Appendix B Comprehensive Plan Chapters

Land use Housing Health and social environment Economic development Farming Historic and cultural resources Natural resources, open space, and recreation Transportation and circulation Facilities, services, and social resilience

Land Use

1. Introduction

Chapter Overview

Land is divided into zones for specific uses and is managed and administered by the municipal land use regulations, policies, and procedures and it is from there that the community can plan for activities like economic development and housing in certain areas. The development patterns over time have been contemplated, including residential, industrial, commercial, and agricultural, and are the byproduct of interactions with humans and the natural environment.

This *Land Use* element incorporates considerations of all other elements, presenting historical and existing conditions of land use in Hatfield. Additionally, this element provides a way to look at decision-making for further discussion on how strategic the town should be in directing development where they want and within the context of this Plan, not in the floodplain.

Defining Hatfield's Landscape

Hatfield is located in Hampshire County and covers about 16 square miles. The entire landmass of the Town of Hatfield is situated in the Connecticut River watershed. All naturally draining surface water eventually finds its way to the Connecticut River, which forms about 7.5 miles of the town's eastern and southeastern boundaries. The town is bounded by Hadley to the east, Northampton to the south, Williamsburg to the west, and Whately to the north.

Hatfield's location in proximity to the college towns of Northampton and Amherst, as well as its access to Interstate 91, have contributed to its development as a "bedroom community" both for these larger towns and the cities of Springfield, Greenfield, and others along the I-91 corridor.

The community is characterized as a rural farming and residential community. Hatfield has an area of 10,240 acres, or approximately 16 square miles. The largest of the mountains that make up vistas in the town is Horse Mountain, rising approximately 840 ft. and covering approximately 3,100 acres. ¹ Hatfield has approximately 3,327 residents.² The 2021 median household income was \$76,688 with 6.5% of residents below the poverty line. ³

The purpose of this chapter is to provide an inventory of existing land use patterns, an

^{1 2032,} OSRP

² U.S. Census 2020

³ Hatfield Community Data, https://pioneervalleydata.org/community-profiles/

analysis of zoning, regulations, as well as a summary of projected and future development trends; it will draw on other plan elements and identify opportunities to address growth and preservation. The conclusion of this section lays out recommendations for zoning changes, conservation efforts, management tools and other implementation techniques designed to assist Hatfield in implementing its vision for future land uses.

Connecting Themes

Land use is the hub of a master plan, with the other elements acting as critical spokes. The land use element of a master plan provides a framework for growth management and an understanding of the kinds of development the community wants balanced with the existing physical and regulatory environment. A community's land use pattern is the physical arrangement and intensity of residential, commercial, industrial, and institutional development, open land, natural resources, and roadways. All are important, and land use is the element that ties them all together particularly with relation to the theme that has been emerging with the town ensuring its sense of community and providing a sustainable future.

Themes that emerged that tie the elements of this plan together include:

- Maintain the rural character of Hatfield while also supporting smart growth principles where development makes sense.
- The Town Center is an opportunity, however, its location in the flood zone makes it problematic. Exploring other areas in town to expand business and industrial development opportunities in the village center, pedestrian scale type of development can be another option.
- Preserve lands, like farmland, and minimize impacts of future development through regulatory tools.

2. Existing Conditions

Figure 1 is a presentation of the most recent data for land use type prepared using recent MassGIS datasets and the best tool of land use cover as declared by the Commonwealth. The dataset contains a combination of land cover mapping from aerial imagery (2016) and land use derived from standardized assessor parcel data. Map 1 shows the land use cover.

The patterns of land use formation, as well as how they are interrelated, are a record of centuries of human activity laid over the natural resources and landscape of the town.

While the town maintains a small town feel according to its residents, there has been lost acreage to development over time, such as solar development and home building.

Hatfield's population has fluctuated over the past few decades, from 3,184 in 1990 to 3,259 in 2010 and now with the 2020 Census presenting a population of 3,327 residents. It will be important for the town to utilize its regulatory tools and advisory efforts to preserve key farmland and open space parcels.

Any future land use change is limited to what is prescribed by the town zoning bylaw, as there is no state requirement for a comprehensive plan requiring a future land use map. By understanding the current conditions and future development trends, the town will be in a better position to plan for future land use changes and can work to shape what it wants preserved and what can be developed to enhance the opportunities for residents and business owners alike.

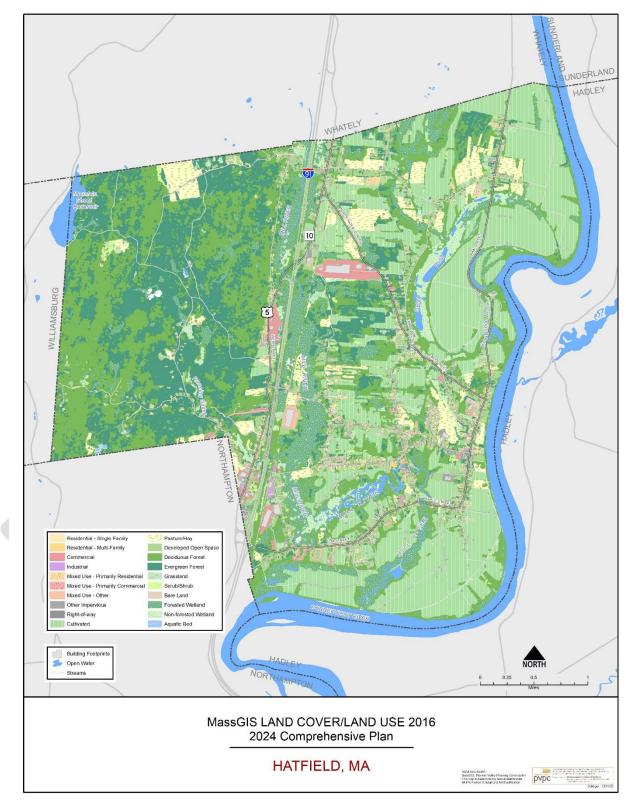
Land Use Type	Acres	Percent of Total		
		(%)		
Agriculture	2,906.34	26.99		
Commercial	269.39	2.50		
Forest	220.94	2.05		
Industrial	26.05	0.24		
Mixed use (other, primarily commercial +				
residential)	1,322.75	12.29		
Open land	2,012.30	18.69		
Recreation	415.61	3.86		
Residential (other, multi-family + single family)	2,250.07	20.90		
Right-of-way	554.27	5.15		
Tax exempt	197.34	1.83		
Unknown	33.48	0.31		
Water	558.41	5.19		
TOTAL	10,766.95	100.00		

Figure 1 Hatfield Land Use

Source: MassGIS

Zoning

Zoning regulations and other land use laws constitute a town's "blueprint" for its future. Land use patterns over time will continue to look more and more like the town's zoning map until the town is "built out" – that is, there is no more developable land left. In looking forward, it is important that the town focuses not on the current use and physical build-out of today, but on its potential future uses, on appropriate land for development, and build-out allowed under the town's zoning map and bylaws. Zoning regulations and districts are the primary land use tools that are used to manage development and direct growth to suitable and desired areas while also



Map 1 Hatfield Land Use Map

protecting critical resources and ensuring that development is in keeping with the town's character. Hatfield's current zoning bylaw was adopted on May 13, 2003, by the Town Meeting, and there have been subsequent bylaw amendments in accordance with Massachusetts General Law Chapter 40A, Section 5. The most recent Zoning Bylaw Amendment was passed by the Town Meeting in 2021 to change the Zoning Map and housekeeping cleanup. For the purposes of the Master Plan, the zoning assessment addresses pertinent zoning regulations and permitting procedures as they may relate to potential obstacles to achieving goals as outlined throughout this Master Plan. The zoning code can affect development and redevelopment potential based on where the town allows housing types and commercial and industrial activities throughout town.

Hatfield has eight base zoning districts and five overlay districts. The base districts define the allowed uses and dimensional requirements, while the overlay districts establish additional restrictions in certain areas for the protection of specific public interests. The location, boundaries and characteristics of the base districts are described below and in accordance with *Map 2, Zoning*.

- <u>Rural Residential District</u> This is the town's single largest district. This is the district where most of Hatfield's residential growth has developed over the years. It is flat, fertile and contains much farm and forest land suitable for development.
- <u>Outlying Residential District</u> This district is comprised of the hilly terrain westerly of Route 5/10. A significant portion of it is also subject to the Water Supply Protection District. The area is heavily forested and subject to steep slopes, poor soils, under constructed roads and a lack of public utilities. The minimum lot size is 60,000 square feet with 200 feet of frontage. This area is currently not under development pressure due to environmental and accessibility constraints.
- <u>The Town Center District and Town Center Business District</u> are commercial districts that encompass the cultural and institutional amenities of the town. Typically, small businesses and retail uses can be found, or at least welcomed here. This area of town is currently being discussed as an area of town where future development should be limited due to climate change and the realities of extreme weather events, like flooding.
- <u>Business District</u> This district is located along primarily three sections of Routes 5/10. Depending on the end of those corridors one can find transitional land uses and types of businesses as one approaches the abutting towns, more rural farms and homes towards Whately, and professional offices towards Northampton.
- <u>Industrial District and Light Industrial District</u> are industrial districts are industrial districts that are located along Route 10 and that straddles the

B&M/Connecticut River Railroad line.

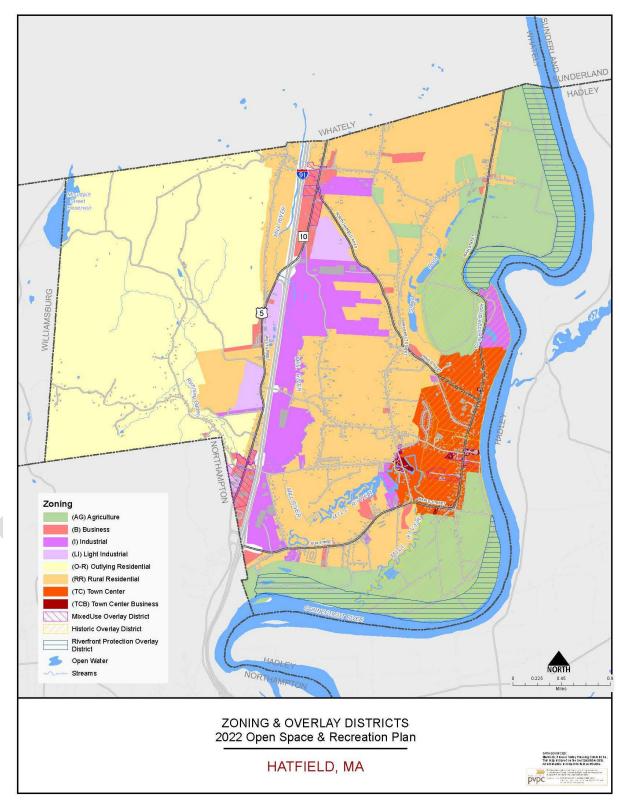
• <u>Agricultural District</u> – The district has some of Hatfield's best farmland and the entire district is situated within the 100-year floodplain of the Connecticut River and is further regulated by the Floodplain Overlay District. The primary uses permitted in this district are agricultural/horticultural/floricultural/viticultural in nature and while singlefamily homes are permitted, they do require Site Plan Review by the Planning Board.

Overlay Districts

Although appropriate zoning is all relevant to protecting the health and safety of the Town residents, three of Hatfield's districts are specifically relevant to natural hazard mitigation. These are outlined here:

- <u>Floodplain</u> The floodplain overlay applies to those areas within the boundary of the one-hundred-year flood that are considered hazardous according to FEMA. It limits some uses for preventing potential flood damage.
- <u>Water Supply Protection District</u> The purpose of this overlay district is to protect and preserve Hatfield's groundwater resources from potentially damaging pollution, or environmental degradation, by regulating certain uses within the district. The regulations state specific prohibited and restricted uses, regulate drainage, details site plan requirements and special permit procedures.
- <u>Riverfront Overlay District</u> The purpose of this overlay district is to protect the sensitive natural resources and rural character of the lands adjacent to the Connecticut River in Hatfield, promote the preservation of agricultural lands along the Connecticut River, and preserve the natural flood control and flood storage characteristics of the floodplain areas in the Riverfront Overlay District.

Additionally, the Zoning Bylaw calls out a <u>Mixed Use Overlay District</u>. The purpose of the overlay is to foster a greater opportunity for creative development by providing guidelines which encourage a mix of uses compatible with existing and neighboring properties. The town also has a Historic Overlay which exists on the official zoning map but is not described within the Zoning Bylaw.



Map 2 Hatfield Zoning Map

3. Challenges and Opportunities

The Master Plan process has provided the opportunity for residents to present comment and concerns about growth in Hatfield and the 189 survey respondents, along with committee members have affirmed the importance of the Town's "rural character." Most of the survey takers, at least 50%, found that the town should preserve the character of the town and protect open space, natural resources, and environmental quality. The intention of this plan is to help Hatfield achieve its vision which has been articulated as maintaining the rural charm of the town and balancing the other perspectives that have been brought forth in the other elements of the plan. Some strategies may include supporting opportunities to preserve open space, where appropriate, and addressing development thoughtfully. The town could maintain the potential benefits of this balance by becoming more proactive in planning for growth and conservation, exploring targeted plans for key nodes and corridors, and subsequently implementing the recommended policies and regulations.

In creating consistency with the Open Space and Recreation Plan, the town's documents will show where land should be preserved, like farmland and forestland. With limited financial resources, the Town must be strategic about which parcels provide the most benefit as protected open space and area of where the town can develop. The town can be more proactive about supporting the other economic development opportunities and its viabilities.

Encouraging Redevelopment

The conversations from the community meetings and focus group suggest that there is broad support to update the boundaries of existing zoning districts particularly along Routes 5 and 10. Ensuring town or village center standards in zoning can provide the opportunities for walkability and access to services like the post office, town offices and retail offerings, especially within the context of the built up development in the zoning districts along the major industrial corridors. The town would want to examine how increased residential density can support the small, local business.

A reexamination of the Town Center, both within the context of the town's historical Center and as a concept that can be realized elsewhere in town, particularly with the zoning standards like dimensional requirements can open up opportunities for density and small businesses. With the realities of climate change and possibilities of flooding, the historical Town Center would attract small businesses to support the local economy and offer a continuation of the types of structures and character the town seeks. A bylaw, which currently exists, can be reviewed to see which standards are difficult to address for developers seeking business in Hatfield. The developer would need to continue demonstrating that the development can fit within the context of the neighborhood with standards that can be reviewed. The town can even explore identifying more than one area where they could foresee this type of development.

(Semi-) Rural, Small Town Features

Urban design can help preserve historic small-town character, ensuring that new development complements the history surrounding it, and creating an accessible, pedestrian-friendly environment. By addressing fundamental site dimensions, like building height, width, coverage, and setbacks, design guidelines can also focus on elements such as signage, building materials, streetscape components, and landscaping.

To some extent we can maintain the remnants of Hatfield past by preserving roads, overarching trees, barns, and other artifacts of the earlier times, as the town still has some visual characteristics of a New England town. More significant, however, could be the opportunity to revitalize the type of uses and activities that help support even a more town-adopted value-based small-town character:

- Preserving and supporting the expansion of the remaining working farms, including on public land, if appropriate;
- Centralizing activity with working greenbelts of gardens, farms and forest;
- Building more support for the strong values of recreation in town.

