%
$15,000-$24,999	27	1.0%	7.6%	7.2%	8.9%
$25,000-$34,999	162	5.8%	7.4%	6.7%	8.9%
$35,000-$49,999	188	6.8%	10.3%	9.3%	12.3%
$50,000-$74,999	427	15.4%	15.3%	14.2%	17.2%
$75,000-$99,999	313	11.3%	12.7%	12.1%	12.7%
$100,000-$149,999	453	16.3%	18.1%	17.8%	15.1%
$150,000-$199,999	404	14.5%	9.5%	10.2%	6.8%
$200,000 >	741	26.7%	9.6%	13.2%	7.7%
Median Household Income	$ 121,458	(X)	$74,679	$81,215	$62,843

Source: 2015-2019 ACS 5-Year ACS

Tenure

In Massachusetts a majority of residents own their place of residence, while a substantial 37.6% are renters. In Sterling most residents own their place of residence (90.5%), while only 9.5% are renters. This tenure mix may be impacting the demographic profile of Sterling as well as not meeting the needs of the community.

Housing Costs and Affordability

Distribution of household incomes by tenure

Lower income households are more likely to be renters than homeowners. However, in many suburban communities renting can be unaffordable. 47.5% of Sterling renters have income between $50,000 and $75,000 while 12.9% have income below $49,000 and 12.4% with income under $15,000. 43.6% of residents who own homes have an income of above $150,000.

Monthly Housing Costs

If there is not enough housing available and prices are high, this can make it difficult or impossible for low-income households to afford to live in Sterling. If supply is limited and housing costs are high, Sterling's housing prices might be putting a serious strain on residents.

One common measure of affordability is the proportion of total household income spent on housing. If a household is spending more than 30% of their income on housing expenses, then they are often considered to be 'cost burdened'. If that number reaches 50%, then the household is considered 'severely cost burdened.

Often, renters tend to have higher levels of housing cost burden than owners. In Sterling 38.8% of renters are cost or severely cost burdened while just 16% of owners are cost or severely cost burdened. The median monthly housing cost with a mortgage in Sterling is $1,997. 18.1% of Sterling's residents who own a home and have a mortgage are paying more than 30% of their income towards monthly mortgage payments and other selected housing costs. Sterling residents exceeding the 30% level is substantially less than Worcester County (26.5%), the State (30.1%) and the U.S. (27.8%).

The median monthly rent in Sterling is $1,304. 103 out of 235 renters in Sterling (43.8%) are paying more than 30% of their income for rent, which remains less than Worcester County (47.9%), the state (49.5%) and the U.S. (49.6%). 30.3% of Sterling's renter households pay between $1,000 and $1,400 in monthly costs and 46.4% of Sterling's owner households pay between $1,500 and $1,999.

Chapter 40B - Households Eligible for Housing Assistance

One measure of affordable housing need is the number of households eligible for housing assistance. Federal and state programs use Area Median Income (AMI) along with household size to identify these households. U.S. Department of Housing and Urban Development (HUD) income limits for extremely low (below 30% of AMI), very low (30-50% of AMI), and low-income (50-80% of AMI) households by household size for the Worcester HUD Metro Fair Market Rent (FMR) Area (HMFA) which includes Sterling. Typically, households at 80% of AMI and below qualify for housing assistance, though there are some exceptions based on household size. 640, or 22.78% of Sterling households are categorized as low-income, and 3.74% are extremely-low-income.

Housing Units Permitted

One way to measure whether a municipality is on track to meet future demand is to compare recent permitting activity to future projected demand. If annual permitting for single or multi-family housing units is historically lower than projected annual demand, this indicates a need to increase the rate of single or multi-family permitting in the future.[12] From 2000 to 2020, Sterling permitted 458 single family units (averaging close to 27 units per year) with the most issued in 2005 (54 units), followed by 2006 (48 units) and 2002 (48 units) (see **Figure 4-2**). Concerning multi-family housing types, a total of 56 units were permitted in duplexes (two attached units) and 72 units were permitted in a housing development of five or more units (Northgate Meadows). One accessory dwelling unit was permitted in 2018.

Notably, multi-family dwelling units and accessory apartments are only allowed in the Rural Resident and Farming (RRF), Neighborhood Residential (NR), and Town Center (TC) districts by Special Permit; accessory apartments are additionally allowed in the Commercial (C) district by Special Permit. As noted in the 2019 Update to the Sterling HPP, these factors combined have historically incentivized developers to produce single-family homes, which do not serve all households.

It should be noted that at the 2021 Annual Town Meeting, the community approved allowing accessory dwelling units by right within a single-family dwelling unit, including as an attached garage, in the RRF, NR, C and TC districts (not to exceed 800 square feet) or allowed via Special Permit if detached in the RRF, NR, C and TC districts (not to exceed 800 square feet). If counted towards the Town's Subsidized Housing Inventory, accessory dwelling units would be able to exceed 800 square feet (up to 1,200 square feet).

The HPP also notes that there are vacant parcels in Sterling that cannot be developed because they do not meet minimal dimensional requirements (e.g., minimum lot size, frontage, rear and side yard requirements), as well as calls attention to the lack of by-right cluster zoning or open space residential/natural resource protection bylaws that would provide mutual benefits to housing development and open space protection.

_____

12   Reported building permits are an imperfect measure of housing growth. In some cases, they overestimate the net increase in housing units if not all permitted projects are ultimately constructed or if demolition of pre-existing units is required. In other cases, they may underestimate new growth due to lack of reporting or because adaptive reuse is not captured in the data.
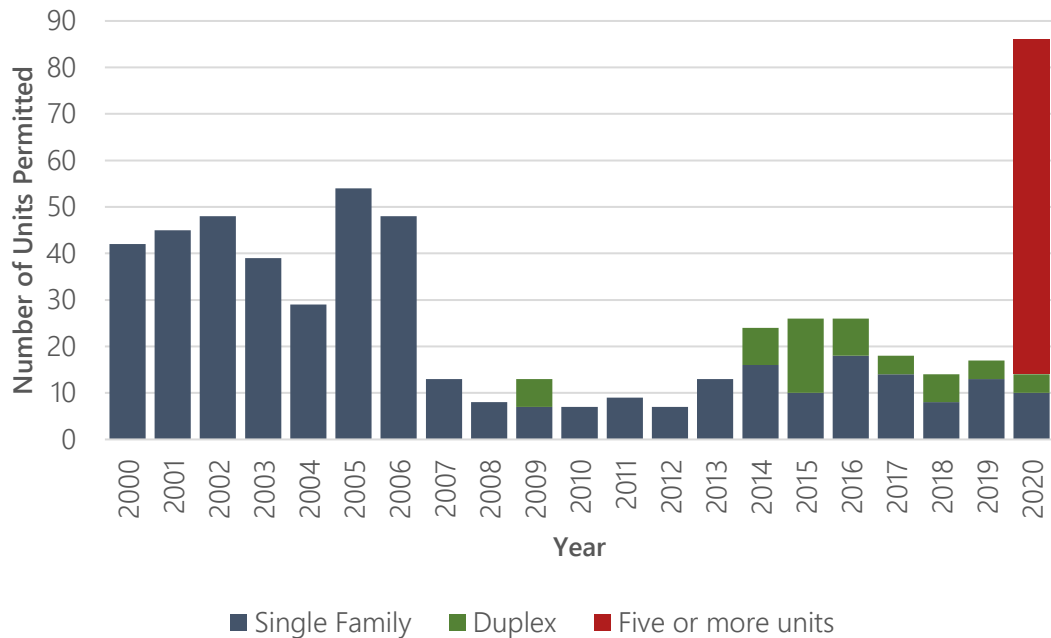
Source: U.S. Census Bureau – Annual Building Permit Survey; Sterling Building Department

Figure 4-8: Annual Housing Permits Permitted by Building Type in Sterling

House Values

Owner-occupied cost burden estimates reflect the housing costs of current owner households. To help estimate changes in home affordability, median sales data was examined for the period between January 1987 to June 2019. The most recent figure (January to June 2019) shows the average home selling in Sterling for $299,980, with the median down $66,100 from the past year. While the median is down $66,100 when compared to the past year, 2018 saw the highest median sale price on record in town (**Figure 4-3**). According to the online real estate database Zillow, the median home value in Sterling is $354,600 (2019). Sterling home values have increased 4.8% over the past year and Zillow predicts they will rise 3.3% within the next year.
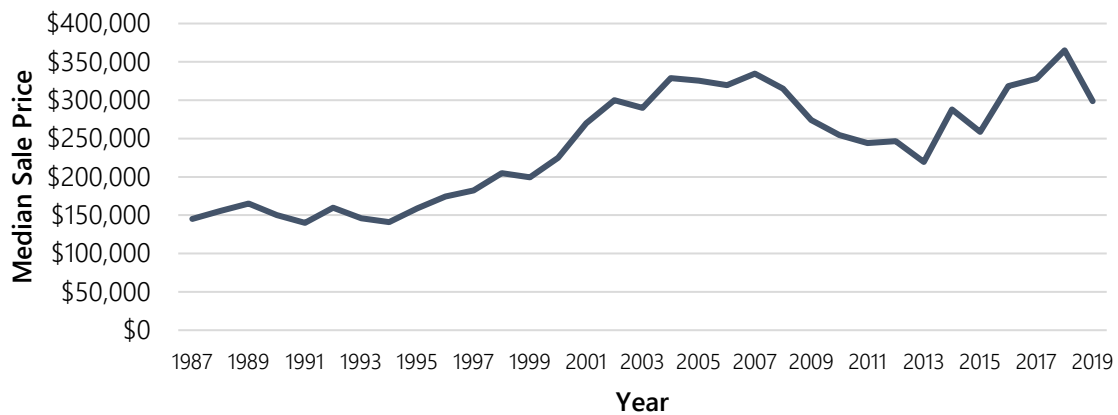
Source: The Warren Group 2019

Figure 4-9: Median sale price for all homes (1987-2019)

Rent

Median gross rent in Sterling ranks high when compared to neighboring communities as well as Worcester County and Massachusetts. Among Sterling's ten nearest communities, just Lunenburg has a higher median gross rent ($1,617). Approved in 2020, Northgate Meadows, a 40B 216-unit rental development currently under construction, has 3 buildings, each with 72 units and 18 affordable one and two-bedroom apartments available by lottery for eligible tenants. Monthly rents are: $1,430 for one bedroom and $1,549 for the two-bedroom unit.

In Summary, 84.7% of Sterling's housing stock consists of owner-occupied units and only 12.3% renter occupied. In addition, 90% of the Town's housing stock is a single-family detached housing unit. However, with Sterling's growing senior population as well as growth of younger families struggling to earn sufficient income to own their own home, more rental units and affordable ownership housing will be needed. Demographic trends indicate a demand for smaller units for those who would like to remain living in the Sterling but find it more difficult either to own a single-family home or maintain their single-family home.

Subsidized Affordable Housing

The State statute concerning affordable housing development (MGL Ch. 40B, Sections 20-23) cites that affordably produced and priced homes must be available to households where the incomes do not exceed 80% of the median family income (MFI) for the region in which the community is located. The HUD calculates the income limits for local areas every year.

For the purposes of Chapter 40B, affordable housing is generally defined as housing units that are:

▸ Subsidized by an eligible state or federal program.

▸ Subject to a long-term deed restriction limiting occupancy to income eligible households for a specified period.

▸ Subject to an Affirmative Fair Marketing Plan.

The Chapter 40B threshold for affordable housing is that every community must have 10% of their housing meet the 80% median household income. If a town or city does not have 10% of their year-round housing units on the State's affordable housing inventory, then a developer can file a plan in their application for a comprehensive permit under the provisions of MGL Chapter 40B that can have greater development density allowed under the Town's zoning bylaw. If the application is denied by the Zoning Board of Appeals, the developer can appeal to the Massachusetts Housing Appeals Committee.

The Massachusetts Department of Housing and Community Development (DHCD) developed the HPP Program in 2003. Based on the principles of this program, by taking a proactive approach in the adoption of an HPP, cities and towns are more likely to achieve both their affordable housing and community planning goals. HPPs give communities that are under the 10% threshold but are making steady progress in producing affordable housing on an annual basis more control over comprehensive permit applications. Sterling has a valid HPP which is effective until October 30, 2024. Sterling recently received

certification of its HPP for the addition of units for Northgate Meadows adding enough units for a two-year certification beginning January 12, 2021 to January 21, 2023.

Northgate Meadow, a 216-rental unit development, has 130 units currently counted on the Subsidized Housing Inventory (SHI). If a rental housing project contains at least 25% of affordable units, the entire development is counted towards the SHI. When completed, 86 additional units will be added to the SHI which will increase the total affordable units to 288 and percent subsidized to 9.98%. However, when the 2020 Census data is updated during the 2nd half of 2021, Northgate Meadow's 216 year-round units and any other additional new units or demolitions that have occurred in Sterling since the 2010 census will be added to Sterling's year-round units. Based on the Northgate Meadow additional units that will be added, Sterling's year-round units will increase from 2,918 to 3,134, requiring a total of 313 affordable units. Sterling's percent subsidized will fall to 9.2%. To meet the 10% affordable housing requirement detailed in M.G.L., Chapter 40B, Sterling will need to create an additional 25 affordable units. These figures do not consider any new construction or demolitions since 2010.

Projected SHI

Total Affordable Units / Total Year-Round Units = SHI %		
(288)	(3134)	(9.18)

Housing Policies and Strategies

Housing Trust

Sterling should continue to comply with Chapter 40B. Chapter 40B outlines a municipality's responsibilities regarding the provision of low and moderate-income housing. Under the law, communities are obligated to provide 10% of its year-round housing stock restricted to low and moderate-income households, defined as those earning no more than 80% of the area median income. At the present time, 6.92% of Sterling's housing stock meets the Chapter 40B definition. While the average home sale price and average rent in Sterling and a majority of the Montachusett Region does provide opportunities for some affordable housing when compared statewide, as indicated in the Housing Inventory and Assessment there is a need for more. Therefore, the benefits of being proactive in this area include not just compliance with Chapter 40B but also helping to provide affordable housing units for a broad range of income groups, including municipal employees, fire fighters, police officers, and teachers.

A housing trust can:

- Provide financial support for the construction of affordable homes by private developers (non-profit or for-profit).
- Rehabilitate existing homes to convert to affordable housing.
- Increase affordability in new housing development projects.
- Develop surplus municipal land or buildings.
- Preserve properties faced with expiring affordability restrictions.

▸ Create programs to assist low-and moderate-income homebuyers.

▸ Create programs to help low-and moderate-income families make health and safety repairs.

▸ Educate and advocate to further affordable housing initiatives.

▸ Create a down payment assistance or affordable mortgage programs for income eligible first-time homebuyers.

Under MGL c.44 s.55C, sources of funding for trusts include:

▸ Community Preservation Act (CPA) funds

▸ Inclusionary zoning payments

The Town of Lincoln has a very active and successful Housing Trust that works closely with the Housing Commission. Guidelines for establishing a trust can be found at https://www.mhp.net/writable/resources/documents/municipal_affordable_housing_trust_gu idebook.pdf

Inclusionary Zoning

An inclusionary zoning bylaw may include some flexibility to its mandatory provisions. For example, bylaws may only apply to certain types of development, such as new construction or substantial rehabilitation. Inclusionary zoning bylaws may include "in-lieu-of" payment or construction alternatives providing developers the option of paying a fee per unit, building affordable units off-site, or rehabilitating units elsewhere in place of constructing affordable units within the proposed development.

The voluntary zoning bylaws may contain incentives for developers such as:

▸ Density bonuses

▸ Expedited permitting

▸ Cost offsets such as tax breaks, parking space reductions, and fee reductions

Example communities include Town of Bolton and Town of Southborough. The Planning Board would be the responsible municipal entity.

Community Preservation Act (CPA)

CPA allows communities to create a local Community Preservation Fund for open space protection, historic preservation, affordable housing, and outdoor recreation. Community preservation monies are raised locally through the imposition of a surcharge of not more than 3% of the tax levy against real property. Municipalities must adopt CPA by ballot referendum. The CPA statute also creates a statewide Community Preservation Trust Fund, administered by the Department of Revenue (DOR), which provides distributions each year to communities that have adopted CPA. These annual disbursements supplement community funds and serve as an incentive for communities to pass CPA.

Eligible uses of CPA for affordable housing are as follows:

▸ Property acquisition

- ▸ Housing creation

- ▸ Property preservation

- ▸ Provision of grants, loans, rental assistance, security deposits, interest-rate write downs or other forms of assistance directly to individuals and families who are eligible for community housing, or to an entity that owns, operates, or manages such housing, for the purpose of making housing affordable

- ▸ Rehabilitation and restoration of properties acquired with CPA money

Some communities have utilized CPA funding for projects which accomplish multiple objectives, such as combining affordable housing with open space and/or historic preservation. CPA funding can also leverage financing for initiatives carried out by nonprofit and private development partners. CPA funds have also been used to purchase deed restrictions, rehabilitate existing affordable housing, obtain planning and professional services, to fund staffing for support of affordable housing, and to prepare grant applications. Communities have also pooled CPA funds to support regional entities that provide affordable housing services.

Example communities include the Town of Lincoln and the Town of Hudson.

Housing Partnerships

Habitat for Humanity (HFH)

- ▸ Initiate contact with the Habitat for Humanity North Central Massachusetts chapter

- ▸ Call for a public meeting of anyone interested in pursuing the possibility of working with Habitat for Humanity in Sterling

- ▸ Identify property or properties that could be built on or renovated

- ▸ Identify funding sources in Sterling (e.g., CPA funds, grants, or inclusionary zoning (payment in-lieu-of))

- ▸ Once there is a sense of interest, possible funding sources, and a project, representatives from the community should approach North Central Mass HFH and ask to create a "Local Project Committee." This group would then act as a subcommittee of the affiliate with non-profit status and a good deal of autonomy, but the finances would be managed through the affiliate's accounts

- ▸ HFH would then appoint a construction manager and initiate the project

Montachusett Enterprise Center, Inc. (MEC)

Another non-profit organization that supports housing development and rehabilitation is the Montachusett Enterprise Center, Inc. (MEC). MEC is a non-profit affiliate of MRPC. MEC operates exclusively for the charitable and educational purposes of management and program direction for projects designed to alleviate socioeconomic problems in the Montachusett Region. Since its inception in 2003, MEC in partnership with Montachusett Regional Vocational Technical High School (Monty Tech) has built three homes in Fitchburg which were sold at affordable prices to lower income individuals. Funding for these projects was provided to MEC from the City of Fitchburg HOME Program and Enterprise Bank and Trust Company, Leominster. MEC built a fourth, affordably priced home in Athol in

partnership with a modular home construction firm. MEC's Board of Directors is comprised of public officials and members of the moderate-income community.

Goals and Actions

It is important to ensure that housing opportunities are available for a broad range of income levels and household types including affordability, homeownership, and condition of the housing stock while maintaining the Town's community character.

Goal 1: Balance the preservation of open space, agricultural land, historic features, and other sensitive spaces with housing development that serves all facets of the community.

Action #1: Adopt Open Space Design (OSD)/Natural Resource Protection Zoning (NRPZ) that would provide for increased housing development while encouraging the protection of natural resources and open space.

Action #2: Update and revise the Protective Bylaws to permit senior, assisted-living housing and alternative housing types, such as apartments/condominiums, townhouses and other diverse housing types including, but not limited to, microunits.

Action #3: Expand the housing options for an aging population. Sterling's demographic projections indicate a need to expand housing options for an aging population with an examination of the current bylaw provisions with the objective of identifying additional strategies to encourage the development of senior, over 55 housing, and universal design to allow aging in place and further identify areas in Town that would benefit from this sort of development.

Action 1-3 was ranked as the highest priority with 62% of respondents choosing it as one of their top four recommended actions in Master Plan Survey #3 Part II. This is consistent with the responses from Part I that request more senior housing and options for an aging population.

Goal 2: Consider Smart Growth Tools as a way to Promote and Advance Housing Initiatives.

Action #1: Reconsider (after two failed attempts) the Community Preservation Act (CPA) as a Smart Growth Tool. CPA is a smart growth tool that helps communities preserve open space and historic sites, create affordable housing, and develop outdoor recreational facilities. CPA can also strengthen the local economy by expanding housing opportunities and construction jobs for Sterling's workforce.

Action #2: Create a local Housing Trust which would allow Sterling to collect funds for affordable housing and segregate them out of the general municipal budget into a trust fund and use the funds for local initiatives to create and preserve affordable housing.

Goal 3: Allow a mix of housing opportunities such as apartments/condominiums, multi-family, town houses, and residential dwelling units in conjunction with commercial activities in the town center.

Action #1: Revise the Protective Bylaws to permit mixed use by right in the Town Center Zoning District.

Goal 4: Proactively Strive to Comply with Massachusetts General Laws Chapter 40B to achieve 10% of year-round housing for low and moderate-income housing.

Action #1: Develop Housing on Town own land/property. Many Massachusetts communities have underutilized properties and use creative measures for redevelopment such as a Request for Ideas or Design Contests.

Action #2: Adopt an Inclusionary and/or Incentive Zoning Bylaw as an effective tool that can be used by Sterling to ensure adequate affordable housing is included in the normal course of real estate development and is a mandatory approach (often in concert with a density bonus) that requires developers to make a portion of the housing units in their project affordable to low- and moderate-income households and is an effective means of increasing the number affordable housing units and creates a wider variety of affordability levels within a development.

Action #3: Offer Tax Incentives in the form of a public/private partnership between the Town and individual homeowners to create affordable housing eligible for Sterling's affordable housing inventory.

Goal 5: Explore Grants and Collaborate with Housing Entities to meet Housing Goal and Objectives

Action #1: Make standard practice to continually explore many of the grant opportunities to help Sterling achieve its housing goals via any of, but not limited to, the following programs: Housing Choice Community Grant Program, Community One Stop for Growth Program.

Action #2: Collaborate with Private Non-Profit Organizations (e.g., Habitat for Humanity North Central Massachusetts and Montachusett Enterprise Center) to advance affordable housing options and services in Sterling.

Natural, Cultural, and Historic Resources

5

Introduction

There are several components of a town that leave lasting impressions and are vital to the community. Two of these essential pieces are the Town's natural resources and cultural identity. Natural resources within a town encompass many elements; they include vegetation, water, soil, topography, and the relationship between them.

Cultural identity of a community is wide in its scope. It includes a mixture of the built and natural environment, history, events, and how they meld together to create a town's legacy. The definition and traditions are ever changing and evolving with the passage of time. It is important to protect the history and ambiance of a town to find success in the future. These elements bring the community together to share common goals and kinship.

The cultural and natural environment often interact with each other to create the overall picture of a town. Development and human activities have the potential to cause harm to the fundamentals that create this image and balance between the two. Careful planning to protect these aspects will ensure future success and maintain and develop the future vision of the Town.

Baseline Conditions Analyses

Natural Resources

The Town of Sterling, Massachusetts is rich in rolling landscape, a variety of water resources, and a profound history of agriculture. The community currently enjoys a diverse range of natural resources including numerous ponds and rivers, and many unique ecological habitats. This section of the Master Plan utilizes the 2010 and 2019 Open Space and Recreation Plan Update (OSRP) created by the Sterling Open Space Implementation Committee, as well as additional local, state, and federal resources.

Geology, Soils, and Topography

Sterling's landscape is attributed to a combination of its valuable soil, plate tectonics, and glacial activity over millions of years. The Town's bedrock is comprised mostly of the Merrimack Terrane, and more specifically two sub-belts: the Wachusett Mountain Belt and the Nashua Belt. The Nashua Belt also contains the Worcester Formation and the Oakdale formation, and the Wachusett Belt includes an igneous intrusion of Fitchburg granite.

The layer overlaying the bedrock is the result of glacial advancement, regression, and deposition. The topography of Sterling is carved by succession and regression of glaciers occurring during the Pleistocene Era, 11,000 to 1.8 million years ago. As the period of glaciation receded, melting ice carried sediment and formed glacial lakes depositing sediment throughout the Town. As time progressed, the waters decreased leaving behind layered glacial deposits of sand and gravel that formed the Stillwater and Wekepeke Aquifers.

The Town's topography is described in the 2019 OSRP as hilly with well-defined valleys and having elevations that range between 330 to 1,010 feet above sea level. Aside from the scenic views offered by the hills of Sterling, historical context is maintained because many are named after the families that once resided upon them, including Chace, Fitch, Kendall, and Ross hills. The hills and valleys of the Town created a vast and multifaceted drainage network with streams and rivers that generally flow to the southeast. The vast drainage network has created floodplains along many of the Town's water features, including the two main floodplains along the Stillwater River and Wekepeke Brook.

Soils

Sterling's soils contribute to its history of agriculture, much of which was created by the above-described glacial activity. The Town contains a mixture of glacial till, sand, and silt. Many of the present-day rivers, streams, and tributaries are responsible for creating the valleys and plains within the Town, as well as adding sediment and nutrients into the soils.

According to a Soil Survey of Worcester County conducted by the U.S. Department of Agriculture (USDA) Natural Resources Conservation Service[13] and also detailed in the 2010 OSRP, there are several naturally occurring soils associations in Sterling. The most substantial is Paxton-Woodbridge, occupying approximately 55% of the Town. There are several variants of these soils with different slope ranges. Woodbridge units with slopes of 0-3% and 3-8% are classified as areas of Prime Farmland, while the Paxton variant with slopes of 8-15% is associated with Farmland of Statewide Importance.

The USDA Natural Resources Conservation Service is concerned with actions that can impair American agricultural productivity. The code of Federal Regulations defines Prime Farmlands as:

"Land that has the best combination of physical and chemical characteristics for producing food, feed, forage, fiber, and oilseed crops, and is also available for these uses (the land

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13   USDA. 1985. SOIL SURVEY WORCESTER COUNTY NORTHEASTERN PART. Retrieved 2021 February.
   https://www.nrcs.usda.gov/wps/portal/nrcs/surveylist/soils/survey/state/?stateId=MA

could be cropland, pastureland, rangeland, forest land, or other land, but not urban built-up land or water.) It has the soil quality, growing season, and moisture supply needed to economically produce sustained high yields of crops when treated and managed, including water management, according to acceptable farming methods." *[14]*

Massachusetts has implemented the Agricultural Preservation Restriction (APR) Program which provides alternatives to development for prime and state important agricultural landowners, which includes the Chapter 61A program for agricultural or horticultural land. Additionally, there are two other programs offered in Massachusetts for the protection of other land types: Chapter 61 for forestry land and Chapter 61B for open space and recreational land. The programs are voluntary and provide financial incentives upon agreement to maintain land undeveloped for a specified timeframe.[15]

In Sterling, there are approximately 3,583 acres of Prime Farmland (see **Figure 5-1**). One of the main resources utilized to protect these soils and other important land is the above-mentioned Chapter 61 programs. As of 2019, per Town Assessors data, Sterling has about 2,566 acres in these programs, with approximately 297 acres in Chapter 61, 2,204 acres in Chapter 61A, and 65 acres are in Chapter 61B.[16]

Water Resources

Sterling is rich in water resources, including several ponds, lakes, and numerous streams and wetlands that are of excellent quality and integral to local and regional water supplies (see **Figure 5-2**). The Town is located within the Nashua River Watershed, which in Sterling contains two vital sub-basins associated with the Stillwater River and the Wekepeke Brook.[17]

Rivers and Streams

The Stillwater River, which spans 9.9 miles from the Town of Princeton to the Wachusett Reservoir, is the most prominent river that flows within Sterling. This river is supported by many tributaries including Wachusett Brook, Ball Brook, Bailey Brook, Rocky Brook, Wilder Brook, Scanlon Brook, and Houghton Brook. The river and surrounding area are designated as Outstanding Resource Waters due to their contribution to the Wachusett Reservoir. The Stillwater River hosts many passive recreational activities, such as, canoeing, kayaking, and fishing, though such activities raise concern for their potential water quality impacts.

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14   USA.CODE OF FEDERAL REGULATIONS.7 C.F.R. §657.5.Retrieved.February 2021. https://www.ecfr.gov/cgi-bin/text-idx?SID=495eac4f412f764a8101158007d3bfc8&mc=true&node=se7.6.657_15&rgn=div8
15   MASSACHUSETTS.MASSACHUSETTS GENERAL LAW. M.G.L.ch.61. https://malegislature.gov/Laws/GeneralLaws/PartI/TitleIX/Chapter61
16   Values represent full parcel acreage and do not account for any exclusions (e.g., residences and other structures).
17   MASSACHUSETTS WATERSHED INITIATIVE (MWI) NASHUA TEAM. NASHUA RIVER WATERSHED FIVE YEAR ACTION PLAN 2003-2007.2003. retrieved February 2021. http://www.nashuariverwatershed.org/5yr_plan/watershed/executive.html

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Town of Sterling Master Plan

Figure 5-1. Agricultural Resources

Legend

☐ Parcel Boundaries

▨ MDAR Agricultural Preservation Restrictions

NRCS SSURGO-Certified Soils

■ Prime Farmland

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Reference System: NAD 1983 State Plane
Massachusetts Mainland FIPS 2001
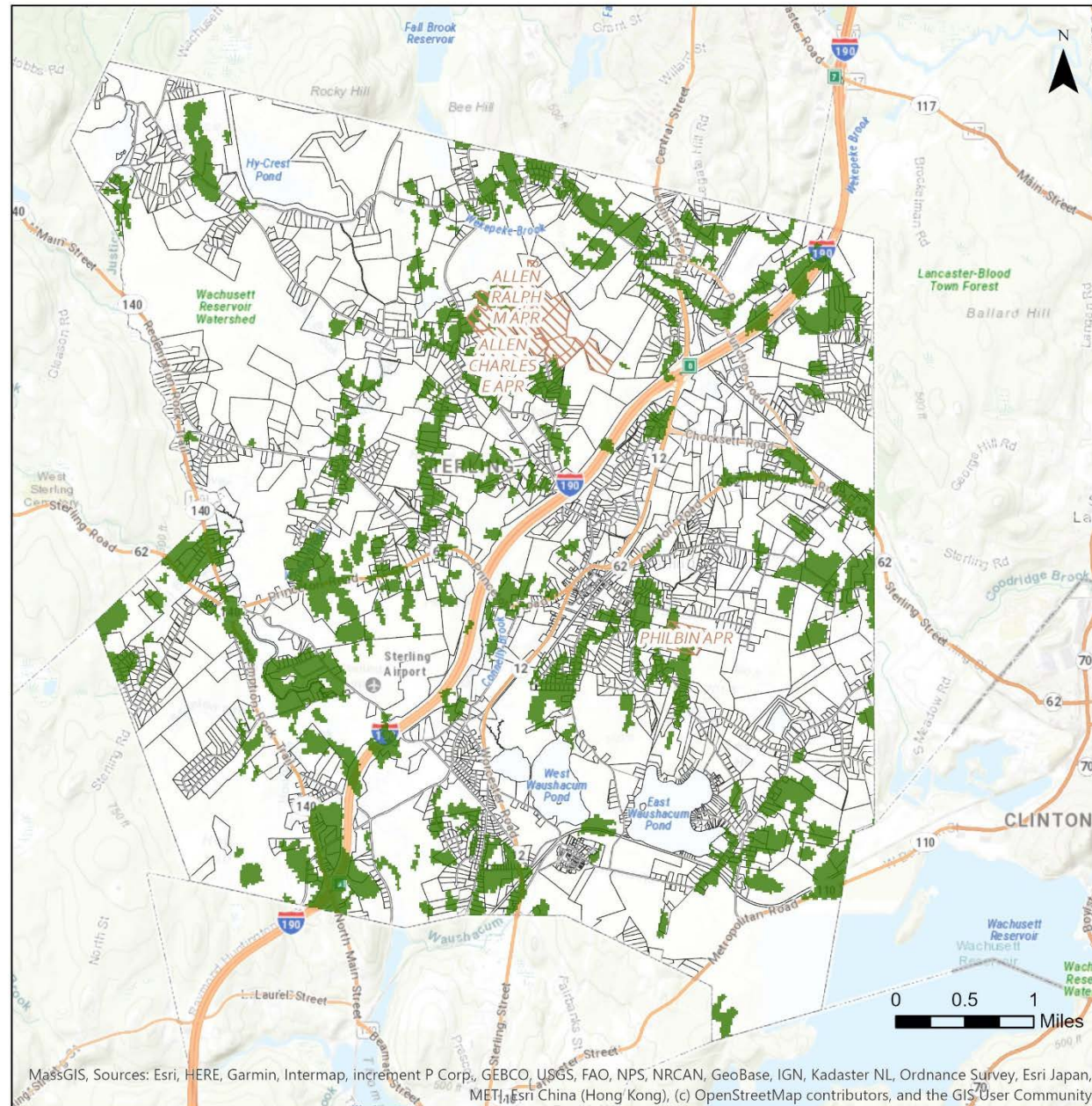
Town of Sterling Master Plan

Figure 5-2. Water Resources

Legend

☐ Parcel Boundaries

USGS Rivers and Streams 25k

—— Perennial Stream

----- Intermittent Stream

—— National Wetlands Inventory (NWI) - Streams

▨ MassDEP Wetlands

▨ Public Water Supply Watershed

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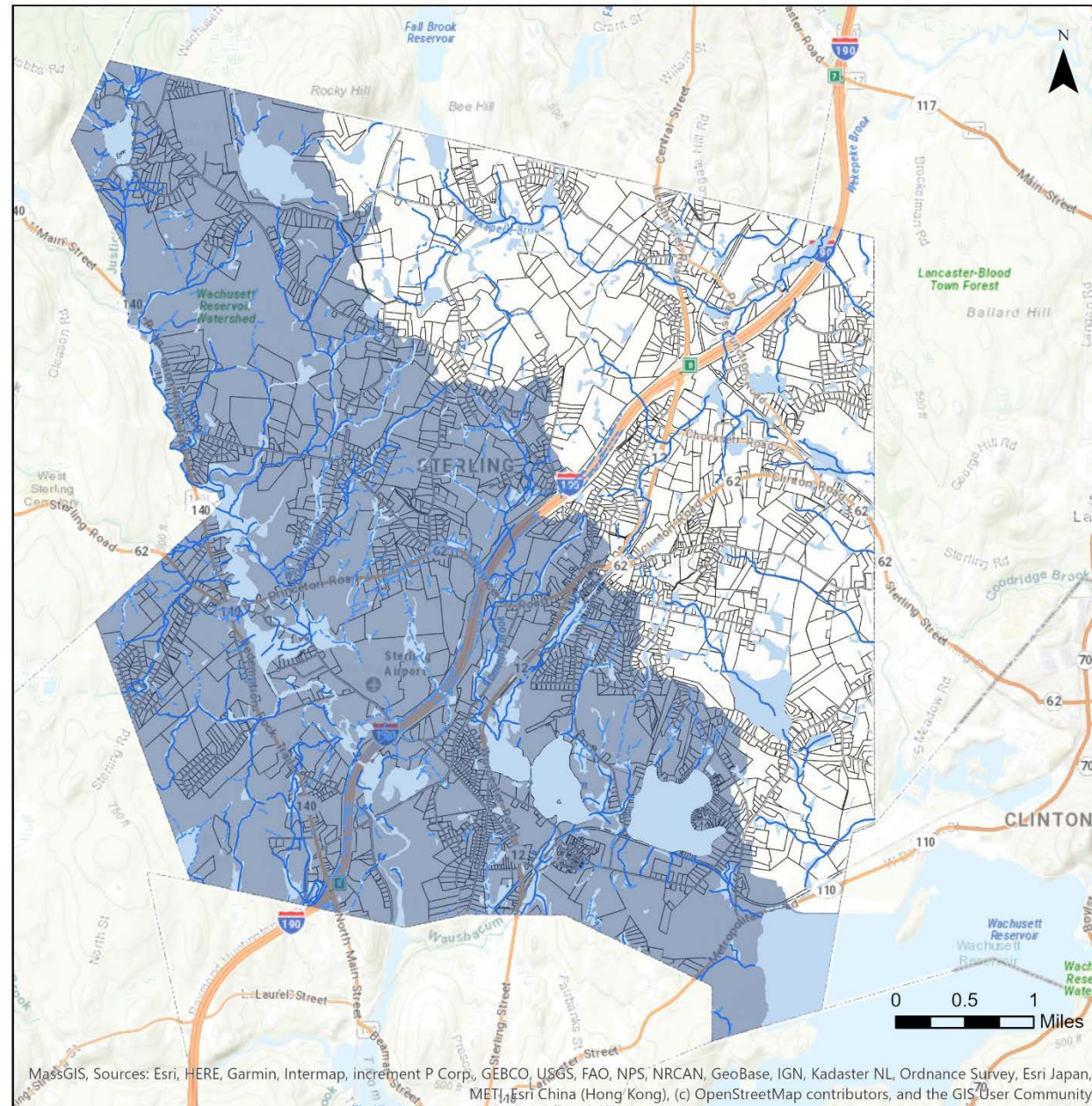
The Wekepeke Brook extends 5.1 miles and is in the northern portion of Sterling, exiting from the northeast corner. The brook, along with several of its tributaries, are designated by the Division of Fisheries and Wildlife (MassWildlife) as a cold-water fishery. The brook's watershed is a vital resource to Sterling and surrounding communities. Three of Sterling's municipal wells are within this aquifer. The Town of Clinton owns the Fitch, Heywood (partially in Sterling), Spring, and Lynde basins which the Wekepeke tributary connects. Another section of Wekepeke Brook between Pratts Junction Road and the former Agricultural Branch Railroad rail bed is owned by the Sterling Land Trust.

