

Land Use and Development Patterns

1

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 Land Use 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 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 Town of 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 1-1**). 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 4, *Natural, Historic, and Cultural 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).¹ 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 7, *Circulation and Transportation*.

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 1-1** and **Figure 1-2**, 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.^{2, 3} This underscores the community's unease about such land use conversions. As demonstrated by the results of Public 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.




¹ AirNav.com. (2020). 3B3 – Sterling Airport. Retrieved 21 January 2021, from <https://www.airnav.com/airport/3B3>. December 31, 2020.

² MassGIS (Bureau of Geographic Information). MassGIS Data: Land Use (1951-1999).

³ MassGIS (Bureau of Geographic Information). MassGIS Data: Land Use (2005).

Town of Sterling Master Plan
 Figure 1-1. Regional Context

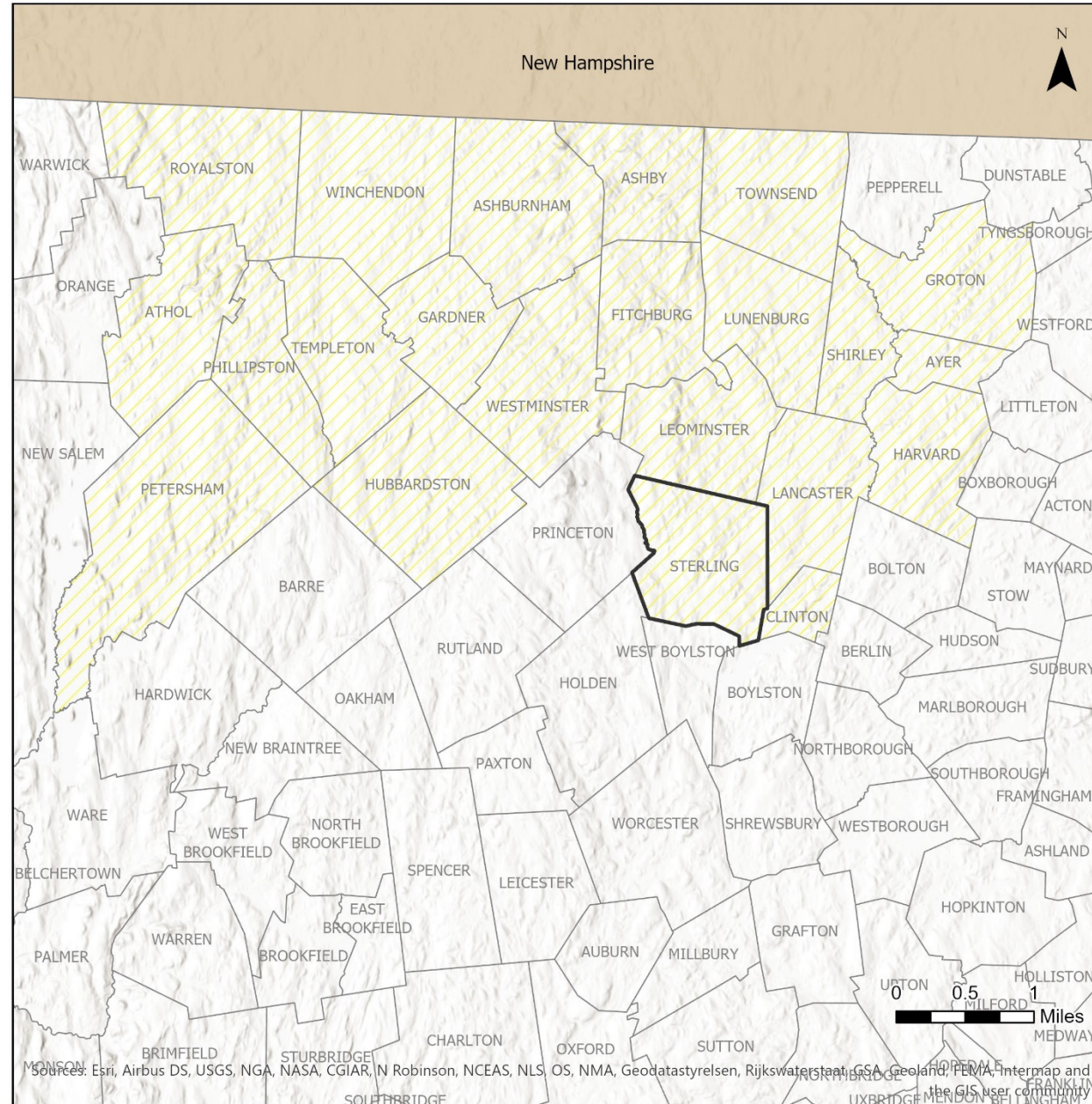
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-  Town of Sterling
-  MRPC* Communities
-  Municipal Boundaries

MRPC = Montachusett Regional Planning Commission



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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 1-1** and **Figure 1-2**, 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.