The approach to small-town economic development requires new demands and innovations, ending a "one-size-fits-all" approach. However, as this landscape continues to change and evolve, the town can take control and have its character preserved with a similar sense of predictability and beauty by creating specific standards and incorporating them into each of the zoning designations, in addition to exploring overlay districts to preserve qualities unique to specific neighborhoods strengthening guidelines that have already been established.

Restrictions on (Re)Development

Exploring any future development or redevelopment in various parts of town for small businesses, like general retail or restaurants, could prove difficult without additional discussion of wastewater infrastructure. The lack of public water or sanitary sewer would need to be addressed if additional density and intensity of development is to be imagined. Exploring other "villages" with additional density and intensity and intensity in that area could be the opportunity to redevelop in a more structured way. A housing component could help support those future commercial uses, where a mixed use development could be an opportunity for expansion of water and sewer infrastructure.

Affordable Housing

Hatfield could support additional affordable housing in town by way of a looking at creating opportunities for multi-family housing and identifying parcels which could have housing, particularly open space residential, ensuring a maximum protection of open spaces, but providing incentive for developers to build more homes on smaller

lots, as the town through its visioning session and survey suggested that the town explore this type of development.

New housing constructed under the senior housing zoning bylaw limits who can reside in these units – those ages 55 and above. If the Town wants to expand affordable housing to those of all ages, other zoning tools can be looked at like Inclusionary Zoning and the ability to development Accessory Apartments, among others.

Many towns strive to achieve a 10 percent subsidized housing inventory (SHI) threshold, so they are not subject to development regulated under the State's Chapter 40B laws. A Comprehensive Permit proceeding, as governed by Chapter 40B, bypasses many local review processes. As of December June 2023, the State's records show the town's SHI at 2.9 percent, making the Town subject to Chapter 40B and housing development being permitted through the Zoning Board of Appeals.

Community Resilience

The Town's ability to utilize its available resources (communication, transportation for seniors, food, etc.) to withstand and recover from adverse situations is known as its community resilience. Hatfield's resilience will rely on a proactive and planned approach to protect its resources and direct where development and redevelopment can occur.

The recommendations of the land use element meet these objectives in a number of ways including:

- Promoting development in the town center concept that facilitates walkability and the efficient use of existing buildings and infrastructure. It also facilitates community building by formalizing a civic space and community programming, utilizing the town offices and other amenities, like the library.
- Working to expand affordable housing opportunities would provide housing for those who want to remain in town and contribute to the success of Hatfield, while also offering opportunities for new residents who can contribute to the growth of Hatfield.
- Preserving the Town's rural character will help protect some of the natural resources and open spaces, which is a benefit to the existing ecosystem.

4. Examples from other Communities

Farmland Preservation

Massachusetts has been actively working on farmland preservation efforts to protect agricultural lands. There are plenty of offerings on how to get these lands conserved in perpetuity and if not, at least ensuring minimal impact to the active and important farmland soils. This trend includes initiatives to provide incentives for farmers to continue working on the land and programs that promote conservation and sustainable agricultural practices.

Smart Growth and Transit-Oriented Development

The Pioneer Valley has a regional land use plan that discusses smart growth as an opportunity to ensure sustainability in the built form and preservation of important natural resources. This approach encourages compact, mixed-use development near public transportation, aiming to reduce reliance on cars, promote walkability, and improve overall sustainability.

Adapting to Climate Change

The impacts of climate change, such as sea-level rise and increased extreme weather events like flooding and long-term standing waters, influence, and impact land use decisions. Some of the concepts that are introduced in the land use sphere include Low Impact Development, requirement of green infrastructure and stormwater control mechanisms.

Agriculture District Intensity

Agricultural or "Ag Zoning," refers to designations made by municipalities that would typically protect farmland and related activities from incompatible non-farm uses. Usually designated as "A-1" land or zoning, the purpose of the zoning is to conserve and protect open land uses, foster orderly growth in rural areas and prevent urban agricultural land use conflicts.

Looking at an opportunity to differentiate uses in agriculture land, sometimes communities zone land Agricultural-1 (A-1) and/or Agricultural-2 (A-2). Though, this would not necessarily mean A-1 is reserved just for farm or agricultural uses. Churches, schools, utility facilities, business offices, hospitals, clubs, bed & breakfast inns, kennels, feed stores, etc., can be allowed on A-1 zoned property. These types of uses however would likely be sharing common environments that animals or farmland would be in the vicinity of. Agricultural-2 can be codified for those properties that are not as large as the A-1 parcels, as A-2 typically serves as a transitional land use.

5. Recommended Goals and Strategies

A. Maintain and create opportunity for development within the context of the town's distinctive New England characteristics.

Objectives:

- 1. Identify impediments in zoning that create difficulties in developing appropriately in identified zoning districts
- 2. Focus any development in sections of town that have the infrastructure and environmental conditions to accommodate growth and limit development in environmentally sensitive areas with design guidelines and district center planning.
- 3. Encourage new commercial and industrial development in the appropriate parts of town.
- 4. Ensure that new development and redevelopment is appropriate for, and sensitive to, the surrounding neighborhoods and environment through the zoning bylaw and enforcement
- Perform a Zoning diagnostic to examine readability and content of the town's Zoning Bylaws. Refine and revise Zoning Bylaws as necessary with new format, modern terminology, and definitions that fully describe items discussed within the bylaw to make the development and permitting process clearer and more transparent for all.
- Review the Hatfield Zoning Map to ensure that instances of "spot zoning" are reduced and that the Zoning Map will meet the requirements and intent of MGL Chapter 40A, Section 4.
- Review how design guidelines are currently administered within the context of the Zoning Bylaw and development within town.
- Require operation and maintenance plan for site plan approval of non-residential development, particular to improved stormwater infrastructure.
- Review and revise Subdivision Rules and Regulations and planned unit residential development zoning to promote permanently preserved open spaces, agricultural lands, forest lands, and other natural resources by clustering development where least impactful to those resources.
- Examine what Chapter 40R Smart Growth Zoning Overlay District could accomplish for residential and mixed use development.

- Review lands in current industrial zoning district for developability to get an accurate inventory of non-wetlands available land.
- Explore industrial uses and possible areas for that type of development elsewhere in town.
- Consider purchase of lands in current industrial zoning district that are unable to be developed due to wetlands for conservation in perpetuity.
- Continue and explore additional funding for a Town Planner to stay competitive with neighboring communities and to meet demands of the Planning Board and various initiatives.

B. Enhance and explore where the village centers can be an option in town as livable, workable, and walkable neighborhoods.

Objectives:

- 1. Allow for the appropriate use, development and redevelopment of land that are similar to the development of the town's historical center facilitating the creation of similar livable, workable, and walkable neighborhoods.
- 2. Improve and/or create pedestrian network in and around village centers.
- 3. Create and/or implement standards for consistent sign, streetscapes, and architecture.
- Celebrate and implement standards adopted in the Town Center elsewhere in town. Revise standards, as necessary.
- Review and revise building size criteria in the Zoning Bylaw based upon standards to keep consistency of appearance in neighborhoods.
- Discuss adaptive re-use and infill development. Adopt zoning to promote re-use of existing underutilized buildings and infill development within larger commercially zoned properties, and to encourage walkable layouts of development.

Housing

1. Introduction

The Housing element of the Hatfield Comprehensive Plan provides an overview of housing conditions, issues, and opportunities facing the Town of Hatfield and its residents.

With this chapter being part of the Town's Master Plan, and incorporating its commonalities to other Town goals and policies found in this plan and other town planning documents, successful housing policies and outcomes can:

- Consider the pattern of residential development in determining what types of housing stock is needed and where it might best be constructed and concentrated in the future.
- Assess the local and regional area to determine how future market forces may influence the development and affordability of housing in the community.
- Consider the needs of current housing stock in order to maintain a community's character and allow current and future residents to live in safe and affordable homes.
- Attract young families to move into Hatfield and encourage longevity of residency across multiple generations.

Connecting Themes

Some themes have emerged through the Comprehensive Plan process, where concerns included the current housing stock not meeting the needs of the town's changing demographics. The predominant housing typology in Hatfield is singlefamily homes on larger lots, especially in the town center. The median sales price of a home continues to climb with each passing year. Throughout the public Comprehensive Plan process, residents expressed a strong desire to have a mix of housing types and price points to support those who are in the community today, as well as those may someday who wish to call Hatfield their home. How Hatfield approaches housing policy in town has an impact on transportation infrastructure, facilities and services, the local economy and workforce, and use of available land for development or redevelopment.

2. Existing Conditions

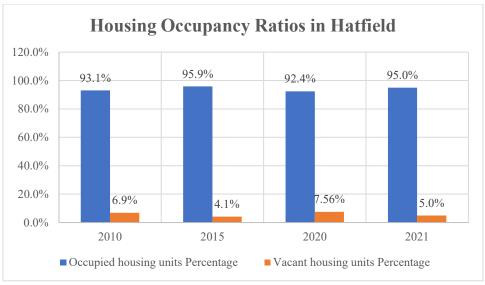
Hatfield is a primarily residential and agricultural community in Western Massachusetts. Located in Hampshire County within the Pioneer Valley region, Hatfield measures 16.8 square miles. Hatfield is 25 miles north of Springfield, the region's largest city. Hatfield is bordered on the southwest by Northampton, on the west by Williamsburg, on the north by Whately (in Franklin County), and on the east and south by Hadley, across the Connecticut River. The river borders Hatfield's east side, forming its eastern and southern boundaries. The river's wide flood plain and prime agricultural soil have made the town an ideal place for farming since (and prior to) its founding in 1670. Local topography ranges from flat land along the river to gentle hills along the town's western border.

Like many rural and semi-rural communities in Massachusetts, Hatfield has an aging population with concern that older adults may need to find more appropriate housing as they age. The supply and cost of housing play a major role in who gets to live in town. Through established and new policies, the Town can influence who lives in Hatfield. Zoning can limit the development of housing for a variety of different housing types, likely resulting in a less diverse population. Residents have indicated they want to keep the current small-town nature and feel of Hatfield while expanding certain types of housing, particularly for seniors and young families.

Housing Stock

Analysis of homeownership levels and renter opportunities is an important feature of a housing assessment. Data on owner-occupancy and renter-occupancy is used to aid in the distribution of funds for government programs, including mortgage insurance and public housing programs. It also allows planners to evaluate the overall viability of housing markets, to assess the stability of neighborhoods and to aid in the planning of housing programs and services.

Hatfield housing units had an occupancy rate of 95.0% in 2020, higher than the median value of owner-occupied housing units in Hampshire County of 68% based on the most recent data from the 2021 American Community Survey. As shown below, the vacancy rate in Hatfield for 2021 was 5.0%.



Source: 2021 ACS Five Year Estimates

Age of Housing

The age of housing stock is also an indicator of the type and quality of homes. Although age of housing stock should not be interpreted as "good" or "bad", and well-maintained older homes are an important element of a town's local character, older housing, that typically can be identified as older than 40 years, may present challenges.

However, according to the latest data from the 2021 American Community Survey, 41% of all housing units in Hatfield were built after 1979 with 37% built in 1939 or earlier. With at least a third of the housing inventory being older homes, there can be an increased need for costly maintenance and repair, including roofing, water heaters, plumbing, and electrical wiring. Older housing is built to outdated and obsolete code, which can present numerous problems for anyone with limited mobility or homeowners looking to make updates and significant modifications to their homes. This is particularly important for an aging community to address. Older homes often have outdated energy and insulation systems. This is relevant when addressing resiliency in the community and in the home. Finally, outdated materials in older homes can lead to health risks such as lead paint and pipes, asbestos, air quality concerns, and faulty electrical wiring.

Age of Housing in Hatfield

	Housing Units	Percentage
Built 2020 or later	0	0.0%
Built 2010 to 2019	87	5.5%
Built 2000 to 2009	48	3.1%
Built 1990 to 1999	136	8.7%
Built 1980 to 1989	129	8.2%
Built 1970 to 1979	243	15.5%
Built 1960 to 1969	157	10.0%
Built 1950 to 1959	145	9.2%
Built 1940 to 1949	42	2.7%
Built 1939 or earlier	581	37.1%
Total	1568	100%

Source: 2021 American Community Survey 5 Year Estimates

Building Permits

Building permits are filed by owners or builders when they initiate any type of major construction or demolition in Hatfield. Permits for activities such as new construction, renovations, and demolitions are one indicator of the housing market in Hatfield. There have been no residential building permits issued for multi-family housing in Hatfield during this time frame.

Building Permits Pulled in Hatfield

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Total Permits	3	10	5	7	7	7	7	7	7	7	8
Permits in Single-Family Structures	3	10	5	7	7	7	7	7	7	7	8
Permits in Multi-Family Structures	0	0	0	0	0	0	0	0	0	0	0

Source: 2020 U.S. Census Bureau

Housing Tenure

According to estimates from the American Community Survey, 70% of the occupied housing units in Hatfield are ownership units, while 30% are rental units. This is equal to about 1,043 ownership units, and 447 rental units. There has been a sizeable increase in renter-occupied units since 2010 (128 or 37%) and a decrease in owner occupied units (41 or 2.7% since 2010).

Some properties have been identified for use as short term rentals, which give property owners an opportunity to earn revenues for renting their homes out. The town could explore whether or not they are receiving revenues for this concept, as there is a regulated mechanism for these short-term rentals and the Department of Revenue.

Housing Sales

As of the end of 2021, there were a total of 51 closed sales for single family homes and condominiums for the year to date in Hatfield with a median sales price of \$339,950. Comparatively, in 2020, there were a total of 56 closed sales, with an average sales price of \$305,000.



Related to housing sales, there seems to be contractors buying and "flipping" homes for a higher resale value. It would be important to follow this trend, specifically, if it seems to be displacing current Hatfield residents not allowing them to stay in town.

Subsidized Housing Inventory

As of June 2023, there are 47 subsidized housing units in Hatfield listed on the Subsidized Housing Inventory (SHI). The SHI is maintained by the Executive Office of Housing and Livable Communities and is the state's official list for tracking a municipality's percentage of Affordable Housing under M.G.L. Chapter 40. The town's Subsidized Housing Inventory sits at 2.7 percent.

	Project			Comp	Yr	Own or	Subsidizing	
Municipality	Name	Address	SHI Units	Permit?	End	Rent?	Agency	
Hatfield	1309	Capawonk	2 School St.	44	No	Perp	Rental	EOHLC
		DDS						
		Group						
Hatfield	4308	Homes	Confidential	3	No	N/A	Rental	DDS
		DMH						
		Group						
Hatfield	9969	Homes	Confidential	0	No	N/A	Rental	DMH

Source: MA Subsidized Housing Inventory, Executive Office of Housing and Livable Communities

Housing Cost Burden

The "30-percent rule", established in the Fair Housing Act of 1968, is a means of measuring housing affordability and argues a household should spend no more than 30% of its income on housing costs.

(https://www.huduser.gov/portal/pdredge/pdr_edge_featd_article_092214.html).

A household is defined as "housing cost-burdened" if the household expends more than 30% of their income on housing costs.

Housing cost-burdened households may have difficulty affording necessities such as food, clothing, transportation, medical care, as well as saving for their future. "Costburden" is the ratio of housing costs to household income. For renters, housing cost is gross rent (contract rent plus utilities). A recent anecdote was shared where rents in Hatfield have been seen up to \$3,200 a month. For owners, housing cost is "select monthly owner costs", which includes mortgage payment, utilities, association fees, insurance, and real estate taxes. A moderately cost-burdened household pays 30% to 49% of its income for housing, while households that pay more than 50% of their income are severely cost-burdened.