There are several more streams and brooks within Sterling's extensive drainage network, including Waushacum Brook and Connelly Brook, which flows through land owned by the Department of Conservation and Recreation's (DCR) Division of Water Supply Protection. South Meadow Brook flows through the southeast portion of town and is tributary to the Nashua River below the Wachusett Reservoir dam.

Ponds and Lakes

There are approximately 12 ponds and lakes fully located within Sterling, plus a portion of the Wachusett Reservoir which encompass about 737 acres (or 3.6%) of the Town. Some of these water bodies are reserved for water supply and have limited access for recreational use.

The three largest open water sources within the Town are a portion of the Wachusett Reservoir and East and West Waushacum Lakes. The Wachusett Reservoir is in the southeastern corner of the Town and has very limited recreational access due to its use as a drinking water supply. East and West Lake Waushacum are both listed as Great Ponds by Massachusetts with public right of access. West Lake Waushacum is the smaller of the two with shores free of development and lies within DCR's water supply protection lands. As a result, there are also some limitations on recreation. East Lake Waushacum is much different from West Lake Waushacum, as it has a built-up shoreline with mostly residential units and a town-managed beach and picnic area. East Lake Waushacum is a popular community location for swimming and boating. Both Lake Waushacum and the Town-managed beach were identified in Master Plan Survey #1 as an aspect of Sterling that "people love."

Of the remaining 10 water bodies within the Town, four are held in reserve by Clinton's water supply system: Fitch Basin, Heywood Reservoir, Lynde Basin, and Spring Basin. Hycrest and Muddy Ponds are both owned by DCR's Division of Water Supply Protection, and The Quag is also under DCR's jurisdiction.

The final three are Stuart, Stump, and Fitch Ponds. Stuart Pond is privately owned; access is limited to foot traffic and daylight hours. Stump Pond is a wildlife habitat for osprey and has a conservation easement on its surrounding area by the Sterling Conservation Commission. Fitch Pond, a Great Pond, is surrounded by privately owned property. Thirty acres of land nearby are designated as the Fitch Pond Floodplain Conservation Area, which is owned by the Sterling Land Trust.

Wetlands

The extensive water network within Sterling and its topography facilitates the creation of wetlands throughout the Town. Wetlands are typically found in areas of low-lying topography, and are areas saturated or flooded that produce hydric soils and support the growth of wetland vegetation.

A variety of wetland types, including swamps, marshes, bogs, and over 20 Certified Vernal Pools, are distributed throughout the Town and border almost all the rivers, streams, ponds, and lakes. The Stillwater River and Wekepeke Brook systems both host a considerable network of wetlands, as does Fitch Pond and The Quag and their associated tributaries.[18]

The Stillwater River has a sizeable network of wetlands located near the western boundary of Sterling along Route 140, which include a diverse selection of swamp types. Wekepeke Brook follows suit in the northeastern portion of the Town with similar wetland diversity. Fitch Pond is surrounded by an extensive system including a variety of wooded swamps and a large deep marsh, while its tributaries host additional wooded swamps, marshes, and wet meadows. The Quag has a similar wetland makeup but with a smaller marsh area.

Biodiversity - BioMap2

In 2010, the Massachusetts Natural Heritage & Endangered Species Program and The Nature Conservancy's Massachusetts Program developed BioMap2 to aid in the conservation and protection of the state's biodiversity. The map layer can be viewed on Bureau of Geographic Information (MassGIS) and contains two main components: Core Habitat and Critical Natural Resources, and several sub-components. Core Habitat identifies areas of habitat that support the longevity of species identified in Massachusetts Endangered Species Act and The State Wildlife Action Plan. Critical Natural Resources depicts larger landscapes that are more suited to support ecological processes, disturbances, and a variety of species.

In Sterling, both Core Habitat and Critical Natural Resource exist (see **Figure 5-3**). Core Habitat and Critical Natural Resource areas are portrayed heavily in the western portion of the Town along the Stillwater River and Wachusett Reservoir and extending eastward along the Wekepeke Brook. Additionally, portions of The Quag and West Waushacum Pond and adjacent areas, as well as portions near the Sterling Airport, are illustrated. Many of these areas encompass the wetlands and surface water within Sterling's water network.

Known Threats to Natural Resources

Floodplains

Floodplains are areas adjacent to surface water that are vulnerable to flooding during increased water flow and are critical to the protection of both human and environmental well-being. The 1% flood zone as mapped in Federal Emergency Management Agency

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18   MassGIS (Bureau of Geographic Information), Commonwealth of Massachusetts EOTSS.Layers include NHESP Certified Vernal Pools, MassDEP wetlands. Retrieved February 2021. http://maps.massgis.state.ma.us/map_ol/oliver.php

(FEMA) Flood Insurance Rate maps is found along the many areas of surface water in Sterling, including the Stillwater River and Wekepeke Brook. These areas also coincide with stipulations in Sterling's bylaws that prohibits encroachment within the zone without following proper procedures so as not to increase flooding. Changes in both the built and natural environment, including increased development, and loss of trees and vegetation within or near floodplains areas, can alter the level of flood waters.

Dams

The MassGIS Dam layer,[19] which sources information from historical records of the Massachusetts Office of Dam Safety, shows approximately 21 dams in Sterling, with five having a Significant Hazard designation and two having a Low Hazard designation. The remaining dams do not have designations. The National Inventory of Dams (NID) details a "Significant Hazard" designation as a dam that has the ability to cause a range of damage, including economic loss and/or environmental damage. The existence of dams within a river system can alter the natural processes and function of the river (i.e., water movement, fish passage, and sediment flow, all of which are important to the quality of water and habitat).

Water Quality and Consumption

The quality of water can be influenced by many factors. Sterling has an extensive water network that is vital both locally and regionally to water supply. Protecting Sterling's waters and the elements that contribute to them is essential to maintaining this vital resource.

The Nashua River Watershed 5-Year Action Plan identified several water resource issues related to the Stillwater River and Wekepeke Brook due to their contribution to the watershed. These issues include increased development resulting from the I-190 corridor that runs through both sub-basins, intersecting the Stillwater River and running along the Wekepeke Brook. Route 140 also runs along the Stillwater River for a significant portion of its reach. The presence of these heavily traveled roads not only contributes to increased development, but also additional run-off with potential contaminants such as de-icing salts and the reduction of pervious surfaces.

Development can also lead to other potential water quality impacts. For example, depending on their integrity and proximity to water sources, septic systems may release wastewater contaminants in drinking water and nutrients and pathogens to surface waters. Another development element that will require future monitoring is Sterling's landfill. It is currently closed and capped, but is located within the Wekepeke sub-basin and adjacent to Bartlett Pond and the brook itself.

Water capacity is also a reported concern. Approximately 80% of the Town is serviced by the public water system, while the remainder is serviced by private wells. Development growth leads to increased water volume use, which is limited by permitted withdrawal rates established by the Massachusetts Department of Environmental Protection. Also, one of Sterling's four wells is currently not in use due to contamination, which increases the burden

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19   The MassGIS Dams layer has not been updated since 2012 indicating that not all locations have been verified and layer is in the process of being updated.

on the remaining sources. These aspects augment the difficulty in upholding the balance of water in and out, and leads to the need to encourage water conservation and the possible search for other well locations. Per responses to Master Plan Survey #3 Part I, residents want water availability to be at the forefront of the Town's Natural Resources response.

Town of Sterling Master Plan

Figure 5-3. Ecological Integrity

Legend

- Parcel Boundaries
- NHESP Certified Vernal Pools
- NHESP Priority Habitats of Rare Species
- NHESP Estimated Habitats of Rare Wildlife
- BioMap2 Core Habitat (CH)
- BioMap2 Critical Natural Landscape
- BioMap2 CH Priority Natural Communities
- BioMap2 CH Forest Core
- BioMap2 CH Species of Conservation Concern

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Massachusetts Mainland FIPS 2001
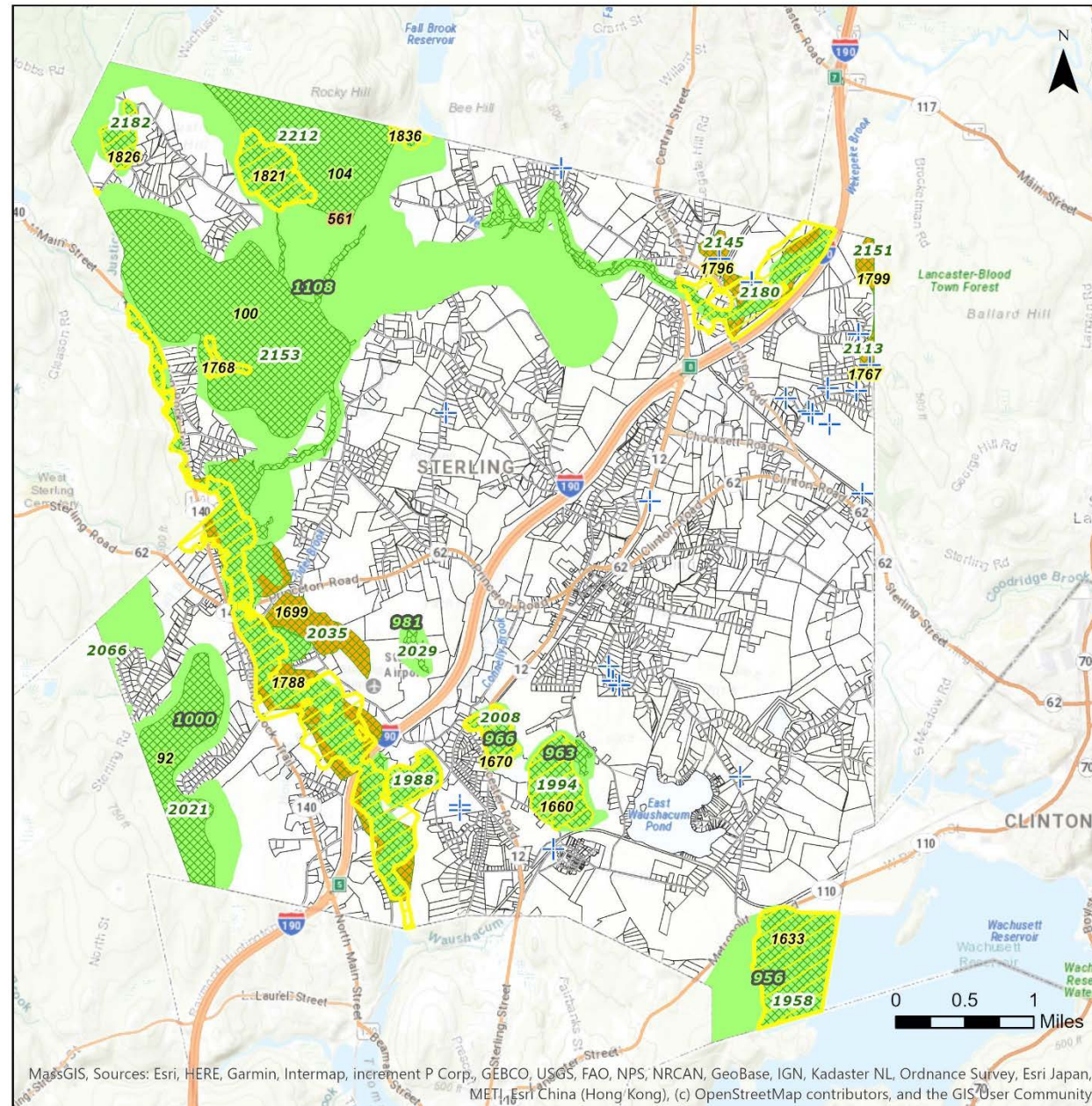
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Historic and Cultural Resources

Historic and cultural resources often overlap in goals, audiences, events, and primary organizations. By considering these resources together as "heritage," we create a stronger link between the built environment, natural landscapes, and the people and communities that create and inhabit them. The loss of a historic building represents a loss in cultural memory as well; similarly, a failure to create cultural opportunities results in fewer traditions, stories, and artists that will become our community heritage in the future. Looked at a different way, however, actively seeking to preserve historic and cultural resources enhances the prominence and longevity of each individual resource.

When most people think about historic resources, they picture a specific building or streetscape. The range of physical, man-made resources that contribute to our heritage is much broader than buildings with four walls and a roof. The National Register of Historic Places (National Register), which was established in 1966 as the country's official list of the Nation's historic places worthy of preservation, recognizes five main categories of historic resources:

▸ **Buildings:** Structures intended to shelter human activity, such as houses, offices, stores, farm buildings, churches, etc.

▸ **Structures:** These constructions facilitate human activity but are not intended for long-term shelter, such as bridges, gazebos, and dams.

▸ **Objects:** These are often artistic works, which are relatively small in scale (in comparison with a building), such as monuments, fountains, and statues.

▸ **Sites:** Land areas that are significant due to a past event or usage, such as archaeological sites, battlefields, parks, and gardens.

▸ **Districts:** Historic districts comprise multiple resources, and may contain any combination of the above property types.

Heritage also consists of less tangible resources as well, or resources that are not part of the built environment. These include artifact and document collections, displays of artistic expression, events associated with cultural and/or ethnic identity and heritage, and oral histories. These memory resources bridge the gap between physical historic places and modern users, making otherwise inanimate items relatable by adding "people" into "history."

Historic and Cultural Resources in Sterling

The diversity of what is considered a historic or cultural resource, and the dynamic nature of these categories mean there is no single, centralized place to consult for up-to-date data on which of these resources exist in Sterling. Instead, understanding which resources are currently recognized in the Town requires information from a number of sources. Published documents, state-maintained databases, Town records, and interviews with key stakeholders were all consulted to gather information about priority cultural resources sites, programming, and events.

Sterling has hundreds of archaeological and architectural historic resources that have been documented by a variety of different entities, with the Sterling Historical Commission serving as the primary driver of major survey efforts. The Massachusetts Historical Commission (MHC) serves as the central repository for these files.[20] In addition, MHC staff authored a series of Reconnaissance Survey Reports across the state in the early 1980s, which details the pre-Contact and post-Contact periods of development and historic contexts.[21] Although completed nearly 40 years ago, much of the historic overview is still relevant.

Photograph of the town center, dating from the turn of the twentieth century, is part of the Sterling Historical Society's extensive collections.

Recorded historic and archaeological resources include buildings, structures, objects, sites, and landscapes that are physical reminders of Sterling's heritage – both before and after the Town's formation. These resources can be documented on an individual basis, such as a building or a farm, or grouped into districts that collectively tell a broader cultural story (see **Figures 5-4 and 5-5**). Some resources have been listed in the National Register, which is the national list of significant places that are especially worthy of preservation, while others have received similar recognition at the state level. In Sterling, there are over 150 properties in Massachusetts Cultural Resource Information System (MACRIS) that lie outside identified historic areas and of which the majority have no official designation. In addition, there are at least 10 areas in MACRIS that also have no official designation. These Inventoried structures and areas have some level of documentation on file, identifying them as potential subjects for further research.

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20 The survey documents held by the Massachusetts Historical Commission (MHC) can be found in a searchable public database called MACRIS (Massachusetts Cultural Resource Information System) at http://mhc-macris.net/, and its companion GIS website at http://maps.mhc-macris.net.

21 A digital copy of the Massachusetts Historical Commission Reconnaissance Survey Town Report: Sterling, 1983 is provided here: https://www.sec.state.ma.us/mhc/mhcpdf/townreports/Cent-Mass/ste.pdf

Town of Sterling Master Plan

Figure 5-4. Historic Resources

Legend

Parcel Boundaries

Massachusetts Historic Commission Inventory

● Inventoried Property

● National Register of Historic Places

★ Preservation Restriction

Inventoried Area

National Register of Historic Places

Preservation Restriction

Date Created: 02/09/2021
Date Revised: XX/XX/XXXX

Reference System: NAD 1983 State Plane
Massachusetts Mainland FIPS 2001
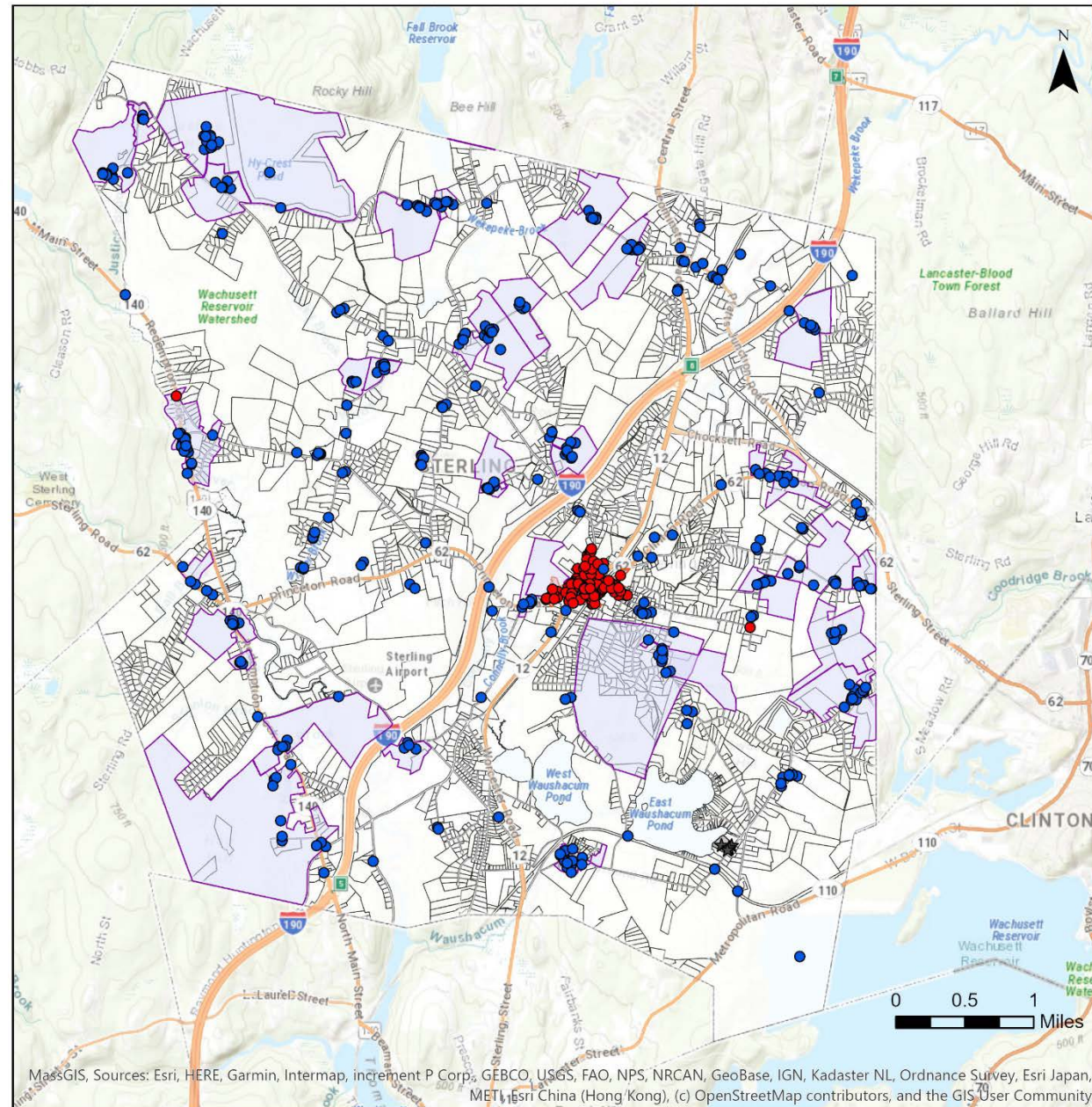
Town of Sterling Master Plan

Figure 5-5. Historic Resources,
Town Center Detail

Legend

Parcel Boundaries

Massachusetts Historic Commission Inventory
- ● Inventoried Property
- ● National Register of Historic Places
- ★ Preservation Restriction
- Inventoried Area
- National Register of Historic Places
- Preservation Restriction

Date Created: 02/09/2021
Date Revised: XX/XX/XXXX

Reference System: NAD 1983 State Plane
Massachusetts Mainland FIPS 2001

MassGIS, Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community
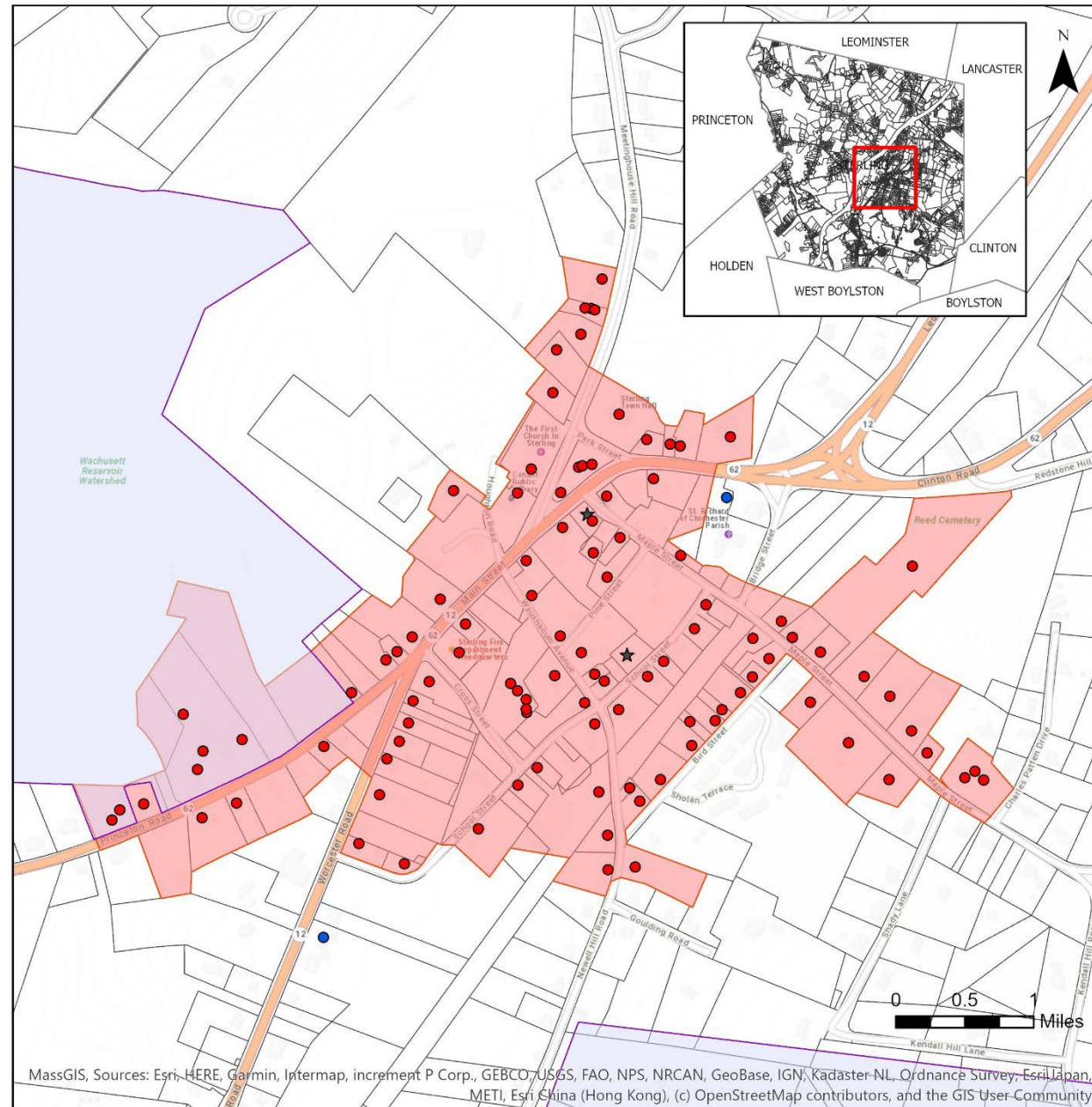
The following are the Town's National and State Register listings:

▸ Sterling Center Historic District (listed 1988);

▸ Stephen Hastings House (listed 2005); and

▸ Sawyer Homestead (listed 2000; however, the house was burned by arsonists and replaced in 2007).

2001 Farmstead Survey

In addition to inventoried resources included in MACRIS and the MHC Reconnaissance Survey Report, a farmstead survey report and associated MHC inventory forms were published in 2001. [22] The project was funded by Sterling and a matching Survey and Planning Grant from MHC. The project undertook an intensive survey of historic farmsteads, which augmented and expanded the previous inventory of the Town's historic, architectural, and cultural resources. The farmstead study focused only on agricultural, or formerly agricultural properties, which retained a considerable portion of their outbuildings, farm structures, and in many cases, their agricultural landscapes. In total, 30 MHC Area forms and 28 individual Building forms were written covering 84 properties. The study report also includes the following recommendations for further study:

▸ Expansion of the farmstead survey,

▸ Additional documentation of the farmstead resources surveyed,

▸ Research to identify builders' and designers' names, and

▸ Future updating of inventory forms.

The MHC Survey and Planning Grant Program is a federally funded, reimbursable, 50/50 matching grant program to support historic preservation planning activities in communities throughout the state.[23] Eligible applicants include all local historical commission, local historic district commissions, planning offices, and other eligible public and non-profit historic preservation organizations.

Cemeteries

There are six cemeteries in Sterling included in MACRIS; Chocksett (est. ca. 1736), Legg (est. ca. 1756), Fairbanks (est. ca. 1760), Cookshire (est. ca. 1782), Oak Hill (est. ca. 1817), and Hillside (est. ca. 1930) Cemeteries. The inventory forms are dated between 1969 and 1974 and were all recorded by the Sterling Historical Commission. The forms for Oak Hill and Hillside Cemeteries offer very little information other than the name and location of the cemetery. The forms for Chocksett, Legg, Fairbanks, and Cookshire Cemeteries include a varying level of information such as a list of the markers, inscriptions, brief histories, and photographs. In 2000, MHC evaluated the National Register Eligibility of the Legg Cemetery; however, MHC found the level of existing documentation insufficient to make a determination at that time. Although the inventory forms have not been updated since they

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22 The Sterling Historical Commission provides a digital copy of the Historic Farmstead Survey report here: https://www.sterling-ma.gov/sites/g/files/vyhlif1266/f/pages/thecompletefarmsteadsurvey-2018.pdf

23 Massachusetts Historical Commission Survey and Planning Grant Program overview is provided here: https://www.sec.state.ma.us/mhc/mhchpp/surveyandplanning.htm

were recorded, an inventory of the markers at each cemetery has been record on the public website www.findagrave.com, including names, inscriptions, and most photographed. However, a list of burials without markers and the condition of the landscape and markers is not included in either the inventory forms or the findagrave.com inventory.

Inventory Patterns

The MACRIS inventory has a number of limitations – most importantly, it is not comprehensive and instead reflects the historic priorities of each town at any given time. A high percentage of the inventory forms were completed between the 1970s and the mid-1980s, when funding for large-scale surveys was more readily available which means that buildings that are now nearing the 50-year threshold for National Register eligibility consideration, are underrepresented in the Town inventory. A town-wide survey effort in 2001 focused overwhelmingly on agricultural or agricultural-related properties. Additionally, historic research, descriptions, and architectural style typologies have become more rigorous over time, meaning there is a wide spectrum of information included on forms in the MACRIS inventory.

However, the inventory remains a valuable resource in identifying general patterns of recorded historic resources in Sterling, and potential opportunities for further study. It is possible to pinpoint informational gaps to help inform future survey priorities and possible threats to as-yet unidentified significant resources.

Nearly all of Sterling's existing inventory in MACRIS, over 600 forms, dates to volunteer-run survey efforts conducted in the 1970s through 1980s and the farmstead survey undertaken in 2001. Approximately 70% of the individual inventory forms are grouped into the 35 areas, and the thoughtful grouping of these properties is an excellent foundation for identifying historic patterns, stories, and contexts for educational and documentation purposes.

One example of this is illustrated by the MACRIS inventory in the Waushacum Village[24], which has a dense concentration of surveyed resources. The inventory is represented by a dense area, highlighted as "STE.A," and several individual properties indicated by points. All of the individual properties were surveyed as part of the area documentation in 2001 (not part of the 2001 Farmstead Survey). It may be beneficial to look at this village with a modern perspective and consider whether the heritage of the village actually encompasses this concentration of properties or if there is a need to expand the district. Considerations can include noting alterations, demolitions, and infill where appropriate; resources that have reached 50 years of age (the threshold often used in National Register evaluations) since the 2001 survey; and prioritizing the themes best represented by extant resources for educational, documentation, and designation purposes.

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24   Waushacum Village is identified as "Sterling Campground" in MACRIS.

Photograph of the Sterling Campground, dating from the turn of the twentieth century, looking southeast on Circle Avenue (courtesy of the Sterling Historical Society).

The 2001 Farmstead Survey identified several agricultural districts including the Clinton Road Farms (STE.K), the Goss-Butterick Farms Area (STE.H), Davis Farm (STE.I), and the Butterick-Nourse Farm (STE.J). Several of these agricultural districts already encompass a mass of current or formally agricultural properties, like the Clinton Road Farms. However, several farmsteads have been identified as possible contributing properties to larger districts, like the Goss-Butterick Farms Area possibly combined with the Davis Farm and the Butterick-Nourse Farm to create a contiguous agricultural landscape along Redstone Hill and Rugg Roads.

General Time Periods

The architectural style recorded on MACRIS inventory forms can be used to understand which time periods are well-represented. Historic architectural styles tend to remain popular for a few decades before tastes transition to new building forms and decorative features. While the assignment of architectural style has not been entirely consistent over the course of time, common eighteenth and nineteenth century styles tend to be interpreted uniformly. This often presents a more accurate record of time period than using construction date data from MACRIS; although the construction date is available through the Geographic Information System (GIS) metadata, these dates are often based on unsubstantiated sources and are far more variable in representation (examples may include: 1880, c. 1880, 1880s, late nineteenth century, etc.). In addition, over 400 of the almost 620 inventoried resources are secondary/agricultural outbuildings, landscapes, cemeteries, structures, and objects that do not include styles and cannot adequately be assessed.

Looking at a breakdown of inventory forms by architectural style (see **Figure 5-6**) can reveal general trends that indicate the priorities of previous survey efforts (both intentional and unintentional). For underrepresented time periods, it is often worth investigating whether the lack of inventory forms reflects a chronological lull in development or suggests an

opportunity to proactively expand the inventory before little-understood resources are threatened.
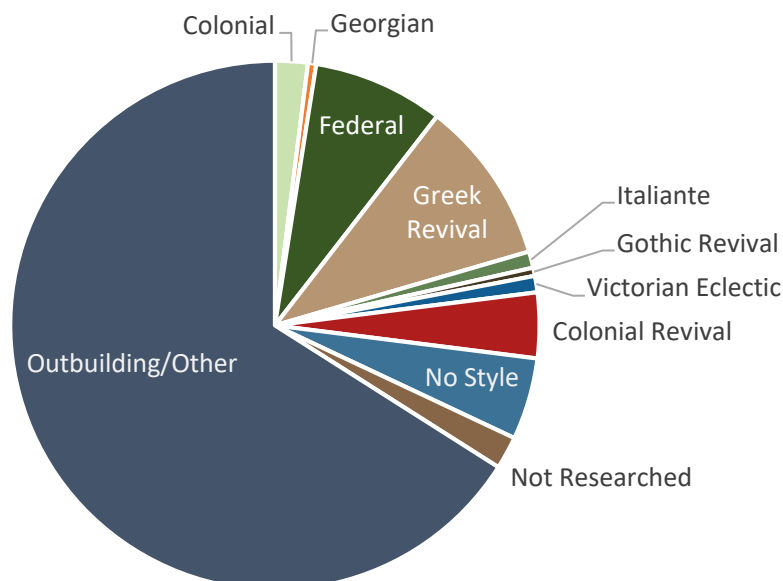
Figure 5-10. MACRIS Inventory Forms by Architectural Style; Town of Sterling

Even with the limitations of the data available through MACRIS, a few patterns are discernible. The chart consists of styles that are represented by at least four properties in the inventory and are solidly eighteenth and nineteenth century styles, such as Colonial, Federal, and Greek Revival are fairly well-represented in the inventory. Transitional styles such as Victorian Eclectic and Colonial Revival were used into the first quarter of the twentieth century and are represented by somewhat smaller ratios or not recorded. The least-represented categories (fewer than four examples) are not called out in the chart, and include other styles associated with the first quarter of the twentieth century (or last few years of the nineteenth century) such as Second Empire, Queen Anne, English Revival, and Craftsman. Later twentieth century styles such as Art Deco and Cape/Postwar Traditional represent a much smaller ratio than earlier time periods.

Confirming the cause(s) of this decline of representation in the inventory over time may be helpful. For instance, perhaps previous survey efforts had a definitive stop date, so later inventory forms are few and far between. Alternatively, Sterling's agricultural history is strongly represented by multi-generational farms where an eighteenth or nineteenth century house was lived in by multiple generations. Understanding whether the drop-off of inventory forms for buildings dating post-1920s is due to sample size or survey restrictions may be useful to identify focus areas for future inventory activities or the development of adequate parameters for a demolition delay ordinance.

Resource Types

Some resource types are poorly represented in the inventory simply because they are relatively recent categories and have few inventoried/designated examples or are not

distinguished in the available data as subtypes of National Register districts, such as cultural landscapes. Thematic surveys, such as the Farmstead Survey in Sterling, have been used as a tool in the last decade by towns that are witnessing steady redevelopment of rural and agricultural-related resources.

Heritage landscape resources, often identified as rural landscapes, agricultural landscapes, and/or cultural landscapes, consider manmade and natural features that together are significant in telling the story of the development of a town. These landscapes can incorporate scenic and ecological land use patterns as well as community history to tell broad, and often complex, stories. Significant viewsheds, important routes, and the ways cultural traditions influence construction and planning are some of the less "tangible" resources that can be documented on a landscape scale. Massachusetts has been particularly proactive in studying its heritage landscapes, through the Heritage Landscape Inventory program.[25] This partnership between the DCR and the Freedom's Way and Essex National Heritage Corridors worked with members of the public to identify priority heritage landscapes facing some level of threat by disuse, potential development, or environmental evolution. Sterling has not participated in the Heritage Landscape Inventory Program.

Archaeological Investigations

Sterling has a minimal number of identified archaeological sites, just over 10 pre-Contact (i.e., those that predate Native American contact with Europeans) sites and nearly one-half-dozen post-Contact sites, which is roughly average for the communities in the northern part of Worcester County.

The majority of the identified pre- and post-contact sites are concentrated in the southern portion of the Town, primarily around Lake Waushacum where activities from those periods would have been attractive.

Historic and Cultural Entities and Events

It truly does "take a village" to promote, protect, and celebrate Sterling's heritage. Several community groups, Town departments, Town committees (and subcommittees), and dedicated volunteers have taken on responsibilities to connect the Town's past, present, and future residents.