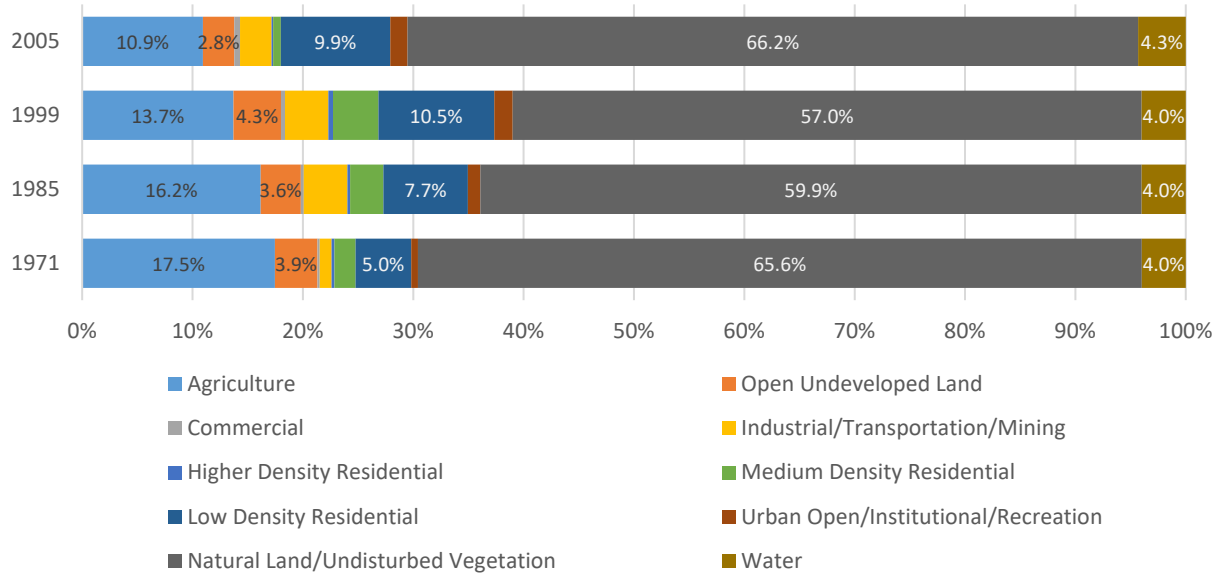
In addition to larger increases in commercial and industrial/transportation/mining, urban open/institutional/recreation lands also increased significantly on a percentage basis (158.7%). Principally contributing to this increase was opening of the Sterling National Country Club (and golf course) in 1991, 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 1-1. 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) | 1971- 2005 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% |

| Land Use/Cover Type | 1971 (acres) | 1985 (acres) | 1999 (acres) | 2005 (acres) | 1971- 2005 Change (%) |
|-------------------------------------|-----------------|-----------------|-----------------|-----------------|--------------------------------|
| 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% |
| 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% |

Source: MassGIS



Source: MassGIS

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

For additional historical reference, a breakdown of land cover/land use data for 2016 is illustrated in **Figure 1-3**. 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 1-3** 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 1-3. Land Cover/Use (2016)