Out of the 1,419 households in Hatfield, 24.0% of homeowner households are housing cost-burdened and 14.1% of renter households are housing cost-burdened.

This is also the generally accepted definition of housing affordability used by the U.S. Department of Housing and Urban Development (HUD) and the Executive Office of Housing and Livable Communities (EOHLC) in the calculation of the Area Median Income (AMI) and promotion of income-restricted housing. The AMI is the median family income for a given area, in this case the Springfield MA HUD Metro Fair Market Rent Area, which includes Hatfield. HUD calculates the AMI annually, based on the U.S. Census Bureau's American Community Survey's (ACS) estimated

median family income for the area. The Springfield, MA area AMI was \$91,200 in 2022, which is based on a 4-person family.

3. Challenges and Opportunities

Population and Household Growth

The Town needs to plan for the changing demographics and the shifts in age groups to continue to provide a high quality of life for its residents. Like many other communities, older adults are likely to present challenges to the town of Hatfield. Older adults have unique needs and often require increased service provisions. Transportation services, grocery delivery, and programming to maintain social interconnectedness are all important pieces in maintaining the general health and well-being of older adults.

The ability to work remotely has allowed workers to consider more varied housing options with desirable amenities outside of the expensive cities. This shift has led to increased interest in suburban and rural areas, including Hatfield and the Pioneer Valley, as individuals seek more space, lower costs, and a change of scenery. Housing and related services can be improved for many who may seek to spend more time working from home and become a more attractive place to live for young professionals and families. The Pioneer Valley Planning Commission and other housing entities continue to monitor the migration of those coming from larger metropolitan areas like Boston and New York City.

Hatfield needs to also carefully consider options to attract new families with children and early career individuals, who have their own set of needs around schooling, transportation, work from home infrastructure, in town job availability, and social outlets. Examining programs for new, first-time homebuyers could be a tool to ensure that they remain in town, like the US Department of Agriculture (USDA) rural mortgages.

Chapter 40B development as a challenge and opportunity

Chapter 40B authorizes a housing agency or developer to obtain a single comprehensive permit for the construction of subsidized low- or moderate-income housing if less than 10% of its total year-round housing in the community is subsidized low- or moderate-income housing. Because Hatfield is below this threshold, it is *vulnerable* to a Comprehensive Permit application. A Comprehensive Permit puts local permitting in the hands of the Zoning Board of Appeal.

One of the primary purposes of M.G.L Chapter 40B is to ensure that no city or town shoulders a disproportionate amount of low- and moderate-income housing in any region of the state. To this end, a 10% statutory minimum was established as an

Appendix B – Housing

indicator that suburbs and small towns were providing their "fair share" of subsidized Affordable Housing. Hatfield does not currently meet this statutory minimum, and a need for more Affordable Housing choices can further be seen in the increased share of household incomes going toward housing costs. This is important in a town like Hatfield with an aging population – the town can be proactive towards its housing policies to ensure older adults are not displaced.

Older adults, housing affordability and aging in place

An issue in Hatfield related to housing affordability is the cost of maintenance and upkeep, especially with 37 percent of the housing stock being built before 1939. Older housing can have numerous challenges including energy inefficiency, design impediments for households with limited mobility individuals, and outdated materials and products. Related to housing affordability are the issues defining senior housing, whether that refers to specific residences that only house seniors, aging in place programs, or a combination of these and other options. Residents are well aware of the needs of their seniors, including appropriate housing. Currently, the Zoning Bylaw permits certain types of senior housing and/or handicapped persons in other districts where residential is allowed, but only if a special permit is granted.

Housing Choice Types

Housing can be a controversial subject in most towns, however, there is favorable sentiment towards and opportunity in thinking about a variety of housing that is available to various populations. It is identified in the community survey where 45.1% of respondents wanted the town to "provide a variety of housing".

Additionally, the 2015 Housing Production Plan called for a goal to create 8 units of Affordable Housing each year. This goal has not been realized to date, and allowing for additional housing choice types in town could be found in mixed use development. There is a bylaw that allows for mixed use, the town should revisit why this has not been working to its advantage. Mixed uses can include condominium or apartment units that may be more appropriate for younger adults and families looking to reside in Hatfield. The town should also include a review the zoning bylaw that would allow for apartment complexes that had more than six units.

There is an advocacy movement called "Yes In My Back Yard" (YIMBY) whose mission is to "end the housing shortage and achieve affordable, sustainable, and equitable housing for all." There could be an opportunity where when policies and zoning bylaws are adopted or in the process of being adopted, residents can work with other groups to inform and educate the reasonings behind a proposed housing policy.

Inclusionary Housing

Inclusionary housing programs are local policies that tap the economic gains from rising real estate values to create affordable housing for lower income families. An inclusionary housing program might require developers to sell or rent 10-30% of new residential units to lower-income residents

(https://inclusionaryhousing.org/inclusionary-housing-explained/what-isinclusionary-housing/). The town currently has no Inclusionary Housing policy. A town-wide inclusionary housing zoning bylaw can be explored. However, where affordability can be a requirement is in the town's existing open space residential development bylaw, where the town incentivizes the developer for building affordability into the housing development.

Community Resilience

A resilient community, not only one that bounces back after a hardship or disaster, is one that also is able to provide a wide range of housing types that accommodate all stages in a person's lifecycle. This is an ongoing conversation around housing that should continue to be explored, particularly with a variety of housing types that are built sustainably and in the context of climate risk. New home building and design can benefit from strategic and cost-effective policies that will lead to more energy efficient homes, as there is a growing emphasis on sustainable and energy-efficient housing in Massachusetts. The state has implemented various programs and incentives to promote green building practices, energy-efficient appliances, and renewable energy installations. A greater focus on providing housing options for seniors who are currently living in town, looking to move in with family, or plan to retire in Hatfield, along with exploring options to attract younger professionals and families, will go a long way in Hatfield's path to greater resiliency.

4. Examples from other Communities

Energy efficiency and net-zero, passive home design and construction

With a growing emphasis on energy efficiency and utilizing renewable energy sources to power one's home, the Commonwealth has provided opportunities for homeowners to take advantage of audits to identify ways make their homes more energy efficient. Some energy efficiencies can be found in insulation, airtightness, and ventilation throughout a home, the use of eco-friendly building materials, energyefficient appliances, insulation, and renewable energy systems. Getting a green building certification, such as LEED (Leadership in Energy and Environmental Design), has become a way for a homeowner to demonstrate their commitment to sustainability and energy efficiency.

Tiny homes has been a concept that has been explored as a sustainable and affordable housing option across the world and the Commonwealth. Zoning codes typically are

Appendix B – Housing

where these types of uses are regulated, and many communities are amending their dimensional regulations to allow for smaller dwellings or by addressing accessory dwelling units as a use to the principal home.

CASE STUDY: North Commons at Village Hill, Northampton, MA

In Northampton's Village Hill neighborhood, a recently constructed three-story apartment building exemplifies energy efficient building. The North Commons at Village Hill is a 53-unit apartment building built to Passive House standards. Passive House standards are a voluntary green building program that verifies dwellings are extremely energy and water efficient, durable, and resilient. By achieving the Passive House standards, the North Commons at Village Hill provides residents with lower energy bills, better indoor air quality, good acoustics, and greater thermal comfort. North Commons at Village Hill, which opened to residents in 2022, was constructed by The Community Builders, a non-profit housing development company. The development includes several features that contribute to its Passive House classification. To help reduce resident energy bills, a 58-kilowatt solar photovoltaic system is mounted on the rooftop. The building is designed with a superior building envelope, which includes high quality windows, insulation, and air sealing. Additionally, the heat recovery ventilator (HRV) system adds to the energy savings while making the living spaces healthier, by collecting and transferring heat from existing indoor air to fresh outdoor air as it enters the building.

5. Recommended Goals and Strategies

A. Provide housing stock that protects and maintains the community's scenic, natural, and historic resources.

- Use the Town's Open Space and Recreation Plan (OSRP) to ensure protection of the Town's open space when building new housing.
- Adopt Low Impact Development (LID) standards for all new residential developments.

B. Promote housing availability in Hatfield that is financially attainable for and attractive to all ages and household configurations seeking to reside in town.

- Examine expanding the Accessory Dwelling Unit (ADU) "In-law" Zoning Bylaw for owner occupied dwellings to complement the current zoning bylaw.
- Increase density in appropriate areas utilizing 40R Smart Growth and/or 40Y Starter Home Zoning Districts.
- Establish first-time homebuyer educational and assistance programs.
- Identify a location for additional public housing and seek project approval and funding.
- Assist homeowners in getting MassSave assessments and implementing conservation measures on their homes to decrease the cost of heating and cooling.
- Monitor the impact of short-term rental use on Hatfield.
- Allow permitting of alternate home designs (e.g. tiny homes) and clarify their definitions. Look into expanding mobile home park with full-time residents offering an additional type of permanent, affordable housing options.
- Establish relationships with local housing non-profit organizations, such as Habitat for Humanity, Hometown Heroes, Wayfinders, etc. to add to or modify existing housing stock.
- Explore relocating and expanding the Capawonk Senior Housing Authority units to a parcel outside of the delineated flood zone which can also be developed for town services.

C. Increase Affordable Housing to make progress towards the M.G.L Chapter 40B Affordability housing goal of 10% for Hatfield.

- Update the expired 2015 Housing Production Plan and submit to the Executive Office of Housing and Livable Communities for approval, with five-year updates.
- Establish a public Housing Trust Fund to receive, manage, and administer Community Preservation Act (CPA) funds for housing projects, including rental properties.
- Apply for Community Development Block Grant (CDBG) funds to rehabilitate existing housing to support low- to moderate-income residents.
- Review potential use of inclusionary housing programs.

Health and Social Environment

1. Introduction

Chapter Overview

How a community is planned and developed impacts how people interact with one another, including the ease with which they can access basic needs such as food, employment, health care, and places to be active. It also ties to the overall resiliency of a community given the changing climate, especially increasing extremes in rainfall and heat. Likewise, a community's ability to support and connect with its vulnerable and historically marginalized populations makes it a more inclusive and welcoming place for everyone.

This chapter highlights ways that the built and social environments support the health of people of all ages to create resiliency and enable residents to lead long and healthy lives.

The Health and Social Environment chapter looks at Hatfield through the lens of the domains of an Age and Dementia Friendly Community, a model that was developed by the Massachusetts Healthy Aging Collaborative. Because Hatfield has a large and expanding older population, this chapter uses a focus on older adults as a way to assure that Hatfield is a supportive, safe and accessible place for all vulnerable populations, including youth, people with disabilities, and other vulnerable groups.

While the comprehensive plan survey conducted by youth for youth revealed that the 27% of youth at the school who responded are not experiencing mental health stress as a result of the climate crisis, the Community Health Needs Assessment (CHNA) facilitated by the Cooley Dickinson hospital did find youth mental health to be a pressing concern across the hospital's service area which includes all of Hampshire county including Hatfield.

As people live longer, there is a strong likelihood that they will have some form of dementia in their later years which is why the approach includes aging and dementia.1

¹ According to information from the Alzheimer's Association, it is estimated that one in three people over the age of 85 will have some form of dementia in their later years.

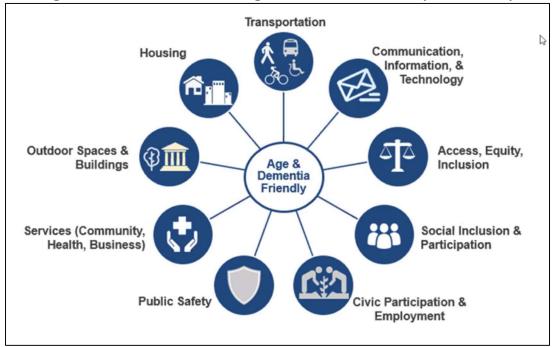


Figure 1 - The Domains of an Age and Dementia Friendly Community

Source: Mass. Healthy Aging Collaborative

The "nine domains" of an age and dementia friendly community include aspects of the social and built environments, public safety, communication, and community services that support community livability and the health of all residents, particularly those who may be living with cognitive or physical impairments that become more prevalent in older age. Providing support and removing barriers can help older adults as well as younger people living with disabling conditions to fully participate in the community and lead long and healthy lives and can also create a more livable community for people of all ages.

In order to understand the needs of older residents of Hatfield, the regional "Age and Dementia Friendly Community Survey" was mailed to all Hatfield residents over the age of 60 by the Hatfield Council on Aging. Of 650 surveys that were mailed out, there were 85 responses for a response rate of 13%. All respondents were over the age of 60 and 48% were over the age of 70. According to survey respondents, the top three areas that the Town should focus on in the next five years are:

- Housing (61%)
- Transportation (54%), and
- Health and Community Services (52%)

As housing and transportation are addressed in other chapters of this plan, this chapter focuses on those domains that most impact the health of older or more vulnerable residents. Addressing the needs of older residents often has positive impacts on younger residents as well. For example, a recommendation within this chapter to

expand housing choice by ensuring availability of smaller affordable housing units, is relevant to younger people starting out. Housing costs in Massachusetts are some of the highest in the nation and it is challenging for individuals and families just starting out to afford to buy a home as it is for older adults to stay in their large homes when they are more income or mobility limited.

Connecting Themes

Themes of resiliency, social connection and inclusion, opportunities to be active, housing, transportation and communication thread through many of the chapters of the Hatfield Comprehensive Plan. The prevalence of farms in Hatfield, and an aging population (including aging farmers) is also a theme in this Plan, and an asset to the health of the Town's residents as fresh locally grown food is in good supply. These themes overlap with those of a healthy community, as health is affected by the physical and social environment in which people live, work and play; access to healthy food and places to be active; clean and affordable housing with accessibility features if needed; education and employment; and opportunities for social connection and civic engagement.

People over the age of 65 are the fastest growing age group in Hatfield as well as in cities and towns throughout the state and around the world due to the fact that people are living longer and having fewer children. This population is also identified as one that is highly vulnerable to extreme weather events caused by climate change, and to pandemics due to immune systems that tend to grow weaker with age. By using the lens of the domains of an Age and Dementia Friendly Community, this chapter highlights aspects of the built and social environments that support healthy aging, social connectivity and resilience.

Planning for an aging population can meet the needs of all members of the community. In 2021 the American Planning Association issued a Planning brief on this topic. In summary:

Age-friendly planning, which focuses on creating environments that support older adults, can also benefit younger populations in several ways:

- 1. Inclusive Design: Age-friendly planning encourages inclusive design that considers variations in age, ability, and behaviors. When the built environment is designed with everyone in mind, it benefits people of all ages. For instance, accessible sidewalks, well-lit streets, and safe public spaces are essential for both older adults and younger residents.
- 2. Shared Infrastructure: Planning for an aging population often involves improving public transportation, healthcare facilities, and recreational spaces. These enhancements benefit everyone, including younger individuals. For example,

accessible public transit and well-maintained parks benefit people of all ages, not just seniors.

3. Intergenerational Engagement: Age-friendly planning emphasizes opportunities for different generations to engage with each other. This can lead to stronger communities and improved quality of life. Activities, programs, and policies that promote intergenerational interaction benefit both older and younger residents.