Sterling Historical Commission (M.G.L. Chapter 40 s. 8D)

The five-member Sterling Historical Commission (SHC) is appointed by the Select Board and mandated to protect and preserve historic buildings, structures, properties, cemeteries, and archaeological sites in the Town. To achieve this goal, the SHC's responsibilities include the following:

- Identify, compile, and maintain an inventory of the Town's historic assets according to MHC guidelines.
- Identify resources for nomination to the National Register of Historic Places.

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25 Massachusetts Heritage Landscape Inventory Program https://www.mass.gov/lists/heritage-landscape-inventory-reconnaissance-reports

▸ Encourage community awareness of and promote interest in Sterling historical heritage; educate community about preservation issues and how preservation can positively impact the Town's economic development and property values.

▸ Advise Town boards, committees, departments, and administration in all matters relating to historic preservation, including any proposed alteration, destruction, or relocation of historical assets.

▸ Encouraging renovation and adaptive reuse as alternatives to demolitions of historic properties.

▸ Advocate for local ordinances, bylaws, and public actions that encourage the thoughtful, preservation-minded planning and development in keeping with the character and history of Sterling.

▸ Be an active participant in the Town planning process.

Sterling Historical Society (SHS)

The Sterling Historical Society (SHS) was founded in 1963, as a volunteer organization dedicated to preserving the rich history of Sterling. The SHS and museum is in the Blood-Peck House at 7 Pine Street in the Sterling Center National Register Historic District. They hold an extensive collection of artifacts, research materials and other exhibits on display covering the people and events of Sterling's past. They also have a large collection of digital and physical information and documents, including a repository of records specific to family names and antique homes. The museum is open to the public on Tuesdays 9:00-12:00 or by appointment.

Sterling Cultural Council (SCC)

The Sterling Cultural Council's (SCC) mission is "To promote excellence, inclusion, education and diversity in the arts, humanities, and sciences to foster a rich cultural life for all Massachusetts residents and contributes to the vitality of our communities and economy. The council pursues this mission through a wide range of grants, initiatives, and advocacy for artists, communities, organizations, and schools." As the local council representative of the Massachusetts Cultural Council, the SCC administers and distributes grant funding for a variety of projects, including concerts, exhibitions, broadcasts, shows, school programs, and field trips.

Aside from grant funding provided from the Massachusetts Cultural Council, the Town has previously allocated monies from its general operating budget to the SCC. The latest allocation amounted to $3,550 in fiscal year 2020. The SCC requested and received the same amount for fiscal year 2021.

Conant Public Library (CPL)

Like many public libraries across the county, the Conant Public Library (CPL) has evolved into a community center, classroom, local repository, and cultural meeting and display space – as well as a physical and online resource for books and other media. The original main block of the library was dedicated in 1886. A large addition was constructed in 1986, providing a new lobby, children's room, book storage, and reading room. In 2004, the library was renovated, including upgrades to its systems, creation of a program room, and

creating Americans with Disabilities Act (ADA) access to the building. In 2019, the Library Trustees voted to use some donated funds to update the interior and in addition, the Town provided a Capital Fund to replace the carpeting. The library is currently (2021) engaged in a Capital Funds Project to address an old elevator and aging ADA lift. The library holds local history resources as well as public access to online resources like Ancestry.com that complement the collections of the Sterling Historical Society's extensive repository.

Sterling-Lancaster Community Television (SLCT)

The public access television station is a useful tool to promote the activities and initiatives of the Town's historic and cultural resources. Broadcasts include public meetings and events, and community news programs.

The SHC has utilized the station to promote restoration activities around Sterling, like the Sterling Boy Scout Troop 189, Legg Cemetery Restoration Project Interview from May 15, 2019.

The Sterling Fair

This agricultural fair first took place in the early nineteenth century, when it was established by the Sterling Cattleman's Association, and it ran until the late 1950s. The tradition was reinstated in 1981 for Sterling's bicentennial, and since then it has been run by the Town as a municipal fair every fall. Today's participants can enjoy attractions including fireworks, livestock, contests for children, and a Ferris Wheel. The Sterling Fair is currently the largest free fair of its size in New England.

Inspire Sterling

This art show encourages members of the Sterling community to create artwork that celebrates life in their town. No restrictions on mediums are given and participants are able to submit their pieces through an online form. The event was developed in order to celebrate Sterling's 240th Anniversary and also to support the restoration of the West Sterling Schoolhouse, which is the last one-room schoolhouse in the Town. The show took place in the school itself between June 4-6, 2021.

Art in the Park

In developing this festival, the SCC hopes to create a new annual or semi-annual, art-centered event that residents can enjoy for years to come. The main purpose of the event is to provide Sterling artists with a platform from which they can showcase their work and compete for prizes. However, the SCC will also use the opportunity to publicize the Massachusetts Cultural Council grants in order to encourage attendees to develop other similar programs. The first Art in the Park event took place in Sterling's Memorial Park and Town Common on August 21, 2021.

Sterling Summer Concert Series

The Sterling Summer Concert Series is an annual event held by the Recreation Department that brings musical artists to Sterling's residents over the summer months. Held centrally in

Memorial Park, the concerts create a sense of community and foster an appreciation for the arts.

Other Community Organizations and Events

▸ The recently formed Sterling Arts Collaborative, a 501(c)(3) organization, which envisions sponsoring art shows, photography exhibitions, open mic nights, poetry slams, guest speakers, published authors, etc.

▸ The Sterling Community Theatre, which operates out of Parish Hall of The First Church.

▸ The Sterling Academy of Gymnastics and Dance.

▸ Seasonal musical performances at the Sterling Senior Center.

▸ Chocksett Cemetery Walk & Make Your Own Gravestone Rubbing Event, which invites participants to learn about historic New England gravestones and how to do a proper gravestone rubbing.

Protections

Scenic Roads Bylaw

In 2004, Sterling enacted a Scenic Roads Bylaw[26] to help the Town maintain and enhance its rural, "small-town" character by ensuring that work done to trees and stone walls on public right-of-way of scenic roads is done in a way that helps preserve the scenic, historic, and aesthetic characteristics of the public right-of-way. The Planning Board, the Select Board, the Conservation Commission, the Historical Commission, or a citizen of Sterling can propose a "scenic road" status for any road in Sterling other than a numbered route or a state or federal highway. A majority vote at a Town Meeting is required for a designation. To date, 74 Town-owned roads, including Pratts Junction Road and Tuttle Road, are designated a Scenic Road.[27]

State and Regional Partners, Programs, and Resources

Massachusetts Historical Commission (MHC)

The MHC is a statewide commission chaired by the Secretary of State, established "to identify, evaluate, and protect important historical and archaeological assets of the Commonwealth" (M.G.L. Ch. 9 Sections 26-27D). The name also applies to the State Historic Preservation Office (SHPO), comprising the State Historic Preservation Officer, State Archaeologist, and professional staff who support the commission. The office has three divisions:

▸ **Preservation Planning** – Assists and supports local entities with survey and inventory initiatives, National and State Register nominations, and local historic designations. This

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26 The Sterling Planning Board adopted "The Regulations for the Designation of Scenic Roads and Alterations of Trees and Stone Walls Thereon" to implement the provisions of the "Scenic Roads Act," M.G.L. Chapter 40 Section 15C.

27 The full list of Scenic Roads, which have been adopted at Town Meeting, can be found at https://www.sterling-ma.gov/sites/g/files/vyhlif1266/f/uploads/list_of_scenic_roads.pdf.

division also assists local historical commissions with planning and the use of preservation bylaws.

▸ **Grants** – Administers federal grants-in-aid and state matching grants for preservation activities.

▪ <u>Survey and Planning Grants</u> provide 50% matching federal funds for the preparation of community surveys, preservation plans, preparation of historic district studies and legislation, archaeological surveys, nominations to the National Register, and educational preservation programs. Eligible applicants are local historical commissions, Certified Local Governments, local and state agencies, educational institutions, and private organizations.

▪ <u>Massachusetts Preservation Projects Fund (MPPF)</u> provides money for the restoration, rehabilitation, stabilization, and documentation of historic and archaeological properties owned by municipalities or nonprofit organizations. Up to 50% matching grants are available to qualifying properties listed on the State Register, to ensure their physical preservation. Scopes of work for projects range from the acquisition of an endangered property to the restoration of an historic building, to research projects such as historic structures reports.

▪ <u>Preservation Restrictions</u> are easements that protect historic resources into the future, whether for a set number of years or in perpetuity. Preservation restrictions can be donated or purchased by a government body or private preservation organization and are enforced by the holder of the restriction. Charitable donations of easements on historical buildings or archaeological sites may qualify for federal income tax deductions.

▸ **Technical Services** – Oversees historic review and compliance processes, including Section 106 and State Register Review.

▪ This division also administers the <u>Historic Preservation Certification</u> program on the local level, a federal historic tax credit incentive for the rehabilitation of income-producing historic buildings. There is currently a state historic tax incentive program as well, overseen by Technical Services, which can be awarded in tandem with the federal program.

Preservation Massachusetts (PM)

Preservation Massachusetts (PM) is the statewide preservation advocacy organization in the Commonwealth. This non-profit organization promotes local preservation on the state level, through a variety of lobbying efforts, educational offerings, and services. Of particular note is the following:

▸ Circuit Rider Program – These part-time staff members work directly with communities as a resource for preservation projects, development planning, and local issues. They facilitate intra-community networking and information sharing, to help enhance grassroots preservation efforts. There is a Circuit Rider for Central and Western Massachusetts communities.

▸ Preservation Action Center – This webpage gathers years of PM experience into one centralized library, covering technical topics, funding questions, project models, and toolkits for local preservation efforts.

> ‣ Local Commission Resource Library – In cooperation with the MHC's Director of Local Government Programs, PM has recently added a webpage with resources specifically geared to the needs and questions of local historical commissions. Additions to the page are ongoing, but as of September 2020 the page includes information on public outreach, local bylaws and ordinances, and procedures for public meetings and hearings (including virtual meetings).

Massachusetts Cultural Council (MCC)

As a state agency, the Massachusetts Cultural Council (MCC) promotes arts, humanities, and sciences throughout Massachusetts, often through local commission partners.

In partnership with MassDevelopment, the Cultural Facilities Fund provides grants to support the acquisition, design, repair, rehabilitation, renovation, expansion, or construction of nonprofit cultural facilities, many of which utilize vacant historic buildings as studio, gallery, classroom, and shop spaces.

Goals and Actions

Natural Resources

Goal 1: Implement effective strategies to preserve and protect the Town's water resources and unique ecological habitats.

> *As part of Master Plan Survey #2, when asked "how concerned are you with the protection of local waterbodies," 75.5% said they were "very concerned" or "extremely concerned."*

> *When asked "how concerned are you with the loss of natural lands to new development," 67.5% said they were "very concerned" or "extremely concerned."*

Action Item #1: Implement a public educational program on proper septic system use and maintenance. Include a focus on using phosphate-free cleaning products, correct hazardous waste disposal practices, avoiding the use of garbage disposals for food waste, and conducting regular inspections and pumping. Encourage the installation of advanced treatment systems that result in greater nitrogen or phosphorus removal, in contrast to typical septic tanks.

Action Item #2: Review the Town's Title 5 requirements, administered by the Board of Health, to ensure proper setback distances between new or upgraded septic systems and proximate waterbodies. Revise accordingly.

Action Item #3: Work with partners, including the Massachusetts Department of Transportation and the Department of Conservation and Recreation, to reduce salt use on major roadways, particularly those near aquatic ecosystems and drinking water supplies.

Action Item #4: Sponsor stormwater management educational programs for residents to address potential sources of contamination of stormwater, to encourage stewardship of water resources.

Action Item #5: Continue efforts to secure funding to address nutrient loading to East Lake Waushacum.

Action Item #6: Investigate and require, as feasible and where applicable, provisions for buffering developments from the South Meadow Brook to ensure protection from nutrient loading and stormwater erosion.

Action Item #7: Work with the Town's farming operations to reduce the use of pesticides and herbicides.

Action Item #8: Assess the potential of establishing green corridors that would connect natural areas and areas of open space for the purposes of providing habitat for wildlife and enhanced mobility and recreational opportunities for the Town's residents and visitors. Green corridors are typically thin, linear strips of land – often acquired through conservation restrictions. In the identification of potential sites for green corridors, consider the Town's Core Habitat and Critical Natural Resources (see BioMap2).

Action Item #9: Working with relevant partners, evaluate appropriate levels of conserved lands in Sterling, balancing community priorities such as community character and economic development. As appropriate, increase the Town's inventory of conservation lands and drive the granting of conservation restrictions on privately held lands.

Action Item #10 For existing and new conservation restrictions, ensure the Town has the proper monitoring and enforcement protocols in place.

Action Item #11: In partnership with Sterling Land Trust and Department of Conservation and Recreation, work to create/coordinate local forest management plans, with a focus on maintaining and improving biodiversity.

Action Item #12: Continue to engage property owners with lands eligible for the State's Chapter 61 programs and encourage program enrollment. Provide to them education on the programs, as applicable, including their tax benefits.

Action Item #13: Investigate the certification of additional vernal pools in Sterling to provide them with regulatory protections.

Action Item #14: Leveraging the Town's tree inventory, create a documented tree management plan that outlines future management practices for the community's trees and forests. Consider including a public tree and maintenance plan for trees in street rights-of-way and parkland that would prioritize tree pruning and removals, replacements, and new plantings.

Action Item #15: Work with Clinton, as well as the DCR and private entities, to advance efforts to fix the dams that are designated as a significant hazard.

Master Plan Survey #3 Part II identified Actions 1-15, 1-8, and 1-11 as the top three ranked actions for Natural Resources. This emphasizes the relevance of protecting water resources and biodiversity to residents of Sterling.

Goal 2: Promote water conservation techniques to residents and businesses to reduce the demand for potable water and alleviate the future need for additional public wells.

Action Item #1: *Conduct a water conservation campaign to reduce use of potable water for landscaping purposes. This campaign should be targeted by household, using a comparison of winter and summer time usage. Households with the greatest change in usage should be provided with educational materials that include a comparison of their water usage against others in the community.*

Action Item #2: *Consider opportunities to encourage or require water efficient design and water efficient landscapes for new construction and major renovations. Advocate for such inclusions in the State's Building and Plumbing codes.*

Action Item #3: *Encourage the use of private irrigation wells instead of making connections to the Town's potable water supply.*

Action Item #4: *Promote the use of rain barrels, which are intended to collect rainwater for landscape irrigation purposes. Consider partnering with a local rain barrel vendor on a program that provides rain barrels at a reduced cost to residents.*

Action Item #5: *Work with local farming operations to promote water-saving farming techniques, such as the use of alternative water sources and proper irrigation scheduling.*

Goal 3: Leverage nature-based solutions in preparing Sterling for the impacts of climate change.

Action Item #1: *Promote the adoption of a Low Impact Development (LID) Bylaw. LID is a development approach that first identifies natural resource areas for preservation and then applies stormwater best management practices (BMPs) to preserve those natural features and associated hydrology. Examples of such practices include permeable pavers, bioretention, and green roofs. LID techniques are applied instead of traditional stormwater management methods of collecting, conveying, and piping away stormwater runoff.*

Action Item #2: *Review the Town's Stormwater Management Bylaw and ensure that LID techniques are sufficiently incorporated and promoted.*

Action Item #3: *Prepare a town-wide green infrastructure plan that would integrate green infrastructure, such as LID, into the Town's stormwater, combined sewers, and roads, as extant. Green infrastructure has the benefits of managing flooding, preparing for drought, reducing urban heat island effects, among others.*

Action Item #4: *In coordination with Natural Resources Goal 1, Action #14, assess the need to prioritize municipal tree replacements and new plantings in areas that would reduce heat islands (e.g., around buildings, at pavements in parking lots and along streets).*

Historic and Cultural Resources

Goal 1: Enhance Planning Tools Centered on Historic and Cultural Resources.

Action Item #1: *Develop a historic resources Preservation Plan for the Town or for individual neighborhoods that establishes priorities and strategic milestones for the identification, management, and promotions of Sterling's historic properties. The MHC Survey and Planning Grant Program can be a source of financial support for the creation of this plan.*

Action Item #2: Support efforts to pass the Community Preservation Act (CPA), which provides funding for the direct preservation of historic resources; the preparation of structural assessments and feasibility studies for building reuse; and hiring an architect to create construction plans.

Action Item #3: Become a Certified Local Government (CLG) through the MHC and National Park Service, which provides additional opportunities for funding and technical assistance. Additionally, becoming a CLG would allow Sterling to participate directly in the review and approval of National Register nominations.

Action Item #4: Evaluate the adoption of a Demolition Review Bylaw or Demolition-By-Neglect Bylaw. Demolition Review allows the Sterling Historical Commission to impose a demolition delay on preferably preserved historic buildings that allows time to identify future uses that will save the building (on-site or elsewhere). A Demolition-By-Neglect Bylaw helps protect neighborhood character by disallowing the intentional deterioration of buildings.

Action Item #5: Develop a strategy to assess the needs of the Town's numerous historic cemeteries. Prioritize cemeteries according to significance and threats, and contract specialists in cemetery preservation to delineate the grounds and develop restoration and maintenance plans.

Action Item #6: Develop a Heritage Landscape Report, based on the former Department of Conservation and Recreation's Heritage Landscape Inventory program. Heritage landscapes consider natural and manmade features together, such agricultural lands, woodlands, scenic viewsheds, and industrial waterways. Identifying priority heritage landscapes, perhaps including Wekepeke Brook, is the first step in identifying tools to protect them and can inform development and planning initiatives town-wide.

Goal 2: Support the protection and promotion of Sterling's heritage resources.

Action Item #1: Assess the need to repurpose Town-owned facilities for community needs by identifying short-term and long-term planning goals for surplus properties.

Action Item #2: Sponsor the preparation of an expansion of the Sterling Center Historic District and the listing of the Waushacum Village, formerly known as Sterling Campground.

As part of Master Plan Survey #2, when asked to "rank the Town's most pressing historical and cultural resource needs," the top ranked choice was "establishing/refining historic districts."

Action Item #3: Develop interactive programming such as tours, scavenger hunts, and family photo scanning, around the significant historic resources, including the West Sterling Schoolhouse, the Town-owned cemeteries, or the Town Pound.

Action Item #4: Use the National Register districts to market the use of historic tax credits by existing and future owners and developers.

Action Item #5: Promote awareness of Sterling's heritage through the publication of articles in local community papers, social media posts, installing heritage-related signage, and pursuing collaborations with community organizations to develop co-sponsored programming. Enlist related volunteer efforts from the Town's elders.

Goal 3: Enhance support and promotion of the local arts and community programming.

Action Item #1: Develop a network of community partners to bring programming to a wider audience by engaging local organization and committees, such as the Sterling Senior Center Council on Aging, Conant Public Library, Sterling Historical Society, Sterling Historical Commission, Sterling "Young Adults Helping Out Others" Y.A.H.O.O., and Sterling Public Schools.

Action Item #2: Encourage the engagement of local artists, including students, through the use of public art and performance throughout the Town.

Action Item #3: Support year-round arts and cultural programming by securing temporary spaces, such as the 1835 Town Hall, that encourage visitation during different seasons and provide resources for local organizations and entities to expand virtual programming.

Action 3-1 is the highest ranked Historic and Cultural Resources action, and was chosen by 61% of respondents in Master Plan Survey #3 Part II.

Open Space and Recreation

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Introduction

According to the Massachusetts's Executive Office of Energy and Environmental Affairs, open space is "conservation land, recreation land, agricultural land, corridor parks and amenities such as small parks, green buffers along roadways or any open area that is owned by an agency or organization dedicated to conservation." The primary purpose for protecting open space is to retain the rural character. Another purpose is to keep some land available for future unanticipated uses. Recreation opportunities are also of interest to residents and visitors to the area. This serves the purpose of helping the Town to identify critical resources in need of protection and direct growth to areas that are most appropriate for it. Therefore, the Open Space and Recreation element must examine a community's desire to ensure a balance between the preservation of open space areas, and the future and current development trends of the community. As communities seek to improve public health, the provision of recreational programs for people of all ages should be accommodated, in keeping with the Age and Dementia-Friendly status of the Town.

The vast majority of this chapter was obtained from the Updated Open Space and Recreation Plan (OSRP). The Town of Sterling received input from the residents of the Town through a series of surveys that asked questions regarding the importance of the preservation of open space and actions to preserve open space. The results obtained from these surveys have been incorporated and included in both the Goals and Objectives and as an attachment to the Master Plan itself. Utilizing information from the Updated OSRP, this chapter includes a description of the community's needs for recreational opportunities, suggestions for conserving land for open space and recreation, and an outline of community goals and objectives for preserving open space and preserving the Town's rural landscape character.

The OSRP, includes an inventory of conservation and recreation lands, description of the community's environmental resources, and a vision of the future with goals and actions. OSRPs are required to be updated every seven years in order to qualify for grant programs

for land acquisition or park improvements offered through the Division of Conservation Services.

Crystal Brook Farm on Tuttle Road

The Importance of Open Space Protection

Set in north-central Worcester County, Sterling is a residential-agricultural community bounded by the Town of Princeton, Town of Holden, Town of Boylston, Town of West Boylston, Town of Clinton, and Town of Lancaster, and the City of Leominster. Forests, farms, historic buildings, and open spaces contribute to Sterling's rural feel. Its hillside roads offer scenic vistas of the Nashua River Valley and Wachusett Mountain, and views of orchards and barns. As one of 32 towns in the Nashua River Watershed, Sterling plays an important part in safeguarding the region's water resources. Sterling lies at the confluence of two tributaries to the Wachusett Reservoir: the Quinapoxet and Stillwater Rivers. As a result, roughly half the Town falls under the jurisdiction of the Massachusetts Watershed Protection Act (WsPA). To the north, the Wekepeke Brook flows to the Nashua River. The Wekepeke aquifer is a regionally significant water resource for Sterling, Leominster, Lancaster, and Clinton.

Sterling is inextricably linked to its neighbors through water, transportation networks, public facilities, and outdoor recreation areas. Bisected by Interstate 190, Sterling connects with surrounding towns along the east-west Route 62 and two north-south roadways, Route 140 and Route 12. In addition, Sterling participates in the Wachusett Regional School District for grades 9 to 12 with Holden, the Town of Rutland, the Town of Paxton, and Princeton. Regional outdoor recreation areas exist at East Lake Waushacum, Leominster State Forest,

and the Wachusett Mountain Ski Area to the north, and the Sterling Rail Trail, a component of the Mass Central Rail Trail system. Finally, Sterling is one of twenty-two cities and towns served by the Montachusett Regional Planning Commission (MRPC).

Sterling's desire is to protect, maintain, and diversify the open space available to its citizenry. Sterling acknowledges the value of existing open spaces in terms of aesthetics, health, welfare, the economy, and recreation. At the same time, Sterling recognizes the need to maintain lands in active use, and to balance local fiscal needs and tax-base concerns with conservation efforts.

Ultimately, the quality of life for all of Sterling's residents is enriched by the quality of the open space in the Town and region, whether the space is enjoyed for recreational activity or green tranquility. Sterling enjoys a vast array of open space resources, in part a result of large state land conservation.

Sterling faces some major decisions such as determining which land parcels are important to acquire, addressing unmet open space and recreation needs, and also how to put the preservation of town character at the forefront of any growth discussions. Having a solid inventory of open space and recreational facilities and a plan as to how they will be taken care of will be a critical stepping-stone as the Town moves towards achieving its goals.

Recent History of Community Accomplishments

Progress in Sterling

In December of 2020, the Department of Conservation Services approved the Updated 2019 OSRP. This finalized plan is based on the original OSRP from 2010 but has been updated by the Open Space Implementation Committee (OSIC) to reflect the accomplishments achieved by Sterling since that date. Sterling is active in and has made great strides towards accomplishing the community's goals and objectives related to its open space and recreational resources.

From 2010 onwards, the Town has successfully acquired and protected additional land parcels, made progress with the development and improvement of recreational sites and facilities both old and new. The Town has also achieved administrative accomplishments related to Town Hall staffing and the development of planning. Some of the recreation, conservation, and administrative accomplishments since the 2010 OSRP are described below:

Accomplishments by the Recreation Department and OSIC:

- ▸ Rebuilt both tennis and basketball courts in 2019.
- ▸ Re-seeded the Redstone Hill little league baseball fields.
- ▸ Expanded recreation programs utilizing newly built space in the Sterling Senior Center.
- ▸ Developed 10 hiking trails with three of these trails located on Department of Conservation and Recreation's Division of Water Supply Protection (DCR-DWSP) land.
- ▸ Developed trail brochures and maintenance of current trails on open lands with permission of landowners, guided hikes for the public.

▸ Led guided hikes on a regular basis, with the outing events published in local papers.

▸ Coordinated by OSIC, Sterling Department of Public Works (DPW) is building an Americans with Disabilities Act (ADA) compliant trail at Peg's Pond.

▸ Conservation Commission received grant money to build an ADA compliant trail at Waushacum Meadow.

Conservation Accomplishments:

▸ Selective cutting in Town-owned forests, Percival, and Hall parcels.

▸ Acquired an additional 210 acres as protected open space: DCR-DWSP (158 acres), and Sterling Land Trust (52 acres).

Administration Accomplishments:

▸ Hired a full time Town Planner in 2018.

West Sterling Tennis/Pickleball Courts

▸ Developed a forest management plan for several Conservation Commission properties.

▸ Organized work on remedying the conditions of the playing fields by the Recreation Committee.

▸ Developed a five-year Recreation Plan.

Community Setting

Surroundings of Sterling

Landscape Character

Sterling is a wonderful place to enjoy the outdoors and fish, hike, walk or enjoy a scenic view. In addition to its attractive outdoor features, Sterling's town center is a postcard perfect example of the traditional New England town center, replete with pristine white churches and meeting houses, and traditional colonial and Victorian homes. The compact development pattern of the properties in the town center is a testament to the colonial, and pre- and post-industrial past of rural New England.

Rivers, streams, and ponds offer opportunities for aquatic adventures from fishing and boating to fish and wildlife observation. Popular areas in Sterling attracting birders include Muddy Pond and Sterling Peat near Interstate 190, East and West Waushacum Lake, North Dike on Wachusett Reservoir, and the agricultural fields on Redstone Hill. MassWildlife stocks trout during the spring in the Stillwater River, and West Waushacum Lake for recreation purposes; enhancing trout fishing opportunities, creating reproductive trout populations. Hunting opportunities have been available in this rural setting. South and east of Interstate 190, DCR-WSP lands were closed to hunting until 2018. Due to high deer

densities and resulting forest ecological damage and impeded forest regeneration from over browsed areas, DCR-WSP opened lands in Sterling and other Wachusett Watershed towns (approximately 7,000 acres) to hunting. A controlled deer hunt on lands in Sterling directly abutting the Wachusett Reservoir was also initiated.

Developed recreation areas such as Sholan Park and Beach on East Lake Waushacum, the school playgrounds, playing fields, and old running track at Houghton Chocksett School are popular but are suffering from overuse and deferred maintenance.

Scenic Landscapes

Protecting Massachusetts' scenic beauty plays an important role in the future desirability of the Commonwealth as a place to locate. "The Massachusetts Landscape Inventory" published in 1981 by the Department of Environmental Management (now the DCR) remarks that extensive areas of pastoral scenery are becoming rare due to development. These areas are valuable not only for scenic beauty, but for agricultural, historic, and environmental qualities. Several trails in Sterling provide access to the scenic landscapes in the hills and river valleys. These trails are located on state, town and local land trust properties offering a variety of experiences in the fields, forests, wetlands, and waterways that dominate much of Sterling's landscape. Scenic landscapes play a significant role in the way Sterling residents characterize the Town. Unfortunately, the loss of agricultural lands to development in the past few decades has adversely impacted Sterling's many scenic vistas.

Working to mitigate the adverse impact on the open spaces and landscape of Sterling is a popular point of view in Sterling. Surveys collected from previous OSRP Updates and most recently in 2018, have expressed a common theme focusing on the preservation and positive aspects on the quality of life of Sterling's rural character. However, other than the town center, respondents identified few specific places or vistas, but rather expressed an overall desire to preserve the rural character and limit development.

When Master Plan Survey #2 asked "what do you think makes Sterling a great place to live," 19% of respondents said, "natural and scenic areas" and 20% said the "rural nature of Sterling."

Sterling is blessed with numerous unique features that bolster its rural character and charm, among them the many rural roads that offer scenic vistas of its historic farmlands and pastures, barns, and farmhouses. In the highlands of the Town, these roads offer longer-range views of the surrounding valleys and nearby hills of neighboring towns, most notably, Wachusett Mountain. The best view of the mountain is afforded from Muddy Pond Road, not far from Chocksett School. Here, open fields and the peat bogs lie in the floodplain lands of the Stillwater River. Across from this area, on the north side of I-190, the Sterling Airport takes advantage of the extensive lowlands for its runways.

Also important to Sterling as a unique environment are the Waushacum Lakes. These beautiful lakes in the southern part of town offer attractive scenery and some wonderful opportunities for fishing. West Waushacum Lake is stocked with trout by the state. At East Lake Waushacum the Town beach at Sholan Park affords residents a range of summer recreational activities including swimming, sunbathing, volleyball, basketball, picnicking, fishing, and boating.

Lastly, there is the Sterling Rail Trail which the non-profit Wachusett Greenways is leading efforts to develop the abandoned rail bed of the Fitchburg and Worcester Railway into a pedestrian rail trail currently referred to as the Sterling Rail Trail. The Sterling Section of the Mass Central Rail Trail begins at the town center with a round trip distance including the loop trail of 3.8 miles. The Sterling Rail Trail was a top response for "what people love" about Sterling in Master Plan Survey #1, with 87% of respondents having used the trail.

Wachusett Greenways has completed a critical trail section between the Sterling Cider Mill across a bridge at the causeway between the Quag and West Waushacum Pond, to Gates Road. The bridge at the causeway was reconstructed from two surplus pedestrian bridges left over from Boston's "Big Dig". The completed trail section, comprised of compacted stone dust, is primarily under the control of the DCR-DWSP except for the cider mill section which is private property.

Open Space and Recreational Assets

Sterling continues to develop a robust network of open space and recreational assets, and in order to continue with those efforts, an accurate summarization of existing assets within the Town are described here. Open space assets are largely made up of land parcels within the Town, both privately and publicly owned, as follows:

Private Parcels

Private Parcels constitute private land that is considered protected, which happens if it has a deed restriction in perpetuity, if an Agricultural Preservation Restriction (APR) has been placed on the property, or if Massachusetts Department of Environmental Protection (MassDEP) has placed a conservation restriction on it as part of the Wetlands Conservancy Program. Removing land from permanent open space protection status so that it may be developed requires an affirmative vote by two-thirds of the State Legislature. In most cases, the watershed district would be required to show the MassDEP just cause for converting the use of the land. Much of open space land held as private parcels in Sterling are classified as Chapter 61, 61A, or 61B land[28].

Several privately owned parcels of note are the Allen Properties on Heywood and Tuttle Roads, consisting of 177 acres land under an APR, with another APR on 35.7 acres of land on Chamberlain Road. The Conservation Commission holds an "Orchard CR" on 13.3 acres owned by the Rittenhouse family.

There is also Davis Farmland on Redstone Hill Road which is a 129-acre family farm operating as a farming-oriented recreation center aimed at children aged one to twelve. Any adult must be accompanied by a child under the age of twelve to be permitted

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28 Massachusetts General Laws Chapter 61, 61A and 61B is designed to encourage the preservation and enhancement of the Commonwealth's forests, agricultural land and privately-owned recreation parcels by offering tax incentives to property owners for managing these lands for those purposes and allowing the municipality the first option to buy (and protect) the land if landowner decides to sell.

entrance. They also run a large field maze, named the Mega Maze, in a field of sorghum. Another privately owned parcel is the Sterling National Country Club, Albright Road. The property sits on 243-acres, partly in Lancaster and mostly in Sterling. It is designated as an Audubon International Cooperative Sanctuary.

Meadowbrook Orchard at Chace Hill with Wachusett Reservoir in the distance.

Eight Point Sportsmen's Club is a private membership-based sporting organization on Beaman Road, owns 66 acres in the Chapter 61B program dedicated to the use of hunting and fishing enthusiasts. The DCR-WSP holds a Watershed Protection Restriction on a large portion of the club's property.

Public and Non-Profit Parcels

Public and Non-Profit Parcels account for protected open space in Sterling totaling 6,974 acres and is comprised only of land owned by the Conservation Commission, the Water Department, a state conservation agency, or a nonprofit land trust; land purchased by the Town with state or federal funds; or land with a deed restriction in perpetuity or MassDEP Wetland Conservancy conservation restriction.

The Commonwealth of Massachusetts is the largest landowner in Sterling. Three state agencies, DCR (DWSP and Division of State Forests), MassWildlife, and MassDOT own in fee or hold conservation restrictions on just over 30% of Sterling's land mass (see **Table 6-1** for complete list). The majority of acres were procured by DCR-DWSP (4,985 acres) for the protection of the upland watershed of the Stillwater River, the Quag, and West Lake Waushacum, as well as the Wachusett Reservoir. The DCR-DWSP controls an additional 552.6 acres through conservation restrictions. Some portions of the DCR-DWPS properties are open to the public for passive recreation such as fishing, hiking, hunting, or bird watching; however, the DCR-DWPS restricts other activities and dogs to protect against pollution of the Stillwater River and Wachusett Reservoir watersheds.

Table 6-11. Land Under Protection

Land Permanently Protected from Development	Acres
Department of Fish and Game, Division of Fisheries & Wildlife Land Owned in Fee	93
Department of Fish and Game, Division of Fisheries & Wildlife Conservation Restrictions (with Town of Clinton Waterworks Land owned in Fee)	487.4
DCR-DWSP Lands Owned in Fee	4,985
DCR-DWSP Watershed Protection Restoration	552.2
DSR-Leominster State Forest	63
Sterling Conservation Commission Lands Owned in Fee	303.3

Land Permanently Protected from Development	Acres
Sterling Conservation Commission Conservation Restrictions	29.4
Sterling Town Forest	121.3
Sterling Land Trust Lands Owned in Fee	144
Sterling Land Trust Con Restrictions	65.2
Agricultural Preservation Restrictions	226.1
Subtotal	6,974.3
Land with Limited Protection from Development	
Cemetery	28.8
Sterling Active Recreation Areas	77.7
Sterling Parks for Passive Recreation	15.6
Other State Open Spaces	15.3
Other Municipal Open Spaces	172.2
Subtotal	318.4
Land Temporarily Protected from Development	
Chapter 61 – Forestry	291
Chapter 61A – Agriculture	2,203.4
Chapter 61B – Recreation	60.4
Subtotal	2,554.8
Total	9,847.5

Recreational Programs

The Sterling Recreation Committee operates numerous programs for all ages that are spread out over five different locations. All of these locations, with the exception of the Sholan Beach, are under the control of other authorities which permit the Recreation Committee's programs to be run as a secondary function. **Table 6-2** contains a selection of several recreational programs at each of the various recreational facilities in the Town:

Table 6-12. Sterling Recreational Programs

Sterling Recreational Programs	
Sholan Park	Summer Lake Programs Morning Yoga on the Beach Super Safari Adventure
West Sterling Tennis Courts	After School Tennis Academy Pickleball

Sterling Recreational Programs	
Chocksett Middle School	Togo Palazzi Basketball Clinic
	Girls Skills, Drills, & Scrimmage Basketball Clinic
	New Heights Skills Clinic
	Kinderball
	Ultimate Sports
	High School Pick-up Basketball
	Cupcake Wars
	Center Stage Sterling
Houghton Primary School	Sterling Rec Basketball
	After School Tennis for Houghton
	Lego Robotics
	Science Mysteries
Houghton Primary School Field	Mini Soccer
	Flag Football
Upper Griffin Field/Track	Sterling Rec Road Race
	Pre-K Minisports
Conant Library	The Children's Story Hour
	Guided-hike Programs
Sterling Senior Center	Yoga
	Tai Chi
	Pilates
	Line Dancing
First Church in Sterling	Music Together Summer
	Pickleball
Additional Programs	Y.A.H.O.O. (Young Adults Helping Out Others)
	Summer Concert Series at Memorial Park
	Sterling Youth Baseball
	Sterling Youth Soccer
	Wachusett Youth Football & Cheer

Analysis of Needs: Open Space

Sterling has an abundance of natural resources, open space and recreation opportunities that need to be protected. The small-town character, rural charm and quality of life that have defined Sterling for decades are worth preserving and protecting.