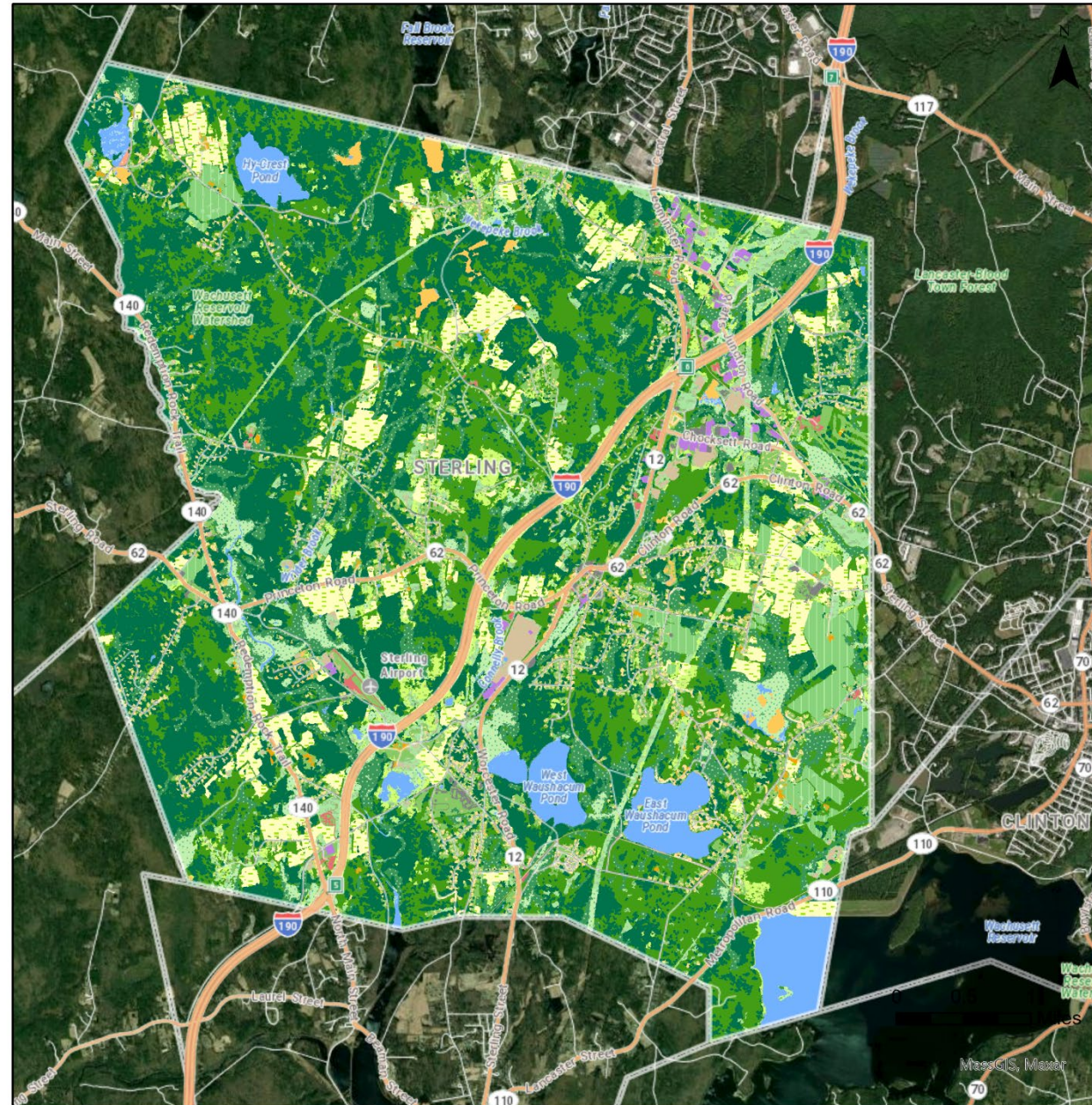
Legend

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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Existing Land Use

Based on property classification codes embedded within the town's 2019 Assessors database, **Figure 1-4** illustrates, and **Figure 1-5** 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.