Age-friendly planning isn't just about meeting the needs of older adults; it contributes to creating better communities for people of all ages.

2. Existing Conditions

Similar to most communities in the region, state, and nation, Hatfield's population is aging. Between 2015 and 2021, the share of the population 65 and older increased from 18.4% to 23.2%, while the population under the age of 18 dropped slightly from 16.9% to 16.5% over the same time period (Figure 2). People are living longer, with life expectancies rising into the 80s in many places, while at the same time younger generations are having fewer children. As people age, they have a greater chance of losing both physical and cognitive capacities which can limit their ability to participate fully in their communities.

Most people with disabling conditions in Hatfield fall in the 75 and older age group, and this population also has the fastest growing number of people with disabilities (Figure 3). Barriers such as curbs without ramps or stairs without wheelchair ramps can prevent people with disabling conditions from accessing sidewalks or services, resulting in fewer opportunities to fully participate in community activities or to access basic needs such as food.

According to a data visualization map from the Center for Disease Control's (CDC) National Hospital Care Survey, of life expectancies at, Hatfield's life expectancy at birth (for the period 2010-2015) was 79, slightly lower than neighboring communities of Williamsburg and Whately, but higher than the northeastern corner of Northampton which had a life expectancy of 77.5.² These numbers likely changed after the pandemic which disproportionately caused fatalities for older age groups due to generally weaker immune systems. The pandemic also highlighted disparate health outcomes for communities of color who have faced systemic barriers to accessing health care, adequate housing, and many other factors that contribute to good health.

² <u>https://www.cdc.gov/nchs/data-visualization/life-expectancy/</u>

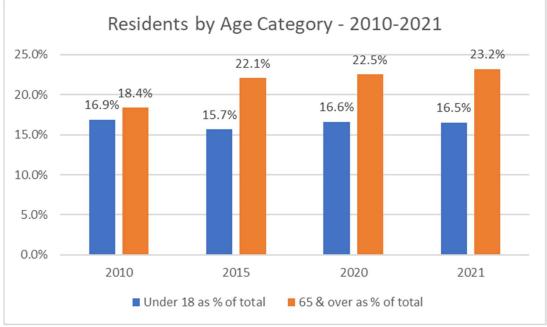


Figure 2 – Residents by Age Category – 2010-21

Source: US Census Table S0101: ACS 5-year estimates (2010, 2015, 2020, 2021)

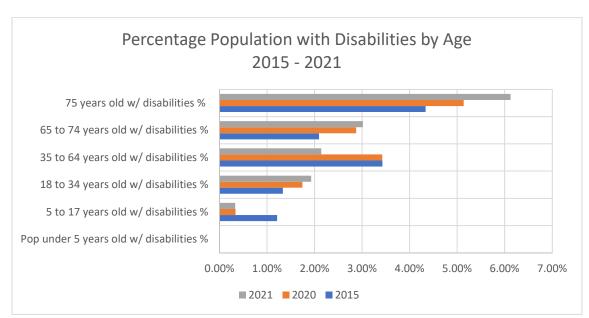


Figure 3 - Population with Disabilities by Age

Source: US Census Table B18101: ACS 5-year estimates (2021)

Although Hatfield's population is primarily white, the number of residents of other races and ethnicities is increasing, and a growing number of people who identify as Hispanic are living in Hatfield according to recent Census data.

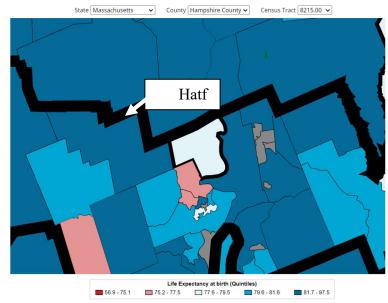


Figure 4 - Life expectancy map of Hatfield and surrounding communities



Housing

Past plans for Hatfield have highlighted the limited number of housing opportunities for young families and older residents who want to move into smaller and more manageable housing. As the population ages and the number of people with disabilities continues to rise, it is also important to have accessible housing available, or programs in place to modify existing housing for accessibility and safety.

The 2014 Regional Housing Plan noted "the critical need for more accessible housing to meet existing and growing demand," and also "the need for more concerted efforts to integrate accessible housing and housing with supportive services into our planning for market-rate and affordable housing development." The 2022 Community Health Needs Assessment (CHNA) for Cooley Dickinson Hospital states that "as the population continues to age, available housing will actually decrease as older people are likely to live in households of only one or two people. This will put an increased strain on housing in an area where over half of residents are "housing burdened," which means they pay more than 30% of their income in housing costs." ³ The CHNA illuminates major disparities in housing by race, and notes that these disparities appear to be worsening based on median income figures broken out by race. Rental rates continue to rise, creating further disparities. Older houses require more maintenance, need updates, and cost more to heat. In addition, older houses may have heating, ventilation, and air conditioning (HVAC) and other issues that exacerbate

³ <u>https://www.cooleydickinson.org/wp-content/uploads/2022/10/Cooley-Dickinson-2022-Community-Health-Needs-Assessment-v2.pdf</u>

chronic pulmonary conditions such as asthma and chronic obstructive pulmonary disease (COPD).⁴

Seventy-one percent of respondents to the Age and Dementia Friendly Survey said that they currently live in single family homes, most (61%) said that it was extremely important for them to stay in Hatfield as they age. Sixty percent of residents said it was extremely important to be able to stay in their current homes. However, when asked if a change in circumstances were to require a move, most (51%) said that they would prefer to live in senior independent living units, and only 20% in single family homes. Life changes can come quickly and unexpectedly the older we get, including losing cognitive abilities due to Alzheimer's or other dementias, losing a spouse, vision or hearing loss, or mobility challenges due to a fall. So, although many people may want to stay in their homes they may need to move or have assistance to remain at home. Many people do not have family nearby and must rely on public or private care systems. Staff at the Senior Center shared the need for emergency housing for people who have been evicted due to rising rents, or who are not currently housed. Currently there are no temporary housing units located in Hatfield.

More than 32% of households in Hatfield are people who live alone, and 46.7% of single person households are people over the age of 65. With the increase in the percentage of the total population being over the age of 65 comes the need for smaller housing units that are more affordable and easier to maintain.

Financial worries are prevalent among older adults, with 12% of survey respondents saying that the housing that they live in now is not affordable. Forty-four percent of respondents said that their finances are OK now, but they are worried about the future. Six percent said that financial security is their biggest worry. A total of 62% of older adults responding the survey report being worried about affording their housing. The shortage of rental properties and the rising rents impact people on fixed incomes, as well as the people providing services, such as home health care and driving the Senior Center van.

Capawonk Housing, located in the Town Center, offers smaller affordable housing units for older adults, but is located in the floodplain along with the Town Hall and Senior Center. Participants at the listening session at the Hatfield Senior Center suggested that the facility needs to be expanded and moved (along with public buildings) out of the floodplain. They also noted that there is no generator at Capawonk, or places to park bicycles. Private rental units are scarce, and listening session participants note that landlords of some of the few rental properties in town

⁴ <u>https://www.cooleydickinson.org/wp-content/uploads/2022/10/Cooley-Dickinson-2022-Community-Health-Needs-Assessment-v2.pdf</u>

are taking advantage of the housing market and selling the buildings, displacing renters who have nowhere else in town to go.

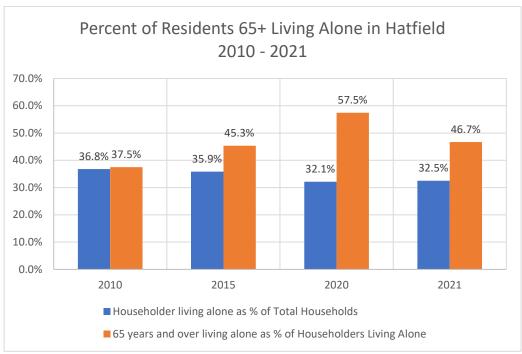


Figure 5 - Residents Living Alone in Hatfield

Source: US Census Table DP02: ACS 5-year estimates (2021)

Aging in Place

If affordable assisted living or other long-term care facility is not available or affordable, or if people have decided to stay in their own homes as they age, some additional services may be needed. When asked whether people living independently are facing any barriers, 55% say that they had difficulty finding reliable and affordable contractors for home modifications or repairs, 47% say they have difficulty finding help with yard work or snow shoveling, and 35% have difficulty finding personal care or housekeeping services.

Adapting existing homes to accommodate physical or cognitive limitations that may arise with age can help people to remain in their homes when other more accessible options are not available. According to 2019 American Housing Survey data, approximately 19.6% of all housing units in New England are "Aging Ready,"⁵

⁵ Aging Ready Homes in the United States: Perception vs. Reality of Aging-Accessibility Needs (2019). https://www.census.gov/content/dam/Census/library/publications/2023/demo/p23-219.pdf

meaning they have a bedroom, bathroom on the first level, have a step-free entryway, and have at least one bathroom safety feature such as an elevated toilet or grab bars.

Transportation

Transportation often becomes an issue for people as they age and can no longer drive. Hatfield is served by the Franklin Regional Transit Authority, which provides one fixed bus route in Hatfield. The Senior Center provides van transportation with two vans that are owned by the Town. Rides must be reserved in advance and must be taken during the hours the Senior Center is open. The Senior Center also offers trips to shopping areas on designated days.

Ninety percent of survey respondents say that they currently drive themselves, but 26% also say that a family member drives them, and 20% say that they walk as a primary means of transportation, 13% use senior center vans, and 10% bike. When driving is no longer an option, 83.5% of respondents say that they would like to use senior center vans, 49% volunteer ride service, 38% fixed route bus, 32% want safe routes to walk and bike. Especially where public transportation is limited, people want to have transportation services that offer flexibility and independence when they can no longer drive.

As a member of the FRTA service area, Hatfield has the opportunity to join the Access program which provides on-demand services through a mobile application or phone reservation system. Some Village or Neighbor networks in nearby communities offer volunteer ride services that are highly popular as they provide added flexibility to destinations outside the normal service area and during hours when other services are not available.

The desire to have safe places to walk and bike is important for people as they age, for exercise as well as to do errands (if services are nearby) and as opportunities for social interaction. Facilities for safe walking and biking are also important for youth and families with children. Participants at the listening session commented that Hatfield has sidewalks in the town center, and that the flat topography makes the town a pleasant place to walk and bike. However, 33% of survey respondents say that shoulders or sidewalks are needed on some roads for safer walking and 29% say that speed limits need to be enforced. Some participants in the listening session note areas where sidewalks are not available or where connections need to be made to the existing sidewalk network.

The Town could benefit from participating in the Complete Streets program which provides funding for communities that adopt Complete Streets policies to develop Prioritization Plans, and to build projects that are included in those plans.⁶

Buildings and Outdoor Spaces

Accessible public buildings and spaces inside and out provide opportunities for social interaction and civic engagement. Indoor spaces that are cool in the summer and offer programming in winter months provide opportunities for year-round fitness and social connection and can serve as warming or cooling shelters during emergencies. The current Senior Center in Hatfield is located in the basement of the Town Hall. While it has recently been renovated, participants at the listening session for older adults commented that it could benefit from a fitness room and bathrooms that are updated to improve safety and accessibility. Many survey respondents (44%) said that the Town needs a new Senior Center. The Town Hall as well as the Fire Station, Library and Police Station are all located within the Connecticut River's floodplain, making them unreliable to serve as emergency shelters during possible flood emergencies.

As noted in the Facilities, Services and Social Resilience chapter, there is strong interest among many residents in ensuring that schools in Hatfield remain strong and resilient over the long term. This and the interest in expanding facilities for older residents suggests an opportunity to combine planning efforts for schools and a new or expanded senior center or community center.

Survey respondents and participants at the Listening Session also commented that the library is currently not accessible. The Master Plan from 2001 also says that a new, expanded or renovated structure is needed to support the needs of Hatfield residents and to protect the collection. Libraries can be valuable gathering places and hosts for programming as well as providing access to computers and internet. Some libraries also offer training in how to use devices for people who are less comfortable with technology.

The survey asked what could be done to increase usage of public buildings and outdoor spaces in the community. In addition to wanting a new or larger senior center, 41% want benches in parks and along walking routes, 40% public restrooms, 38% signs or maps identifying trail difficulty and accessibility, and 36% want more accessible trails. In the open comments to this question, respondents call for a bike trail or extension of the rail trail, conveniently located waste containers, and public restrooms near the rail trail.

⁶ https://www.mass.gov/complete-streets-funding-program

According to the 2023 Open Space and Recreation Plan there is a demand for additional, varied opportunities for passive and active recreation at a wider variety of recreational venues, as well as better maintenance of facilities. Among the potential additions are pickleball/tennis courts at Smith Academy, a bike trail between Elm Court and Damon Road, improved access to the Mill River; striping of roads for bike lanes and wider shoulders; and creation of new sidewalks with a view to expanding the Town's "pedestrian circuit."⁷

There is currently an accessible walking loop around the athletic fields at Smith Academy, where the addition of benches would encourage those who need to rest during walks. There may also be opportunities to link recreational or open space areas with in-town trails or better sidewalk networks, as walking/jogging on sidewalks is the activity in which most (more than 90%, according to the OSRP survey) residents participate. Better pedestrian linkages among recreational and open space resources in the village center and other areas of town also serve as opportunities to improve accessibility for Hatfield's senior and disabled residents. The addition of accessible portable restrooms or signs to public restrooms (and the hours that they would be open) would also be welcome resources for older adults.

Participants at listening sessions have noted that there is not currently a playground that people with young children can use while school is in session. A public space that includes accessible playground equipment, benches and tables that can also accommodate people with wheelchairs could serve as a gathering place for all ages and abilities.

Services (Health, Business, Community)

Health and Community Services ranked in the top three areas that survey respondents thought that the Town should focus on in the next five years. Services provided by the Senior Center, or volunteer-run programs such as a Neighbors network (in place currently in Northampton, Amherst and Easthampton) can help with basic tasks that become more difficult as people age in their homes. Having access to health care is important for healthy aging as people become more likely to have multiple morbidities than younger people. Less than half of survey respondents answered the question about whether they were having any difficulty with accessing health care. Of those who did respond, many (13 respondents or 39%) had difficulty scheduling non-emergency medical appointments. Services or programs that were lacking in Hatfield (as well as other places) include home care or home health care providers, and support services for people with dementia. According to survey respondents, 18% say affordable, certified home health care providers were poor or not available; 18%

⁷ 2023 Draft OSRP, p. 57

say that support or programming for caregivers of people with dementia was poor or unavailable.

Educating businesses such as banks and municipal offices about the signs and stages of dementia can prevent misunderstandings and direct people to the help that they need.

Support for family caregivers or spouses of people with dementia becomes increasingly important as private caregiving services are less available, or if people don't qualify for subsidized services provided by the Area Agency on Aging (Highland Valley Elder Services for Hatfield). This support can be in the form of groups or respite care, or providing flexible work schedules for caregivers who have to take a loved one to medical appointments or prepare meals for them at home. Survey responses reflect the numbers involved in caregiving and lack of available support:

- 11% of survey respondents had either been diagnosed with Alzheimer's or other dementia or had a family member who was diagnosed
- 14% percent said they provided caregiving services to a family member, with seven saying they were the primary caregiver of an older adult while two were primary caregivers for their grandchildren, and four said that they shared caregiving services.
- Seven respondents who were caregivers said they did not have adequate access to respite services or support groups.