Sterling is now located at the so-called 'sprawl frontier,' situated as it is close to the I-495 corridor in eastern Massachusetts. This sprawl frontier location indicates that Sterling can expect development pressures, both residential and industrial. While the benefits of new residential and industrial developments should not be ignored, the impact on farms, open space and quality of life must also be taken into consideration and should be addressed proactively and in a well-planned fashion, often referred to as smart growth.

Sterling will also, unavoidably, be facing the effects of climate change, which will require a range of measures to improve both resilience and sustainability. One aspect of this will be to improve the economic aspects of local food production at Sterling farms. Another aspect will be the increased importance of preserving and protecting open space, and decisions will need to be made from a holistic point of view, such that ecosystem and wildlife corridor conservation, protection of water resources and development of interconnecting walking and bicycle paths are considered in a balanced way. The resource protection needs should be considered from this perspective.

A priority goal is to establish which existing, unprotected open spaces in Sterling need to have priority in terms of preserving ecosystems and wildlife habitat. Such an effort will involve the Town Administrator, the Select Board and other boards, but the initiative can come from OSIC.

Steps should be taken to preserve much of the 1/3 of mainly agricultural land in Sterling that is neither developed nor conserved. Once this land is sold for development, it can be considered lost for good. A specific initiative will be to calculate how much "prime agricultural" land has already been lost to development, and how much is still available, and then formulate a plan to preserve prime agricultural land in a systematic way.

The average age of active farmers in Massachusetts is 60 years, so large tracts of land will soon be passed on or sold. OSIC needs to work closely with Sterling's Agricultural Commission, and together should work to develop a farm transfer program modeled after other programs established elsewhere.

In terms of Smart Growth, OSIC should work with the Planning Board to promote the idea of Open Space Residential Design (OSRD)/cluster zoning which clusters buildings in new developments protecting remaining land set aside for open space.

Analysis of Needs: Recreation

The Sterling Master Plan Community Engagement Report, dated June 2019 and prepared by Barrett Planning Group LLC, states that 25 Sterling citizens answered yes to the statement: "Sterling needs better communication between town departments about responsibility for maintaining open space and recreation facilities" 24 citizens answered yes to the statement:" Sterling needs a community recreation center." In prior years there has been much talk in town about renovating the decrepit playing fields. At 2020 town meeting the voters approved $70,000 to engage a landscape architect to begin design work.

There is a strong interest in town to pursue the renovation of the Griffin Road and Muddy Pond playing fields which would include, but not be limited to, new topsoil, more area drains, regrading to remove rainwater more quickly, an irrigation system, area lighting and better equipment storage.

Due to the popularity of the recreation sports programs in Sterling, the fields are heavily scheduled. In particular the Upper Griffin Playing field is used the most frequently hosting lacrosse in the spring and field hockey, football and soccer in the fall. The field is poorly graded without sufficient storm drains and the two-season use makes turf-recovery difficult.

More playing fields will help solve the problem of overuse, allowing a rotation scheduled for the ground to recover. Re-arranging the fields to take better advantage of the available acreage is a consideration, but the fields should be reconstructed, and a turf management plan put in place. During the summer of 2019, a committee was formed to evaluate the conditions of the playing fields at Griffin Road and Muddy Pond and the feasibility of a new location for a future Recreation Center.

The Recreation Department left the 1835 Town Hall in 2016 when renovations were underway. As a result, the Recreation Department lost their meeting space, indoor program space, equipment storage, control of their own space and their identity.

The Recreation Director's office was moved to the basement of the Municipal Building and monthly meetings are held in any available room of the Municipal Building. Programs that used space in the Old Town Hall were halted. Some equipment stored in the basement of the Old Town Hall was permitted to stay. Other equipment storage was scattered at the playing fields in lock boxes.

The 1835 Town Hall renovation permitted the safe, accessible use of the building. There is office space, some meeting space, a large meeting room and equipment storage in the basement. However, until the sanitary waste disposal system is improved, the number of occupants in the building will be limited.

Indoor recreation programs during the school year are spread over four locations:

▸ Sterling Senior Center

▸ Chocksett Middle School

▸ Houghton Elementary School

▸ First Church

The Recreation Committee pays a fee or donation to some of the facilities that provide space, yet it has no management of those facilities. The schools are not in full control of their building in the afternoon and the evenings. There is an advantage that the children can conveniently walk to their chosen after-school activity without leaving the school.

The Senior Center program spaces are completely booked. There are eight recreation programs that are run out of the Senior Center, competing with senior programing.

The First Church in Sterling provides overflow programming space as a public service to the Town at their discretion. Unexpected church needs (such as a funeral) have made recreation programs to forfeit the space, which is understandable, but problematic.

A Recreation Center would impact the lives of all Sterling residents. The benefits include opportunities to:

▸ Expand the number of programs, increasing the variety of programs and target age.

▸ Provide a place for outdoor activities that would otherwise have to be canceled due to inclement weather.

> ▸ Provide an income to the Town through rentals and fees.

> ▸ Offer a before and after school program, which could be an income generator.

> ▸ Relieve the burden of usage of other town facilities such as Town Hall for meetings and the Senior Center programs.

> ▸ Increase marketing opportunities by providing an outlet for central communications.

> ▸ Provide space for large town events such as Town Meeting and polling (currently held in the school gym), town wide holiday events (currently held in the First Church), and an emergency shelter (currently the First Church).

A Recreation Center would be a true center for the citizens of Sterling and make the Town an attractive place for families to live.

From a town government organization standpoint, the Recreation Committee reports to the Select Board, who are answerable only to Town Meeting. Where they control recreation programs, the Department of Public Works has responsibility for the grounds (and any buildings). The Recreation Committee ends up bearing the responsibility for the playing fields but without the control. Changes need to be made to the structure of Town government to give the Recreation Committee full control over the playing fields and facilities and bring them under the protection of the Select Board.

Goals and Actions

Goal 1: Encourage responsible protection and stewardship of publicly accessible lands and waters for natural resource conservation, recreation, and water supply protection.

Action Item #1: *Continue to increase awareness of open space and recreation opportunities in Sterling by engaging in public outreach.*

Action Item #2: *Promote or host events, activities and programs that address stewardship needs on publicly accessible properties.*

Goal 2: Enhance athletic fields and other recreation facilities.

Action Item #1: *Create a comprehensive maintenance plan for all the Town playing fields.*

Action Item #2: *Conduct a Needs Assessment for indoor recreation program space.*

Action Item #3: *Work with the Select Board and Department of Public Works to align goals and maintenance plans.*

Action Item #4: *Develop plans for renovating the Griffin Road Playing Fields.*

Goal 3: Identify and consider new approaches to Sterling's zoning and planning and other protective bylaws that affect Sterling's open space and recreation needs.

Action Item #1: *Consider the adoption of the Community Preservation Act (CPA) at Town Meeting.*

Goal 4: Make local trails more accessible.

Action item #1: Develop a plan for a network of interconnecting hiking trails, including trails in adjoining towns and the proposed Mass Central Rail Trail currently under development.

Action item #2: Develop a maintenance plan for existing Sterling Trails, including staffing and possible budget.

Action item #3: Keep the website for OSIC's Sterling Trails current, with updates for trail conditions, schedules for trail clean-up days, listing of scheduled hikes, and trail brochures ready for download.

Action item #4: Expand the list of trail leaders and continue an active program of scheduled hikes with leaders and augmented with (amateur) naturalists for fauna and flora commentaries.

When asked to rank the positive impact of "recreational areas/trails" in Master Plan Survey #2, 29% of respondents said, "very impactful" and 44% said "extremely impactful." This was reflected in the Master Plan Survey #3 where 57% of respondents ranked Action 4-4 as a top priority.

Goal 5: Formulate a proactive and balanced decision-making regarding acquisition of open space.

Action item #1: Prioritize unprotected open space parcels that may become available for acquisition by the Town in terms of preserving ecosystems, wildlife corridor conservation and wildlife habitat and protection of important water resources.

Action item #2: Review administrative procedures that inform decision making about the community's open space and recreation priorities and needs.

Action item #3: Prioritize unprotected parcels of agricultural land in terms of soil quality and suitability for farming.

Action item #4: Explore additional options available to the Town for acquiring non-protected land.

Action item #5: Incorporate open space protection into the Town's decision-making on community resilience building as a standard practice. This would include: (i) protecting and not overtaxing aquifers, lakes, and other water resources, (ii) providing buffer for the more frequently occurring heavy downpours; (iii) having a strong farming community that is well-integrated into the local food network.

Goal 6: Special considerations for seniors and residents benefitting from ADA.

Action item #1: *Prepare descriptions of a few Sterling Easy Trails that form short sections of the existing Sterling Trails and are particularly suited for inexperienced hikers while being Age and Dementia-Friendly.*

Action item #2: *Improve or create parking access to conservation, town forest properties and hiking trails.*

Action item #3: *Improve and expand upon recreational programming to be more accessible and inclusive.*

Public Facilities and Services

7

Introduction

The public facilities and services portion of a master plan helps to guide decisions and develop a plan relevant to public buildings, utilities, and infrastructure to meet future needs of the community. A public facility is any municipal property that has been improved for public purposes, such as a town hall, library, police or fire station, parks and playgrounds, and schools. Public services are provided by a municipal government to people living within its jurisdiction. Examples of public services include utilities, such as water and trash collection.

Public facilities make it possible for municipal employees and volunteers to provide services for the public good. The adequacy of municipal facilities for the functions they serve is largely determined by four factors:

▸ The form, size, and organization of the community's local government.

▸ Projected population and economic growth.

▸ The community's land use pattern.

▸ The expectations of the community's population.

A municipality's ability to provide adequate facilities and services depends on effective capital planning and a commitment to implementation, asset management policies, and the amount of revenue available for local government operations. Effective capital planning and asset management policies are often challenged by limited revenue for government operations. This can put long-term investments at risk. Prioritizing goals for short- and long-term investment needs can help a municipality ensure it meets the community's expectations.

The Town of Sterling provides a robust set of public services to residents including, but not limited to, emergency services, public works, snow removal, and recreation. The Town also has a reputation for excellent schools. The buildings, infrastructure, utilities, and services provided by the Town to its residents offer a critical foundation for the wellbeing and functioning of the community.

This chapter includes an analysis of the adequacy of the Town's public facilities and services. It is based on the outreach to the heads of Town Departments, as well as additional information and goals put forth in related documents and plans.

Baseline Conditions Analyses

Sterling's municipal services operate from multiple facilities located in different areas of the Town. Table 7-1 includes a list of these facilities including their locations.

Table 7-13. Public Facilities and Locations

Building	Location
Town Hall (Municipal Office Building)	1 Park Street
Department of Public Works and Water Department	171 Worcester Road
Fire Department	5 Main Street
Police Department	135 Leominster Road
Sterling Municipal Light Department	50 Main Street
Senior Center	36 Muddy Pond Road
Conant Public Library	4 Meetinghouse Hill Road

Town Government and Municipal Office Building

Local Government

The Town Administrator, who is appointed by the Select Board, works to achieve the goals of the Select Board, and implements their policies. The Town Administrator is also responsible for administering and overseeing the day-to-day functions, activities, and services provided by town government. In order to ensure that town resources are utilized in the most efficient and effective manner, the Town Administrator strives for a high degree of coordination, communication, and cooperation between all boards, committees, and departments of the Town.
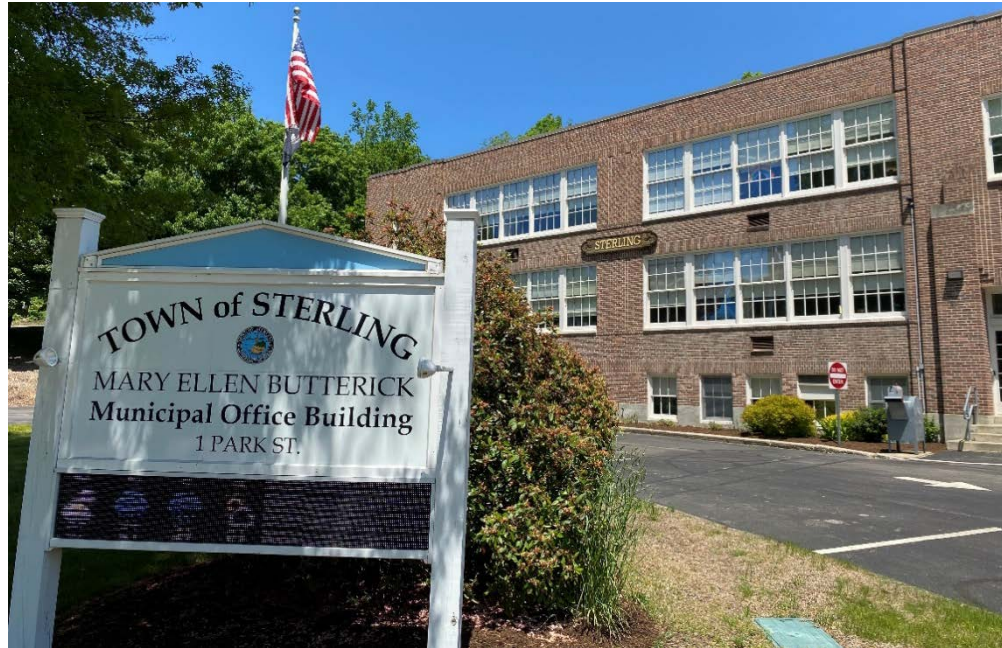
Mary Ellen Butterick Municipal Office Building

The Town Administration operates out of the Butterick Municipal Office Building. The following departments and boards, included but not limited to, are located within this town facility:

- Administration
- Assessor's Office
- Board of Health
- Building Department
- Planning and Zoning

- Recreation Department
- Select Board
- Town Administrator
- Town Clerk
- Treasurer/Collector

Current Status and Projected Needs

The Town has yet to develop an asset management plan for all town facilities. Best practices require that proposed facility work have energy and maintenance costs calculated over a few decades as part of the initial and final decision processes. The Town would benefit from undertaking an asset management plan to identify strategies and actions to preserve facilities for future generations.

A space assessment of the Butterick Municipal Office Building will identify ways to enhance the utilization and efficiency of space allocation within the building. Of note are the additional space needs of the Recreation Department and possible consolidated office consisting of Planning, Zoning, and Inspectional Services. Related to the latter, a consolidated Department of Planning and Development has been proposed in Sterling to include staff for, but not limited to, the fields of planning, zoning, building, economic development, and master planning. If this consolidation moves forwards, a centralized location within the Butterick Municipal Office Building should be identified for optimal customer service.

Ultimately, the purpose of the above-mentioned consolidation is to provide better customer service for the end user in the form of "one stop shopping" for all, and to remove the traditional departmental "silos." Increased efficiency, in the form of the removal of role redundancy and effort duplication is another benefit.

In addition to space needs, other building needs at the Butterick Municipal Office Building include roof repairs. Funding for such repairs was recently approved at the 2021 Annual Town Meeting, along with allocations for a land use records management system.

Department of Public Works

The Department of Public Works (DPW) is responsible for the maintenance and construction of all town-owned roads, sidewalks, and public ways – including trees, cemeteries, and parks and athletic fields. It also oversees stormwater management, trash collection, and recycling. The Water Department *In response to the question "specify your satisfaction with each of the following" in Master Plan Survey #2, the majority of respondents said "somewhat satisfied" for DPW's roadways and sidewalks, and "very satisfied" for trash and recycling.* operates completely under the DPW, and is responsible for the Town's water service. The DPW facility is located at 171 Worcester Road, which includes the administration offices, Highway Division, Parks Division, and Water Department.

DPW Facility located at 171 Worcester Rd

Highway Division

The Highway Division of the DPW maintains 120 town roads (approximately 95 miles). This Division is responsible for building new roads, roadway maintenance and repair, as well as snow plowing. Master Plan Surveys #1 and #3 Part I show an interest from respondents to repair and improve maintenance of current roads. In addition to roadway infrastructure, this Division assists with maintenance of street signs, crosswalks, and catch basins. A full list of the services provided by the Highway Division are available on the Town's website.

The Highway Division has an extensive fleet of vehicles that support the services that are provided, in general these include trucks, plows, tractors, graders, trailer and painters. A full list of the Highway Divisions vehicle fleet is available on the Town's website.

Parks Division

The Parks Division of the DPW maintains approximately 7.5 acres of parks. Parks under its purview include Sholan Park on Lake Waushacum and Memorial Park behind the fire station. Sholan Park contains picnic tables, firepits and charcoal grills, a volleyball court, and a basketball court; permitted parking is available. Memorial Park, which includes an undersized gazebo, is Americans with Disabilities Act (ADA) non-compliant and needs repairs. There is also limited parking. This park is used for the Town's Memorial Day and Veterans Day formal ceremonies, as well as summer concerts.

Water Department

The Water Department is responsible for ensuring high quality drinking water that meets all state and federal standards for quality and safety, including water system infrastructure installations, repairs, and testing. Approximately 80% of the Town's population is supplied with public water, with the remainder obtaining their potable water from private wells. Public water in Sterling derives from six groundwater sources including Wells #2A, 2B, and 2C (Pump Station #2) near Worcester Road/Route 12, and Wells #3, 4, and 5 (West Sterling Pump Station) near Redemption Rock Trail. Additionally, the Town has three remote storage tanks that are used to even pressure throughout the system. The Town has agreements with Leominster and West Boylston that allow it to pull water in case of emergencies. In recent years, the Water Department has had to enact mandatory water bans due to increased demand, notably from landscaping irrigation systems.

In response to the question "specify your satisfaction with each of the following" in Master Plan Survey #2, the majority of respondents said "very satisfied" for the Water Department services.

Wastewater Management

The Town presently relies solely on on-site disposal of wastewater. Given the number, density, and age of existing on-site disposal systems in town, protecting the Town's groundwater resources is a growing concern. Sterling has begun to explore long-term wastewater disposal options. In 2018, a Sewer Feasibility Study was performed that looked at providing sewer service to the Town's downtown area along Route 12, and possibly extending sewers to the Town's light industrial zoned area to improving economic growth. Until a long-term wastewater disposal solution can be implemented, the Town must continue to rely on the Board of Health to oversee the operation and maintenance of the growing number and age of these on-site systems.

Current Status and Projected Needs

The Town will need to create an asset management plan coordinated with town financial software to manage equipment more efficiently. The Town's Community Resilience Building Workshop Summary of Findings prepared under the State's Municipal Vulnerability Preparedness grant program calls for an asset management system for the Town's roadways, culverts, and stormwater infrastructure. As part of the road management plan, the Town will explore the creation of a pavement management plan.

Due to recently enacted Municipal Separate Storm Sewer System (MS4) laws and considering the number of roads and culverts in the Town, there is a need to set up a system for tracking the Town's many outflows. In addition, increased regulations for water sources will coincide with the degrading quality of aquifers in the region as a century of pesticide and salt use seep into the water supplies. The Town will need to address this by either purchasing water from neighboring town filtration facilities or constructing a filtration facility of its own. Additional wells for quality water resources are also needed. Regarding water use, the Massachusetts Department of Environmental Protection (MassDEP) allows the Sterling Water Department to use only a certain amount of water each year and the Town is now essentially at this maximum. The Town needs to address water efficiency and restriction options and develop a town-wide plan over the next few years.

Sterling's solid-waste and recycling approach is behind almost all similarly sized communities in the state in that the curbside pickup is essentially unlimited. This will be changing in the next few years as Sterling embraces the updated approach of providing residents with bins and automated pickup.

Funding for a town assets and comprehensive facilities assessment was recently approved at the 2021 Annual Town Meeting, as was a pavement management plan and upgrades to the Town's current water meter system. These upgrades include the installation of new meters and associated equipment.

Physical Facilities

The DPW facility is outdated and has extended past its anticipated useful life. As such, the DPW facilities requires a major renovation or replacement. As part of these updates, an additional storage building is desired for a secure, covered space for equipment. Funding for a use and feasibility study for this DPW facility and town-wide vehicle storage was

recently approved at the 2021 Annual Town Meeting. In the short term, a continued focus will be on addressing ongoing maintenance improvements.

1. **Fleet Vehicles and Equipment** – Funding to acquire several key vehicles and equipment for the DPW was recently approved at the 2021 Annual Town Meeting. These include an excavator or tractor and a dump truck, as well as a leaf blower ride-on and truck loader for leaves.
2. **Staffing** – Currently, the DPW Superintendent oversees the Department. There are multiple sub-departments within the DPW, including the Water Department and the Highway Division that the Superintendent also manages.

Within the next year or so, the DPW will need to hire another trained person for inspections and the multitude of reports required under the MS4 program. The DPW is in the process of hiring a new superintendent, a new water foreman, and a new office manager.

Fire Department

The Fire Department is a first responder public safety agency responsible for the protection of lives, property, and the environment. Services and programs include fire suppression, fire prevention, rescue, emergency medical service, hazardous materials mitigation, and emergency management. The Fire Department responds to a wide variety of emergency and non-emergency calls annually, estimated to be 1,400 for calendar year 2019. In 2018, the fire prevention division issued 820 fire prevention and controlled burning permits and performed several hundred on-site inspections. Permits and inspections for 2019 are estimated to be slightly higher due to several commercial projects in progress.

In response to the question "specify your satisfaction with each of the following" in Master Plan Survey #2, the majority of respondents said "very satisfied" for the Fire Department services.

Sterling Fire Department

Organizational Structure

The Fire Chief serves as head of the Fire Department and Sterling Emergency Agency. The Chief is responsible for the administration and operation of the Department, including, but

not limited to management, service delivery, and budgeting. The Chief is appointed by and reports to the Select Board.

Current Status and Projected Needs

Physical Facilities

The current headquarters of the Fire Department is located in the town center and houses offices, meeting and conference rooms, equipment rooms, apparatus bays, supply and equipment storage, and staff quarters. The 7,680 square foot building was completed in 2005 and is adequate in terms of meeting its intended needs. Provision of additional bunk space will be required as full-time personnel are added. Funds have been provided for work on the roof and major heating, ventilation, and air conditioning (HVAC) repair and replacement.

A storage facility for emergency response trailers is currently being researched. These would include trailers for forestry (i.e., brush and woodland fires) equipment, hazardous materials supplies, emergency management supplies and equipment, mass casualty response supplies, and an off-road four-wheeler.

Fleet Vehicles and Equipment

The Department operates two advanced life support (ALS) ambulances, three all-purpose pumpers, and one aerial ladder that respond to all reports of building and vehicle fires. Specialized apparatus consists of one rescue pumper and four vehicles designed for off-road fires in woodland, brush, and grass. Additional equipment includes two utility vehicles, an inflatable boat with trailer, and several trailers containing supplies, and equipment for various types of emergencies.

Funding to acquire several key vehicles and equipment was recently approved at the 2021 Annual Town Meeting. These include a Rescue 1 fire apparatus replacement, an ALS Intercept sport utility vehicle (SUV) replacement, a forestry pick-up truck, and a Jaws of Life replacement.

Staffing

The Fire Department is a combination department consisting of both full-time and on-call personnel. Full-time staff includes the Fire Chief, a Fire Prevention Officer, four Firefighters and Paramedics, and an Administrative Assistant. Twenty-eight on-call Firefighters and Firefighter and emergency medical technicians (EMTs) supplement the full-time force when alerted for emergency incident response and routine duties.

Since most emergency incidents require more personnel than those on duty, on-call personnel are also alerted to respond at all hours and on all days.

While Sterling strives to meet standards developed by the National Fire Protection Association (NFPA) in terms of staff, seldom are there enough personnel on-duty to manage emergency calls without additional help. For this reason, on-call firefighters are relied on at most emergencies: fires, rescue situations, disasters, and some emergency

medical calls as well. Unfortunately, the number of staff that serve in this vital role has steadily decreased in Sterling and most other departments that have a call force. While the Department will continue to rely on call firefighters for the immediate future.

Funding for one new full-time firefighter and EMT was recently approved at the 2021 Annual Town Meeting. However, additional full-time staff may be required in future years if call volumes increase.

Police Department

The Police Department is tasked with providing protection for the citizens of Sterling and to enforce the laws of the Commonwealth of Massachusetts.

In response to the question "specify your satisfaction with each of the following" in Master Plan Survey #2, the majority of respondents said "very satisfied" for the Police Department services.

Sterling Police Department

Organizational Structure

The Department operates under the direction of the Chief of Police who reports through the Town Administrator to the Select Board.

Services Provided

The Police Department has a number of initiatives that support the community, including, but are not limited to:

▸ Rape Aggression Defense Training

▸ Medication Disposal

▸ Firearms Licensing

▸ Infant and Child Car Seat Installation

In addition, the Police Department provides protection for fire fighters, protection for the schools, performs traffic control, performs fraud investigation, and functions as the Dispatch Center for both Fire and Police.

Current Status and Projected Needs

Physical Facilities

The current headquarters of the Police Department at 135 Leominster Road is in good condition. The building is an independent one-story structure that includes one jail cell.

It was noted that the Police Department building has had issues with the HVAC system and further maintenance will likely be required.

Fleet Vehicles and Equipment

Funding is needed to acquire several key vehicles, including one replacement cruiser and one specialty vehicle, a car for the Police Chief, and a vehicle for Animal Control. Additional funding is needed for dispatch consoles replacement, police radio upgrades to the console for interoperability, computer server replacement, defibrillators, and taser replacements.

Funding for a public safety radio tower site at Pratt's Junction was recently approved at the 2021 Annual Town Meeting. In addition to the above facility, fleet, and equipment needs, the Police Department will require additional resources to handle an increasing opioid crisis, as well as mental illness training to improve outcomes during police encounters with those who suffer mental illness.

Staffing

The Department has 22 staff members. Among this staff, there is a Chief, Executive Assistant to the Chief, five Patrol Officers, three Sergeants, a Detective, one Dispatch Supervisor that is supported by full and part time Dispatchers, and one part time Animal Control Officer.

Funding for one new full-time police officer was approved at the 2021 Annual Town Meeting. Additional full-time staff may be required in future years if call volumes increase.

Sterling Municipal Light Department

The Sterling Municipal Light Department is a progressive public power utility. Their primary building was originally the 1883 Sterling High School. Serving Sterling for over 100 years, the Sterling Municipal Light Department has more than 3,700 residential, commercial, municipal, and industrial customers. Customers are fed power through approximately 160 miles of distribution lines. The Sterling Municipal Light Department is a member of ISO New England (NE) and a wholesale aggregator of power with power purchases from generation throughout New England and New York. Power supply consists of an extremely clean portfolio of separate power agreements with Baltic Mill Hydro, Carbolon Cogeneration, Contoocook Hydro, Macquarie Energy Services, ISO NE Energy Market, Mass Municipal Wholesale Electric (MMWEC), Mechanicsville Hydro, Methuen Falls Hydro,

Millstone III, Power Authority of the State of New York (PASNY), Centennial Hydroelectric Facility, Seabrook, and Stony Brook combined cycle units.

The Sterling Municipal Light Department's mission is to provide smooth, clean, reliable power at a reasonable price, while staying abreast of society's technological advances for the benefit of its customers.

In response to the question "specify your satisfaction with each of the following" in Master Plan Survey #2, the majority of respondents said "very satisfied" for the Municipal Light Department services.

Sterling Municipal Light Department

Organizational Structure

The Sterling Municipal Light Department is governed by a three-person board elected directly by the citizens of Sterling.

Services Provided

Low-cost reliable electrical energy twenty-four hours a day, seven days a week, year-round, as well as supplementary services such as tree and roadside trimming, school zone flashers, bunting and flag installation.

Current Status and Projected Needs

Physical Facilities

The Sterling Municipal Light Department has two buildings, at 50 Main Street and 2 Leominster Road, and a substation on Chocksett Road. The Main Street building consists of offices and conference rooms, while the Leominster Road building is primarily for the housing and maintenances of vehicles.

The Sterling Municipal Light Department is bringing in fiber cable to the center of town to provide Wi-Fi and internet connections to all town departments. It is in the process of surveying rate payers to determine the level of interest that there may be in having cable offered to all its customers.

Fleet Vehicles and Equipment

The Sterling Municipal Light Department has a variety of fleet vehicles and equipment, including trucks and cherry pickers. There were no identified additional fleet needs at the time of this writing.

Staffing

Led by a General Manager, the Department has an Office Manager, Operations Supervisor, Staff Accountant, Billing Clerk, an Office Assistant and seven Line Workers.

Schools

Sterling is a member of the Wachusett Regional School District. The schools within this district in the Town include Houghton Elementary School (grades Kindergarten through 4) and the Chocksett Middle School (grades 5 through 8), both of which are located on Boutelle Road. High School students in grades 9 through 12 attend the Wachusett Regional High School in Holden. Sterling students have the option of pursuing a technical and vocational education through Montachusett Regional Vocational Technical School in Fitchburg or through private schools.

In response to the question "specify your satisfaction with each of the following" in Master Plan Survey #2, the majority of respondents said "very satisfied" for the school facilities and services.
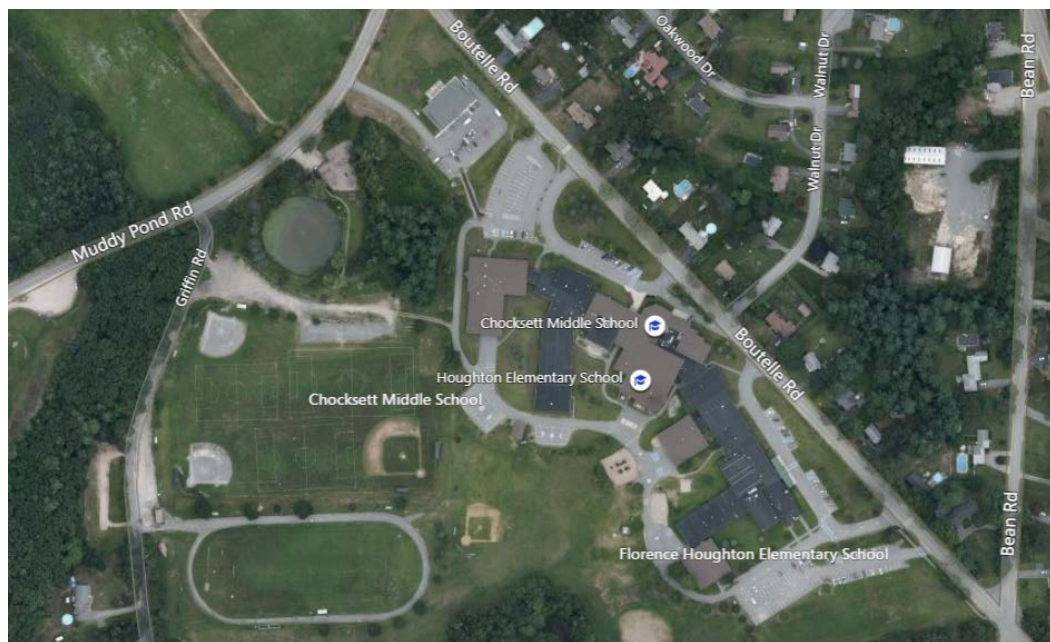
Houghton Elementary and Chocksett Middle Schools

Schools within Sterling are serving 493 students during the 2020-21 school year. **Table 7-2** shows current enrollments by public school as well as those in the regional school system.

Table 7-14 Sterling School District – Enrollment by School (2020-21)

Grade	Houghton Elementary	Chocksett Middle School	Wachusett Regional High School (Total)	Students in Wachusett Regional High School (Sterling)	Montachusett Regional High School (Total)	Montachusett Regional High School (Sterling)
Pre-K						
Kindergarten	55					
Grade 1	65					
Grade 2	67					
Grade 3	69					
Grade 4	50					
Grade 5		77				
Grade 6		65				
Grade 7		83				
Grade 8		75				
Grade 9			494	65	355	15
Grade 10			504	68	354	19
Grade 11			488	65	363	13
Grade 12			501	69	345	15
Total	193	300	1990	267	1417	53

Source: Massachusetts Department of Elementary and Secondary Education, 2021

Houghton Elementary School

Houghton Elementary School is a child-centered school focused on learning. The school has a population of five hundred children within a grade span of kindergarten through grade four. The school has a 3-year Improvement Plan (2017-2020) that outlines Goals, Strategic Initiatives, Outcomes and Actions. Its student to teacher ratio is 15.6 to 1 vs. the state average of 12.6 to 1.

Chocksett Middle School

The mission of Chocksett Middle School is to provide students with a multi-faceted education in a safe, supportive environment that contributes to the development of 21st century skills necessary to become independent and successful citizens in a global society. The school is located at 40 Boutelle Road.

The school has a 3-year Improvement Plan (2016-2019) that outlines Goals, Strategic Initiatives, Outcomes and Actions. Its student to teacher ratio is 12.9 to 1 vs. the state average of 12.6 to 1.

Council on Aging (Senior Center)

The mission of the Senior Center, located at 36 Muddy Pond Road, is to maintain the health and well-being of Sterling seniors and to assist them with preserving their independence. This is achieved by providing a variety of programs, services, and support to residents, including persons of any age with disabilities or other support needs, their families, and their caretakers. Many programs are provided at no cost. Fee based programming seeks to be affordable for those on limited incomes.

In response to the question "specify your satisfaction with each of the following" in Master Plan Survey #2, the majority of respondents said "very satisfied" for the Council on Aging and Senior Center services.

Organizational Structure

The Senior Center reports to the Town Administrator. The Council on Aging is an advisory board that provides fiscal oversight, policy guidance, needs assessment, and short- and long-term planning assistance.

Services Provided

The Senior Center has a number of services promoted through a monthly newsletter that support the community. A selection of these service includes, but are not limited to:

- Exercise Programs: Yoga, Pilates, Tai Chi, Line Dancing
- Health Promotion: Wellness Clinics and Programs, Flu Clinic, Foot Care Clinics, Health Insurance Counseling, Durable Medical Equipment loans, Support Groups
- Nutritional Support: Meals on Wheels, Breakfast Options, Home-Cooked Congregate Lunches
- Recreational, Socialization and Educational Programming: Cards and Games; Technology, Craft, Music, Art and Book Clubs, Inter-Generational Programming
- Outreach Services: Application Assistance, Advocacy, Case Management, Crisis Intervention, Family Support, Links to Programs and Services, Well-Being Checks and Assessments, Friendly Visiting Program
- Transportation Services: COA/MART Accessible Vans and electric car operate daily Monday through Friday
- Veteran Services

Current Status and Projected Needs

Physical Facilities

The Senior Center is a one-story completely accessible building that is 6,450 square feet in size. It contains a commercial kitchen, large meeting room, game room, offices, bathrooms, etc. There is a garage to house the vans and the electric car, and to provide storage for durable medical equipment, which is loaned to Sterling residents, as needed.

Due to the projected increase in the 60-plus community, there could be a space shortage at the Senior Center. With this in mind, the Senior Center and the Council on Aging board are actively exploring ways to work with the Recreation Department to advocate for more space for exercise and recreational programing. There can be a space crunch at times when all programs are fully subscribed.

Fleet Vehicles and Equipment

The Montachusett Regional Transportation Authority covers the operating cost of the vans, including the cost of gas and maintenance. The Senior Center covers the operating costs of the electric car.

Staffing

There is a full-time Director, as well as part-time roles, including a Meal Site Coordinator, Outreach Aide, Operations Coordinator, Custodian/Maintenance Tech, and van drivers.

Conant Public Library

Organizational Structure

The Conant Public Library is administered by an elected six-member Board of Library Trustees, which has statutory responsibility for the library, its services, collections, and facility. This Board appoints a Library Director, who reports to the board, makes policy recommendations to the board, and is responsible for operations and management.

In response to the question "specify your satisfaction with each of the following" in Master Plan Survey #2, the majority of respondents said "very satisfied" for the Public Library services.