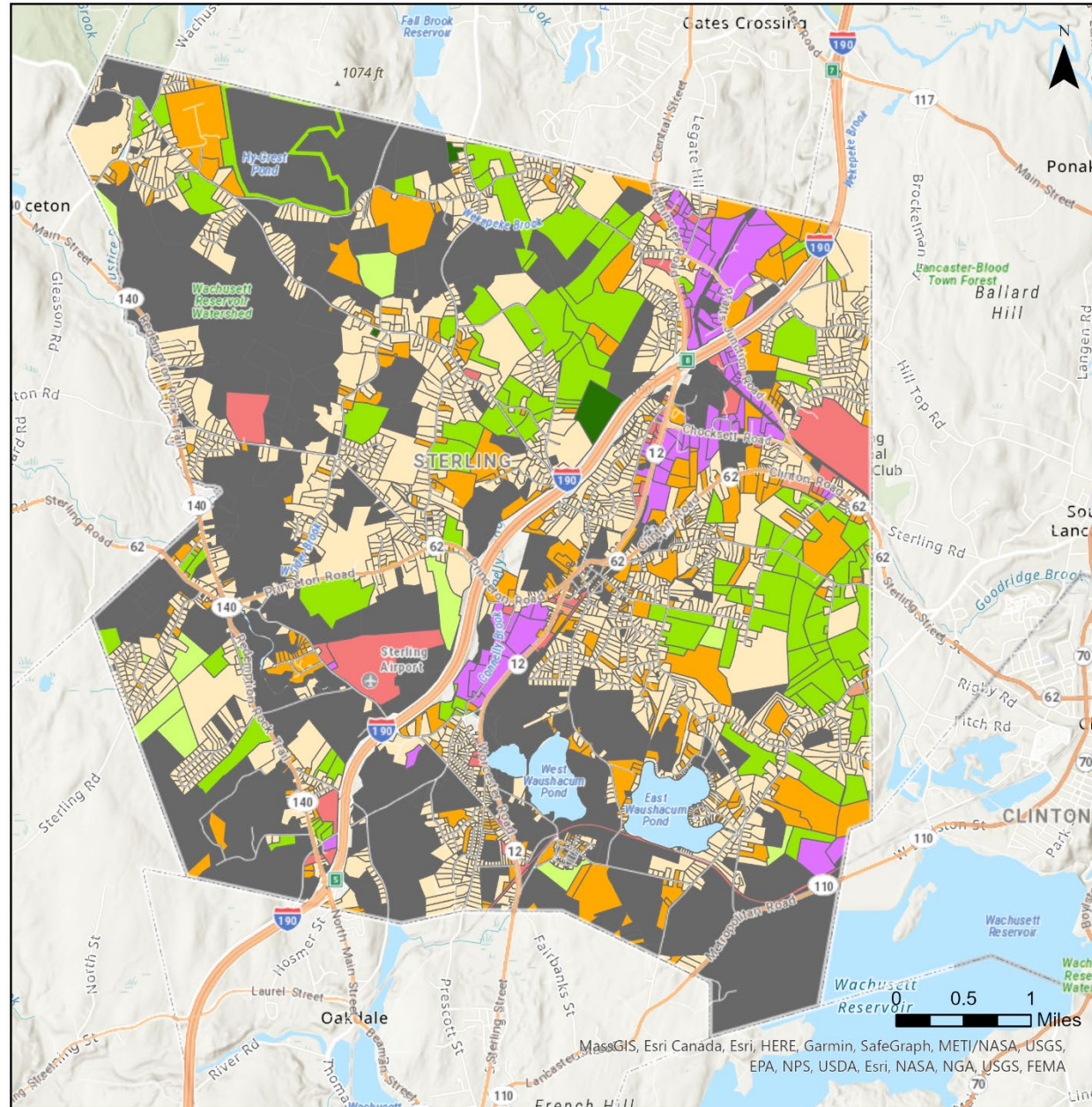
Though limited in comparison to its residential and exempt properties, commercial activities in Sterling predominantly occur along Route 12, with some large outliers such as the Sterling National Golf Course along Albright Road and Sterling Village along Dana Hill Road. Industrial activities are largely 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*.