Communication, Social Participation & Inclusion

Social participation is critical to good health especially for older people who may be living on their own. The pandemic highlighted the importance of technology – including access to computers, tablets, affordable internet service, and the knowledge of how to use technology – for social connection and civic participation. Seventeen survey respondents said that they needed training on how to use technology, and fifteen wanted training on how to use video communication platforms. Eight respondents said that they were not interested in using technology.

Survey respondents were asked about feelings of loneliness and isolation. While most (63%) said that they often felt well supported, 14% said that they rarely or never felt this way. Twenty-two percent of respondents said that they feel lonely some of the time, and 27% said that they feel left out of their community some of the time. The Senior Center serves as a center for social engagement as well as providing critical services for older residents. Many attend congregate lunches or fitness classes offered in the main function room at the Senior Center. However, the facility does not have its own kitchen and would benefit from additional space and fitness equipment.

Public Safety, Emergency Preparedness and Climate Change

Social connection is also important for the purposes of emergency preparedness. Eighteen percent of respondents said they did not feel well informed about what to do in the case of a power outage. Survey respondents were, for the most part, not overly concerned with the increase in extreme heat or weather events. Eighteen percent said that their health has been moderately impacted by extreme heat, 7% said their health had been severely or very severely impacted, and 14% were extremely or very concerned about the increased number of days of extreme heat. Only five percent said that they had been very or severely impacted by increased downpours and 5% very or extremely concerned about downpours.

Youth Survey

Youth at the Smith Academy 8th grade civics class designed and implemented a survey to understand youth concerns about the climate crisis as part of the Hatfield Comprehensive plan process. Thirty-six students, or 27% of the student body, responded to the survey. Kevin Wall, the civics teacher who oversaw student work on the survey reported, "There isn't a huge amount of fear in regard to climate change. They (the students) felt they could work to make a difference, but they are unclear about how to go about making that difference."

- 67% of the 36 students who completed the survey have noticed changes in the weather over the years
- 55% have noticed changes in water levels of local rivers, ponds and lakes
- 89% remarked on the decrease in snow
- 25% have noticed more rain
- almost 70% have noticed temperature changes
- only 47% have noticed changes in storms
- 39% of students responded "absolutely" to the question of "Could climate change impact your future?"

As Mr. Wall noted, the students did not report major stress about the climate crisis which is different from the results of other studies across the country. A 2023 Youth Mental Health report from the American Psychological Association noted that many research studies suggest that adolescents and young adults experience the highest levels of climate anxiety compared with adults in their 30s and above. In Hatfield: 64% of responding students do feel empowered to take action; and students are most worried about climate change killing animals (73%), making it hard to breathe (70%) and resulting in no more snow (70%).

3. Challenges and Opportunities

Historically, challenges affecting older adults and other vulnerable or marginalized populations in Hatfield have generally only come up in relation to housing. More recently, older adult vulnerability to climate change has been raised. To improve the health and longevity of all of Hatfield's residents, it is important to plan for residents of all ages, abilities, and backgrounds early in the planning process and across the range of challenges and opportunities.

Housing for All Ages & Abilities

Based on waiting lists for affordable senior housing and anecdotes from people attending the listening session for older adults, there is a need for more affordable and accessible housing that can allow older residents to stay in the community when they need to downsize due to increases in housing costs such as taxes, fuel, and maintenance or a change in circumstances such as the loss of a spouse. Participants at town-wide listening sessions have also noted the desire to attract younger people to the community and how this might be coupled with needs for older adults. Smaller housing units close to services and with access to safe places to walk and bike would serve older residents looking to downsize, as well as young people starting out in careers and families. At the same time, this movement of older adults to smaller units, could open up single family homes.

Several participants at the listening session for older adults noted the large frontage requirements in the town center. Infill on existing properties, allowing detached accessory apartments such as tiny homes in back yards would allow for greater density in the town center (or possibly new town center out of the floodplain) without significantly changing the character of the neighborhood. Another approach would be to allow single family homes to be converted to two or more smaller units to allow for greater density and smaller, more affordable housing units. People at the listening session for older adults suggested moving the Capawonk housing due to its location in the floodplain and expanding it to accommodate more older residents who wish to stay in the community and age in place.

Accessibility features and energy saving measures can help people to age in their homes more safely and affordably. Home modification loan and grant programs can help people to age in place by providing low interest loans for adding accessibility features inside the home or building a wheelchair ramp. Energy audits can help to save homeowners money and make homes more comfortable by preventing heat from escaping. Helping older residents navigate solar installation contractors or programs would also promote climate resiliency while protecting residents from potential fraud. For older adults who need more support services, converting larger single-family homes into small congregate housing facilities with shared services could allow people to stay in Hatfield with some added support services. This could also be a good adaptable re-use of large historic homes located in the town center (as long as they are not directly in the floodplain).

Buildings and Outdoor Spaces

According to the 2023 Open Space and Recreation Plan there is a demand for additional, varied opportunities for passive and active recreation such as building pickleball/tennis courts at Smith Academy, a bike trail between Elm Court and Damon Road, improved access to the Mill River; striping of roads for bike lanes and wider shoulders; and creation of new sidewalks with a view to expanding the Town's "pedestrian circuit."⁸

The OSRP also mentions opportunities to link recreational or open space areas with in-town trails or better sidewalk networks. Planning linkages with universal design in mind will make networks available to residents of all ages and abilities. If all trails are not accessible, providing a map on paper and online that ranks trails by difficulty and level of accessibility can allow people to use the trails that best suit their abilities. Other amenities that would encourage use by older residents and people with disabilities include accessible public restrooms and benches that would allow for resting and socializing.

Interest in a new Senior Center as well as the need for a new school, improving accessibility of library, and general discussions about relocating public buildings outside of the floodplain could open an opportunity for buildings that allow for multiple uses and community connections.

Public Safety and Resilience

Quoting from the Massachusetts State Hazard Mitigation and Climate Action Plan, the Town's recent Hazard Mitigation Plan notes, "in most natural hazard events, the vulnerability of a population is largely dependent on local preparedness and availability of human resources for social services staffing and supplies distribution... preparing for emergencies by training a large group of public and professional responders to ensure continuity of operations during a hazard event can be a critical tool for mitigating the overall impacts of any hazard event." As a smaller community, Hatfield may not have as many public and professional responders to a natural disaster, but keeping the community informed about emergency preparedness, and enabling community networks can reduce the impacts on the most vulnerable individuals in town. Smaller neighborhood networks or associations may already be in place for some given their living environment. Many residents of Capawonk Housing, for example, regularly attend Senior Center lunches and have the beginnings of a community network in place.

⁸ 2023 Draft OSRP, p. 57

Access to Healthy Food

Although most survey respondents did not indicate that food insecurity was a problem, the Town could make better connections with local farms to ensure that fresh locally grown food is served in schools and other congregate settings such as the Senior Center. Building a strong Farm to School program that teaches children how to grow food and utilizes locally grown produce for school lunches could enrich the connections between youth and the farming community. With facilities to prepare food such as a commercial kitchen, the Senior Center could also play an important role in building a stronger connection with local farms.

Communication and Social Inclusion

During the Hatfield 2040 event at the schools, there was some conversation around improving communication and opportunities for social interaction in Hatfield. Suggestions included developing a printed newsletter or Hatfield website, as well as using a number of communication channels to reach diverse audiences. For older adults who may not use technology as much, printed newsletters or newspaper articles may be more effective ways of communicating about local events in addition to social media. Establishing "community hubs" was also discussed at the event in terms of developing intentional places to gather for specific populations or neighborhoods.

Access to high-speed internet and equipment and training on how to use technology can benefit older residents, as well as others living in the community who may not have the resources to access equipment or services. Many senior centers and libraries offer loans of equipment or hot spots for internet connection, training, and assistance with connection to low-cost internet services. Access to technology offers opportunities for telemedicine, participation in hybrid or remote meetings, the ability to sign up for services or contact a doctor, access to support groups that may cover a larger service area (such as the Alzheimer's Association) without the need for transportation. Technology assistance programs are also good opportunities for intergenerational interaction as high school students can often provide assistance to older members of the community.

4. Examples from other Communities

Opportunities for Intergenerational Interaction

The Town of Swampscott, MA, used the need for a new high school and an underused Senior Center by combining the two into one building.⁹ While school populations were decreasing and not as many older residents were using a senior center that was located in the basement of a municipal building, the Town saw the opportunity to combine the two needs and create something larger that benefits both the older and younger populations in the community.

Neighbor Networks

The Towns of Amherst, Easthampton, and Northampton all provide strong "Neighbors" programs that allow older residents to either volunteer to help or request services from other residents. In addition, Northampton Neighbors is implementing "neighborhood circles" which are based in specific neighborhoods, with the goal of neighbors keeping track of other neighbors and helping where needed. This system was especially important during the pandemic when older residents were advised to stay home, and when transportation services were on hold.

The City of New Orleans is working to develop a "Community Lighthouse Project" or a network of neighborhood resiliency centers that have solar power and a back-up battery power in case of an emergency.¹⁰ The goal of this project is to have these hubs in each neighborhood in case of climate emergencies. Although this is likely a larger project than would be needed in Hatfield, the goal of having places that are safe from flooding, have backup power, and are known resources for local residents would be beneficial to any community.

Accessory Dwelling Units and Infill Housing

Accessory Dwelling Units (ADUs) or accessory apartments can provide opportunities for older residents to downsize on their own property, or to offer housing for a caregiver or student who could offer assistance with yardwork or other basic tasks. The City of Northampton repealed requirements for building Accessory Dwelling Units to expand the flexibility of developing additional units on a single-family lot through "form-based" zoning. Rather than going through a special permitting process, owners of single family homes can convert them to two family homes in some neighborhoods without maximum square footage or parking requirements. Many other communities allow attached or interior accessory apartments to be developed by right in some districts, and units in detached structures such as a garage or separate "tiny home" through a Special Permit process.

⁹⁹ <u>https://www.edweek.org/leadership/a-town-put-a-senior-center-in-its-high-school-offering-a-model-for-an-aging-nation/2023/03</u>

¹⁰ <u>https://www.togethernola.org/home</u>

Home Modification Grants

The Town of Longmeadow provides a grant program that enables residents to modify their homes for safety, accessibility and general maintenance. Administered by the Longmeadow Adult Center and funded through the Community Preservation Act, this program offers grants up to \$9,999 with match requirements based on income. Grants for applicants with the lowest income levels and grants under \$1,000 do not require matching funds from homeowners. Given the need for more accessible housing, this program enables people to age in place by making their existing housing more accessible and increases the "age ready" aspects of the existing housing stock.

Computer Loans and Training Programs

Councils on Aging and libraries in many communities offer computer or tablet loan programs as well as training on how to use devices and software. A regional network called the Older Adult Digital Equity Network provides opportunities for resource providers to share training guides and ideas for engaging older residents in training opportunities.

5. Recommended Goals and Strategies

Goal 1: Provide opportunities for all Hatfield residents to continue to live in the community in their later years (and when they are starting out) by ensuring the availability of affordable and accessible housing units that enable residents to downsize and foster social connections, freeing up larger homes for young families.

- Amend current zoning to allow for the development of Accessory Apartments by right through modifying an existing single-family home, adding an addition; or building or modifying a separate accessory structure. Add provisions or incentives for making new accessory apartments accessible for people using wheelchairs.
- Ensure that zoning allows for the development of additional rental housing that is located within walking distance of amenities and services and meets standards of accessibility.
 - Review Zoning for the ability to renovate existing properties to create apartments or congregate living sites.
 - Research the feasibility of prioritizing current Hatfield residents for new affordable housing units.
- Develop partnerships with agencies that can place people who are at risk of eviction or are unhoused into safe temporary housing while they wait for subsidized housing to become available. Consider locations for temporary supported housing in Hatfield.

Goal 2: Ensure that people who are aging in place in Hatfield have access to resources and support services to ensure that their homes are safe, comfortable, energy efficient, and well-maintained.

- Connect residents to services that provide energy audits and subsidies for improvements to energy efficiency of existing homes.
- Develop a Home Modification Fund through the Town's Community Preservation Act funds to ensure that Hatfield residents have access to funds to improve the safety and accessibility of their homes.
- Provide education and resources on how to screen and select reliable contractors for home maintenance, installation of solar panels, or joining community solar programs.
- Investigate the possibility of starting or joining a nearby Village or Neighbors program which would include volunteer opportunities for active elders to help people aging in place with basic tasks such as yard work, snow shoveling, etc.
- Ensure that all older homeowners are familiar with the Property Tax Work-Off Program and eligible volunteer opportunities. Expand the program as needed to enable additional participants.

Goal 3: Pursue opportunities to expand transportation services for all community members.

- Research the feasibility of the Town joining the FRTA Access program to expand the hours and service area of on demand van transportation for older residents while opening flexible transportation services to all members of the community.
- Research possibility of volunteer driver program to cover rides during hours not covered by Senior Center vans.

Goal 4: Ensure that public buildings, parks, and sidewalks meet ADA standards of accessibility, and that recreation resources including shared use paths and parks are accessible for all ages and abilities.

- Update and/or implement the Town's ADA Self-Assessment and Transition Plan to ensure that Town-owned buildings and infrastructure meet ADA standards and are accessible to people of all abilities.
- Seek appropriate location, design and funding for a new or improved library facility or seek funding to renovate the existing facility to meet accessibility standards. Alternative sites that maintain proximity to the population center of Hatfield should also be considered for the development of a new facility.
- Develop an inventory of benches along popular walking routes and in recreational areas and seek funding to provide benches where needed.
- Develop a map of trails that includes information on accessibility, parking, and available restrooms in the area.

Goal 5: Ensure that transportation infrastructure supports all modes of transportation and users of all ages and abilities.

• Adopt a Complete Streets Policy and seek funding to develop a Complete Streets Prioritization Plan to access funding for implementing improvements to bicycle and pedestrian infrastructure.

Goal 6: Develop opportunities for activity as well as social connection and interaction through accessibility and physical connections in the built environment.

- Require that new housing developments provide places to gather as well as on-site walking loops and connections to off-site walking routes, parks or trails.
- Develop a public playground that can be used at all times by people with young children and older adults. Ensure that equipment is accessible for all abilities, and amenities such as benches and accessible picnic tables are in place to accommodate people with wheelchairs.
- Research the cost, potential locations, and feasibility of developing a Town Community Center which would indoor recreation space and programming for people of all ages (a Senior Center as well as space for teens).

Goal 7: Create programs and activities that encourage intergenerational connections and collaboration.

• Develop recreational programming that can be attended by people of all ages such as walking groups (taking advantage of local hiking trails and walking routes), trivia nights or other programming at the library, or volunteer opportunities such as technology training. Involve older adults in planning for recreational and educational programs.

Goal 8: Build on the Town's agricultural culture and economy by connecting farms with the school and Senior Center and other institutions to promote the farming culture of the community and to improve health with locally grown fresh food.

- Implement a Farm to School program to link local farms to schools, encourage kids to farm.
- Partner with CISA and local farms to offer senior fam shares to all older residents.

Goal 9: Ensure the safety of all residents, including older adults and people with dementia, through multi-sectoral partnerships and programming.

- Work with emergency personnel to develop a voluntary registry of where people with dementia or other health concerns live; keep files up to date and educate community about how to add themselves or family members to this list.
- Educate older adults about what to do in the case of emergency and about the Town's Critical Incident Management Plan.
 - Hold educational sessions, develop flyers for homebound older residents on what to do in case of emergency and locations of shelters.