Conant Public Library

Services Provided

Library services are designed to meet the informational, educational, and recreational needs of the community. The library provides broad access to library materials, resources, and services for enrichment and enjoyment in an environment that is welcoming to all. The Library offers space and opportunity to gather and connect knowledgeable friendly staff to assist, and the tools to grow and thrive in an increasingly digital world.

Improving access to services to homebound individuals, including close coordination with the Sterling Senior Center, and access to the Talking Book Library, through the CW MARS on-line catalog service, and other relevant services are among current goals. The Library also recently introduced a book loan and swap kiosk at the Town Beach.

The Library is open from 10:00 to 8:00 PM Monday through Thursday, and 10:00 to 3:00 on Saturdays. It is closed Friday and Sunday.

The Library is heavily used by all age groups. In 2019, programming attendance was 4,620, materials lending was 13 per capita (the national average is 4.4 and the state average is 6), and library visits were 44,470. Approximately 60% of residents hold library cards. The programmed activities include a special focus on youth services, including organized story times and summer reading programs.

According to a national study, two-thirds of library visitors borrow print books, around half go to read, study, or engage with media. Many are interested in programs. More people are seeking quiet space and Wi-Fi to pursue studies. A Pew Research study reports that trends show the public is seeking their library to be an agent of community, with activities that bring people together and events that unite the community. Libraries are also facing a dual challenge of upholding free speech, while being a source of reliable accurate information. Public safety is also, as for so many organizations, a real issue because libraries must remain open to all.

Other Resources

Materials, information, and other resources are available in print, digital, electronic, and audio-visual formats as well as online sources. Programming and activities are provided for children and adults. The library is a member of CW MARS, a resource sharing network of 149 libraries in central and western Massachusetts. It also provides personal computers for public use.

While the Library is in compliance with ADA requirements, it is currently facing issues with its outside lift and inside elevator.

In 2019, the entire HVAC system was replaced with one much more efficient and effective. There is also an interior renovation ongoing, including painting, flooring, and updated furnishings.

Current Status and Projected Needs

Staffing

The Library has a staff that includes the Library Director, an Assistant Library Director, a Children's Librarian, Circulation Services staff members, a Tech Services staff member, and a Financial Assistant. Library staff members wear many hats in order to provide traditional library services, to keep up with evolving technologies, both to operate in a business-like way and to assist the public with access to and use of those evolving technologies. The level and range of skills necessary to provide the same high level of service during all hours of operation is a challenge. A great deal of training is involved, so retention is extremely important.

Physical Facilities

The original building was built in 1885, with the Library occupying the second floor of 900 square feet and town offices and an "Antiquarian Room" on the first floor. Over the years there have been several renovations and additions to address accessibility and space issues. Currently, the useable square footage is 7,800 square feet (exterior dimensions of 9,000 square feet). The Library's biggest challenge in providing services is space limitation. Lack of a sewer system in the Sterling town center is a handicap to any possible building expansion because open land is currently used for the septic system and leach field.

While legally compliant with ADA, the Library does not adequately provide for people who use assistive devices for mobility. The mix of a lift from outside to the main floor and an interior elevator serving the three levels of the Library is a problem. Facing estimated needed elevator repairs of $80,000 and decreasing availability of parts, the best solution appears to be construction of a replacement elevator that provides ground level entry and access to all three floors. This could be similar to the elevator at the Butterick Municipal Office Building.

Recreation Department

The mission of the Recreation Department includes a dedication to providing affordable, quality recreational programs that will enhance the quality of life for all of Sterling's residents. The Department is committed to providing year-round programs that include active and passive recreational activities, and strives to work with other departments to promote its programs and offer safe, accessible, and well-maintained recreation facilities.

In response to the question "specify your satisfaction with each of the following" in Master Plan Survey #2, the majority of respondents said "very satisfied" for the Recreation facilities and services.

Organizational Structure

The Recreation Department is led by the Recreation Director. The Director is supported by a part-time assistant and the Recreation Committee, which is a seven-member board appointed by the Select Board. Members of the Recreation Committee serve five-year terms.

Services Provided

The Recreation Department administers or supports recreational programming at various locations throughout Sterling. Such programming, including children's swimming, the Sterling Rec Road Race, ski and snowboard program passes, and virtual programming (e.g., Blast Babysitting and Safety Training, Central Mass eSports League), is advertised in paper flyers and newspapers, as well as on the Town's website and the Department's social media accounts. The Department has instituted an electronic registration system for its programs.

The Department strives to provide accessibility accommodations, where needed. For example, its children's swim program provides additional aides for participants with special needs.

Other Resources

The Recreation Department's developed recreational sites serve as the locations for much of the Department's programming. More information on these sites is provided in Chapter 6, *Open Space and Recreation* and the 2019 Update to the Town's *Open Space and Recreation Plan*. The Recreation Department's many fields and facilities include:

- Redstone Hill (ball field)
- Sholan Park (beach, picnic, basketball, volleyball, boating, recreation, camp)
- Memorial Park (concerts, picnic)
- SPARC Park (tot lot, picnic, play equipment, walking trail, pond)
- West Sterling Athletic Fields (ball fields, tennis, pickleball, basketball, bathrooms)
- 1835 Town Hall (dance, aerobics, etc.)

- ▸ Griffin Road Fields (ball fields, track, basketball, fitness, and cross-country running trails, soccer, football)
- ▸ Muddy Pond Fields (ball fields, t-ball, soccer field)
- ▸ Houghton School/Chocksett School (play equipment, ball fields, four square, open field)

In 2009, accessibility accommodations at the Recreation Department's developed recreational lands were assessed. Since then, the Town installed handicapped accessible portable toilets at the Town Beach at Sholan Park and at the playing fields at Griffin Park. Additionally, handicapped portable toilets were installed at Memorial Park and the Sterling Greenery Community Playground on Muddy Pond Road.

Current Status and Projected Needs

Physical Facilities

The Department of Recreation operates out of the Butterick Municipal Office Building. Among its facility needs, the Recreation Department requires additional storage space for its equipment and further accessibility improvements per the 2009 evaluation. Additionally, its recreational spaces are somewhat unevenly geographically distributed, and greater access to indoor space would enhance programming. Regarding the latter, inclement weather can force the Recreation Department to cancel outdoor programs, which is difficult for parents or caregivers who cannot make last minute schedule changes. Having available indoor space for the programs would allow the Recreation Department to provide reliable programming regardless of the weather. At the Town Beach, erosion is a prominent concern, as stormwater runoff requires sand replacements on an annual basis. This run-off can also degrade water quality and beachfront aesthetics. In response, the Town's Conservation Commission authorized an engineering report on this stormwater issue and will be working with appropriate entities on implementing its findings.

Also at the Town Beach, the restrooms are in need of major renovation or replacement, along with ADA upgrades. It was noted that the Town Beach does not fully open until July. With springs and summers arriving noticeably earlier during the year due to climate change, the community has requested that the opening of the Town Beach be timed accordingly.

In addition to facility needs, the Town's recreational programming might consider greater accommodations for audiences with various abilities and intergenerational programming. This would be consistent with the community's desire to become more age and dementia friendly.

Goals and Actions

Goal 1: Develop plans and funding to rebuild, expand, or replace key public facilities, and ensure appropriate levels of staffing needed to support the Town's operations.

Action #1: Develop a Public Facilities Improvement Plan for all Town buildings that identifies near-, mid-, and long-term improvements (and costs), so that the Town will have a comprehensive inventory of the required maintenance and capital improvements needed for its public facilities.

The following are highlights of the items to be addressed and can be included in a Public Facilities Improvement Plan.

- *Town Hall:*
  - *Consolidation and expansion of spaces based on needs, especially for the Recreation Department (potential relocation to the 1835 Town Hall)*
  - *Consolidation of multiple departments, boards, committees for greater oversight and to better serve the public*
  - *Roof repairs*
  - *ADA improvements*
  - *Records and systems storage updates to explore options for document storage to include storage facilities in any new buildings constructed by the Town and digitizing documents wherever possible (i.e., reduce the need for storage of paper copies)*
  - *Sprinkler system maintenance and upgrades*
- *1835 Town Hall:*
  - *Study and quantify the potential to add more sewer capacity (See Goal 4, Action #3)*
  - *Explore the Recreation Department's potential space needs (See Goal 3, Action #3)*
- *DPW Building: (See Goal #2)*
- *Fire Department:*
  - *Resolve ice damming issues on the roof*
  - *Completion of women and unisex bathroom facilities*
- *Police Department:*
  - *Sprinkler system maintenance and upgrades*
- *Conant Public Library:*
  - *ADA improvements*
  - *Study the need for a generator*
- *Senior Center: (See Goal 3, Action #2)*
- *Town Beach:*
  - *Implementation of stormwater run-off and erosion improvement measures*
  - *Replacement and repair of bathrooms and roofs*
- *Sterling Municipal Light Department:*
  - *Assess need to convert the unisex bathrooms to accommodate women's bathroom and locker facilities*

Action #2: *Develop a financial plan and action plan, including through appropriating and allocating funds in the Town's Capital Improvement Plan, to implement the recommendations identified in the Public Facilities Improvement Plan.*

Action #3: *Develop a staffing plan to assess current and future staffing needs and enhance necessary staff trainings to all departments to address anticipated growth in municipal services and implement the recommendations included in the Master Plan, so that the Town can deliver its services effectively.*

Goal 2: Ensure the Town has adequate Department of Public Works (DPW) facilities to address today's needs as well as projected future needs of the community.

Action #1: The need to address the deficiencies in the DPW facilities (such as the potential renovation or replacement of the existing building and storage needs) were noted as a high priority as part of this master planning process. In concert with creating a Public Facilities Improvement Plan, review the specific needs of the DPW facilities to address physical needs, as well as operational and support equipment needs.

Action # 2: In anticipation of future regulations for water resource management, plan for adequate staffing to ensure the Town has the resources necessary to assist with the monitoring and training that will be required to continue to ensure safe water and water quality throughout Sterling.

Goal 3: Become more age and dementia friendly, including through targeted recreational opportunities.

Action #1. Explore the feasibility of expanding the current Senior Center to meet the space needs for programs serving the Town's senior population. As part of this study, determine what recreational programming will be in demand – for both seniors and the Town's youth - and incorporate such programming into the facility expansion to the extent practical.

Action #2. Seek opportunities to encourage collaboration among the Council on Aging (COA), Recreation Department, and Sterling's Public Schools to promote intergenerational activities.

Action #3. Continue to evaluate and enhance transportation services offered to seniors and residents with disabilities.

Goal 4: Develop plans for key infrastructure elements that need improvement.

Action #1: Continue to fund annual improvements to roadways and seek opportunities to obtain state funding for long-term transportation enhancements as identified in the Transportation and Circulation element. In the process, seek opportunities to obtain grants that will enable the Town to further the implementation of Completes Streets and active transportation projects.

Action #2: In coordination with Goal #2, prepare an assessment of the Town's forecasted future needs for investments in pump stations, wells, and the delivery of water to the Town.

Action #3: Revisit the Town's Sewer Studies completed by Montachusett Regional Planning Commission (MRPC) to understand if the alternatives identified should be refined and further studied. As part of this effort, update the cost and understanding of potential grant funding to support this effort.

Goal 5: Continue to take advantage of opportunities to plan for Sterling's long-term success by advancing efforts to address its sustainability and resiliency.

Action #1. In conjunction with Goal 1, Action #1, advance energy upgrades for the Town's existing buildings to improve overall performance and costs.

Action #2. Undertake a fleet vehicle assessment to ascertain opportunities to right size vehicles and convert to electric alternatives.

Action #3. *Incorporate cost-effective green infrastructure strategies into all municipal projects for stormwater management.*

Action #4. *Continue to work with the Sterling Municipal Light Department to deliver low-cost renewable energy to the Sterling community.*

Action 5-4 was ranked as a top priority by 77% of respondents in Master Plan Survey #3 Part II, surpassing the next highest ranking by 14%.

Action #5. *Seek opportunities to expand high speed internet access throughout Sterling, particularly to those that are most in need (e.g., low-income households).*

Action #6: *Invest in educational programs and materials that provide residents and business owners information about the Town's solid waste and recycling programs to improve the Town's overall diversion rate.*

Action #7: *Develop a plan and cost estimates to provide electric vehicle (EV) charging stations for vehicles at all the municipal buildings and parking lots.*

Action #8: *Continue to pursue Action Grants for the implementation of resilience measures, particularly those that are nature-based, through the State's Municipal Vulnerability Preparedness program.*

Goal 6: Invest in the Town's schools to promote high performing educational facilities and programming.

Action #1. *Work closely with the Wachusett School Department, Sterling representatives on the Wachusett School Committee, and the Finance Committee to identify and support capital improvements that are needed to support school operations.*

Action #2. *Work with the School Committee to assess the ability to better utilize public school facilities and programs for other community uses, especially as it pertains to the interaction between the schools and the Senior Center.*

Transportation and Circulation

8

Introduction

This element of the Master Plan discusses Transportation and Circulation in the Town of Sterling, includes private automobiles (but not taxis, Uber, or Lyft), public transportation (includes transit and bus), and other pedestrian modes of travel such as bicycling and walking. The ability to move people and goods is essential to the economic vitality, environment, and quality of life in Sterling and in the region.

The existing conditions of the roadway system are reviewed by looking at such data as traffic counts and crash incidents. Goals and recommended actions will then be made taking into consideration other community and regional assets such as open space for an interconnected bicycle and pathway system within the Town and connections to other adjoining towns and the region as well as meeting the goal of transportation and circulation patterns that are safe and accessible to all users, regardless of age, ability or how one choses to move around town.

Baseline Conditions Analyses

Role of the Regional Planning Agency

The Montachusett Regional Planning Commission (MRPC) acts as staff to the Montachusett Metropolitan Planning Organization (MPO) that has the responsibility of prioritizing transportation projects within the Montachusett Region. This presents municipalities with greater chances for input in setting local priorities and is intended to give municipalities a stronger role in planning transportation improvements that directly affect them. Transportation projects and plans must be included in a regional transportation plan in order to receive federal funding for implementation.

Regional Transportation Plan

The Regional Transportation Plan (RTP) outlines the transportation priority needs and policies for the region. Before projects receive federal funding, they must be identified and incorporated into the policy goals and visions of the RTP which identifies both short- and long-range projects for local roads, highways, bridges, rail, transit, bike and pedestrian trails, freight and airports as well as priorities, goals, visions and strategies.[29]

Transportation Improvement Program

The Transportation Improvement Program (TIP) and Air Quality Conformity program are intermodal programs of transportation improvements produced annually by MRPC. To receive Federal or State funding, a transportation project must be included in the TIP.

The TIP must also be consistent with the current RTP for the Montachusett Region. The agency responsible for implementing highway projects in the TIP, unless otherwise noted, is the Massachusetts Department of Transportation (MassDOT) Highway Division and, for transit projects, the Worcester Regional Transit Authority or Montachusett Regional Transit Authorities.

Currently Sterling has several ongoing TIP projects in both the construction and design phase, covering a range of work from resurfacing to drainage. **Table 8-1** details each of them and includes the specific number for each project that will provide a historical summary with project completion status, milestone details, TIP funding, and any project issues.

Table 8-15. Current Sterling TIP Projects

MassDOT Number	Description	Project Type	Status
604699	STERLING- INTERSECTION IMPROVEMENTS AT ROUTE 12 AND CHOCKSETT ROAD	Highway Reconstruction - No Added Capacity	CONSTRUCTION
606575	STERLING- INTERSTATE MAINTENANCE & RELATED WORK ON I-190	Resurfacing Interstate	CONSTRUCTION
607909	STERLING- BRIDGE JOINTS REPAIRS AND BEAM-END REPAIRS AT 5 BRIDGES ON I-190	Structures Maintenance	CONSTRUCTION
608188	GARDNER- LEOMINSTER- STERLING- INTERSECTION IMPROVEMENTS AT 3 LOCATIONS	Traffic Signals	CONSTRUCTION
607604	STERLING- WEST BOYLSTON- IMPROVEMENTS ON ROUTE 140 AT I-190	Highway Reconstruction - Restoration and Rehab	DESIGN
610659	STERLING- STORMWATER DRAINAGE IMPROVEMENTS AT WACHUSETT RESERVOIR ON ROUTE 110 (METROPOLITAN ROAD)	Drainage	DESIGN

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29 https://www.mrpc.org/transportation/pages/regional-transportation-plan-2016-moving-forward

Existing Roadway System

Existing Network

The road infrastructure of Sterling is comprised of one interstate highway (I-190), four state highways (Route 12, Route 62, Route 110 and Route 140), and a network of local and connector roads serving the town center and the rural residential areas. Interstate 190 (I-190) is the major limited access highway in town offering access to the Leominster-Fitchburg area to the north and Worcester area to the south. Route 12 offers the same north-south access as I-190, although with more access to secondary roads as well as the town center. Route 140 provides access on the west side of town from the Gardner area to the north, to commercial areas east of Worcester such as Shrewsbury to the south. Route 62 travels west-east from the Princeton town line, through Sterling center and into the Town of Clinton. A small section of Route 110 in the

Existing Roadway and Highway Network

southeast corner of town offers access to points from Worcester in the south, through the metropolitan Lowell and Lawrence area and up to the northeast coast of Massachusetts.

Functional Classification

Functional classification defines the character of services that a particular roadway is intended to provide and identifies a roadway's purpose and use as part of the highway network. Roads serve to provide mobility for vehicle access to locations.

Aside from the Interstate Highway system, streets and highways are classified into four functional highway systems: Principal Arterials, Minor Arterials, Collector Streets and Local Streets as follows: Sterling can compete for limited federal aid funding to repair their Federal-Aid eligible roads through the annual TIP process. These federal-aid eligible roadways are displayed in Attachment 1A. Federal Aid Roads Map and Attachment 1B Fed Aid Routes Surveyed by MassDOT & MRPC 2017. Roads classified as "local" are not eligible for Federal-Aid and are maintained solely by the municipalities. Local roads are eligible for State Highway funds under Chapter 90.

Principal Arterials: Multi-lane roadways that connect major activity centers, they carry the highest volumes of traffic at high speed and are often entirely or partially controlled-access

facilities with interchanges or grade separations at major crossings. In Sterling, this is no roadway classified as a Principal Arterial.

Minor Arterials. Feed into principal arterials and serve the dual function of carrying high traffic volumes, providing access to adjacent land uses; on-street parking is generally permitted but is heavily regulated. In Sterling, Route 12, Route 140, parts of Route 62, Chocksett Road and Pratts Junction Road are classified as Minor Arterials.

Collector Streets. Collect traffic from local streets and channel it into the arterial street system with a focus more towards on land access than on mobility, providing general traffic circulation and typically having lower travel speeds and parking restrictions. Roads classified as Collectors in Sterling are Route 110, Bridge Street, Swett Hill Road, Campground Road, Gates Road, Rowley Hill Road, Justice Hill Road, Heywood Road, Boutelle Road, Muddy Pond Road and Greenland Road. Also classified as Collectors are parts of the following roads: Route 62, Kendall Hill Road, Redstone Hill Road and Maple Street

Local Roads and Streets. Include all the remaining streets that are not included in one of the higher systems.

Sterling can compete for limited federal aid funding to repair their Federal-Aid eligible roads through the annual TIP process. Roads classified as "local" are not eligible for Federal Aid and are maintained solely by the municipalities. Local roads are eligible for State Highway funds under Chapter 90. Sterling's federal-aid eligible roadways are shown on Map 1.

Table 8-2 shows the current mileage in each Functional Classification category.

Table 8-16. Mileage in Each Functional Classification Category

Classification	Number of Roads	Milage
Interstate	1	13.29
Arterial	5	22.78
Collector	15	27.52
Local	184	80.52
Total	205	144.11

Functional Reclassification

If the Town wishes to reclassify a roadway there is a process through the MPO and MassDOT to do so. Reclassification of a roadway may be necessary due to a change in use over time and could affect a roadways eligibility for federal aid. If the Town wishes to propose a reclassification it should contact the MPO.

Adding Town Accepted Roadways to Statewide Database

It is important that the Town regularly updates its accepted roads with MassDOT. This is because Chapter 90 allotment is directly related to the number of accepted miles of roads

in each town. If a community has not updated its accepted road information, or has roads which have been recently accepted by the Town but not submitted to MassDOT, it is probable that it is not receiving as much as it should in Chapter 90 funds as it should be.
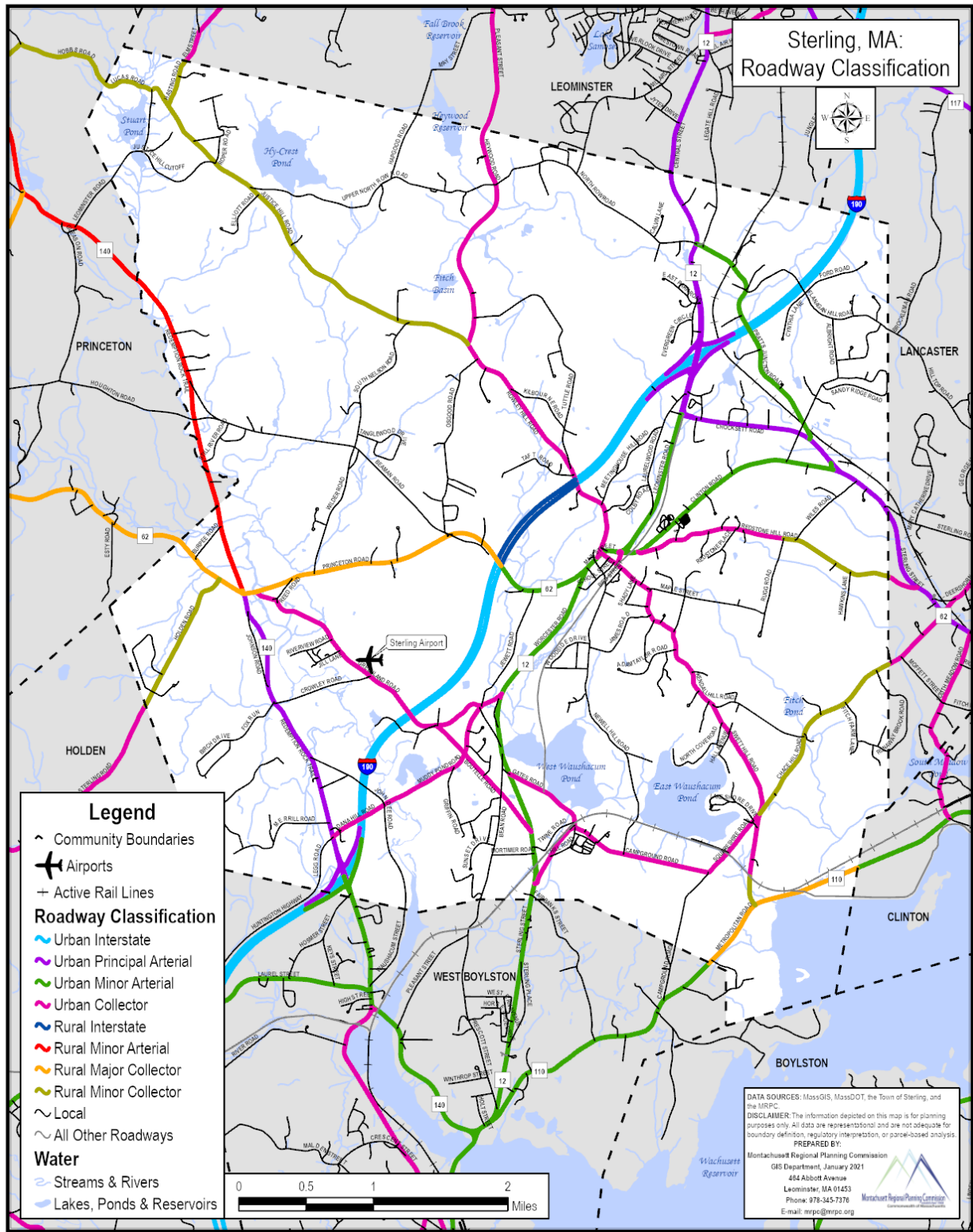
Figure 8-11. Roadway Classification

Average Daily Traffic (ADT)

For many years the MRPC and MassDOT Highway Division have taken traffic counts at numerous locations in Sterling, as part of its regional traffic count program. **Table 8-3** lists traffic counts that were taken along major routes over the past 10 years by location. These locations can be seen on the map in Attachment 2, Traffic Count Locations Map. The locations mentioned in the table are shown with larger dots on the map and have been conducted regularly for volume comparison purposes. Other locations that have been conducted less frequently are shown with smaller dots and Turning Movement Counts are shown in green.

The counts consist of data collected during a period of at least 24 weekday hours. To reflect seasonal differences in traffic volumes, MassDOT Uses Average Annual Daily Traffic (AADT) volume adjustment factors. These factors were applied to all counts listed on **Table 8-3**.

Table 8-17. Sterling Traffic Volumes

Street/Route	Location	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Clinton Road (Rt. 62)	East of Leominster Rd (Rt. 12)			3,500				4,200				
Leominster Road (Rt. 12)	North of Main St (Rt. 62)			8,000				7,000				
Main Street (Rt. 12/62)	South of Waushacum Ave.			7,700				8,800				
Maple Street	West of Kendall Hill Road			1,500				1,300				
Princeton Road (Rt. 62)	West of Redemption Rock Trail (Rt. 140)	3,900	3,900						4,200			
Redemption Rock Trail (Rt. 140)	At Princeton Town Line						5,600			7,100		
Redemption Rock Trail (Rt. 140)	At West Boylston Town Line		4,800				4,900					5,800
Redemption Rock Trail (Rt. 140)	North of Dana Hill Road			7,500		8,200				9,500		
Redemption Rock Trail (Rt. 140)	North of Princeton Road (Rt. 62)	5,900			6,200				5,700			
Redemption Rock Trail (Rt. 140)	South of Princeton Road (Rt. 62)	8,300	7,900		8,100				8,400			
Worcester Road (Rt. 12)	At West Boylston Town Line		4,900				4,400					4,500
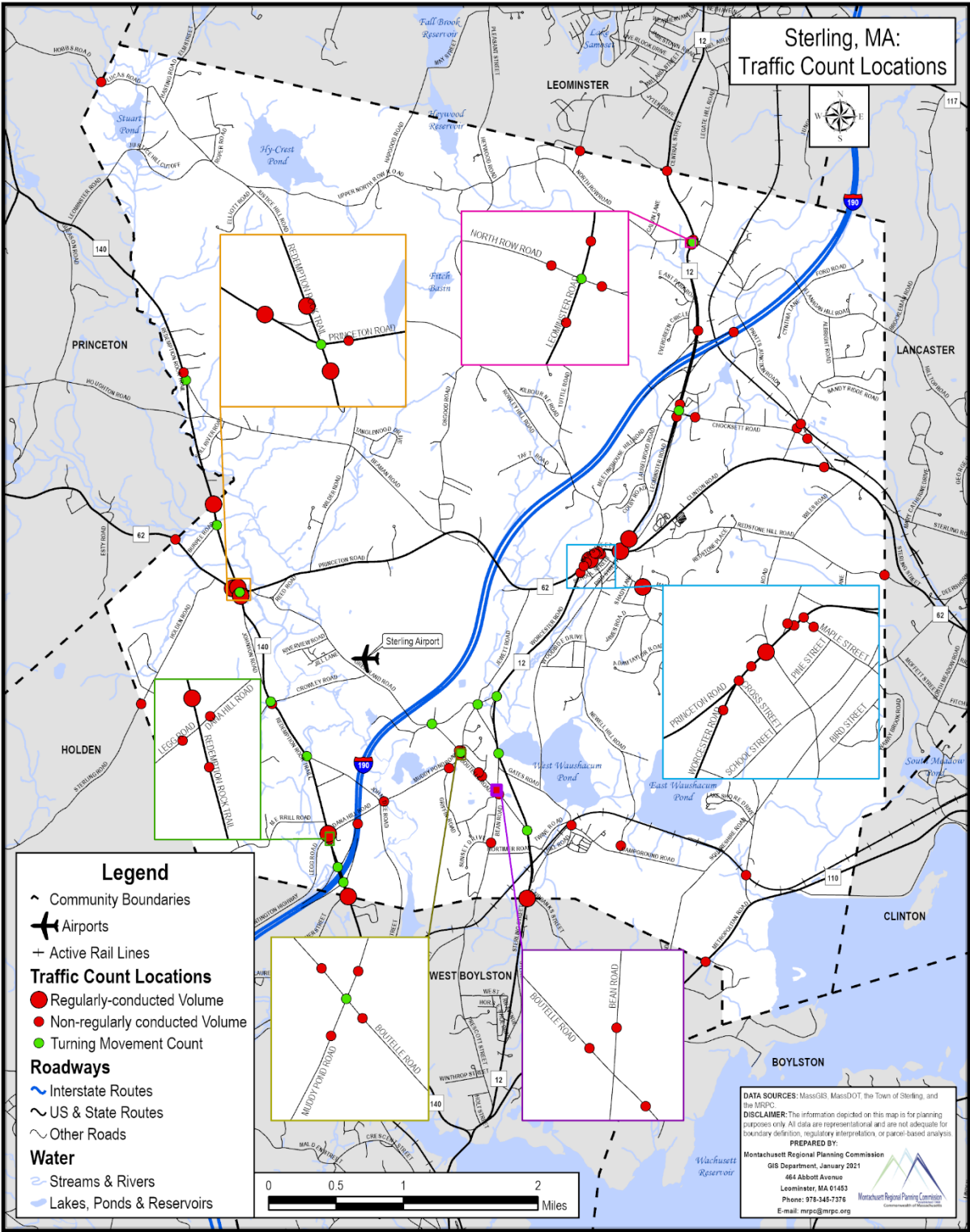
Figure 8-12. Traffic Count Locations

Given the limited traffic count data, it is assumed that the traffic volumes are fairly consistent community wide. There are a few areas where there is growth and a few that show a reduction in traffic volumes.

Roadway Safety

Traffic crashes are often unpredictable, unavoidable events. Most traffic crashes are the result of driver error; however, driver error can be magnified by poor roadway or intersection design, or by inadequate traffic control measures. When crashes occur in high numbers at a particular location, there is probably a common reason for the crashes related to the design and/or signage of the road. Detailed study of crash records can identify these high-crash locations and lead to design improvements that will reduce the numbers and severity of future crashes.

The MRPC Transportation Department maintains and continually updates a crash database for the purpose of gathering crash statistics on the Region using historical and the most recent MassDOT crash tables available that currently exist from 2017-2019. Crash severity states the types of harm or the most serious outcome of a crash. There are essentially three possible outcomes: Fatal Injury Crash, Non-Fatal Injury Crash, and Property Damage.

Crash Statistics

From January 2017 to December 2019, Sterling experienced 495 crashes. Of the total crashes, no Fatal Injury Crashes occurred, Non-Fatal Injury Crashes accounted for 124 (25%) crashes and Property Damage Crashes accounted for 371 (75%) crashes.

Crash clusters at intersections and mid-block locations arise when two or more crashes occur in a 3-year period at those locations. **Table 8-4** shows Intersection Crash Clusters (ICC) with a minimum of four (4) crashes and all Mid-Block Crash Clusters (MBCC). These clusters are also shown in Map 3 and 4, respectively.

Table 8-18. Crashes in Sterling 2017-2019

	Total Crashes		Injury Crashes		PDO Crashes	
Sterling	*495*	*100%*	*124*	*25%*	*371*	*75%*
ICCs with 4+ Crashes	218	76%	57	84%	161	72%
MBCCs	69	24%	11	16%	62	28%
ICCs & MBCCs Totals	*287*	*58%*	*68*	*55%*	*223*	*60%*

Injury Crash Analysis:

For the 3-year period of 2017 – 2019, there was a total of 23 Intersection Crash Cluster and 23 MBCCs in Sterling. While the Route I-190 ICCs and MBCC are not examined in the Injury Crash analysis, data is provided for reference only.

▸ The Leominster Road / Route 12 from the Leominster City Line to Laurelwood Road corridor has experienced eight (8) ICCs and two (2) MBCCs. The corridor has experienced

13 (20%) of the Non-Fatal Injury Crash total of the combined locations. However, six (6) of the ICCs have recently been the subjects of safety improvement projects that included the construction of two (2) modern roundabouts. All the projects have been completed or are near completion. The next step for these projects is to be evaluated to determine the effectiveness of the potential safety improvements over a period of at least three (3) years.

▸ The Redemption Rock Trail / Route 140 from North Oakdale Cutoff to Route I190 corridor has experienced five (5) ICCs and four (4) MBCCs. The corridor has experienced 13 (20%) of the Non-Fatal Injury Crash total of the combined locations. Three of the ICCs have experienced a total of eleven (11) Non-Fatal Injury Crashes, a minimum of three (3) Non-Fatal Injury Crashes each. The Redemption Rock Trail / Princeton Road intersection alone has experienced five (5) Non-Fatal Injury Crashes. Both the Redemption Rock Trail / Dana Hill Road / Legg Road and Redemption Rock Trail / Crowley Road / Fox Run Road ICCs experienced three (3) Non-Fatal Injury Crashes each. The MBCCs contributed one (1) Non-Fatal Injury Crash to the total.

▸ The Main Street from Leominster Road / Bridge Street / Clinton Road to Waushacum Avenue / Houghton Road corridor has experienced two (2) ICCs. Non-Fatal Injury Crashes have accounted for five (5) of the twelve (12) (42%) Total Crashes that occurred at the two (2) ICCs.

Further study for the following corridors is recommended to improve safety:

▸ Safety conditions on the Redemption Rock Trail / Route 140 from North Oakdale Cutoff to Route I-190 corridor need to be addressed with a focus on the Redemption Rock Trail / Princeton Road intersection followed by the Redemption Rock Trail / Dana Hill Road / Legg Road and Redemption Rock Trail / Crowley Road / Fox Run Road intersections.

▸ The high Non-Fatal Injury Crash percentage for the Main Street from Leominster Road / Bridge Street / Clinton Road to Waushacum Avenue / Houghton Road corridor may be of concern to Sterling. With four (4) out of five (5) resulting in Non-Fatal Injury Crashes, the Main Street from Leominster Road / Bridge Street / Clinton Road intersection may be a particular concern.