Town of Sterling Master Plan
 Figure 1-4. Existing Land Use

Legend

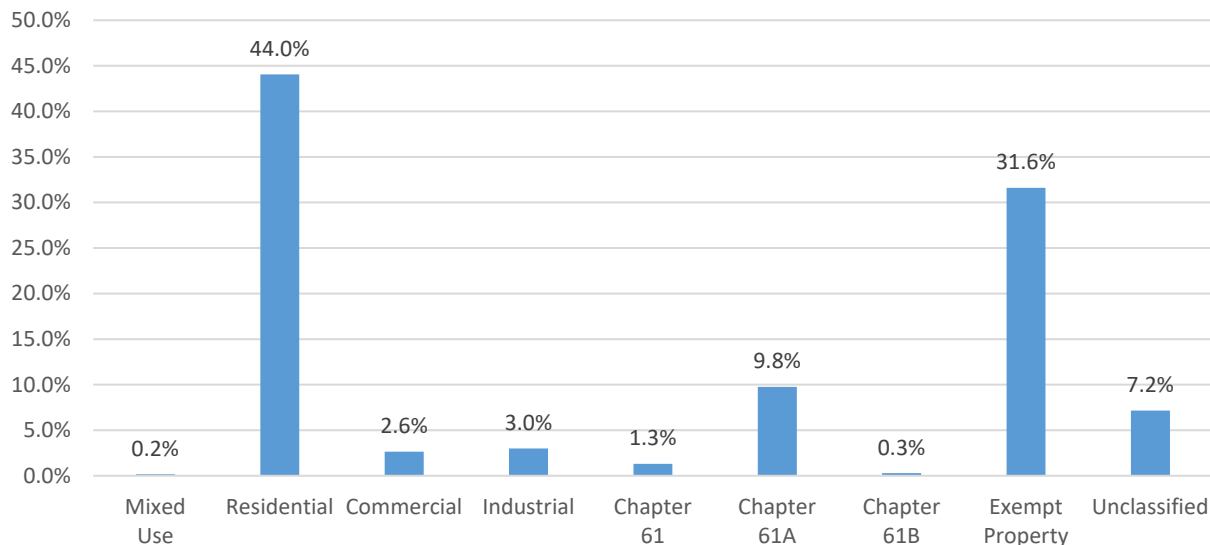
Land Use Type

- 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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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 1-5. 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.⁴

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

⁴ 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 1-2 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 1-2. Breakdown of Vacant Lands; Town of Sterling (2019)

| Land Use | Acres | % of Total Vacant Area | % of Total Area |
|------------------------------|----------------|------------------------|-----------------|
| 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 1-6 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).

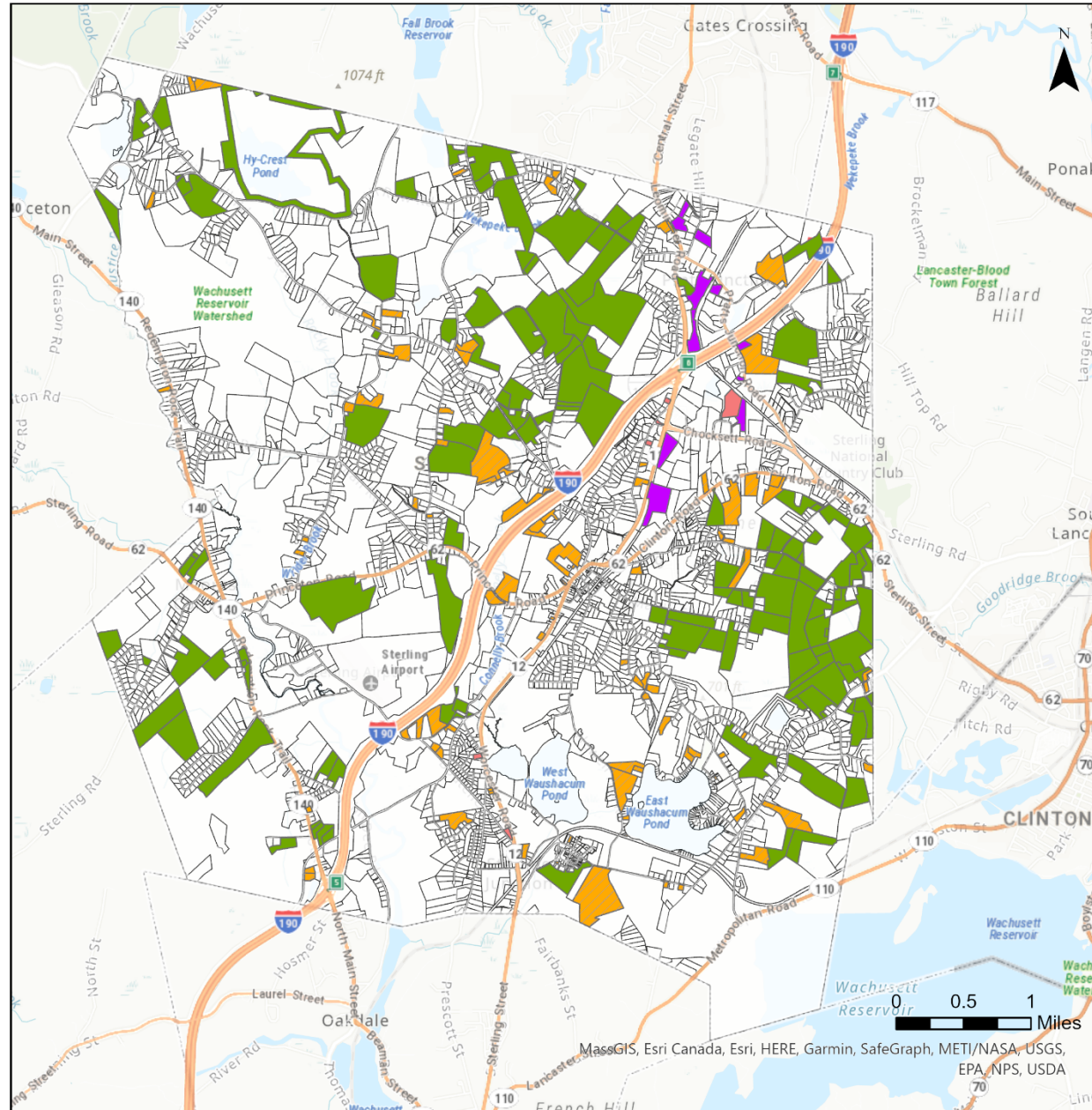
Sterling's Protective Bylaws divide the town into six districts:

- ▶ Rural Residence and Farming (RRF);
- ▶ Neighborhood Residence (NR);
- ▶ Commercial (C);
- ▶ Town Center (TC);
- ▶ Light Industrial (LI); and
- ▶ Performance Zone I.

Town of Sterling Master Plan
 Figure 1-6. Vacant Land

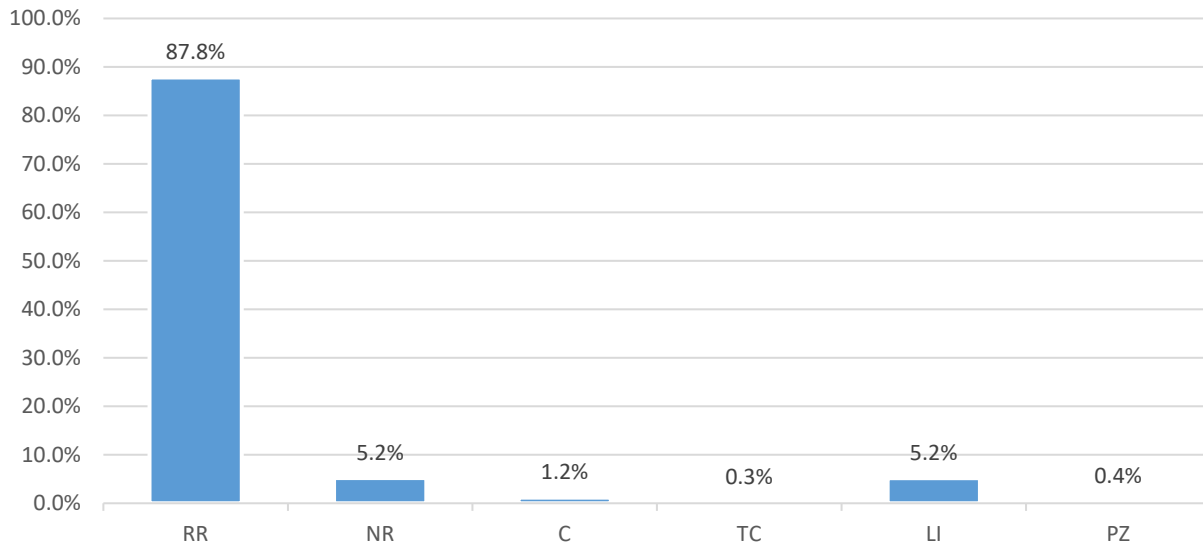
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-  Parcel Boundaries
-  Chapter 61 Program Lands
- Developable or Potentially Developable Vacant Lands**
-  Residential
-  Commercial
-  Industrial



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As quantified in **Figure 1-7** and illustrated in **Figure 1-8**, among the above 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.



Source: CAI Technologies, 2020

Figure 1-7. 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 district⁵ 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.

⁵ 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; and
- ▶ 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.