• Collaborate with the District Attorney's office to have trainings on internet and phone scams.

Goal 10: Ensure that all residents have access to information about policies and programs that provide opportunities for health and community engagement.

- Assist older adults in acquiring equipment and training on how to use it and provide assistance with accessing low cost or free broadband service.
- Collaborate with existing community-based networks such as faith communities, civic groups, education channels, business groups, to share information and develop programming.
- Ensure that printed information including official forms or invoices and text on visual displays in public spaces has large lettering with main ideas in bold type; simple and straightforward sentences and simple language; and is available in multiple languages as needed.

Goal 11: Build awareness, acceptance, and a culture of support for people living with dementia and the people who care for them.

- Work with partners such as the Alzheimer's Association to offer and connect people to trainings on how to recognize signs of dementia and communicate with people with dementia for all leaders and staff of municipal departments, transit and volunteer drivers, library, businesses, banks, faith communities and other sectors that are public facing.
- Identify and reach out to people with dementia and family care givers to connect them with support programs and opportunities for meeting with other caregivers and people with dementia. Re-start the caregiver support program at the COA if there is interest.
- Meaningfully engage people with dementia in developing programs and services such as support groups or memory cafes at the Senior Center, Library and other locations in the community.
- Develop a Dementia Awareness committee to implement trainings and a public awareness campaign about dementia.
- Recruit volunteers to become Dementia Friends Champions who will provide trainings for community groups and neighbors.

Age and Dementia Friendly Action Plan for Hatfield

Housing

Goal 1: Provide opportunities for all Hatfield residents to continue to live in the community in their later years by ensuring the availability of affordable and accessible housing units that enable residents to downsize and foster social connections.

Actio	ons	Lead Entity/ Partners	Metrics	Priority
1.1	Amend current zoning to create a streamlined permitting process that allows for the development of attached or detached Accessory Apartments and/or two-family homes in some districts.	Planning Board; consultants/PVPC	Accessory Apartment bylaws in place	High
1.2	 Ensure that zoning allows for the development of additional rental housing that is located within walking distance of amenities and services and meets standards of accessibility. Review Zoning for the ability to renovate existing properties to create apartments or congregate living sites. Research the feasibility of prioritizing current Hatfield residents for new affordable housing units. 	Planning Board; consultants/PVPC	Zoning Review, GIS map of developable property	High (regulatory review is underway)
1.3	Develop partnerships with agencies that can place people who are at risk of eviction or are unhoused into safe temporary housing while they wait for subsidized housing to become available. Consider locations for temporary supported housing in Hatfield.	Senior Center/COA	Agencies or locations identified to help with transitional housing.	High

	Goal 2: Ensure that people who are aging in place in Hatfield have access to resources and support services to ensure that their homes are safe, comfortable, energy-efficient, and well-maintained.				
2.1	Develop a Home Modification Fund through the Town's Community Preservation Act funds to ensure that Hatfield residents have access to funds to improve the safety and accessibility of their homes.	COA, CPC	Hatfield Home Modification Fund in place	High	
2.2	Connect residents to services that provide energy audits and subsidies for improvements to energy efficiency of existing homes.	Library, COA	Information session; pamphlet with information on subsidies	Medium	
2.3	Provide education and resources on how to screen and select reliable contractors for home maintenance, installation of solar panels, or joining community solar programs.	Library; contractors (?)	Education programs; informational flyers or other materials	Medium	
2.4	Investigate the possibility of starting or joining a nearby Village or Neighbors program which would include volunteer opportunities for active elders to help people aging in place with basic tasks such as yard work, snow shoveling, etc.	Volunteer lead; COA for information sessions	Informational program about Neighbors programs	High	
2.5	Ensure that all older homeowners are familiar with the Property Tax Work-Off Program and eligible volunteer opportunities. Expand the program as needed to enable additional participants.	Senior Center, Municipal departments	# of participants in the program; # of spots available	High	

Transportation, Buildings and Outdoor Spaces

Goal 3 Pursue opportunities to expand transportation services for all community members.					
	Actions	Lead Entity/ Partners	Metrics	Priority	
3.1	Research the feasibility of the Town joining the FRTA Access program to expand the hours and service area of on demand van transportation for older residents while opening flexible transportation services to all members of the community.	Town Administrator; Planner; FRTA	Meeting scheduled with FRTA; information provided to Selectboard	Medium	
3.2	Research possibility of volunteer driver program to cover rides during hours not covered by Senior Center vans.	Village network for rides in personal vehicles	Volunteer ride service in place	Medium	
Goal 4: Ensure that public buildings, parks, and sidewalks meet ADA standards of accessibility, and that recreation resources including shared use paths and parks are accessible for all ages and abilities.					
	Actions	Lead Entity/ Partners	Metrics	Priority	
4.1	Update and/or implement the Town's ADA Self-Assessment and Transition Plan to ensure that Town-owned buildings and infrastructure meet ADA standards and are accessible to people of all abilities.	ADA Coordinator; Planner; Commission on Disabilities	Updated ADA Self- Assessment and Transition Plan	High	
4.2	Seek appropriate location, design and funding for a new or improved library facility or seek funding to renovate the existing facility to meet accessibility standards. Alternative sites that maintain proximity to the population center of Hatfield should also be considered for the development of a new facility.	Library; residents to advocate	Funding to plan for new or improved library	High	
4.3	Develop an inventory of benches along popular walking routes and in recreational areas and seek funding to provide benches	Town Planner	Map and inventory of walking routes and bench	High	

4.4	Develop a map of trails that includes information on accessibility, parking, and available restrooms in the area.	Town Planner/Consultant	Map of trails with accessibility, parking and restrooms	Medium
Goa	Goal 5: Ensure that transportation infrastructure supports all modes of transportation and users of all ages and abilities.			
	Actions	Load Entity/ Dartners	Matuias	n · · ·
	Actions	Lead Entity/ Partners	Metrics	Priority

Social Connection, Access, Equity and Inclusion

Goal 6: Develop opportunities for activity as well as social connection and interaction through accessibility and physical connections in the built environment.

	Actions	Lead Entity/ Partners	Metrics	Priority
6.1	Require that new housing developments provide places to gather as well as on-site walking loops and connections to off- site walking routes, parks or trails.	Planning Board/Consultant	Zoning changes	Medium
6.2	Develop a public playground that can be used at all times by people with young children and older adults. Ensure that equipment is accessible for all abilities, and amenities such as benches and accessible picnic tables are in place to accommodate people with wheelchairs.	Planner, Town administrator	Plan for playground, including benches and other amenities for older adults	Medium

6.3	Research the cost, potential locations, and feasibility of developing a Town Community Center which would indoor recreation space and programming for people of all ages (a Senior Center as well as space for teens).	COA, Town Administrator, Schools	Feasibility Study developed	High
Goal 7: Create programs and activities that encourage intergenerational connections and collaboration.				D • • •
	Actions	Lead Entity/ Partners	Metrics	Priority
7.1	Develop recreational programming that can be attended by people of all ages such as walking groups (taking advantage of local hiking trails and walking routes), trivia nights or other programming at the library, or volunteer opportunities such as	Recreation Committee, COA	Zoning changes	High

Health and Community Services

Goal 8: Build on the Town's agricultural culture and economy by connecting farms with the school and Senior Center and other institutions to promote the farming culture of the community and to improve health with locally grown fresh food.

Actio	ons	Lead Entity/ Partners	Metrics	Priority
8.1	Implement a Farm to School program to link local farms to schools, encourage kids to farm.	COA, CISA, local farms, school	Farm to School or agreement with Senior Center in place	High
8.2	Partner with CISA and local farms to offer senior fam shares to all older residents.	CISA, Senior Center, local farms	Senior Farm Share program in place	High
8.3	Seek funding to provide respite care and additional supports for caregivers and people living with dementia.	Senior Center; caregivers; volunteers or	Respite program in place; other programs	High

	paid staff trained to care for people with dementia	in place for caregivers and people with dementia	
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Public Safety

Goal 9: Ensure the safety of all residents, including older adults and people with dementia, through multi-sectoral partnerships and programming.

Actio	ons	Lead Entity/ Partners	Metrics	Priority
9.1	Restart a Triad or SALT (Seniors and Law Enforcement Together) to ensure ongoing cooperation and coordination between the Senior Center, COA, police and fire departments	COA, Police, Fire Departments	Triad or SALT program in place	High
9.2	Work with emergency personnel to develop a voluntary registry of where people with dementia or other health concerns live; keep files up to date and educate community about how to add themselves or family members to this list.	COA; Police and Fire Departments	Persons at Risk registry	High
9.3	 Educate older adults about what to do in the case of emergency and about the Town's Critical Incident Management Plan. Hold educational sessions, develop flyers for homebound older residents on what to do in case of emergency and locations of shelters. 	Police and Fire Departments, COA; management companies for subsidized housing	Educational programs	High
9.4	Collaborate with the District Attorney's office to have trainings on internet and phone scams.	COA, Office of Consumer Protection, DA's Office; Library	Trainings with DA's office	Ongoing

Communication, Information and Technology

Goal 10: Ensure that all residents have access to information about policies and programs that provide opportunities for health and community engagement.

	Actions	Lead Entity/ Partners	Metrics	Priority
10.1	Assist older adults in acquiring equipment and training on how to use it and provide assistance with accessing low cost or free broadband service.	Senior Center, Library, Schools	# of people trained, laptops or tablets for loan	High
10.2	Collaborate with existing community-based networks such as faith communities, civic groups, education channels, business groups, to share information and develop programming.	Faith communities, Senior Center, civic groups	# of outlets # of postings # joint programs	High
10.3	Ensure that printed information – including official forms or invoices and text on visual displays in public spaces - has large lettering with main ideas in bold type; simple and straightforward sentences and simple language; and is available in multiple languages as needed.	Municipal Departments	Policy or memo about lettering; implementation of policy	Medium

Dementia Friendly Community Strategies

Goal 1	Goal 11: Build awareness, acceptance, and a culture of support for people living with dementia and the people who care for them.				
Action	15	Lead Entity/ Partners	Metrics	Priority	
11.1	Work with partners such as the Alzheimer's Association to offer and connect people to trainings on how to recognize signs of dementia and communicate with people with dementia for all leaders and staff of municipal departments, transit and volunteer	Senior Center, Alzheimer's Association	# of trainings	High	

	drivers, library, businesses, banks, faith communities and other sectors that are public facing.			
11.2	Identify and reach out to people with dementia and family care givers to connect them with support programs and opportunities for meeting with other caregivers and people with dementia. Re-start the caregiver support program at the COA if there is interest.	Senior Center, Alzheimer's Association, Dementia Friends	Caregiver support programs available; # of people contacted	High
11.3	Meaningfully engage people with dementia in developing programs and services such as support groups or memory cafes at the Senior Center, Library and other locations in the community.	Senior Center, Library, Alzheimer's Association	# programs; people with dementia involved	Medium
11.4	Develop a Dementia Awareness committee to implement trainings and a public awareness campaign about dementia.	Senior Center, Library, Alzheimer's Association	Committee in place	Medium
11.5	Recruit volunteers to become Dementia Friends Champions who will provide trainings for community groups and neighbors.	Senior Center, Jewish Family & Children's Services; schools	# Dementia Friends and DF Champions	Medium

Economic Development

1. Introduction

Chapter Overview

The Economic Development element of Hatfield's comprehensive plan meticulously evaluates the town's labor market, business landscape, and revenue streams. It synthesizes community feedback, highlights innovative practices from other regions, and sets forth strategic goals to realize the town's vision for 2040. By thoroughly assessing current economic conditions and engaging residents, the chapter aims to capitalize on opportunities and mitigate challenges. Through strategic zoning, streamlined permitting, and targeted infrastructure enhancements, Hatfield can proactively attract desirable businesses and expand its commercial base while preserving its cherished rural character.

Connecting Themes

Themes related to economic development that emerged from community engagement activities included:

- Maintain the rural character of Hatfield while also supporting existing businesses.
- Agriculture is still a strong economic sector, but farmers face challenges such as the high cost of land, extreme weather, and difficulty accessing resources.
- Ideally, the Town Center would be a node of small business activity that serves local residents; however, its location in a flood zone is a concern.
- Larger-scale commercial and industrial uses can be directed to the existing industrial land and along Route 5/10 and North Hatfield Road.
- Small, local businesses need support and resources.
- Local businesses can continue to be connected to the town through their participation in events and local initiatives. There is a Hatfield Business Association with an on-line presence.

2. Existing Conditions

Hatfield is a rural-residential community on the Connecticut River in Western Massachusetts with significant agricultural activity and a small manufacturing base. More than one third (37%) of Hatfield's acreage is classified as prime farmland. The Town is also located adjacent to several regional employment centers, with most Hatfield residents working outside of town boundaries.

Labor and Employment

Hatfield is a small town of 3,330 people, of which 1,769 are in the labor force. The unemployment rate is currently very low, at 3.1%. The two most recent national economic downturns (in 2008-10 and 2020) are reflected in Hatfield's data.

	Labor	Employed	Unemployed	Residents'
Year	Force	Residents	Residents	Unemployment Rate
2010	1736	1617	119	6.9%
2015	1770	1687	83	4.7%
2020	1733	1589	144	8.3%
2021	1782	1694	88	4.9%
2022	1769	1714	55	3.1%

Table 1: Labor Force and Employment for Hatfield Residents

Source: MA Executive Office of Labor and Workforce Development

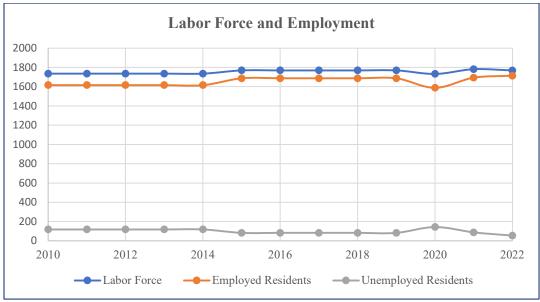


Table 2: Labor Force and Employment

Source: MA Executive Office of Labor and Workforce Development

Like other communities in the region, Hatfield saw unemployment rise sharply during the economic shutdown implemented in 2020 during the COVID-19 pandemic, but it has recovered to an even lower unemployment rate than previously. Sometimes this occurs because some residents may technically "leave" the labor force and therefore their unemployment is not being counted, but in Hatfield's case, the population and the labor force have remained stable.

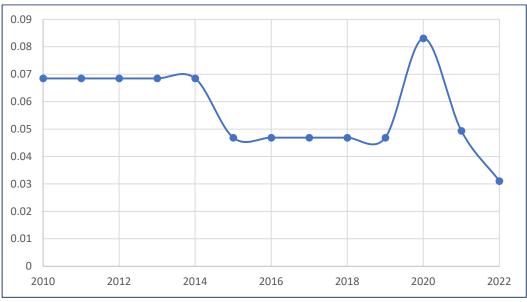


 Table 3: Hatfield Unemployment Rate

Source: MA Executive Office of Labor and Workforce Development

The highest wages in Hatfield are in the information sector, with second highest wages in wholesale trade, followed by construction, transportation/warehousing, and manufacturing. Wholesale trade also employs the largest number of people, with two C&S Wholesale Grocers facilities and other wholesale enterprises in town. Like many other communities in the region, Hatfield also has a high number of health care and social assistance businesses and organizations (18 total) but has a wide range of other types of businesses as well.