▸ A before and after safety performance analysis should be conducted on the completed / near completed projects of the Leominster Road / Route 12 from the Leominster City Line to Laurelwood Road corridor in approximately three (3) to four (4) years. A minimum of three (3) years of crash data is needed to determine the effectiveness of the completed projects; however additional data for at least one (1) year would improve the analysis findings. 30

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30 https://www.mrpc.org/sites/g/files/vyhlif3491/f/file/file/sterling_route_12_final_report_8-29-16.pdf
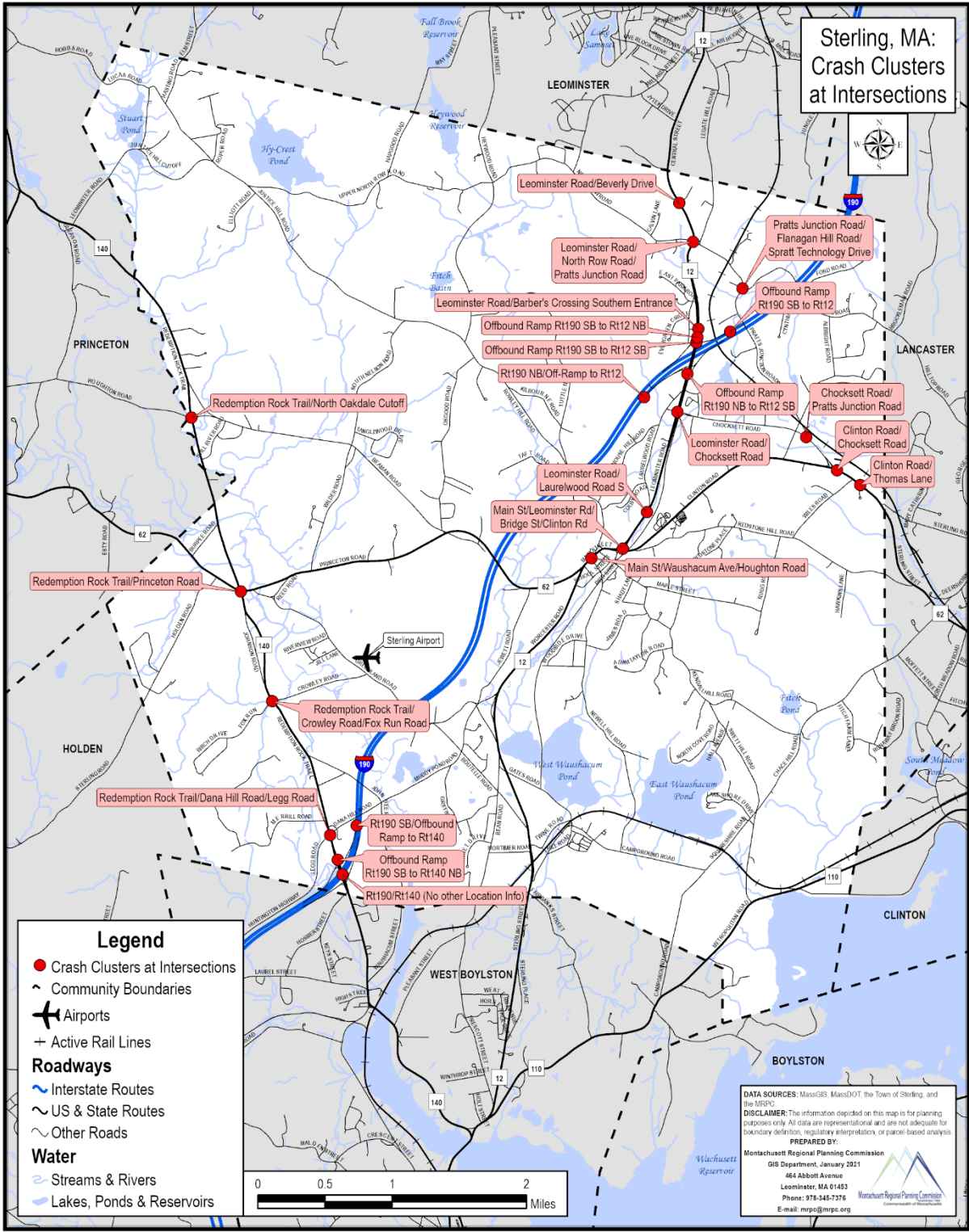
Figure 8-13. Crash Clusters at Intersections
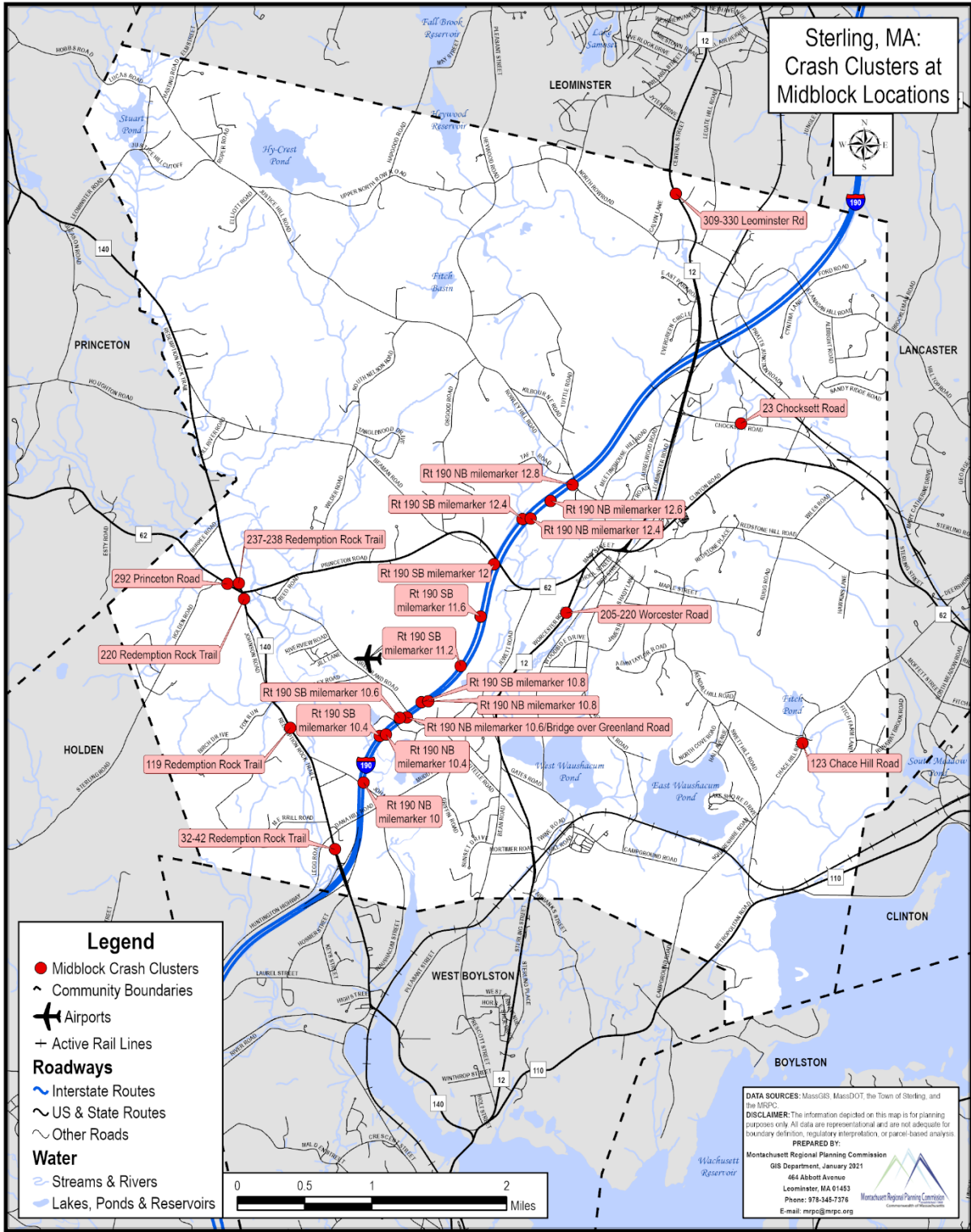
Figure 8-14. Crash Clusters at Midblock Locations

Pavement Condition

Road and street surfaces are the largest single cost of building and maintaining a transportation system. Forty to fifty percent of public funds spent on roadway systems are for the road surface. For smaller communities such as Sterling the percentage can be much higher. The role of a pavement management system is to provide an opportunity to improve roadway conditions while making cost effective decisions on maintenance priorities and schedules. In the Master Planning Survey #2, 49% of respondents said the condition of roadways is "somewhat well" and 32% said the condition of sidewalks is "somewhat well."

A pavement management system relies heavily on pavement preservation early and often for the purpose of preventing an increasing deterioration of pavement structure. By maintaining an accurate database with up-to-date road conditions, the needs of a road network are better diagnosed.

Pavement Management Systems

A well-run pavement management system applies the principal that it is far more economical to preserve roads than to delay repairs and reconstruct roads. While it is important to preserve a pavement condition in good standing for as long as possible by implementing various preventative and routine maintenance techniques throughout its lifecycle to keep cost low, it is a reality that budgets often do not allow for this. It is encouraged that a pavement management plan be implemented to keep on track of maintenance needs and schedules to contribute to a cost-effective approach to maintaining roadways.

Sterling currently does not have a pavement management system in place. Although a pavement management program does involve additional costs on top of maintenance budgets, many communities are realizing their potential to save money by making well informed decisions in the long run. The costs and benefits of utilizing a Pavement Management System in Sterling should be weighed and discussed with the appropriate decision makers.

Local Conditions

The structural conditions of the majority of the Federal Aid eligible roads in Sterling are determined by MassDOT and MRPC pavement surveys. Conditions are rated as Excellent, Good, Fair and Poor.

Table 8-19. General Correlation Between Condition, Repair Strategies, and Associated Cost

Condition	Associated Repair	Average Cost Per Mile (26' Wide Road)
Poor	Reconstruction	$686,385
Fair	Rehabilitation (Mill/Overlay)	$274,554
Good	Preventative Maintenance	$129,651
Excellent	Routine Maintenance	$11,440

Table 8-5 shows a general correlation between condition, repair strategies and associated cost. The estimated repair cost was derived from conversations with a Pavement Management Users Group (PMUG) comprised of other Regional Planning Agencies, the MassDOT and the Federal Highway Administration (FHWA) and reflects the estimated cost to bring the pavement condition to "excellent."

The Map "*Federal-Aid Eligible Roadways*" shows all Federal Aid Eligible roads. These are all roads in Sterling which are eligible to receive federal aid, including both State and Local Jurisdiction roads. Please note that due to the time frame between data collection and report preparation, conditions of the roadways may change. Therefore, this information should be viewed in general terms regarding needs and condition. Federal Aid Eligible roads are comprised of all functionally classified as Interstate, Urban and Rural Arterial, Urban Collector and Rural Major Collector roads. These roads include all roads which are State maintained (State Jurisdiction) as well as a select number of roads which are maintained by Sterling (Local Jurisdiction).

Table 8-20. Pavement Condition on Surveyed Federal Aid Eligible Road in Sterling

		State Juristiction			Local Jurisdiction				Combined		
		Miles	Square Yards	Cost	Miles	Square Yards	Cost	Repair Category	Miles	Square Yards	Total
Sterling	Excellent	2.20	30965	$23,223	4.46	62805	$47,104	Routine Maintenance	6.66	93769	$70,327
	Good	5.03	70822	$601,991	2.33	32824	$279,003	Preventative Maintenance	7.36	103646	$880,994
	Fair	7.81	109951	$1,979,111	8.69	122392	$2,264,260	Rehabilitation	16.50	232343	$4,298,346
	Poor	1.43	20126	$905,661	8.47	119248	$5,366,168	Reconstruction	9.90	139374	$6,271,829
	Total	16.46		$3,509,986	23.95		$7,956,535	Total	40.41		$11,521,496

Table 8-6 above shows pavement conditions on surveyed Federal Aid Eligible roads in Sterling. Also displayed is the cost to repair all roadways to excellent condition. It should be noted that these conditions only reflect a portion of roadways in town, and do not reflect any local classification roadways.

Challenges

A major concern to communities is funding available for roadway maintenance (Chapter 90) lagging behind the rising price of such maintenance. On the following page is a chart showing the Chapter 90 allocations Sterling received in FY 2020 along with the roadway mileage that that money must maintain. Sterling has 68 miles of roadways identified as local jurisdiction, being Federal Aid and Non-Federal Aid eligible, and its Fiscal Year 2020 Chapter 90 apportionment is $410,022, which is a -1.85% change between the years 2016 and 2020.

Pavements are often the single largest expense in any municipal road maintenance budget. Chapter 90 allocations often do not provide sufficient funding to maintain local roads at the current condition let alone make major improvements. Due to inadequate funding, it is recommended that communities routinely target funding for federal aid eligible Local roadways through the TIP. It is also encouraged that a Pavement Management Plan be implemented by communities to keep on track of maintenance needs and schedules to contribute to a cost-effective approach to maintaining roadways.
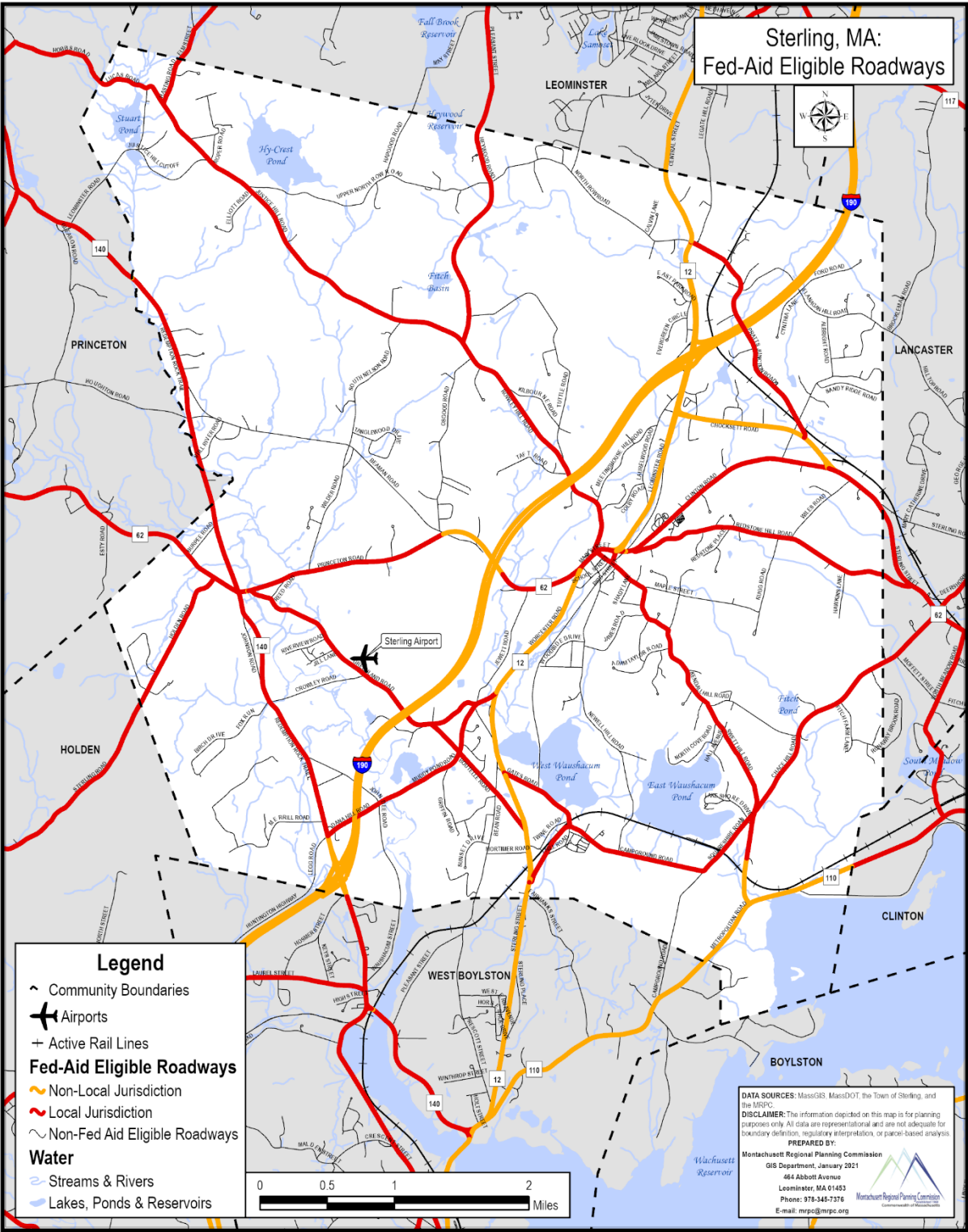
Figure 8-15. Federal-Aid Eligible Roadways

Bridges

As with pavements, bridges and culverts are an essential asset to the transportation infrastructure in the Town. Bridge conditions are regularly rated by MassDOT as part of their inventory system. The American Association of State Highway and Transportation Officials (AASHTO) is a method of evaluating highway bridge data by calculating four separate factors to obtain a numeric value which is indicative of bridge sufficiency to remain in service. The result of this method is a percentage in which 100% would represent an entirely sufficient bridge and zero percent would represent an entirely insufficient or deficient bridge. To be eligible for federal aid for repair, a bridge must have a sufficiency rating of less than 80.

According to the MassDOT Project Development and Design Guidebook (January 2006), structurally deficient is defined as "a bridge structure that has a defect requiring corrective action." Functionally obsolete bridges are defined as "a bridge which has no structural deficiencies but does not meet standards to adequately serve current user demands." Due to the safety hazard factor, structurally deficient bridges are deemed to be a high priority to repair.

As of September 2020, there are no town owned bridges rated as structurally deficient in Sterling, however, there are four structurally deficient bridges owned by MassDOT on I-190 which are currently under repair.

Table 8-21. Bridges in Sterling

Feature Intersected	Facility Carried	Year Built	Year Reconstructed	Structure Length	Bridge Owner	Structurally Deficient	Structure Category	AASHTO Rating
HWY DANA HILL RD	I 190 SB	1979		28.0	DOT	NO	Bridge (NBI)	92.2
HWY JOHN DEE RD	I 190 NB	1979		28.7	DOT	NO	Bridge (NBI)	94.3
HWY JOHN DEE RD	I 190 SB	1979		28.3	DOT	NO	Bridge (NBI)	92.2
WATER STILLWATER RIVER	I 190 SB	1979		100.9	DOT	NO	Bridge (NBI)	96.4
WATER STILLWATER RIVER	I 190 NB	1979		101.8	DOT	NO	Bridge (NBI)	78.9
HWY AGRICLTRL UNDRPS	I 190	1979		6.7	DOT	NO	Bridge (NBI)	79.0
HWY GREENLAND RD	I 190 NB	1979		24.4	DOT	NO	Bridge (NBI)	91.4
HWY GREENLAND RD	I 190 SB	1979		32.3	DOT	NO	Bridge (NBI)	92.3

Feature Intersected	Facility Carried	Year Built	Year Reconstructed	Structure Length	Bridge Owner	Structurally Deficient	Structure Category	AASHTO Rating
HWY AGRICLTRL UNDRPS	I 190	1979		6.7	DOT	NO	Bridge (NBI)	79.0
ST 62 PRINCETON RD	I 190 NB	1980		34.7	DOT	NO	Bridge (NBI)	92.2
ST 62 PRINCETON RD	I 190 SB	1980		34.1	DOT	NO	Bridge (NBI)	92.3
HWY ROWLEY HILL RD	I 190 SB	1980		25.3	DOT	NO	Bridge (NBI)	81.3
HWY ROWLEY HILL RD	I 190 NB	1980		25.6	DOT	NO	Bridge (NBI)	77.9
ST 12 LEOMINSTER RD	I 190 NB	1978		58.5	DOT	NO	Bridge (NBI)	84.9
ST 12 LEOMINSTER RD	I 190 SB	1978		59.6	DOT	NO	Bridge (NBI)	81.8
RR CSX	I 190 NB	1978		38.4	DOT	NO	Bridge (NBI)	78.4
RR CSX	I 190 SB & RAMP C	1978		38.9	DOT	NO	Bridge (NBI)	89.4
HWY PRATT JUNCTION RD	I 190 NB	1978		22.9	DOT	YES	Bridge (NBI)	56.4
HWY PRATT JUNCTION RD	I 190 SB	1978		22.9	DOT	YES	Bridge (NBI)	59.1
HWY FLANAGAN HILL RD	I 190 NB	1978		24.1	DOT	NO	Bridge (NBI)	81.8
HWY FLANAGAN HILL RD	I 190 SB	1978		24.1	DOT	NO	Bridge (NBI)	82.9
WATER STILLWATER RIVER	HWY CROWLEY RD	1910	2000	9.8	MUN	NO	Bridge (NBI)	83.7
WATER STILLWATER RIVER	HWY MUDDY POND	2007		20.0	MUN	NO	Bridge (NBI)	82.2
WATER WACHUSETT BROOK	ST140 RDMPTN ROCK	2003		16.8	DOT	NO	Bridge (NBI)	82.9
WATER STILLWATER RIVER	ST 62 PRINCETON RD	2011		14.8	DOT	NO	Bridge (NBI)	81.7
WATER WEKEPEKE BROOK	HWY PRTTS JCT RD	1850	1900	4.9	MUN	UNKNOWN	Short Span Bridge	

Feature Intersected	Facility Carried	Year Built	Year Reconstructed	Structure Length	Bridge Owner	Structurally Deficient	Structure Category	AASHTO Rating
WATER BARTLETT POND BRK	HWY LUCAS RD	1850		3.0	MUN	UNKNOWN	Culvert	
WATER STUARTS POND	HWY JUSTC HIL RD	1850		3.4	MUN	UNKNOWN	Culvert	
WATER CONNELLY BROOK	ST 12 WORCESTER RD	1933		3.0	DOT	NO	Culvert	
WATER CONNELLY BROOK	HWY GREENLAND RD	1850		3.7	MUN	UNKNOWN	Short Span Bridge	
WATER BROOK	HWY CAMP GRND RD	1850		3.0	MUN	UNKNOWN	Culvert	
WATER ROCKY BROOK	HWY BEAMAN RD	1967		2.7	MUN	UNKNOWN	Culvert	
RR BMRR	ST 12 WORCESTER RD	1947	1983	14.6	DOT	NO	Bridge (NBI)	86.5
RR BMRR	HWY SQUARESHIRE	1990		12.5	DOT	NO	Bridge (NBI)	95.7
WATER WEKEPEKE BROOK	ST 12 LEOMNSTER RD	1850	1900	4.9	MUN	UNKNOWN	Short Span Bridge	
RR BMRR	HWY CHACE HLL RD	1985		16.7	DOT	NO	Bridge (NBI)	95.5
ST140 REDEMPTION ROCK TR	I 190 SB	1979		57.9	DOT	NO	Bridge (NBI)	93.1
ST140 REDEMPTION ROCK TR	I 190 NB	1979		57.0	DOT	NO	Bridge (NBI)	93.1
HWY DANA HILL RD	I 190 NB	1979		28.3	DOT	NO	Bridge (NBI)	92.2

It is recommended that Sterling keep an updated inventory of town owned bridges and culverts and regularly assess conditions. These actions will keep the needs and associated costs of this infrastructure up front so that the Town can make the appropriate investments when needed and potentially avoid serious safety, ecological and financial problems associated with emergency repairs.
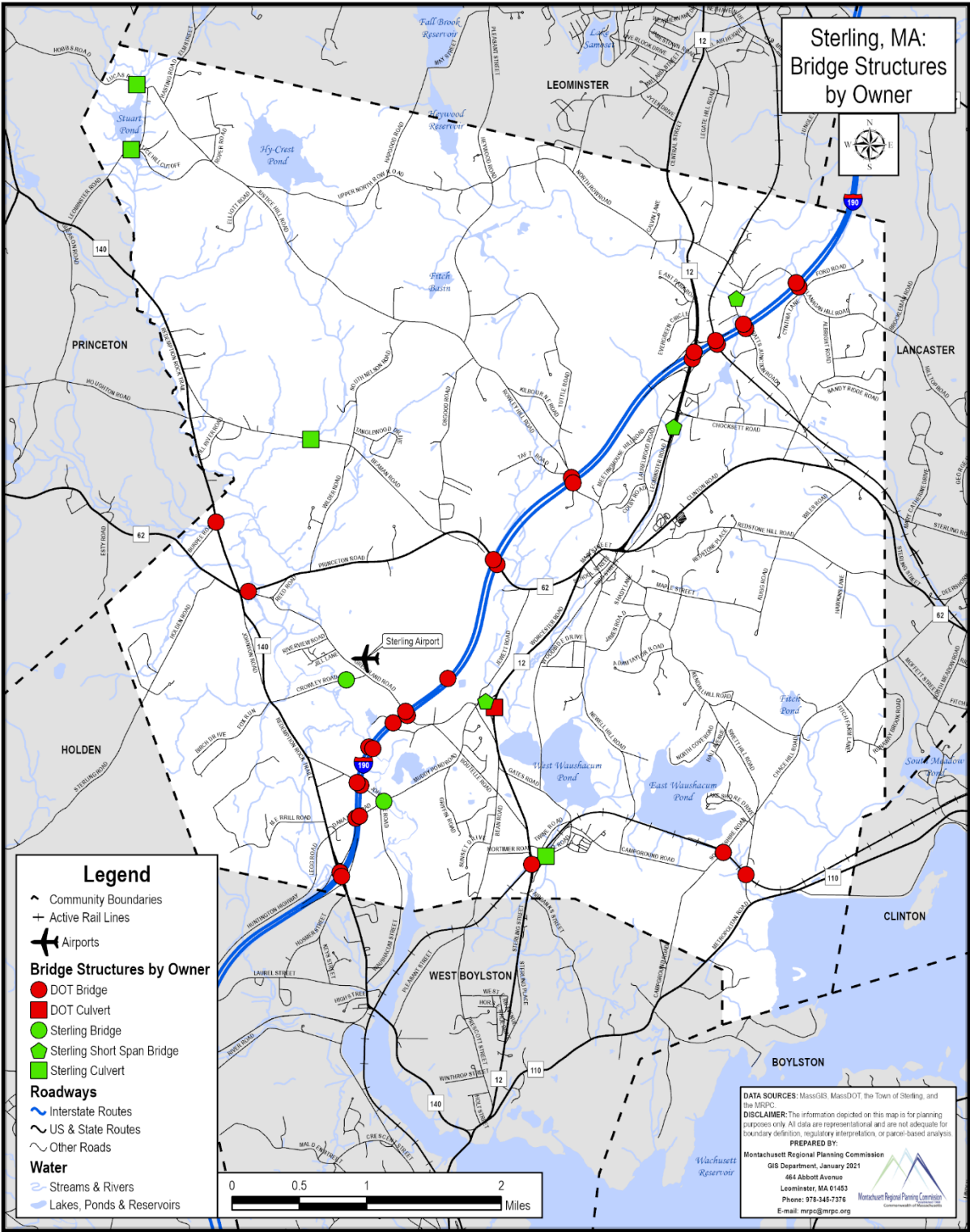
Figure 8-16. Bridge Structures by Owners

Journey to Work

According to the 2018 American Community Survey (ACS) 5-Year estimates, 97.6% of Sterling's workforce worked in Massachusetts and 67.1% worked in Worcester County. Using data from the 2010 Census and 2018 ACS estimates, a comparison can also be made as to how Sterling's workforce gets to work and how its commuting patterns have changed during the past eight years.

Ease of transportation by car was evaluated as "easy" by 92% of respondents, "somewhat difficult" by 6%, and "very difficult" by 2% in Master Plan Survey #1.

2010

2018

0.8% 3.4% 0.5%
5.6%
89.7%

0.7%
7.2%
8.5%
83.6%

- Drove Alone
- Car-Pooled
- Walked
- Public Transportation
- Worked at Home
- Other Means

Figure 8-17. Commuting Patterns

Reviewing **Figure 8-1** above, it should be noted that the "Worked at Home" and "Car-Pooled" categories increased in Sterling over the past eight years while "Drove Alone", "Public Transportation", and "Other Means" have decreased. "Walked" remained the same at 0.0%.

These changes in how Sterling residents travel to work may have influenced the changes in mean travel time to work for said residents which decreased from 32.1 to 28.7 minutes from 2010 to 2018, a 10.6% decrease. This has brought the mean travel time to work for Sterling below that of Massachusetts, being 30.5 minutes. Although it still remains slightly higher than the national mean of 27.1 minutes.

Public Transit System

Montachusett Area Regional Transit (MART) Service

There is no fixed route bus service provided in Sterling. However, the Montachusett Area Regional Transit Authority (MART) runs a bus service in the neighboring community Leominster, which connects to the wider system through the region. Individual route schedules are available online at MART's website.[31] MART contracts with social and human service agencies for paratransit service. The Town and MART provide service in Sterling through the Council on Aging that employs a paid coordinator funded jointly.

Intercity Bus Service

There is currently no intercity bus service in Sterling.

Commuter Rail

Sterling is located approximately equidistantly between two commuter rail lines, the Fitchburg Rail Line which runs to North Station in Boston, and the Worcester/Framingham Rail Line which runs to South Station in Boston. The nearest Fitchburg line commuter rail station to Sterling is located in neighboring Leominster, allowing residents access to the Fitchburg Commuter Rail Line. Service along the Fitchburg line to North Station includes the North Leominster Commuter Rail Station in Leominster at the intersection of Route 2 & 13.

The closest Worcester/Framingham line commuter rail station to Sterling is in Worcester, allowing residents access to the Worcester/Framingham Commuter rail line. The Worcester Commuter Rail Station in Worcester at the Union Station in downtown Worcester, right off of Route I-290.

The Regional Transit Authority also provides a fixed bus route service from the commuter rail station connecting neighboring Fitchburg and the rest of the region with Public Transportation. The fixed bus route schedule is available online at MART's website.

Other Transportation Systems

Freight Railroads

Freight rail service in Sterling is serviced by two separate lines owned by CSX and CSX/PanAm. The CSX line enters Sterling in the north near and parallel to I-190 and then turns eastward near the intersection of Route 12 and I-190. It then runs into Lancaster near Sterling Road. The second line, CSX/PanAm, runs west from Clinton through the southern part of Sterling and on into Worcester.

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31 www.mrta.us

These lines operate as a regional freight hauler. Primary commodities handled include iron, cement, steel, food products, lumber, construction debris, limestone, chemicals and plastics, scrap metal, finished automobiles and aggregates.

Aviation

Within the Montachusett Region, there are three general aviation municipal airports, the Fitchburg Municipal Airport located in Fitchburg on the Leominster City line; the Gardner Airport in Templeton near the Gardner City Line; and the Sterling Airport in Sterling. Each of these is classified as a general aviation airport.

The Sterling Airport is a single-runway airport that is privately owned by the Monadnock Realty Corp. but open to public use. It averages approximately 135 flights per day as of August 31, 2019 and has approximately 69 aircraft based on its field (32 single/multi-engine aircraft and 37 glider aircraft). Sterling Airport has a flight school and is also home to the Greater Boston Soaring Club. Sterling Airport also hosts the annual Sterling Fair in September, for which it closes the runway for operation.

Bicycles and Pedestrians

Bicycle Travel

There has been a noticeable increase in the number of bicycles around population centers and on the highways. Bicycles have found a place on the highway network by default, as have pedestrians. Bicycles mixed with motor vehicle traffic can be dangerous and create traffic delays. Safety problems have increased

Ease of transportation by pedalcyclists was evaluated as "easy" by 17% of respondents, "somewhat difficult" by 44%, and "very difficult" by 40% in Master Plan Survey #1.

as evidenced by the number of bicycle-automobile accidents. It was reported in the MassDOT crash files for the 10-year period of 2006-2016 that 266 bicycle-related crashes occurred in the Montachusett Region resulting in 204 injuries and no fatalities. These 266 crashes involved one or more pedalcyclists (bicycle, tricycle, unicycle, pedal car). It was reported in the MassDOT crash files for the 10-year period of 2006-2016 that 807 crashes involving a non-motorist occurred in the Montachusett Region resulting in 655 injuries and 22 fatalities.

There is a strong support from the regional communities for designated bikeways for recreational and commuting traffic. Individual bikeway projects are being implemented in some towns within the region. Construction of bikeways will encourage cycle commuting by providing a direct, separate, and safe route between communities. Also, increasing concern for air quality and energy conservation is leading to renewed interest in development of adequate facilities for bicycles throughout the Montachusett region.

Bikeways are special routes and/or facilities established to facilitate the movement of bicycles as an energy efficient transportation and/or recreation mode of travel. There are three types of bikeways: bike paths, bike lanes, and bike routes. These have been

categorized as Class I, II, and III bikeways respectively. Class I bike paths are routes totally separated from automobile or pedestrian traffic. Class II bike lanes are lanes at the edge of streets marked for exclusive use of bicyclists. Class III bike routes are roadways that bikes share with cars.

Legally, a bicycle has been recognized as a vehicle in Massachusetts since 1973, subject to basically all the rights and responsibilities of an automobile. Bikeways are public rights-of-way, maintained by a responsible state or local agency, just as a municipality's streets are owned and maintained. Where the land for a proposed bike path is privately owned, an easement to permit public passage may be obtained, or the right-of-way may be purchased outright. Bikeways which parallel roads may be located within the existing publicly owned right-of-way, extending beyond the roadway itself.

Sterling may not have an abundance of bicycle facilities in town at this time, but the interest and demand is growing. With the recently constructed roundabouts along Route 12 (Leominster Road) at I-190 SB and at Chocksett Road, there are a lot of opportunities to continue the bicycle infrastructure from these locations both north and south along Route 12 and abutting side streets. There is also the existing Mass Central Rail Trail that begins off Waushacum Ave and runs south to Gates Road. It then travels on-road westbound along Gates Road to Bean Road where it travels south into West Boylston where there is a gap before connecting to the trail head along Thomas Street. Wachusett Greenways have been working hard to close the gaps along the trail and create a continuous 30-mile section through the communities of Sterling, West Boylston, Holden, Rutland, Oakham and Barre. The larger picture would be a continuous trail that spans 104 miles from Northampton to Boston.

Pedestrian Access

Pedestrian activity via sidewalks is generally limited to small areas within town (i.e., schools, libraries, senior center, town hall, parks, etc.). Some residential streets abutting these areas do not currently have sidewalks. Sidewalks should be included in new roadway construction, roadway improvements, and residential and non-residential subdivision development. Along major arterial roadways, land should be secured for sidewalks or pathways as development occurs. Pedestrian actuated signals should be in place in densely populated areas where warranted to allow safer movement of pedestrians.

Ease of transportation by pedestrians was evaluated as "easy" by 11% of respondents, "somewhat difficult" by 32%, and "very difficult" by 59% in Master Plan Survey #1.
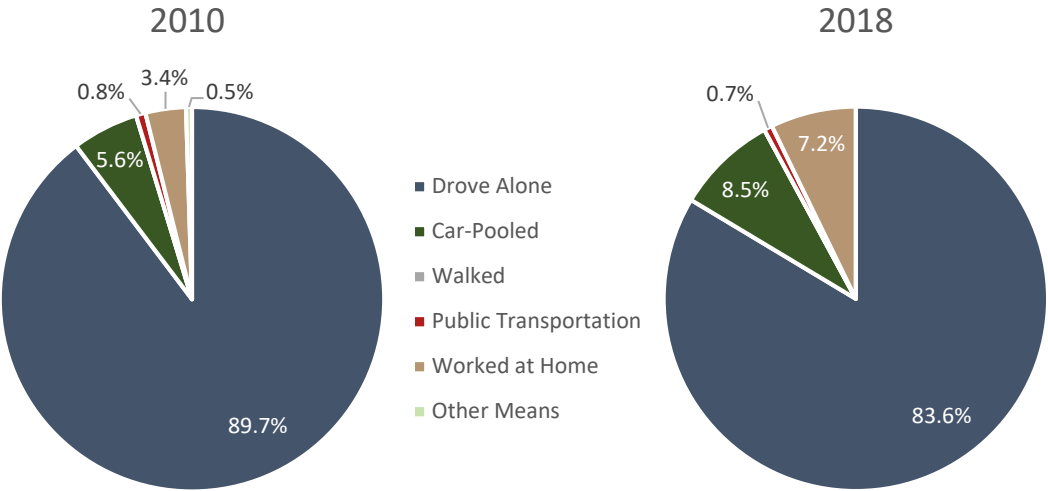
There is also pedestrian activity by walking trails within town. There is an abundance of nature trails that are mostly used for recreation as opposed to transportation. Creating sidewalk connections to these trailheads would be useful to have increased access to these vital recreation locations. An existing trail map can be found in Appendix 5.

Safe Routes to School

This program is sponsored by the Massachusetts Department of Transportation and works to increase safe biking and walking among elementary and middle school students by using a collaborative, community-focused approach that bridges the gap between health and transportation. As of December 2019, the program serves 922 partner schools in 236 communities across the Commonwealth. This equates to 63.9% of all schools in Massachusetts. Sterling is not currently enrolled in the Safe Routes to School Program but is exploring options.