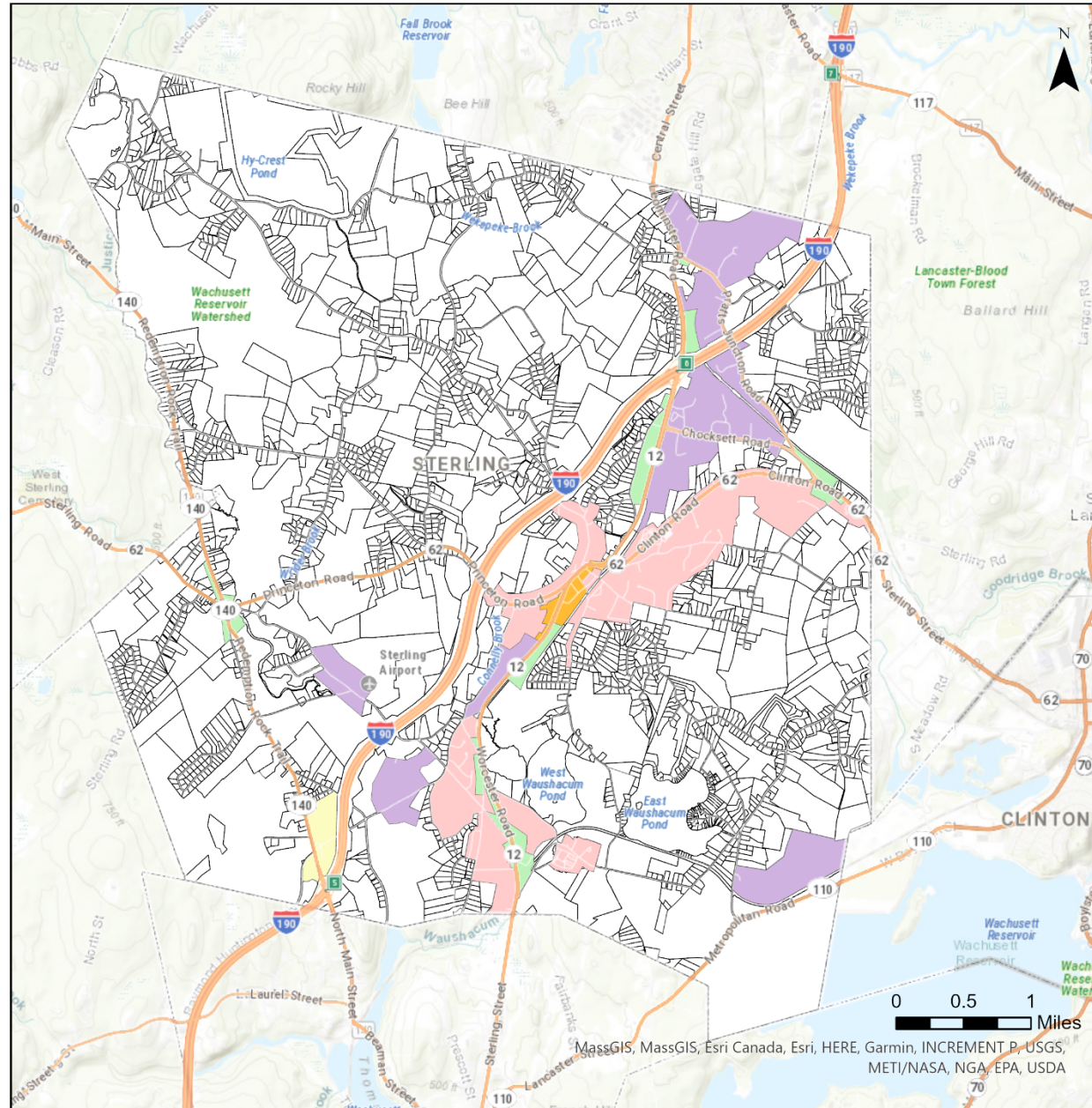
Overlay Districts

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 1-9**). 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 1-8. Base Zoning Districts

Legend

-  Parcel Boundaries
- Zoning Districts (Base)**
-  Commercial
-  Light Industrial
-  Neighborhood Residential
-  Performance Zone I
-  Rural Residential and Farming
-  Town Center District