Other than C&S, employers in Hatfield are relatively small. There is a variety of economic activity, including agricultural activities, retail, personal care, and manufacturing. However, the town does tend to attract wholesalers with warehouse and distribution needs, particularly in the agriculture and food industries and the homebuilding industry. Once number of employee information is provided by the Department of Economic Research Labor Market Information, Table 5 Major Employers in Hatfield should include Newell Brands – Yankee Candle as they are a new business that took over the 360,000-square foot former C&S Building at 142 Elm Street.

	No. of	Average Monthly	Average
Description	Establishments	Employment	Weekly Wages
Information	6	73	\$ 1,786
Wholesale Trade	15	980	\$ 1,208
Construction	19	114	\$ 1,188
Transportation and Warehousing	7	71	\$ 1,135
Non-Durable Goods Manufacturing	4	65	\$ 1,025
Manufacturing	6	73	\$ 999
Retail Trade	10	73	\$ 977
Administrative and Waste Services	15	78	\$ 966
Agriculture, Forestry, Fishing and Hunting	4	31	\$ 848
Health Care and Social Assistance	18	142	\$ 723
Professional and Technical Services	11	80	\$ 699
Other Services, Except Public Administration	8	35	\$ 647
Accommodation and Food Services	7	48	\$ 414
Total, All Industries	137	1973	\$ 1,068

Table 4: Hatfield Employment by Industry

Source: MA Executive Office of Labor and Workforce Development, 2021

Table 5: Major	r Employers in Hatfield
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Commence	Address		Number of
Company name	Address	Area	employees
C & S Wholesale Grocers			
Inc	N Hatfield Rd	Hatfield	1,000-4,999
Hatfield Public Schools	School St	Hatfield	50-99
		W.	
Brockway-Smith	Chestnut St	Hatfield	50-99
TurfCare Supply	Dwight St	Hatfield	50-99
Helina Agri-Enterprises	Elm St	Hatfield	20-49
Cooley Dickinson Medical		W.	
Group	West St	Hatfield	20-49
		W.	
R K Miles	West St	Hatfield	20-49
Fishtales Bar & Grill	School St	Hatfield	20-49
Myers Produce	N Hatfield Rd	Hatfield	20-49
		W.	
G & S Industrial	Linseed Rd	Hatfield	20-49
Town of Hatfield	School St	Hatfield	20-49
Spring Valley Landscape	Elm St # 1	Hatfield	20-49
		W.	
Stiebel Eltron Inc	West St	Hatfield	20-49
Northeast Solar	Elm St	Hatfield	20-49

Szawlowski Potato Farm	Main St	Hatfield	20-49
Verizon NE Service Depot	N Hatfield Rd	Hatfield	20-49
		W.	
Prospect Meadow Farms	West St	Hatfield	20-49
Conners Der miter auf of Food annie Der anneh Lakar Manhat Lufarmention			

Source: Department of Economic Research Labor Market Information | Mass.gov

Employer information is provided by Data Axle, Omaha, NE © 2023 All Rights *Reserved. Edited and Updated by Pioneer Valley Planning Commission*

Workforce Composition and Commuting Patterns

Most Hatfield residents, some 1,369, travel to jobs outside of Hatfield. With a total of 1,926 jobs available within Town, only 161 of these jobs are held by Hatfield residents. The remaining 1,765 jobs are held by workers commuting to Hatfield (see Figure 1 below).

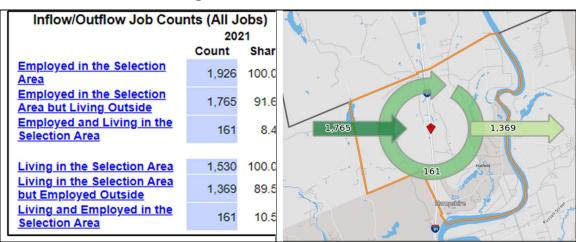


Figure 1: Inflow / Outflow for Jobs

The most common origin of workers coming to jobs in Hatfield is the city of Springfield, followed by Holyoke, Northampton, and Chicopee. Many workers also commute from Greenfield, Easthampton, Westfield and even Worcester. However, most employees live somewhere other than these nearby population centers: a full 52.6% live in other locations spread out across Massachusetts (See Table 6 below).

Community	Count	Share
All Places	2081	100%
Springfield, MA	216	10.4%
Holyoke, MA	132	6.3%
Northampton, MA	126	6.1%
Chicopee, MA	108	5.2%
Greenfield, MA	99	4.8%
Easthampton, MA	84	4.0%
Hatfield, MA	74	3.6%
Westfield, MA	62	3.0%
Worcester, MA	52	2.5%
Turners Falls, MA	33	1.6%
All Other Locations	1095	52.6%

Table 6: Jobs Counts by Where Hatfield Workers Live

Conversely, many Hatfield residents travel to and are employed in the same urban centers from which local workers commute. This includes Northampton (by far the most common), Springfield, and Greenfield. Some Hatfield residents commute longer distances, such as Boston, and some work in neighboring towns, such as Northampton and Hadley. Many (592 or 39%) travel to a variety of other workplaces.

Tax Revenues

Hatfield's tax revenues are primarily derived from residential properties. Commercial properties contribute about 15% of the town's tax revenues, while industrial uses contribute about 3%. The proportion of business-related revenues has fluctuated slightly over time, but in general is less than it was in the mid-2010s. The town has 742 acres of municipally-owned land and nearly 3,000 acres of land under Chapter 61. Thus, over one-third of Hatfield's total acreage (10,752 ac.) is tax exempt.

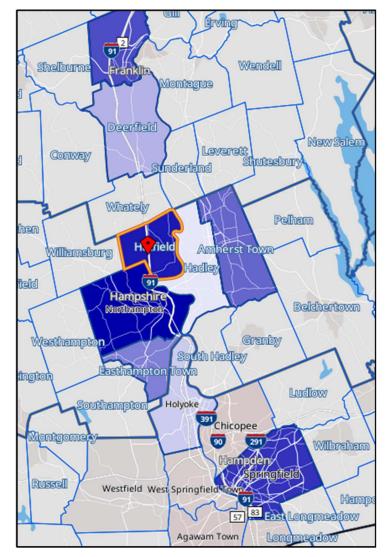


Figure 2: Locations Where Hatfield Residents Work

Source: 2020 US Census¹, "On the Map"

General Business Environment

Hatfield's location along Interstate Route 91 and less than 20 miles north of the Massachusetts Turnpike has made it a destination for certain types of businesses, particularly those utilizing highway transportation and/or requiring high numbers of employees (such as C&S Grocers, Brockway-Smith, and others) or needing to draw many customers (such as Danco Modern or Pioneer Valley Indoor Karting). The combination of highway access with a rural location has also drawn businesses associated with homebuilding and recreational vehicles.

¹ Longitudinal Employer-Household Dynamics (LEHD) Appendix B – Economic Development

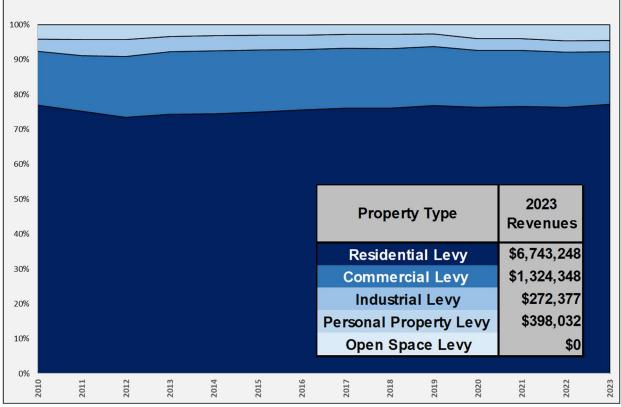


Figure 3: Town of Hatfield Tax Revenue Sources

Source: Tax Levies by Class (state.ma.us) Division of Local Services, DOR

This commercial growth, which has been expanding north along Route 5/10 from Northampton for some time, has led the Town of Hatfield to consider expanding public utilities to serve these developing areas. In 2021 the Town initiated work on an extension of water and sewer along the Route 5/10 corridor as far as Rocks Road. There remains strong sentiment to prevent Route 5/10 from developing into a commercial strip devoid of local character, but at the same time, there is a need for tax revenues to support existing municipal infrastructure. Much of the remaining commercial and industrial land elsewhere in Hatfield is subject to environmental constraints, limiting potential in those locations.

In contrast to the highway corridor and commercial environment that bisects the Town, Hatfield village center retains a rural atmosphere. The village center area is home to municipal services and a couple of small businesses. While other small towns have experienced the impact, both positive and negative, of major arterials running directly through their centers, the Town's village center has been spared this outcome. This has resulted in a secluded center that is desirable for town services and residential uses but does not support significant commercial activity. The town also does not have a sufficient customer base within its own borders to support additional services in the town center, such as a bank or more shopping opportunities, and it faces overwhelming competition for these amenities in nearby Northampton. The Town has generally not engaged with local businesses and does not conduct outreach or business retention activities. The Hatfield Business Association (<u>Hatfield Business</u> <u>Association (HBA)</u>) was created by a local resident and business owner and has a comprehensive list of local businesses and resources.

Economic development trends

The Town has attracted several significant business sectors, including wholesaling, logistics, as well as housing construction and remodeling. Agriculture is a sector of its own and underlies many of the other businesses, most recently with a fruit and vegetable distributor relocating from Hadley (Myers Produce). These kinds of uses may well continue to grow and farm-based businesses may grow as well, with additional on-farm sales and agriculture-related industry. As noted in the Farm chapter of this Comprehensive Plan, however, this sector is beset by numerous challenges, including climate change (both extremes in heat and downpours), restricted land access for new farmers in particular, decreased soil fertility, and limited labor supply. Overcoming these challenges will be key to ensuring this sector continues to thrive in Hatfield.

With the aging and possibly declining population and potential worker shortages, other additional uses might be ideal for Hatfield's stretch of rural and agricultural highway. Already several health care operations are located on Route 5/10, including a Mass General Brigham/Cooley-Dickinson Hospital outpatient facility, home health care businesses, and a behavioral health center. Medical office buildings and services are increasing in other parts of the region, with a general trend toward economic growth in the health care sector.² There is also a need for senior living facilities. These types of uses may find Hatfield suitable as land in more densely settled areas of the Pioneer Valley is no longer available.

Another significant trend is in renewable energy and green jobs. Some emerging strategies that could help the traditional resource economy adapt to the changing global market and sustain itself over the long term include production and distribution of renewable energy, such as wind, solar, methane from livestock, and geothermal; and green jobs in former rural manufacturing plants converted to produce, distribute, install, and maintain green energy facilities and distribution networks. As an example, entrepreneurs seeking to site wind farms and solar installations also give consideration for the related manufacturing and maintenance facilities, potentially providing new higher-paying jobs. Most of these strategies, however, will probably require changes to existing zoning and development codes.³

² The healthcare market is experiencing significant growth, with projected revenue of <u>\$57.86 billion</u> in 2023. This upward trend is expected to continue, as the market is predicted to exhibit an annual growth rate of <u>10.4%</u> (CAGR 2023-2027), reaching a projected volume of <u>\$85.95 billion</u> by 2027. <u>Medical Office Buildings As An</u> Investment (forbes.com)

Medical Office Building Trends: Part of a Bigger Healthcare Picture | Mortenson

³ Essential Smart Growth Fixes for Rural Planning, Zoning, and Development Codes (epa.gov) Appendix B – Economic Development

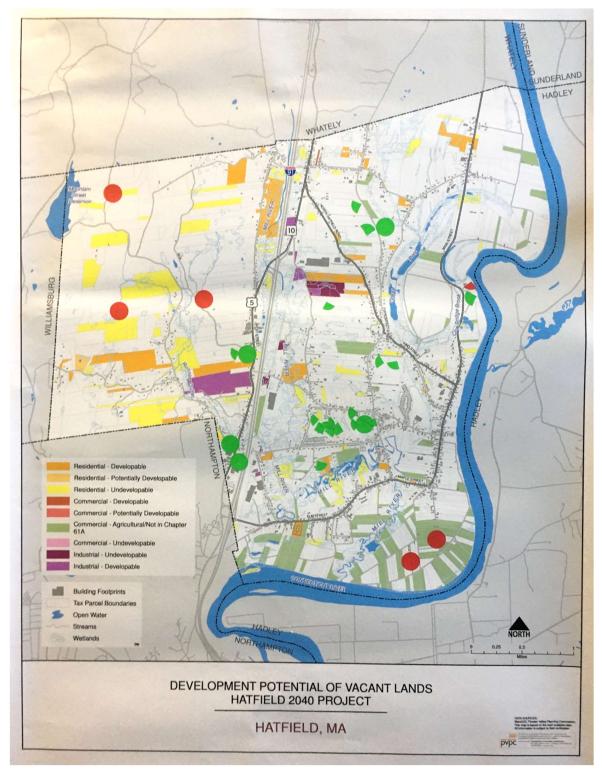


Figure 4: Development Potential of Vacant Lands – 2023

The map above shows development potential as envisioned by local residents at an engagement event in 2023. Large red circles indicate areas not considered appropriate for development, while green circles are located in areas regarded as conducive to development. Participants designated commercial/industrial areas along the southern half of Route 5/10 as desirable for growth and development.

3. Challenges and Opportunities

The Town of Hatfield has unique challenges and opportunities as an agricultural community that straddles an interstate highway, with its town center and many other areas located in the floodplain and about a third of its land in more upland areas. It is located just north of the thriving college town and urban center of Northampton and is a gateway to the more rural parts of the Pioneer Valley region. The dense development along Route 5/10 in Northampton has crept northward to Hatfield's border and beyond and has been limited only by lack of infrastructure. As a transitional community between urban/suburban and truly rural land uses and activities, Hatfield faces difficult issues and decisions. Some of these are outlined below.

Zoning Issues

Patchwork zoning throughout town, including Route 5/10 corridor

Many parcels in town were zoned according to their existing uses at the time of establishing the zoning map; however, some uses have changed, and others have not but exist as "islands," particularly commercial and industrial uses within the Rural Residential area. The Town may consider re-evaluating the zoning to fit the desired future uses in these areas as well as the ability of the land to support them. As discussed below, many of the Industrial zones are in wetlands or other unsuitable land. An area along North Hatfield Road was proposed for an industrial park in the 2010s and was rezoned to light industrial. Additionally, the Route 5/10 corridor is a patchwork of Residential, Business, Light Industrial, Industrial, and areas with Mixed Use Overlay Districts. There have been proposals to rezone Route 5/10 to entirely commercial; however, there are existing residential areas along this corridor that do not fit this designation.

The zoning along Route 5/10 has continued to evolve in a piecemeal fashion over the past several years. Various rezoning requests have come before the Town from individual owners, primarily applications to rezone Rural Residential land to Light Industrial. The Town is now extending water and sewer north along Route 5/10, and the pressure for development will increase on these properties.

Environmentally sensitive and flood prone lands zoned for intensive uses

Much of the land currently zoned Industrial, Light Industrial and Town Center Business is in floodplains or wetlands. This includes the industrially zoned land along the railroad tracks that is almost entirely wetlands. This area has not attracted development, and the rail sidings are used only minimally. High water tables in this corridor have also slowed the new water and sewer extension project. Since commercial/industrial and residential tax rates are currently the same in Hatfield (\$13.67 per thousand), this has not been an issue for the landowners.