Complete Streets Funding Program

A Complete Street is one that provides safe and accessible options for all travel modes including walking, biking, transit and vehicles for people of all ages and abilities. To participate in the state's Complete Streets Funding Program, a municipality must pass a Complete Streets Policy and then develop a Prioritization Plan (list of projects) that will ultimately be used to apply for funding from MassDOT to begin the construction of projects on the plan. In 2020, Sterling had their Complete Streets Policy approved. At the time of this report, the Town has secured funding to complete the Tier 2 Prioritization Plan and hopes to begin infrastructure improvements as soon as possible.
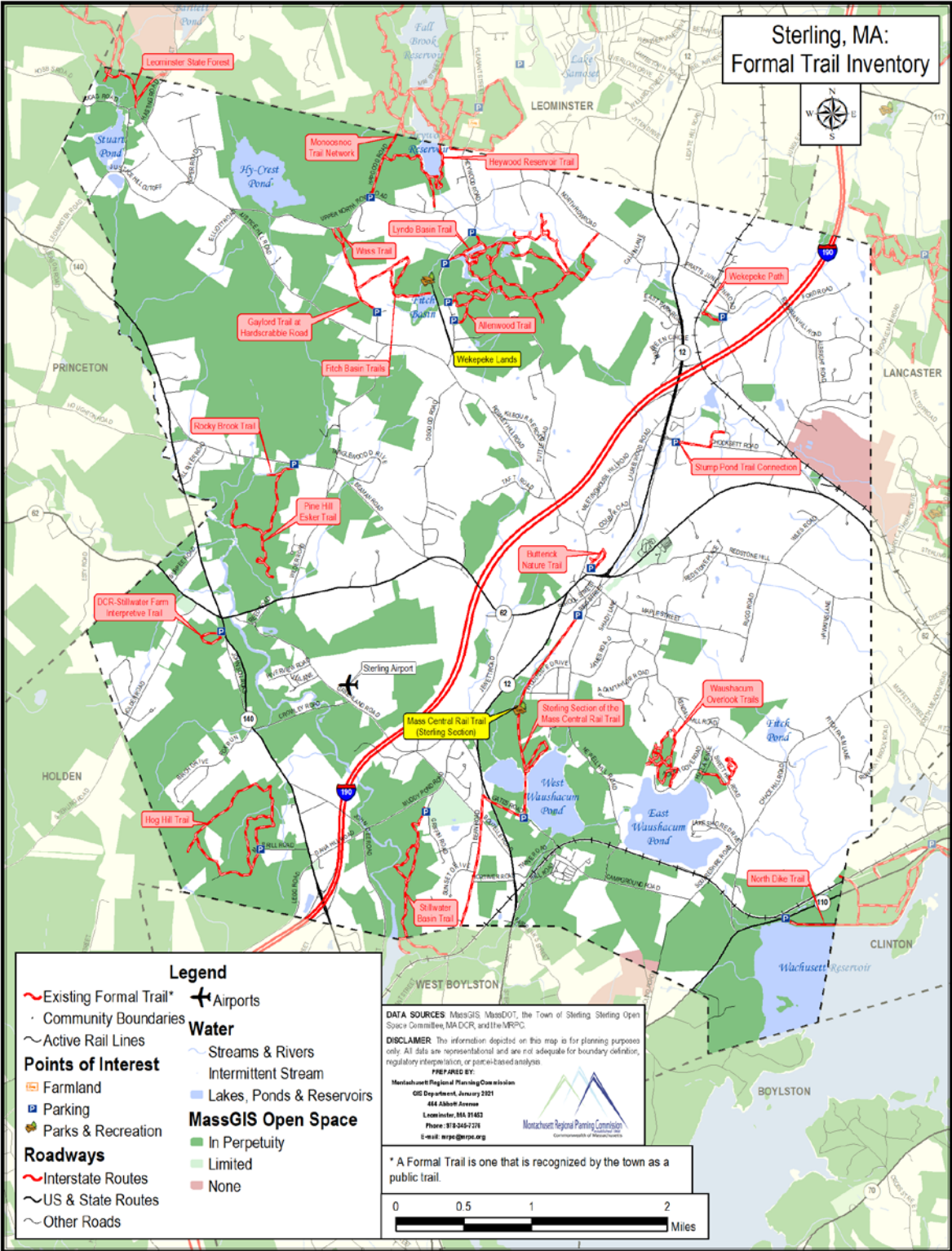
Figure 8-18. Formal Trail Inventory

Goals and Actions

The objective is to construct and maintain a safe road system that is consistent with the Town's rural character.

Goal 1: Maintain a roadway management plan to achieve a maintenance - oriented network and provide a basis for establishing budget levels.

Action Item #1: *Develop a Pavement Management Plan as there is a need to protect investment in roads and other public facilities commensurate with its level of assets. Lack of routine maintenance investment results in needless deterioration and replacement resulting in reduced utility of the facility and greater long-term replacement costs.*

In Master Plan Survey #3 Part II, 60% of respondents ranked Action 1-1 as a top priority, reflecting the requests for improved road conditions in previous studies.

Action Item #2: *Inventory and maintain culverts and seek to identify a mechanism to clean, repair and update the structures as needed. The Town should also diligently conduct annual roadside maintenance including the removal of winter sand and any blockage. Incorporate greener designs such as street trees, rain gardens, bio-swales, paving materials, and permeable surfaces, with plants and soils collecting rainwater to reduce flooding and pollution.*

Action Item #3: *Continue to schedule traffic counts with MRPC on an as needed basis. MRPC solicits up to 5 traffic count locations for communities annually.*

Action Item #4: *Analyze traffic crash data for crashes on major roads and intersections to determine the patterns and causes. Seek potential projects to address identified issues at major crash locations.*

Goal 2: Balance the need to facilitate traffic flow throughout the community as a whole with desires to make the roadways more walkable and bikeable; calm vehicle traffic speeds where appropriate.

Action Item #1: *Develop a Complete Streets approach on all active and future roadway projects to further promote walking and cycling as safe and active transportation options.*

Action Item #2: *Upon completion of the Complete Streets Prioritization Plan, continue to update the plan in order to remain active and eligible for future state funding grants. Include Complete Streets priority projects in the Capital Improvement Plan (develop one if not already done) to be implemented with Chapter 90 funding or funding through the Town's budget allocation. And continue to actively engage with MassDOT to pursue funding for Complete Streets priority projects.*

Action Item #3: *Develop a Comprehensive Circulation Plan of non-motorized users that could identify major travel routes, crosswalks, sidewalks, appropriate pavement markings and signage, etc. This plan should include major areas of concern for the Town (i.e., downtown, town hall, library, schools, recreation facilities, etc.). In addition, this plan could identify links to the Town's overall trail/bike network.*

Action Item #4: Enroll in Safe Routes to School, which encourages elementary and middle school students to safely walk and bike to/from school by using a collaborative, community-focused approach that bridges the gap between health and transportation.

Action Item #5: Incorporate Traffic Calming where appropriate: measures include a range of strategies to slow down traffic and deter the use of local residential roads for through traffic. Strategies might include one-way streets, neckdowns or narrow travel lanes, on-street parking, or speed bumps. These strategies include ones that may be more effective than those currently employed by the Town such as the development of cul-de-sacs and dead-end streets.

Goal 3: Prioritize sustainability and resiliency objectives when evaluating new and existing infrastructure.

Action Item #1: Consider environmental factors when reviewing and prioritizing transportation projects and proactively monitor and assess vulnerable infrastructures.

When asked how well the sustainable and clean transportation options work in Sterling in Master Plan Survey #2, 26% of respondents said, "somewhat well," 23% said "not at all well," and 19% said "not so well."

Goal 4: Wherever possible, replace older municipal fleet vehicles with energy efficient and electric models. Provide electric vehicle charging within the Town of Sterling.

Action Item #1: Replace inefficient and older municipal vehicles with energy efficient models and seek grants to assist with this.

Action Item #2: Provide electric vehicle charging stations on municipal property.

Goal 5: Promote both an environmentally sensitive, sustainable use of the public right-of-way and foster scenic streetscapes.

Action Item #1: Incorporate greener designs such as street trees, rain gardens, bio-swales, paving materials, and permeable surfaces, with plants and soils collecting rainwater to reduce flooding and pollution.

Action Item #2: Promote smarter technology-assisted design elements by incorporating intelligent signals and electric vehicle charging for greater system efficiencies and user convenience.

Action Item #3: Develop scenic streetscapes and landscaping that are close to the highways or along medians that can increase driver awareness resulting in slower speeds and safer streets; replace overhead utilities with underground services in the town center. This includes installing period lighting in the town center; lighting for sidewalks needs to be pedestrian-scale, designing ADA-compliant sidewalks and crosswalks in the town center, and replacing existing faded crosswalks with imprinted/textured crosswalks at intersections and mid-block locations, where necessary.

Goal 6: Seek opportunities to improve transportation options at an appropriate scale and in an affordable manner for residents of all ages and abilities.

Action Item #1: Expand transportation options for traveling regionally into and out of Sterling and explore the potential for a fixed or flexible route public transportation service.

Action Item #2: Strive towards Age Friendly Transportation for seniors, many of whom are no longer able to drive, dependable transportation is a lifeline to the world. Availability of transportation, affordability, reliability and frequency, and safety and comfort are a priority with all future efforts.

Action Item #3: Connect Sterling youth intra-town at destination points, whether for employment or for socialization. Those without access to their own private vehicles are left to rely upon the availability of an adult to transport them to a specific destination. Exploring alternate sources or methods of transportation is recommended.

Action Item #4: Since the Town of Sterling is in relatively close proximity to the Leominster commuter rail line, there is a need to get residents and visitors to and from the train station possibly via transit bus or shuttle. This would be particularly useful for those residents who are considered low income, elderly or disabled. A way to initiate some progress would be for the Sterling Select Board to open a dialogue with the Montachusett Area Regional Transit Authority (MART). Discussion between Sterling and MART could include relevant/current MART programs.

Goal 7: Expand pedestrian, bicycle, and trail networks inter- and intra-Sterling.

Action Item #1: Actively Pursue Grant Funding for Trail Development: (1) MassTrails Grant program supports recreational trail and shared use pathway projects across the Commonwealth. This grant is reviewed and recommended by the Massachusetts Recreational Trails Advisory Board and the Commonwealth's Inter-Agency Trails Team. (2) Recreational Trails Program (RTP) is federally funded through the Federal Highway Administration (FHWA), administered at the State level, and provide funding for the development and maintenance of recreational trail projects, both motorized and non-motorized. (3) Commonwealth Trails Grant is funded through the State's annual Capital Investment Plan (CIP) and aim to help communities design, create and maintain off-road shared-use pathway connections between where Massachusetts residents live, learn, work, shop and recreate, especially by building out the longer distance regional networks of multi-use pathways across the state and filling in critical gaps in existing networks, or overcoming current barriers to connectivity.

Action Item #2: Work with neighboring communities and regional entities to establish a regional trail network that would ultimately link Sterling to various recreational opportunities outside of the Town (i.e., Leominster/Fitchburg Rail Trail). Currently there are limited bike and pedestrian trails within the community. The Town may wish to identify, prioritize, and implement additional trail opportunities. Bike lanes and/or sidewalks should be incorporated into roadway projects where appropriate.

Action Item #3: Improve pedestrian mobility on rural residential roads by exploring opportunities for interconnecting short sections of trails and connecting cul-de-sacs.

Action Item #4: Fill in gaps in the sidewalk network by connecting neighborhoods. A map depicting the location of current and proposed sidewalks will help determine where connection needs to occur.

Action Item #5: Explore opportunities to expand and enhance current bicycle paths within the community and education to encourage bicycling in Sterling. A map depicting the location of existing and proposed bicycle paths/lanes will assist with gaps in connectivity to destination points.

Action Item #6: Make the neighborhoods, especially the downtown, more pedestrian-friendly through the construction and rehabilitation of sidewalks. Current design standards for ADA compliance should be incorporated.

When asked about how "well or not well" a transportation system works in Master Plan Survey #2, 40% of respondents said the condition of hiking and bicycle trails is "very well" and 29% said the circulation and connectivity of the hiking and bicycle trails are "very well."

Action 7-6 was the highest ranked recommended action (prioritized by 70% of respondents) in Master Plan Survey #3 Part II, which emphasizes the Town's desire for more pedestrian-friendly options of transportation.

Goal 8: Address the perceived lack of parking availability in the town center.

Action Item #1: Develop a parking management plan for the town center area with a goal of identifying the most efficient means of utilizing the current parking supply, identifying future supply options and wayfinding, which is the directional signage or messaging that helps people navigate to a destination.

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9

Implementation

Introduction

This chapter serves as the Implementation Element of the Sterling Master Plan. It provides the framework for actualizing the recommended actions that have been identified throughout the course of the planning process. These actions were developed through a review of previous planning efforts at the Town and regional levels, ideas crowdsourced through public and stakeholder engagement, case studies from similar towns and cities across the Commonwealth of Massachusetts and beyond, and best practices and emerging trends and technologies identified by the planning consultants.

The implementation of the recommended actions shall support the achievement of the community's vision and supporting goals, as presented in the preceding chapters of this Master Plan, over the course of the Master Plan's planning horizon (10 to 15 years).

As included in the matrix presented later in this chapter, the implementation plan for the recommended actions addresses:

▸ **Related Elements** – identifies the other elements of the Master Plan where an action has influence or can be influenced.

▸ **Implementation Leadership** – the entities that hold primary responsibility for implementing a recommended action, seeing it through to completion.

▸ **Implementation Partners** – the entities that shall assist the Implementation Leadership in implementing a recommended action, providing valuable input, services, or funding.

▸ **Cost Estimate** – an order of magnitude cost estimate for a recommended action's direct financial cost, generally defined as either "$" (less than $50,000), "$$" (between $50,000 and $100,000), and "$$$" (greater than $100,000).

▸ **Timeframe** – the schedule of implementation, defined as either "1 to 4 years," "5 to 9 years," or "10 to 15 years." In some cases, the Town has already started or completed the implementation of a recommended action, and such progress is noted.

▸ **Priority** – the level of importance the community and stakeholders placed on each recommended action, defined as either "High," "Medium," or "Low." The community provided input on priority setting as part of the third community survey (see Appendix C). This input was supplemented by feedback provided by the Sterling Master Plan Committee.

Implementation Monitoring, Tracking, and Reporting

Upon formal adoption of the Master Plan by the Planning Board, it is recommended that the Town develop an implementation program. It will be important to track and regularly report (internally and externally) the implementation status of recommended actions for accountability and transparency purposes. Further, it is critical that the Town monitor its progress toward goal achievement, and if necessary, adjust the implementation plan and program to ensure success. To this point, the implementation plan and program should be considered flexible, and allowed to evolve as the community and its operating environment change. For example, grant funding not available today may be available at a later date.

In support of the implementation program, it is recommended that the Town form a Master Plan Implementation Committee. If created, this committee would be responsible for coordinating with the identified Implementation Leaders on action implementation plans, tracking implementation progress, and regularly reporting on that progress to the Town (i.e., Select Board and Planning Board) and the community at-large.

#	Action	Related Elements	Implementation Leadership	Implementation Partners	Cost Estimate	Timeframe	Priority
Land Use and Development Patterns (LU)							
Goal LU1: Protect the Town's rural and scenic character, while encouraging vibrancy and economic activity in the town center and along key corridors.							
Action LU1-1	Using a standard evaluation process with criteria informed by a variety of perspectives (e.g., critical environmental area protection, habitat enhancement, public accessibility, carbon sequestration potential, etc.), continually prioritize the properties in town that are enrolled in Chapter 61 programs for municipal purchase. Alongside this process, ensure the Town has the funds necessary to make such purchases by identifying funding mechanisms well ahead of the time a withdrawal request is submitted.	NCH, OSR	Planning and Zoning, Select Board/ Town Administrator	Assessor's Office, Conservation Commission, Recreation Department, Treasurer/Collector, Accountant	$	1-4	Medium
LU1-2	Steer residential developments within and closer to the town center (and away from the Town's natural, undeveloped, and agricultural areas) using tools such as density bonuses (i.e., allowing developers to increase the maximum allowable development on a parcel in exchange for supporting community goals). Consider including special provisions for affordable housing and green building practices.	H, NCH	Planning and Zoning, Select Board/ Town Administrator	Building Department, Agricultural Commission, Conservation Commission	$	1-4	High

#	Action	Related Elements	Implementation Leadership	Implementation Partners	Cost Estimate	Timeframe	Priority
LU1-3	Explore adopting Open Space Design (OSD)/Natural Resource Protection Zoning (NRPZ) that would provide for increased housing development while encouraging the protection of natural resources and open space. Such developments should be allowed by-right, while conventional subdivisions should be required to obtain a Special Permit. Consider including special provisions in the OSD/NRPZ for affordable housing and district energy (e.g., shared geothermal systems).	NHC, OSR, H	Planning and Zoning	Agricultural Commission, Conservation Commission, Open Space Committee	$	5-9	Medium
LU1-4	Identify split-zoned parcels along Route 12 (i.e., parcels or subdivided lots that have two or more zoning designations) and rezone them based on the community's land use priorities.		Planning and Zoning	Assessor's Office	$	1-4	Medium
LU1-5	Review parcels zoned for residential along Route 12, particularly to the east between Pratts Junction Road and I-190, and explore rezoning them to promote commercial and/or light industrial activity.	H, ED	Planning and Zoning, Conservation Commission	Assessor's Office, Economic Development Committee	$	5-9	High
LU1-6	As the Performance Zone I district has not been utilized as originally envisioned, continue to explore alternative zoning that would promote commercial and/or light industrial activities in this area, consistent with recent developments.	ED	Planning and Zoning	Assessor's Office, Economic Development Committee	$	1-4	Medium

#	Action	Related Elements	Implementation Leadership	Implementation Partners	Cost Estimate	Timeframe	Priority
LU1-7	Ensure the Town's Protective Bylaws adequately promote Pratts Junction Road and Chocksett Road as commercial and light industrial corridors. For example, several properties to the north of Pratts Junction Road are within the RRF district but are not under a residential use.	ED	Planning and Zoning	Zoning Board of Appeals, Conservation Commission	$	1-4	Low
LU1-8	Assess the Town's land holdings and develop strategic plans for surplus properties that support the community's land use priorities.	H, ED, NHC, OSR, PFS	Planning and Zoning, Conservation Commission	Select Board/ Town Administrator, Assessor's Office	$$	1-4	Low
LU1-9	Update the table of uses, specifically for the Commercial and Light Industrial districts, in the Town's Protective Bylaws to address more modern uses and needs.	ED	Planning and Zoning		$	1-4	Medium
LU1-10	Explore the creation of a lot coverage bylaw pertinent to East Lake Waushacum to address the trend of the "McMansionization" of surrounding parcels.	H	Planning and Zoning, Conservation Commission	Select Board/ Town Administrator, Lake Association	$	1-4	Medium
LU2: Working with the Agricultural Commission, expand protections for Sterling's agricultural lands that significantly contribute to the Town's sense of place and provide substantial economic value.							
LU2-1	Engage owners of productive agricultural land, as well as owners of "prime" and "state important" agricultural land, in expanding Agricultural Preservation Restrictions (APRs) in Sterling. APRs would pay farmland owners the difference between the "fair market value" and the "agricultural value" of their farmland in exchange for a permanent deed restriction.	ED, NCH	Planning and Zoning	Agricultural Commission, Economic Development Committee, Assessor's Office	$	1-4	High

#	Action	Related Elements	Implementation Leadership	Implementation Partners	Cost Estimate	Timeframe	Priority
LU3: Ensure the processes and procedures associated with administering the Town's Protective Bylaws are accessible, easily understood, and streamlined.							
LU3-1	Continue to roll out the Town's online permitting system and conduct regular reviews, including through the solicitation of user feedback, to ensure it is functioning as intended.		Town Clerk	Building Department, Board of Health, Fire Department	$	1-4	Low
LU3-2	Continue past efforts of the Sterling Economic Development Committee to develop a "business development guide" that would explain in easily understandable terms the Town's permitting requirements and associated procedures. Update and revise this document as required.	ED	Economic Development Committee	Planning and Zoning	$	1-4	High
LU3-3	Conduct a review of the Town's Protective Bylaws to identify areas where permitting requirements are redundant (e.g., where both a Site Plan Review and Special Permit are required). Reduce or remove the redundancy by determining the most appropriate mechanism based on the intent of the original requirements. Note that Special Permits can act as a deterrent to development unless market conditions provide enough incentives to offset the additional effort required to obtain local approval.	ED	Planning and Zoning	Economic Development Committee, Zoning Board of Appeals	$	5-9	Low

#	Action	Related Elements	Implementation Leadership	Implementation Partners	Cost Estimate	Timeframe	Priority
LU3-4	For priority sites with development opportunities (refer to Chapter 3, *Economic Development*), explore the potential of adopting MGL Ch. 43D - Expedited Permitting, which generally improves the marketability of the targeted commercial or industrial zoned sites and increases the transparency and efficiency of municipal permitting. If adopted, it would commit the Town to rendering decisions on local permits within 180 days of application. Being site specific, this provision does not affect town-wide permitting.	ED	Planning and Zoning	Economic Development Committee, Zoning Board of Appeals, Select Board/ Town Administrator	$	5-9	Low
LU4: Through effective land use regulations, development incentives, and building codes, mitigate the community's contributions to climate change and build community resilience to its impacts.							
LU4-1	Explore revising the Flood Plain district to address relevant climate change projections, namely regulating to the 0.2% annual chance flood or more studied indicator. Work with local partners, including the Sterling Land Trust, to purchase such lands for conservation purposes, as available.	NCH, OSR	Planning and Zoning	Sterling Land Trust, Conservation Commission, Department of Public Works	$	1-4	Medium
LU4-2	Review the Town's Protective Bylaws to ensure they are not creating unintended effects that increase the community's risks to climate hazards. For instance, excessive requirements for impervious surfaces can increase exposure to flood hazards.		Planning and Zoning, Conservation Commission	Department of Public Works	$	5-9	Low

#	Action	Related Elements	Implementation Leadership	Implementation Partners	Cost Estimate	Timeframe	Priority
LU4-3	In coordination with the Sterling Municipal Light Department, consider adopting a bylaw that would facilitate and regulate the development of ground mounted or roof mounted solar systems. Refer to resources such as the Massachusetts' Department of Energy Resources' "Model Zoning for the Regulation of Solar Energy Systems."	H, ED, PFS	Planning and Zoning	Sterling Municipal Light Department, Energy Committee, Select Board/ Town Administrator	$	1-4	High
LU4-4	As applicable, ensure all future plans address resiliency for the community's top climate hazards. These hazards were identified through its 2020 Community Resilience Building Workshop, enabled by the Commonwealth's Municipal Vulnerability Preparedness program, and include extreme weather events, loss of biodiversity and agriculture, high intensity rainfall, and droughts.	H, ED, NCH, OSR, PFS, TC	Planning and Zoning	All Departments, Hazard Mitigation Team	$	5-9	High

Economic Development (ED)

ED1: Advance effort to keep and attract younger residents and families. Sterling's median age is 47 years old, seven years older than the statewide median. Sterling should find ways to enhance the Town's appeal for younger populations, who can support the next wave of retail and commercial investment and provide long-term economic vitality.

#	Action	Related Elements	Implementation Leadership	Implementation Partners	Cost Estimate	Timeframe	Priority
ED1-1	Encourage Sterling's younger residents/families to play active roles in local government, boards and committees, volunteer groups, and civic organizations. For example, by creating a Youth Council that would partake in municipal decision-making, provide education to how the local government works, and promote community service.	PFS	Select Board/ Town Administrator	Schools, Economic Development Committee, All Departments, Young Adults Helping Out Others (Y.A.H.O.O.), Boy and Girl Scouts	$	1-4	Low

#	Action	Related Elements	Implementation Leadership	Implementation Partners	Cost Estimate	Timeframe	Priority
ED1-2	Enhance local infrastructure in a visible way to demonstrate Sterling's enthusiasm for new trends (e.g., expanded sidewalks, bicycle lanes, traffic-calming devices, public wi-fi, electric vehicles and electric vehicle charging stations, carsharing).	LU, PFS, TC	Planning and Zoning	Department of Public Works, IT Committee, Finance Committee/ Capital Budget Committee, Sterling Municipal Light Department, Energy Committee, Conservation Commission	$$$	1-4	High
ED1-3	Engage younger populations from around the region to identify opportunities and barriers for attracting them to (or keeping them in) Sterling (e.g., availability and attainability of diverse housing types, public school performance, retail, and dining options, etc.).	LU, H, PFS	Economic Development Committee	Human Resources, Schools, Recreation Department	$	5-9	Medium
ED1-4	Define – and promote – the types of commercial developments that hold appeal for younger populations, including art and culture, "experience"-based retail, cafes, microbreweries, etc.	NCH, OSR	Economic Development Committee	Recreation Department, Schools	$	1-4	High
ED1-5	Create and promote entrepreneurial opportunities, for instance, produce markets (potentially in partnership with local farmers), pop-up retail stores, publicly accessible makerspaces, business incubators, and shared/collaborative workspaces.	OSR	Economic Development Committee	Agricultural Committee, Recreation Department, ADA Review Committee, Finance Committee/ Capital Budget Committee	$$	1-4	High
ED1-6	Establish partnerships between Sterling's business community and the local/regional student population, to promote paths toward successful employment and careers.	PFS	Economic Development Committee	Schools, Wachusett Regional School District Committee	$	5-9	Medium

#	Action	Related Elements	Implementation Leadership	Implementation Partners	Cost Estimate	Timeframe	Priority
ED2: Bring more visitors into town, focusing on the activities within the town center and the farmland attractions. The population of the region is growing, driven by high growth communities like Ayer, Groton, Leominster, Lunenburg, and Worcester. Capitalize on this regional growth by promoting commercial and recreational activities in Sterling and developing a fresh narrative around what makes Sterling special.							
ED2-1	Leverage the Town's willingness to make public space in the "1835 Town Hall" building available for retail, dining, or pop-up spaces, to showcase Sterling's historic fabric while promoting a spirit of communal enjoyment.	NCH, OSR, PFS	1835 Town Hall Committee	Economic Development Committee, Building Department, Recreation Department, Facilities Department	$$$	1-4	Low
ED2-2	Identify and pursue state and/or federal grant opportunities to improve streetscapes (e.g., more pedestrian and bicycle accommodations, streetlights, landscaping, custom pavers, etc.), or conduct site-readiness work. Potential sources of funding include MassWorks, MassDevelopment, and the Department of Housing and Community Development.	LU, OSR, PFS, TC	Planning and Zoning	Department of Public Works, Sterling Municipal Light Department	$	1-4	High
ED2-3	Explore opportunities to limit vehicle activity in the town center at strategic times throughout the year, to enhance the pedestrian experience.	LU, TC	Planning and Zoning	Select Board/ Town Administrator, Economic Development Committee, Police Department	$	1-4	Medium
ED2-4	Complete and enact the Design Review Guidelines that will provide recommendations on the design of signage and facades in building projects taking place in the town center. Consider making them regulatory, as opposed to advisory.		Planning and Zoning	Economic Development Committee, Sterling Historical Commission, Select Board/ Town Administrator	$	5-9	High

#	Action	Related Elements	Implementation Leadership	Implementation Partners	Cost Estimate	Timeframe	Priority
ED2-5	Revitalize the town center by promoting investment that attracts shoppers and visitors from Sterling and beyond, including new or redeveloped dining establishments, bars, cafes, and ice cream shops. Provide and/or allow for more sidewalk and outdoor dining.	LU	Economic Development Committee	Planning and Zoning, Finance Committee/ Capital Budget Committee, Treasurer/Collector	$	1-4	High
ED2-6	Create marketing materials (e.g., pamphlets, videos, social media, and other web content) to promote the Town's assets/resources throughout the region and state.	LU, H, NCH, OSR, PFS, TC	Economic Development Committee	Select Board/ Town Administrator, All Departments, Sterling-Lancaster Community Television	$	1-4	Low
ED3: Focus on opportunities to unlock Sterling's industrial and commercial districts. Encourage the growth of "market clusters," where nearby businesses can complement and support one another and become greater than the sum of their parts. Advance strategies that promote strategic development opportunities with the potential for widespread economic benefits.							
ED3-1	Work with local property owners and regional partners to identify prime development sites throughout the Town and develop clear visions and marketing strategies for their redevelopment. Explore statewide resources for promoting development sites, such as those sponsored by MassDevelopment and MassEcon.	LU, NCH	Planning and Zoning	Economic Development Committee, Assessor's Office, Montachusett Regional Planning Commission, Central Massachusetts Regional Planning Commission	$	5-9	Medium
ED3-2	Engage regional partners to conduct an economic development study to understand how Sterling performs against, and complements, other communities within the region. Identify opportunities to cross-promote economic development with other municipalities, potentially including a focus on the Montachusett region's significant manufacturing employment base.		Economic Development Committee	Montachusett Regional Planning Commission, Central Massachusetts Regional Planning Commission	$$	5-9	Low

#	Action	Related Elements	Implementation Leadership	Implementation Partners	Cost Estimate	Timeframe	Priority
ED3-3	In coordination with the Land Use and Development Patterns Chapter, explore opportunities to expand upon the supply of parcels available for industrial development, within proximity of existing industrial districts (e.g., Chocksett, the North Gateway, etc.).	LU	Planning and Zoning	Assessor's Office, Economic Development Committee, Conservation Commission	$	1-4	Low
ED3-4	Work with local and regional organizations to develop strategies for building upon the strength of Sterling's agricultural businesses (e.g., farm-to-table, CSA programs, food research, etc.).	LU, NCH	Economic Development Committee	Agricultural Commission	$	1-4	High
ED3-5	To encourage the growth of small businesses in alignment with envisioned economic development, create a Sterling Development Guide. Such guidance may identify and describe local resources, permitting and zoning processes, tax policies, and available financing (e.g., business loans and/or grant opportunities).	LU	Economic Development Committee	Planning and Zoning, Assessor's Office, Treasurer/Collector, Finance Committee/ Capital Budget Committee	$	1-4	Medium
ED3-6	In coordination with the Public Facilities and Services Chapter explore opportunities to implement public sewer, especially in the town center area.	LU, PFS	Department of Public Works	Planning and Zoning, Board of Health	$$$	5-9	High

#	Action	Related Elements	Implementation Leadership	Implementation Partners	Cost Estimate	Timeframe	Priority
ED4: Get organized to drive economic development opportunities throughout Sterling. Keep the conversation moving forward, so that Sterling can benefit from collaborative enthusiasm and shared ideas.							
ED4-1	Leverage the positive and productive energy of the Sterling Economic Development Committee to continue to build the narrative presented in this chapter. The EDC can determine action items, and assign roles and responsibilities, for carrying out the Master Plan's recommended strategies, tapping into other departments and committees, as necessary.		Economic Development Committee	Planning and Zoning	$	1-4	Low
ED4-2	Continue tapping into the regional network through active participation in the Wachusett Area Chamber of Commerce and North Central Massachusetts Chamber of Commerce. These cross-municipal partnerships will drive economic growth in a powerful way.		Economic Development Committee	Wachusett Area Chamber of Commerce, North Central Massachusetts Chamber of Commerce	$	5-9	Medium
ED4-3	Explore possible collaboration/agreements with neighboring towns for mutual beneficial utility expansions and development at town boundaries. For example, the development of a potential business park at the Clinton town on vacant lands on Metropolitan Road line zoned for light industrial.	LU, PFS	Planning and Zoning	Economic Development Committee, Sterling Municipal Light Department, Select Board/ Town Administrator	$$$	5-9	Medium
ED4-4	Encourage the Sterling Business Association to keep up momentum and meet on a regular basis.		Planning and Zoning, Select Board/ Town Administrator	Economic Development Committee, Sterling Business Association	$	1-4	Low

#	Action	Related Elements	Implementation Leadership	Implementation Partners	Cost Estimate	Timeframe	Priority
Housing (H)							
H1: Balance the preservation of open space, agricultural land, historic features, and other sensitive spaces with housing development that serves all facets of the community.							
H1-1	Adopt an Open Space Residential Development (or Cluster Development) Bylaw as a way to promote efficient land use for housing while preserving sensitive spaces.	OSR, NCH, ED, LU	Select Board/ Town Administrator	Conservation Commission, Planning and Zoning, Assessor's Office	$-$$$	1-4	High
H1-2	Update and revise the Protective Bylaws to permit senior, assisted-living housing and alternative housing types, such as apartments/condominiums, townhouses and other diverse housing types including, but not limited to, microunits.	LU, ED	Planning and Zoning	Select Board/ Town Administrator, Assessor's Office, Council on Aging	$	1-4	High
H1-3	Expand the housing options for an aging population. Sterling's demographic projections indicate a need to expand housing options for an aging population with an examination of the current bylaw provisions with the objective of identifying additional strategies to encourage the development of senior, over 55 housing, and universal design to allow aging in place and further identify areas in Town that would benefit from this sort of development.	LU, ED	Select Board/ Town Administrator	Building Department, Planning and Zoning, Council on Aging	$$$	1-4	High

#	Action	Related Elements	Implementation Leadership	Implementation Partners	Cost Estimate	Timeframe	Priority
H2: Consider Smart Growth Tools to Promote and Advance Housing Initiatives.							
H2-1	Reconsider the Community Preservation Act (CPA) as a Smart Growth Tool. CPA is a smart growth tool that helps communities preserve open space and historic sites, create affordable housing, and develop outdoor recreational facilities. CPA can also strengthen the local economy by expanding housing opportunities and construction jobs for Sterling's workforce.	LU, ED, OSR, PFS	Select Board/ Town Administrator	Planning and Zoning, Conservation Commission, Accountant, Finance Committee/ Capital Budget Committee	$	1-4	Medium
H2-2	Create a local Housing Trust which would allow Sterling to collect funds for affordable housing and segregate them out of the general municipal budget into a trust fund and use the funds for local initiatives to create and preserve affordable housing.	ED, PFS	Select Board/ Town Administrator	Planning and Zoning, Accountant, Treasurer/Collector	$	5-9	Low
H3: Allow a mix of housing opportunities such as apartments/condominiums, multi-family, town houses, and residential dwelling units in conjunction with commercial activities in the town center.							
H3-1	Revise the Protective Bylaws to permit mixed use by right in the Town Center Zoning District.	LU, ED	Planning and Zoning	Select Board/ Town Administrator, Zoning Board of Appeals	$	1-4	High
H4: Proactively Strive to Comply with Massachusetts General Laws Chapter 40B to achieve 10% of year-round housing for low and moderate-income housing.							
H4-1	Develop housing on Town-owned land/property. Many Massachusetts communities have underutilized properties and use creative measures for redevelopment, such as a Request for Ideas or Design Contests.	LU, ED	Select Board/ Town Administrator	Planning and Zoning, Conservation Commission, Open Space Committee	$$$	5-9	Medium

#	Action	Related Elements	Implementation Leadership	Implementation Partners	Cost Estimate	Timeframe	Priority
H4-2	Adopt an Inclusionary and/or Incentive Zoning Bylaw as an effective tool that can be used by Sterling to ensure adequate affordable housing is included in the normal course of real estate development and is a mandatory approach (often in concert with a density bonus) that requires developers to make a portion of the housing units in their project affordable to low- and moderate-income households and is an effective means of increasing the number affordable housing units and creates a wider variety of affordability levels within a development.	ED, LU, OSR	Select Board/ Town Administrator	Planning and Zoning	$	1-4	Low
H4-3	Offer Tax Incentives in the form of a public/private partnership between the Town and individual homeowners to create affordable housing eligible for Sterling's affordable housing inventory.	ED	Select Board/ Town Administrator	Treasurer/Collector	$$$	5-9	Low
H5: Explore Grants and Collaborate with Housing Entities to meet Housing Goal and Objectives.							
H5-1	Make standard practice to continually explore many of the grant opportunities to help Sterling achieve its housing goals via any of, but not limited to, the following programs: Housing Choice Community Grant Program, Community One Stop for Growth Program.	ED	Planning and Zoning		$	1-4	Medium
H5-2	Collaborate with Private Non-Profit Organizations (e.g., Habitat for Humanity North Central Massachusetts and Montachusett Enterprise Center) to advance affordable housing options and services in Sterling.	ED	Planning and Zoning	Select Board/ Town Administrator, Council on Aging, Possible Future Part-time grant writer employee	$	1-4	Medium

#	Action	Related Elements	Implementation Leadership	Implementation Partners	Cost Estimate	Timeframe	Priority
Natural, Cultural, and Historic Resources							
NCH1: Implement effective strategies to preserve and protect the Town's water resources and unique ecological habitats.							
NCH1-1	Implement a public educational program on proper septic system use and maintenance. Include a focus on using phosphate-free cleaning products, correct hazardous waste disposal practices, avoiding the use of garbage disposals for food waste, and conducting regular inspections and pumping. Encourage the installation of advanced treatment systems that result in greater nitrogen or phosphorus removal, in contrast to typical septic tanks.	H, PFS	Board of Health	Conservation Commission	$	1-4	Medium
NCH1-2	Review the Town's Title 5 requirements, administered by the Board of Health, to ensure proper setback distances between new or upgraded septic systems and proximate waterbodies. Revise accordingly.	H, PFS	Board of Health	Conservation Commission	$	1-4	Low
NCH1-3	Work with partners, including the Massachusetts Department of Transportation and the Department of Conservation and Recreation, to reduce salt use on major roadways, particularly those near aquatic ecosystems and drinking water supplies.	PFS, TC	Department of Public Works	Massachusetts Department of Transportation, Massachusetts Department of Conservation and Recreation	$	1-4	Medium
NCH1-4	Sponsor stormwater management educational programs for residents to address potential sources of contamination of stormwater, to encourage stewardship of water resources.	H, PFS	Department of Public Works, Conservation Commission	Board of Health, Stormwater Collaborative	$	1-4	Low