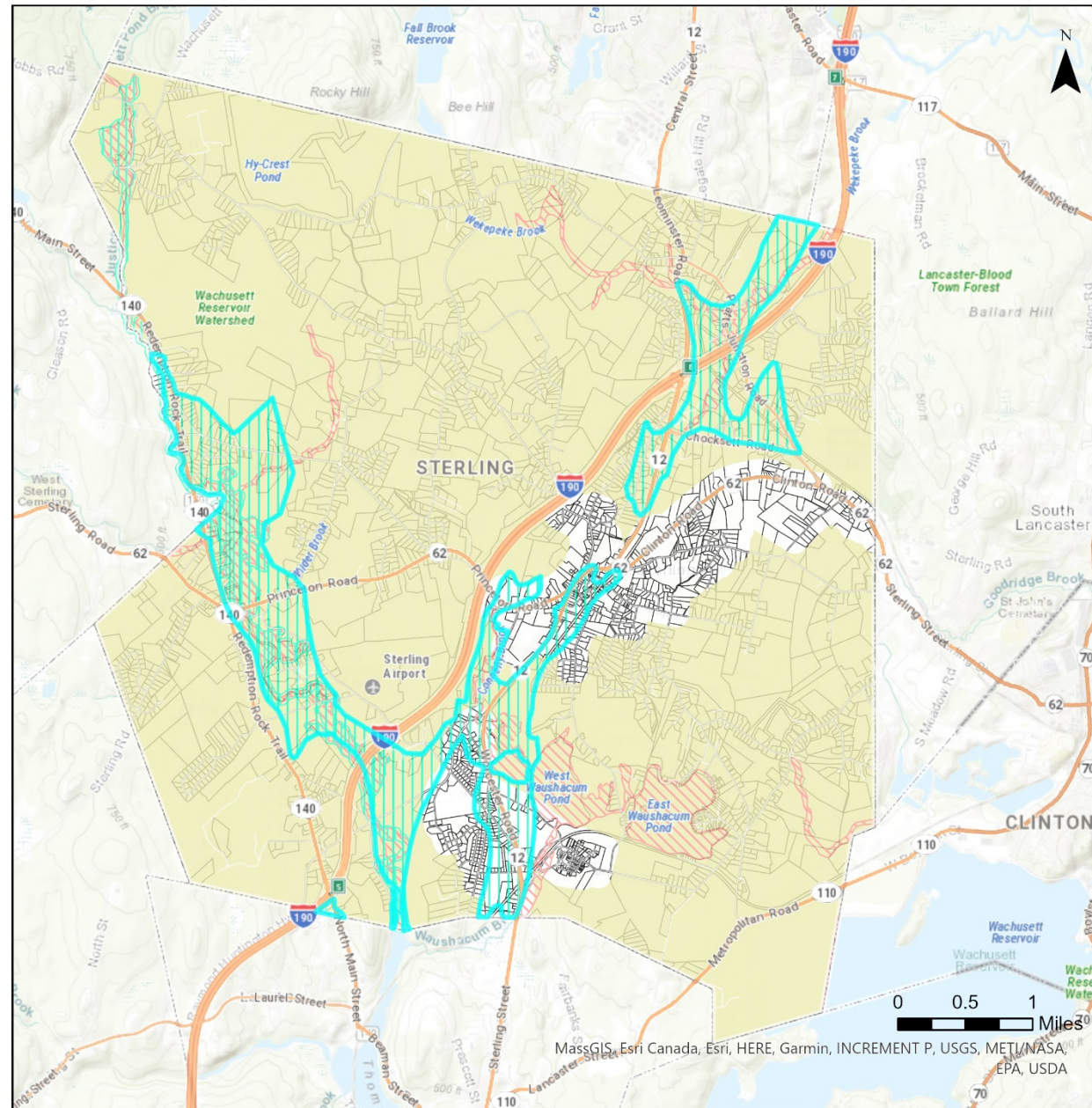
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MassGIS, MassGIS, Esri Canada, Esri, HERE, Garmin, INCREMENT P, USGS,
 METI/NASA, NGA, EPA, USDA

Town of Sterling Master Plan
 Figure 1-9. Zoning Overlay Districts

Legend

-  Parcel Boundaries
- Zoning Districts (Overlay)**
-  Floodplain
-  Water Protection
-  Wireless Communication
-  Groundwater Protection



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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 12.⁶

- ▶ 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; and
- ▶ 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

⁶ 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 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) through the use of 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 this Master Plan's second community survey, 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."

And 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 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 General Laws of Massachusetts (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.*

***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.*

Also as part of this Master Plan's second community survey, when asked "how concerned are you with development in hazard areas (e.g., floodplains)," 55.4% said they were "very concerned" or "extremely concerned."