#	Action	Related Elements	Implementation Leadership	Implementation Partners	Cost Estimate	Timeframe	Priority
NCH1-5	Continue efforts to secure funding to address nutrient loading to East Lake Waushacum.	OSR	Conservation Commission	Board of Health	$	1-4	Medium
NCH1-6	Investigate and require, as feasible and where applicable, provisions for buffering developments from the South Meadow Brook to ensure protection from nutrient loading and stormwater erosion.	LU	Conservation Commission	Planning and Zoning	$	5-9	Low
NCH1-7	Work with the Town's farming operations to reduce the use of pesticides and herbicides.	ED	Agricultural Commission	Conservation Commission, Board of Health	$	5-9	Low
NCH1-8	Assess the potential of establishing green corridors that would connect natural areas and areas of open space for the purposes of providing habitat for wildlife and enhanced mobility and recreational opportunities for the Town's residents and visitors. Green corridors are typically thin, linear strips of land – often acquired through conservation restrictions. In the identification of potential sites for green corridors, consider the Town's Core Habitat and Critical Natural Resources (see BioMap2).	LU, OSR, TC	Planning and Zoning, Conservation Commission	Recreation Department, Open Space Committee	$$	5-9	High
NCH1-9	Working with relevant partners, evaluate appropriate levels of conserved lands in Sterling, balancing community priorities such as community character and economic development. As appropriate, increase the Town's inventory of conservation lands and drive the granting of conservation restrictions on privately held lands.	LU, ED, NCH	Planning and Zoning, Conservation Commission	Economic Development Committee, Sterling Land Trust	$	5-9	High

#	Action	Related Elements	Implementation Leadership	Implementation Partners	Cost Estimate	Timeframe	Priority
NCH1-10	For existing and new conservation restrictions, ensure the Town has the proper monitoring and enforcement protocols in place.	LU	Conservation Commission	Planning and Zoning	$	1-4	Medium
NCH1-11	In partnership with the Sterling Land Trust and Department of Conservation and Recreation, work to create/coordinate local forest management plans, with a focus on maintaining and improving biodiversity.	LU, OSR	Planning and Zoning, Conservation Commission	Sterling Land Trust, Massachusetts Department of Conservation and Recreation	$	5-9	High
NCH1-12	Continue to engage property owners with lands eligible for the State's Chapter 61 programs and encourage program enrollment. Provide to them education on the programs, as applicable, including their tax benefits.	LU, OSR	Planning and Zoning	Assessor's Office, Conservation Commission, Recreation Department, Treasurer/Collector	$	1-4	Low
NCH1-13	Investigate the certification of additional vernal pools in Sterling to provide them with regulatory protections.		Conservation Commission		$	1-4	Medium
NCH1-14	Leveraging the Town's tree inventory, create a documented tree management plan that outlines future management practices for the community's trees and forests. Consider including a public tree and maintenance plan for trees in street rights-of-way and parkland that would prioritize tree pruning and removals, replacements, and new plantings.	LU, OSR, PFS	Department of Public Works	Planning and Zoning, Conservation Commission, **Sterling Municipal Light Department**	$	5-9	Low
NCH1-15	Work with the Town of Clinton, as well as the DCR and private entities, to advance efforts to fix the dams that are designated as a significant hazard.	PFS	Select Board/ Town Administrator	MA Department of Conservation & Recreation Office of Damn Safety, Town of Clinton, Department of Public Works	$$$	1-4	High

#	Action	Related Elements	Implementation Leadership	Implementation Partners	Cost Estimate	Timeframe	Priority
NCH2: Promote water conservation techniques to residents and businesses to reduce the demand for potable water and alleviate the future need for additional public wells.							
NCH2-1	Conduct a water conservation campaign to reduce use of potable water for landscaping purposes. This campaign should be targeted by household, using a comparison of winter and summer time usage. Households with the greatest change in usage should be provided with educational materials that include a comparison of their water usage against others in the community.	H, PFS	Department of Public Works	Conservation Commission, Board of Health	$	1-4	Low
NCH2-2	Consider opportunities to encourage or require water efficient design and water efficient landscapes for new construction and major renovations. Advocate for such inclusions in the State's Building and Plumbing codes.	LU, H, ED, PFS	Planning and Zoning	Building Department, Department of Public Works, Conservation Commission	$	5-9	Medium
NCH2-3	Encourage the use of private irrigation wells instead of making connections to the Town's potable water supply.	H, PFS	Department of Public Works	Board of Health	$	5-9	Medium
NCH2-4	Promote the use of rain barrels, which are intended to collect rainwater for landscape irrigation purposes. Consider partnering with a local rain barrel vendor on a program that provides rain barrels at a reduced cost to residents.	PFS	Department of Public Works	Conservation Commission	$	1-4	High
NCH2-5	Work with local farming operations to promote water-saving farming techniques, such as the use of alternative water sources and proper irrigation scheduling.	ED	Agricultural Commission	Department of Public Works, Conservation Commission	$	10-15	Medium

#	Action	Related Elements	Implementation Leadership	Implementation Partners	Cost Estimate	Timeframe	Priority
NCH3: Leverage nature-based solutions in preparing Sterling for the impacts of climate change.							
NCH3-1	Promote the adoption of a Low Impact Development (LID) Bylaw. LID is a development approach that first identifies natural resource areas for preservation and then applies stormwater best management practices (BMPs) to preserve those natural features and associated hydrology. Examples of such practices include permeable pavers, bioretention, and green roofs. LID techniques are applied instead of traditional stormwater management methods of collecting, conveying, and piping away stormwater runoff.	LU, ED, PFS	Planning and Zoning	Conservation Commission, Department of Public Works, Select Board/ Town Administrator, Building Department	$	5-9	High
NCH3-2	Review the Town's Stormwater Management Bylaw and ensure that LID techniques are sufficiently incorporated and promoted.	LU, PFS	Conservation Commission	Planning and Zoning, Department of Public Works	$	1-4	Low
NCH3-3	Prepare a town-wide green infrastructure plan that would integrate green infrastructure, such as LID, into the Town's stormwater, combined sewers, and roads, as extant. Green infrastructure has the benefits of managing flooding, preparing for drought, reducing urban heat island effects, among others.	LU, PFS	Department of Public Works	Department of Public Works, Planning and Zoning, Select Board/ Town Administrator	$	5-9	Medium

#	Action	Related Elements	Implementation Leadership	Implementation Partners	Cost Estimate	Timeframe	Priority
NCH3-4	In coordination with Natural Resources Goal 1, Action #14, assess the need to prioritize municipal tree replacements and new plantings in areas that would reduce heat islands (e.g., around buildings, at pavements in parking lots and along streets).	LU, OSR, PFS	Department of Public Works	Planning and Zoning	$	5-9	High
NCH4: Enhance Planning Tools Centered on Historic and Cultural Resources.							
NCH4-1	Develop a historic resources Preservation Plan for the Town or for individual neighborhoods that establishes priorities and strategic milestones for the identification, management, and promotions of Sterling's historic properties. The MHC Survey and Planning Grant Program can be a source of financial support for the creation of this plan.	LU, H, ED	Planning and Zoning	Sterling Historical Commission, Town Clerk	$	5-9	High
NCH4-2	Support efforts to pass the Community Preservation Act (CPA), which provides funding for the direct preservation of historic resources; the preparation of structural assessments and feasibility studies for building reuse; and hiring an architect to create construction plans.	LU, H, ED	Sterling Historical Commission	Planning and Zoning, Select Board/ Town Administrator, Finance Committee/ Capital Budget Committee	$	1-4	Medium
NCH4-3	Become a Certified Local Government (CLG) through the MHC and National Park Service, which provides additional opportunities for funding and technical assistance. Additionally, becoming a CLG would allow Sterling to participate directly in the review and approval of National Register nominations.	ED	Sterling Historical Commission	Planning and Zoning, Economic Development Committee	$	5-9	Medium

#	Action	Related Elements	Implementation Leadership	Implementation Partners	Cost Estimate	Timeframe	Priority
NCH4-4	Evaluate the adoption of a Demolition Review Bylaw or Demolition-By-Neglect Bylaw. Demolition Review allows the Sterling Historical Commission to impose a demolition delay on preferably preserved historic buildings that allows time to identify future uses that will save the building (on-site or elsewhere). A Demolition-By-Neglect Bylaw helps protect neighborhood character by disallowing the intentional deterioration of buildings.	LU, H, ED	Planning and Zoning	Sterling Historical Commission, Building Department, Select Board/ Town Administrator	$	1-4	Medium
NCH4-5	Develop a strategy to assess the needs of the Town's numerous historic cemeteries. Prioritize cemeteries according to significance and threats, and contract specialists in cemetery preservation to delineate the grounds and develop restoration and maintenance plans.	PFS	Sterling Historical Commission	Department of Public Works	$	1-4	High
NCH4-6	Develop a Heritage Landscape Report, based on the former Department of Conservation and Recreation's Heritage Landscape Inventory program. Heritage landscapes consider natural and manmade features together, such agricultural lands, woodlands, scenic viewsheds, and industrial waterways. Identifying priority heritage landscapes, perhaps including Wekepeke Brook, is the first step in identifying tools to protect them and can inform development and planning initiatives town-wide.	LU, ED, OSR	Planning and Zoning	Assessor's Office, Conservation Commission, Sterling Historical Commission, Agricultural Commission	$$	5-9	Low

#	Action	Related Elements	Implementation Leadership	Implementation Partners	Cost Estimate	Timeframe	Priority
NCH5: Support the protection and promotion of Sterling's heritage resources.							
NCH5-1	Assess the need to repurpose town-owned facilities for community needs by identifying short-term and long-term planning goals for surplus properties.	LU, ED, PFS	Planning and Zoning	Assessor's Office, Select Board/ Town Administrator	$	1-4	High
NCH5-2	Sponsor the preparation of an expansion of the Sterling Center Historic District and the listing of the Waushacum Village, formerly known as Sterling Campground.	LU, ED, OSR	Planning and Zoning	Sterling Historical Commission, Select Board/ Town Administrator, Economic Development Committee	$$	5-9	Low
NCH5-3	Develop interactive programming such as tours, scavenger hunts, and family photo scanning, around the significant historic resources, including the West Sterling Schoolhouse, the Town-owned cemeteries, or the Town Pound.	OSR, PFS	Sterling Historical Commission	Recreation Department	$	1-4	Low
NCH5-4	Use the National Register districts to market the use of historic tax credits by existing and future owners and developers.	LU, H, ED	Assessor's Office	Sterling Historical Commission, Economic Development Committee, Treasurer/Collector	$	10-15	Low
NCH5-5	Promote awareness of Sterling's heritage through the publication of articles in local community papers, social media posts, installing heritage-related signage, and pursuing collaborations with community organizations to develop co-sponsored programming. Enlist related volunteer efforts from the Town's elders.	ED	Sterling Historical Commission	Planning and Zoning, Council on Aging/ Senior Center	$	10-15	Low

#	Action	Related Elements	Implementation Leadership	Implementation Partners	Cost Estimate	Timeframe	Priority
NCH6: Enhance support and promotion of the local arts and community programming.							
NCH6-1	Develop a network of community partners to bring programming to a wider audience by engaging local organization and committees, such as the Sterling Senior Center Council on Aging, Conant Public Library, Sterling Historical Society, Sterling Historical Commission, Sterling "Young Adults Helping Out Others" Y.A.H.O.O., and Sterling Public Schools.	OSR	Recreation Department	Council on Aging/ Senior Center, Library, Sterling Historical Commission, Schools, Young Adults Helping Out Others (Y.A.H.O.O.)	$	5-9	Medium
NCH6-2	Encourage the engagement of local artists, including students, through the use of public art and performance throughout the Town.	OSR	Recreation Department	Schools, Library	$	1-4	Medium
NCH6-3	Support year-round arts and cultural programming by securing temporary spaces, such as the 1835 Town Hall, that encourage visitation during different seasons and provide resources for local organizations and entities to expand virtual programming.	OSR	Recreation Department	1835 Town Hall Committee, Sterling Historical Commission, Schools, Library, Cultural Council	$$	5-9	High
Open Space and Recreation (OSR)							
OSR1: Encourage responsible protection and stewardship of publicly accessible lands and waters for natural resource conservation, recreation, and water supply protection.							
OSR1-1	Continue to increase awareness of open space and recreation opportunities in Sterling by engaging in public outreach.	PFS	Recreation Department	Conservation Commission	$	1-4	Low
OSR1-2	Promote or host events, activities and programs that address stewardship needs on publicly accessible properties.	PFS	Conservation Commission	Recreation Department	$	1-4	Low

#	Action	Related Elements	Implementation Leadership	Implementation Partners	Cost Estimate	Timeframe	Priority
OSR2: Enhance athletic fields and other recreation facilities.							
OSR2-1	Create a comprehensive maintenance plan for all the Town playing fields.	PFS	Recreation Department	Department of Public Works	$	1-4	High
OSR2-2	Conduct a Needs Assessment for indoor recreation program space.	PSF	Department of Public Works	Recreation Department, Council on Aging/ Senior Center	$	1-4	Medium
OSR2-3	Work with the Select Board and Department of Public Works to align goals and maintenance plans.	PFS	Planning and Zoning	Select Board/ Town Administrator, Department of Public Works	$	1-4	Medium
OSR2-4	Develop plans for renovating the Griffin Road Playing Fields.	PSF	Department of Public Works	Planning and Zoning, Recreation Department	$	1-4	High
OSR3: Identify and consider new approaches to Sterling's zoning and planning and other protective bylaws that affect Sterling's open space and recreation needs.							
OSR3-1	Consider the adoption of the Community Preservation Act (CPA) at Town Meeting.	NCH	Select Board/ Town Administrator	Planning and Zoning, Conservation Commission, Accountant	$	1-4	Medium
OSR4: Make local trails more accessible.							
OSR4-1	Develop a plan for a network of interconnecting hiking trails, including trails in adjoining towns and the proposed Mass Central Rail Trail currently under development.	T	Open Space Committee	Conservation Commission, Recreation Department, Planning and Zoning	$	1-4	High
OSR4-2	Develop a maintenance plan for existing Sterling Trails, including staffing and possible budget.	PFS	Open Space Committee	Recreation Department, Conservation Commission	$	1-4	High
OSR4-3	Keep the website for OSIC's Sterling Trails current, with updates for trail conditions, schedules for trail clean-up days, listing of scheduled hikes, and trail brochures ready for download.	PFS	Open Space Committee	Planning and Zoning, Conservation Commission	$	1-4	Low

#	Action	Related Elements	Implementation Leadership	Implementation Partners	Cost Estimate	Timeframe	Priority
OSR4-4	Expand the list of trail leaders and continue an active program of scheduled hikes with leaders and augmented with (amateur) naturalists for fauna and flora commentaries.	PFS	Open Space Committee	Conservation Commission, Recreation Department	$	1-4	Low
OSR5: Formulate a Proactive and balanced decision-making regarding acquisition of open space.							
OSR5-1	Prioritize unprotected open space parcels that may become available for acquisition by the Town in terms of preserving ecosystems, wildlife corridor conservation and wildlife habitat and protection of important water resources.	LU, NCH	Conservation Commission	Planning and Zoning, Department of Conservation and Recreation	$	1-4	High
OSR5-2	Review administrative procedures that inform decision making about the community's open space and recreation priorities and needs.	PFS	Select Board/ Town Administrator	Planning and Zoning	$	5-9	Low
OSR5-3	Prioritize unprotected parcels of agricultural land in terms of soil quality and suitability for farming.	NCH, LU	Conservation Commission	Planning and Zoning, Agricultural Commission	$	1-4	Medium
OSR5-4	Explore additional options available to the Town for acquiring non-protected land.	LU, NCH	Conservation Commission	Planning and Zoning, Sterling Land Trust	$	5-9	Medium
OSR5-5	Incorporate open space protection into the Town's decision-making on community resilience building as a standard practice. This would include: (i) protecting and not overtaxing aquifers, lakes, and other water resources, (ii) providing buffer for the more frequently occurring heavy downpours; (iii) having a strong farming community that is well-integrated into the local food network.	NCH, ED, LU	Planning and Zoning	Conservation Commission, Department of Public Works, Agricultural Commission, Forest Committee	$	1-4	Medium

#	Action	Related Elements	Implementation Leadership	Implementation Partners	Cost Estimate	Timeframe	Priority
OSR6: Make special considerations for seniors and residents benefitting from the Americans with Disabilities Act.							
OSR6-1	Prepare descriptions of a few Sterling Easy Trails that form short sections of the existing Sterling Trails and are particularly suited for inexperienced hikers while being Age and Dementia-Friendly.		Open Space Committee	Planning and Zoning, Recreation Department, Conservation Commission	$	1-4	Medium
OSR6-2	Improve or create parking access to conservation, town forest properties and hiking trails.	ED, PSF	Conservation Commission	Department of Public Works, Recreation Department, Forest Committee	$	1-4	High
OSR6-3	Improve and expand upon recreational programming to be more accessible and inclusive.	PSF	Recreation Department	Planning and Zoning	$	1-4	Low
Public Facilities and Services (PFS)							
PFS1: Develop plans and funding to rebuild, expand, or replace key public facilities, and ensure appropriate levels of staffing needed to support the Town's operations.							
PFS1-1	Develop a Public Facilities Improvement Plan for all town buildings that identifies near-, mid-, and long-term improvements (and costs), so that the Town will have a comprehensive inventory of the required maintenance and capital improvements needed for its public facilities.	LU, ED	Planning and Zoning	Department of Public Works, Facilities, Schools/ Wachusett Regional School District Committee, Select Board/ Town Administrator, Finance Committee/ Capital Budget Committee	$$	1-4	High
PFS1-2	Develop a financial plan and action plan, including through appropriating and allocating funds in the Town's Capital Improvement Plan, to implement the recommendations identified in the Public Facilities Improvement Plan.	ED	Planning and Zoning	Treasurer/Collector, Department of Public Works, Facilities, Select Board/ Town Administrator, Finance Committee/ Capital Budget Committee	$	1-4	Medium

#	Action	Related Elements	Implementation Leadership	Implementation Partners	Cost Estimate	Timeframe	Priority
PFS1-3	Develop a staffing plan to assess current and future staffing needs and enhance necessary staff trainings to all departments to address anticipated growth in municipal services and implement the recommendations included in the Master Plan, so that the Town can deliver its services effectively.	ED	Human Resources	Select Board/ Town Administrator, All Departments	$$	1-4	Low
PFS2: Ensure the Town has adequate Department of Public Works (DPW) facilities to address today's needs as well as projected future needs of the community.							
PFS2-1	The need to address the deficiencies in the DPW facilities (such as the potential renovation or replacement of the existing building and storage needs) were noted as a high priority as part of this master planning process. In concert with creating a Public Facilities Improvement Plan, review the specific needs of the DPW facilities to address physical needs, as well as operational and support equipment needs.	*The implementation of this Action was initiated during the process of developing this Master Plan.*					
PFS2-2	In anticipation of future regulations for water resource management, plan for adequate staffing to ensure the Town has the resources necessary to assist with the monitoring and training that will be required to continue to ensure safe water and water quality throughout Sterling.	NHC	Human Resources	Department of Public Works, Board of Health, Conservation Commission	$$	1-4	Medium

#	Action	Related Elements	Implementation Leadership	Implementation Partners	Cost Estimate	Timeframe	Priority
PFS3: Become more age and dementia friendly, including through targeted recreational opportunities.							
PFS3-1	Explore the feasibility of expanding the current Senior Center to meet the space needs for programs serving the Town's senior population. As part of this study, determine what recreational programming will be in demand – for both seniors and the Town's youth - and incorporate such programming into the facility expansion to the extent practical.	OSR	Select Board/ Town Administrator, Planning and Zoning	Council on Aging/ Senior Center, Recreation Department	$$	1-4	Medium
PFS3-2	Seek opportunities to encourage collaboration among the Council on Aging (COA), Recreation Department, and Sterling's Public Schools to promote inter-generational activities.	OSR	Recreation Department	Council on Aging/ Senior Center, Schools/ Wachusett Regional School District Committee	$	1-4	Low
PFS3-3	Continue to evaluate and enhance transportation services offered to seniors and residents with disabilities.	TC	Planning and Zoning	Council on Aging/ Senior Center, ADA Review Committee	$$$	1-4	High
PFS4: Develop plans for key infrastructure elements that need improvement.							
PFS4-1	Continue to fund annual improvements to roadways and seek opportunities to obtain state funding for long-term transportation enhancements as identified in the Transportation Element. In the process, seek opportunities to obtain grants that will enable the Town to further the implementation of Completes Streets and active transportation projects.	TC	Select Board/ Town Administrator	Department of Public Works, Planning and Zoning, Treasurer/Collector	$$$	1-4	High

#	Action	Related Elements	Implementation Leadership	Implementation Partners	Cost Estimate	Timeframe	Priority
PFS4-2	In coordination with Goal #2, prepare an assessment of the Town's forecasted future needs for investments in pump stations, wells, and the delivery of water to the Town.	*The implementation of this Action was initiated during the process of developing this Master Plan.*					
PFS4-3	Revisit the Town Sewer Studies completed by MRPC to understand if the alternatives identified should be refined and further studied. As part of this effort, update the cost and understanding of potential grant funding to support this effort.		Department of Public Works	Planning and Zoning, Board of Health	$	1-4	Low
PFS5: Continue to take advantage of opportunities to plan for Sterling's long-term success by advancing efforts to address its sustainability and resiliency.							
PFS5-1	In conjunction with Goal 1, Action #1, advance energy upgrades for the Town's existing buildings to improve overall performance and costs.		Select Board/ Town Administrator	Planning and Zoning, Facilities Department, Schools/ Wachusett Regional School District Committee, Sterling Municipal Light Department, Energy Committee	$$$	1-4	Medium
PFS5-2	Undertake a fleet vehicle assessment to ascertain opportunities to right size vehicles and convert to electric alternatives.	TM	Planning and Zoning	All Departments	$	1-4	Low
PFS5-3	Incorporate cost-effective green infrastructure strategies into all municipal projects for stormwater management.	LU, NCH	Department of Public Works	Planning and Zoning, Select Board/ Town Administrator	$$	1-4	Low
PFS5-4	Continue to work with the Sterling Municipal Light Department to deliver low-cost renewable energy to the Sterling community.		Select Board/ Town Administrator	Sterling Municipal Light Department, Energy Committee	$$$	1-4	High

#	Action	Related Elements	Implementation Leadership	Implementation Partners	Cost Estimate	Timeframe	Priority
PFS5-5	Seek opportunities to expand high speed internet access throughout Sterling, particularly to those that are most in need (e.g., low-income households).	H, ED	IT Committee	Select Board/ Town Administrator, Schools	$$	1-4	High
PFS5-6	Invest in education programs and materials that provide residents and business owners information about the Town's solid waste and recycling programs to improve the Town's overall diversion rate.	H, ED, NCH	Department of Public Works	Select Board/ Town Administrator, Recycling Committee	$	1-4	Medium
PFS5-7	Develop a plan and costs estimates to provide electric vehicle (EV) charging stations for vehicles at all the municipal buildings and/or municipal parking lots.	ED, TC	Planning and Zoning	Select Board/ Town Administrator, Finance Committee/ Capital Budget Committee, Sterling Municipal Light Department, Energy Committee	$$	1-4	Low
PFS5-8	Continue to pursue Action Grants for the implementation of resilience measures, particularly those that are nature-based, through the State's Municipal Vulnerability Preparedness program.	LU, NCH	Planning and Zoning	All Departments	$	1-4	Low
PFS6: Invest in the Town's schools to promote high performing educational facilities and programming.							
PFS6-1	Work closely with the Wachusett School Department, Sterling representatives on the Wachusett School Committee, and the Finance Committee to identify and support capital improvements that are needed to support school operations.	ED	Select Board/ Town Administrator	Schools/ Wachusett Regional School District Committee, Finance Committee/ Capital Budget Committee	$$$	1-4	Medium

#	Action	Related Elements	Implementation Leadership	Implementation Partners	Cost Estimate	Timeframe	Priority
PFS6-2	Work with the School Committee to assess the ability to better utilize public school facilities and programs for other community uses, especially as it pertains to the interaction between the schools and the Senior Center.	OSR	Select Board/ Town Administrator	Schools/ Wachusett Regional School District Committee, Recreation Department, Council on Aging/ Senior Center	$	1-4	Medium
Transportation and Circulation (TC)							
TC1: Maintain a roadway management plan to achieve a maintenance-oriented network and provide a basis for establishing budget levels.							
TC1-1	Develop a Pavement Management Plan as there is a need to protect investment in roads and other public facilities commensurate with its level of assets. Lack of routine maintenance investment results in needless deterioration and replacement resulting in reduced utility of the facility and greater long-term replacement costs	*The implementation of this Action was initiated during the process of developing this Master Plan.*					
TC1-2	Inventory and maintain culverts and seek to identify a mechanism to clean, repair and update the structures as needed. The Town should also diligently conduct annual roadside maintenance including the removal of winter sand and any blockage. Incorporate greener designs such as street trees, rain gardens, bio-swales, paving materials, and permeable surfaces, with plants and soils collecting rainwater to reduce flooding and pollution.	PSF	Department of Public Works	Planning and Zoning	$$	1-4	High
TC1-3	Continue to schedule traffic counts with MRPC on an as needed basis. MRPC solicits up to 5 traffic count locations for communities annually.		Montachusett Regional Planning Commission	Department of Public Works, Police Department, Select Board/ Town Administrator	$	1-4	Low

#	Action	Related Elements	Implementation Leadership	Implementation Partners	Cost Estimate	Timeframe	Priority
TC1-4	Analyze traffic crash data for crashes on major roads and intersections to determine the patterns and causes. Seek potential projects to address identified issues at major crash locations.		Montachusett Joint Transportation Committee Representatives	Department of Public Works, Police Department, Select Board/ Town Administrator	$	1-4	Low
TC2: Balance the need to facilitate traffic flow throughout the community as a whole with desires to make the roadways more walkable and bikeable; calm vehicle traffic speeds where appropriate.							
TC2-1	Develop a Complete Streets approach on all active and future roadway projects to further promote walking and cycling as safe and active transportation options.	PFS	Planning and Zoning	Department of Public Works, Select Board/ Town Administrator	$$	1-4	Medium
TC2-2	Upon completion of the Complete Streets Prioritization Plan, continue to update the plan in order to remain active and eligible for future state funding grants. Include Complete Streets priority projects in the Capital Improvement Plan (develop one if not already done) to be implemented with Chapter 90 funding or funding through the Town's budget allocation. And continue to actively engage with MassDOT to pursue funding for Complete Streets priority projects.	PFS	Department of Public Works	Planning and Zoning, Select Board/ Town Administrator, Accountant, Finance Committee/ Capital Budget Committee	$$	5-9	Low

#	Action	Related Elements	Implementation Leadership	Implementation Partners	Cost Estimate	Timeframe	Priority
TC2-3	Develop a Comprehensive Circulation Plan of non-motorized users that could identify major travel routes, crosswalks, sidewalks, appropriate pavement markings and signage, etc. This plan should include major areas of concern for the Town (i.e., downtown, town hall, library, schools, recreation facilities, etc.). In addition, this plan could identify links to the Town's overall trail/bike network.	ED, LU, PSF	Planning and Zoning	Department of Public Works, Select Board/ Town Administrator, Montachusett Regional Planning Commission, Montachusett Metropolitan Planning Organization	$$	5-9	Medium
TC2-4	Enroll in Safe Routes to School, which encourages elementary and middle school students to safely walk and bike to/from school by using a collaborative, community-focused approach that bridges the gap between health and transportation.	PSF	School Board, Select Board/ Town Administrator	Planning and Zoning, Department of Public Works, Police Department	$	1-4	Medium
TC2-5	Incorporate Traffic Calming where appropriate: measures include a range of strategies to slow down traffic and deter the use of local residential roads for through traffic. Strategies might include one-way streets, neckdowns or narrow travel lanes, on-street parking, or speed bumps. These strategies include ones that may be more effective than those currently employed by the Town such as the development of cul-de-sacs and dead-end streets.	ED, LU	Department of Public Works	Select Board/Town Administrator, Police Department, Planning and Zoning	$$$	5-9	Medium
TC3: Prioritize sustainability and resiliency objectives when evaluating new and existing infrastructure.							
TC3-1	Consider environmental factors when reviewing and prioritizing transportation projects and proactively monitor and assess vulnerable infrastructures.	NCH, PFS	Department of Public Works	Planning and Zoning, Conservation Commission	$	1-4	Low

#	Action	Related Elements	Implementation Leadership	Implementation Partners	Cost Estimate	Timeframe	Priority
TC4: Wherever possible, replace older municipal fleet vehicles with energy efficient and electric models. Provide electric vehicle charging within the Town of Sterling.							
TC4-1	Replace inefficient and older municipal vehicles with energy efficient models and seek grants to assist with this.	PFS	Select Board/ Town Administrator	All Departments, Sterling Municipal Light Department - Energy Committee	$$$	1-4	Low
TC4-2	Provide electric vehicle charging stations on municipal property.	PFS, ED	Department of Public Works, Sterling Municipal Light Department	Planning and Zoning, Select Board/ Town Administrator	$$	1-4	Medium
TC5: Promote both an environmentally sensitive, sustainable use of the public right-of-way and foster scenic streetscapes.							
TC5-1	Incorporate greener designs such as street trees, rain gardens, bio-swales, paving materials, and permeable surfaces, with plants and soils collecting rainwater to reduce flooding and pollution.	NCH, PFS	Department of Public Works	Planning and Zoning, Select Board/ Town Administrator, Conservation Commission	$$	1-4	High
TC5-2	Promote smarter technology-assisted design elements by incorporating intelligent signals and electric vehicle charging for greater system efficiencies and user convenience.	PFS	Department of Public Works, Sterling Municipal Light Department	Police Department, Planning and Zoning, Select Board/ Town Administrator	$$	1-4	Low

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TC5-3	Develop scenic streetscapes and landscaping that are close to the highways or along medians that can increase driver awareness resulting in slower speeds and safer streets; replace overhead utilities with underground services in the town center. This includes installing period lighting in the town center; lighting for sidewalks needs to be pedestrian-scale, designing ADA-compliant sidewalks and crosswalks in the town center, and replacing existing faded crosswalks with imprinted/textured crosswalks at intersections and mid-block locations, where necessary.	PFS	Department of Public Works	Police Department, Sterling Municipal Light Department, Planning and Zoning, Select Board/ Town Administrator	$$	1-4	High
TC6: Seek opportunities to improve transportation options at an appropriate scale and in an affordable manner for residents of all ages and abilities.							
TC6-1	Expand transportation options for traveling regionally into and out of Sterling and explore the potential for a fixed or flexible route public transportation service.	ED, PFS	Select Board/ Town Administrator, Council on Aging/ Senior Center	Planning and Zoning, Montachusett Joint Transportation Committee	$$	1-4	Low
TC6-2	Strive towards Age Friendly Transportation for seniors, many of whom are no longer able to drive, dependable transportation is a lifeline to the world. Availability of transportation, affordability, reliability and frequency, and safety and comfort are a priority with all future efforts.	PFS	Select Board/ Town Administrator, Council on Aging/ Senior Center	Planning and Zoning	$	1-4	High

#	Action	Related Elements	Implementation Leadership	Implementation Partners	Cost Estimate	Timeframe	Priority
TC6-3	Connect Sterling youth intra-town at destination points, whether for employment or for socialization. Those without access to their own private vehicles are left to rely upon the availability of an adult to transport them to a specific destination. Exploring alternate sources or methods of transportation is recommended.	ED, PFS	Select Board/ Town Administrator	Planning and Zoning, Recreation Department	$	1-4	Low
TC6-4	Since the Town of Sterling is in relatively close proximity to the Leominster commuter rail line, there is a need to get residents and visitors to and from the train station possibly via transit bus or shuttle. This would be particularly useful for those residents who are considered low income, elderly or disabled. A way to initiate some progress would be for the Sterling Select Board to open a dialogue with the Montachusett Area Regional Transit Authority (MART). Discussion between Sterling and MART could include relevant/current MART programs.	PFS	Select Board/ Town Administrator, Council on Aging/ Senior Center	Planning and Zoning, Montachusett Area Regional Transit Authority	$	1-4	Medium

#	Action	Related Elements	Implementation Leadership	Implementation Partners	Cost Estimate	Timeframe	Priority
TC7: Expand pedestrian, bicycle, and trail networks inter- and intra-Sterling.							
TC7-1	Actively Pursue Grant Funding for Trail Development: (1) MassTrails Grant program supports recreational trail and shared use pathway projects across the Commonwealth. This grant is reviewed and recommended by the Massachusetts Recreational Trails Advisory Board and the Commonwealth's Inter-Agency Trails Team. (2) Recreational Trails Program (RTP) is federally funded through the Federal Highway Administration (FHWA), administered at the State level, and provide funding for the development and maintenance of recreational trail projects, both motorized and non-motorized. (3) Commonwealth Trails Grant is funded through the State's annual Capital Investment Plan (CIP) and aim to help communities design, create and maintain off-road shared-use pathway connections between where Massachusetts residents live, learn, work, shop and recreate, especially by building out the longer distance regional networks of multi-use pathways across the state and filling in critical gaps in existing networks, or overcoming current barriers to connectivity.		Department of Public Works, Open Space Committee	Conservation Commission, Recreation Department, ADA Review Committee	$$$	5-9	High

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TC7-2	Work with neighboring communities and regional entities to establish a regional trail network that would ultimately link Sterling to various recreational opportunities outside of the Town (i.e., Leominster/Fitchburg Rail Trail). Currently there are limited bike and pedestrian trails within the community. The Town may wish to identify, prioritize, and implement additional trail opportunities. Bike lanes and/or sidewalks should be incorporated into roadway projects where appropriate.	LU, ED, NCH	Planning and Zoning, Open Space Committee	Conservation Commission, Recreation Department, Department of Public Works, Select Board/ Town Administrator, ADA Review Committee	$$$	1-4	High
TC7-3	Improve pedestrian mobility on rural residential roads by exploring opportunities for interconnecting short sections of trails and connecting cul-de-sacs.	PFS	Department of Public Works	Planning and Zoning, Open Space Committee	$$	1-4	Medium
TC7-4	Fill in gaps in the sidewalk network by connecting neighborhoods. A map depicting the location of current and proposed sidewalks will help determine where connection needs to occur.	PFS	Department of Public Works	Planning and Zoning, Select Board/ Town Administrator	$$$	1-4	Medium
TC7-5	Explore opportunities to expand and enhance current bicycle paths within the community and education to encourage bicycling in Sterling. A map depicting the location of existing and proposed bicycle paths/lanes will assist with gaps in connectivity to destination points.	PFS	Department of Public Works	Planning and Zoning, Select Board/ Town Administrator, Open Space Committee	$	1-4	Medium

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TC7-6	Make the neighborhoods, especially the downtown, more pedestrian-friendly through the construction and rehabilitation of sidewalks. Current design standards for ADA compliance should be incorporated.	LU, ED	Department of Public Works	Planning and Zoning, Select Board/ Town Administrator, ADA Review Committee	$$$	1-4	High
TC8: Address the perceived lack of parking availability in the town center.							
TC8-1	Develop a parking management plan for the town center area with a goal of identifying the most efficient means of utilizing the current parking supply, identifying future supply options and wayfinding, which is the directional signage or messaging that helps people navigate to a destination.	PFS	Department of Public Works	Planning and Zoning	$$	1-4	High

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