Agriculture

Although agricultural activities have existed in Hatfield for centuries, the continued health of this sector will require support. Larger, highly mechanized operations exist alongside smaller farms, and wholesale activities next to local farmstands. The larger farms will need state-Appendix B – Economic Development 11 level assistance as well as local support regarding access, local bylaws, and other factors. Smaller farms may need assistance with setting up a farmers' market and/or community-supported agriculture activities.

A relatively newer trend is for farming operations to broaden their revenue sources, including catering activities and tourism. Prospect Meadow Farm has a farm store, café, catering business, CSA farm share, and a vocational services program, among other initiatives. Black Birch Vineyard grows a variety of grapes, makes wine, and raises sheep, while also hosting tours, tastings, and retail operations. These kinds of activities benefit farmers but also create jobs, generate more revenue for the community, and draw outside visitors.

Utilities in commercial/industrial areas

There is sufficient water service along the Route 5/10 corridor, as the Town has previously installed improvements to support the operations of major employers, including Brockway Smith and C&S Grocers. These included a water tank and a loop system, both of which resulted in increased water pressure and fire protection. Additional water service and a sewer extension was approved at Town Meeting in the spring of 2023 and are under construction for Route 5/10 from Linseed Road/Church Ave north to Rocks Road. The project has faced delays and cost increases, but will ultimately allow Brockway-Smith to expand their footprint and create 10 new jobs. It will also open up opportunities for other large developments, large and small, and will most likely result in new rezoning requests.

A map of existing utilities can be found in the Facilities and Services Chapter of this plan.

Need for tax revenue to support local services

A significant incentive for the Town to allow and encourage commercial and industrial activity is the return in tax revenue, which is higher relative to land area than for residential or agricultural land uses. However, this needs to be balanced with the residents' desire to maintain rural character. Certain types of economic growth, well-designed and sited, can contribute to the town's budget while not creating strip commercial development along a rural route.

Workforce needs

While major employers now exist in Hatfield, and others may also choose to locate in town, the availability of a suitable workforce is an important factor. As described earlier in this chapter, most Hatfield residents travel out of town for work. Hatfield workers commute from a wide variety of locations, many of which are quite distant. While the town is situated in the Five College region, these college graduates are not generally tapped for employment in the logistics, advanced manufacturing, and service industries that are located in Hatfield. With local and regional populations generally staying level or declining, this will be an ongoing challenge.

Agrivoltaics

The emergence of agrivoltaics and the state's support of such dual use of farmlands presents a potentially important opportunity for Hatfield.

4. Examples from other Communities

Managing Rural Highway Corridors

Harvard, MA Design Guidelines (harvard_commercial_design_guidelines_10-3-2016_3.pdf)
To foster growth that enhances the scenic beauty and built environment of Harvard, the Town worked to develop guidelines that promote principles of good design in new development. The Commercial Design Guidelines apply only to the Commercial District (C District), the area located along Ayer Road north of Route 2 to about one-quarter mile south of the Ayer town line. These Guidelines specifically apply to development proposals in the C District for projects that require a building permit for new construction, an addition, or exterior alteration, or are subject to site plan review and/or a special permit granted by the Planning Board. The document provides essential information to professional engineers, designers, and land developers to understand the type of development Harvard wishes to promote for the C District and overall helps provide for a smooth approval process by local boards and officials.

Prior to issuance of the guidelines, the Town conducted a detailed assessment of existing conditions in the Commercial District and the zoning bylaw standards that promoted unsustainable development. This included an inventory and examination of existing conditions along the roadway and descriptions of how to implement the guidelines.

Prior to establishment of the design guidelines, the existing rural landscape in Harvard, MA was similar to many other rural Massachusetts and New England towns. These images below show Ayer Road in Harvard just off of the Route 2 exit. The pictures evoke Route 5/10 in Hatfield, with vacant and less maintained buildings and historic structures amidst a backdrop of woods and meadows.

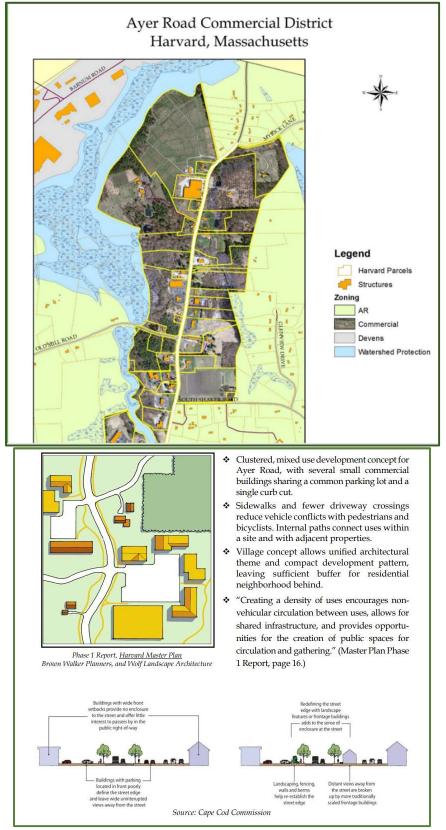


Figure 5: Harvard, MA Commercial District Assessment

From <u>DESIGN GUIDELINES FOR COMMERCIAL DEVELOPMENT (harvard.ma.us)</u>, p.3

View heading north from Route 2:



View heading west toward Route 2 on-ramp in Harvard, MA from Route 111:



The following images show results derived from using the local Design Guidelines on this same street (Route 111). These new developments have provided jobs, tax revenues, and services, and they enhance rather than detract from the rural highway environs.

Two photos heading north on Route 111:





Closer view of development; note that it extends quite deeply beyond the highway:



Bennington, VT

In 2002, the Town of Bennington decided to tackle the commercial strip problem head-on with the development of design standards for its Planned Commercial district. Several new buildings had recently been built in the district that epitomized commercial strip architecture, and the consensus in the community was that standards were needed to direct new growth.

The standards, approved in 2004, brought together in one document a variety of provisions that were already in the town's zoning bylaw, including requirements for sidewalks, landscaping, and parking. It also added new provisions related to architectural design, building materials, and window placement. Most important, the standards incorporated a series of drawings that illustrated exactly what a developer had to do in order to meet the standards, with elements in each drawing labeled and keyed to specific requirements in the text (similar to the Harvard, MA example).

There have been a variety of development projects in the district in the five years since adoption of the design standards. The difference that the standards have made is clear to see, with much more attractive and pedestrian-friendly designs in recent years than before the standards were adopted. Both developers and the Development Review Board have expressed appreciation for the clarity and specificity of the standards, as they make the process quite straightforward. While it will take decades to replace all of the auto-oriented development in the district with more compact and well-designed projects, the process is now well underway.

The lesson here was that high-quality illustrations are absolutely essential to the success of design standards, as they offer much more clarity and certainty than text alone. Sources: <u>Commercial Design Control District – Bennington – Vermont Natural Resources</u> <u>Council (vnrc.org)</u>

Charlotte, VT

As roadside development spread along the Route 7 corridor in the communities neighboring Charlotte, residents decided to protect the views and character of their community and avoid excessive strip development. They implemented an Access Management strategy to ensure that Route 7 remained a functioning major arterial rather than a congested access for scattered businesses and housing developments. The <u>Access Management Standards</u> were incorporated into their zoning bylaw as general regulations, which subjected property with frontage on Route 7 to special access standards.

Access Management - Charlotte - Vermont Natural Resources Council (vnrc.org)

Framingham/Natick, MA Highway Overlay District

Clearly the region enjoys considerable economic benefits as an outcome of this substantial development. However, it is equally apparent that benefits to be realized must be carefully weighed concurrently with the adverse impacts such growth can also engender. Rapid development in the absence of an overall growth strategy is likely to result in an erosion of environmental quality, traffic congestion, declining air quality, visual discordance, an impoverished landscape and undue pressure on water supply networks and sewer system capacity.

Source: Controlling Strip Development: Case Studies From New England - 1998 APA Proceedings (quaytest.net)

Ferndale, WA

A successful approach to typical retail development was developed in 2008 by the City of Ferndale, WA. Established by ordinance, this three-pronged <u>approach to retail development</u>, <u>including big-box stores</u>, includes a scorecard called EAGLE: Energy efficiency, Advanced technologies, Greater good, Low impact, Economic development.

Typical highway commercial development is appropriately oriented towards automobile traffic, but often erases the natural character of the landscape and reduces highway functionality by creating too many closely-spaced intersections. Auto-oriented development also is typically lower density, consuming development acres less efficiently and yielding lower property tax revenues per acre. This style of development fragments habitat and imposes higher infrastructure maintenance costs onto communities. However, with care, highway commercial development can be made more context-sensitive, attractive, ecological, efficient and even more bikeable/walkable.

Large national chain stores are far more economically fragile than previously anticipated and are vulnerable to growing e-commerce. Unlike rows of interchangeable national chains on the edge of town, a more diverse ecosystem of small locally owned businesses can rapidly respond to consumer need while offering experiences that can't be replicated through e-commerce. Before cities zone more land for large format development, focused work to support smaller, more accessible and high-quality retail is a must, along with easing the zoning that often exclusively mandates suburban-style big box and strip-mall developments. These zoning districts often require extensive areas of parking and large setbacks from the Appendix B – Economic Development 18

road while prohibiting common non-retail uses, including residential, light industrial, and office space. Source: Best Practice | GreenstepCities (state.mn.us)

Home Occupations and Farm-Based Businesses

Farm-based businesses are allowed in every zoning district in Hatfield. Along with farming itself, farm stands, commercial greenhouses, and tree farms are allowed by right in all districts. Other farm businesses, such as retail or wholesale operations, are allowed by Site Plan Review from the Planning Board.

Home occupations, which may or may not be agriculture-related, are allowed in all districts with varying levels of review, from Special Permit only or Site Plan review only to both Special Permit and Site Plan review, all conducted by the Planning Board.

Orange, MA – A member-based collaborative shop environment provides tools, equipment, education, and support for skill development and business incubation, enhancing individual employment value and attracting new employers to the region, while aiding those without the capital to start arts or making-based businesses.

About | LaunchSpace (launchspace-orange.com)

Town Center Vitality

Festivals and/or Pop-Up Markets

Hatfield has a good basis for cultural programming as there is a municipal Celebration Committee that supports some of the regular annual events. Plans for a large pavilion in Smith Academy Park are moving forward, and the site will be used for many community gatherings once it is constructed. Perhaps some signature events such as an art festival or market with vendors could be added to the town's annual offerings like the Luminarium. There could be funding sources such as the <u>Festivals and Projects grant</u> from the MA Cultural Council.

Mattoon Street Festival in Springfield, MA

http://www.mattoonfestival.org/

Holiday Market in Foxboro, MA

https://theprofoundmarket.com/

At the same time that cultural activities are occurring, as well as other times during the year (perhaps monthly), the town could encourage mobile vendors in the town center. Due to the lack of commercial offerings/local amenities in the community center and few available sites to develop as well as the location in the floodplain, the town could host farmers' markets, food trucks, and other vendors.

- Example of a Western MA coffee truck and espresso bar on wheels: <u>https://www.pourthingscoffee.com/</u>
- A fashion vendor in Boston: <u>http://www.fashiontruck.com/about-emily</u>

Appendix B – Economic Development

• Mobile food vendors – there are many, and here is one example: https://www.murphyspubagawam.com/mobile-catering

North Kingston, RI

The Town could allow the use of accessory buildings for commercial spaces as in North Kingston RI <u>Draft Brown Street Guidelines (northkingstownri.gov)</u> (see page 21 of document).

5. Recommended Goals and Strategies

Goal 1: Examine current town policies, such as bylaws, zoning, and taxation structure to evaluate alignment to the vision of making economy viable and sustainable in the long-term, fortifying the town's tax base.

- Develop and implement an economic incentive program that could include grant writing assistance for new businesses coming to/starting in town incentivizing small and local business generation in town, including new farm businesses that are less than 5 acres in size.
- Explore linkage between economic base, revenue growth, and revenue stability to pursue fiscal health that meets the needs of constitutents.
- Rezone Route 5 and 10 in Hatfield to allow appropriate commercial uses along the full extent of the corridor.

The existing land uses along Route 5/10 *north of the existing Business District* are primarily residential and agricultural/open space and include the North Hatfield National Register Historic District. With water and sewer infrastructure expanding to a longer section of this road, there will be pressure on the adjacent properties to develop more intensely. Rather than entertaining individual rezoning requests in a piecemeal approach, the Town should determine what uses are desired along this corridor and rezone accordingly.

• Consider extending the Mixed Use Overlay District or at least the performance and design guidelines along all of Route 5/10 corridor.

Currently, performance and design standards only apply in the mixed use zone – but these would be helpful for ALL development along the corridor. This would involve implementing performance standards and design guidelines to maintain adequate vegetation and screening; limiting access points along the highway, and providing pedestrian pathways. Many of these provisions are required within the existing Mixed Use Overlay Districts but should also apply to other areas. • Rezone vacant Industrial Districts that are in wetlands and/or floodplain to a more compatible use.

Many of the existing industrial districts are vacant and will remain so because they are not developable. To align the zoning with the reality of environmental constraints, it makes sense to rezone for possible agricultural and low-density residential use or designate these lands under a water protection overlay district.

Goal 2: Assess the potential for renewable and alternative energy production and associated manufacturing and services.

• Determine appropriate locations, siting requirements, and regulations to encourage green industry and jobs.

Examples include more sustainable agriculture practices; production and distribution of renewable energy such as wind, solar, methane from livestock, and geothermal; and green jobs in former manufacturing plants or warehouses converted to produce, distribute, install, and maintain green energy facilities and distribution networks. These approaches may require changes to existing zoning and development codes.

Goal 3: Fortify and deploy Town Hall resources to establish strong relationships with local businesses.

- Identify a staff position within Town Hall to lead coordination on economic and business development who would actively maintain business database, update website and social media, and lead organization of events/forums.
- Develop database of local business owners with their contact information so information can be shared easily with businesses.

Goal 4: Encourage temporary commercial uses in the Town Center to avoid future losses due to flooding.

• Utilize existing buildings, including accessory buildings, and existing spaces such as parking lots to host pop-up and mobile commercial offerings.

In the post-pandemic, online shopping, fast-delivery world, in-person events and retail opportunities remain compelling but must offer something that cannot be more easily obtained online. Local products, handcrafted items, and specialty foods would be a draw for residents if they are conveniently located. The ability to host temporary events and retail venues in town could provide the revitalized atmosphere that is desired in the town center, where there are few commercial buildings.

Goal 5: Understand where agricultural lands are most threatened by development and explore approaches that might allow these areas to stay in production.

Farming

1. Introduction

Chapter Overview

This chapter provides a guiding framework for the future of agriculture in Hatfield and articulates key adaptation and resiliency actions for the Town of Hatfield to undertake in support of a more robust and regenerative local agricultural sector.

Hatfield is a small community that highly values its agricultural heritage and productive landscapes. While known for growing potatoes, Hatfield's farms also produce a wide range of agricultural products including dairy, vegetables, and nursery plants. A growing number of challenges, however, threaten the future viability of farming in Hatfield. A third of Hatfield's most productive farmland is within the 100-year flood plain of the Connecticut and Mill rivers, which flood more frequently now due to climate change. Some 500 acres of farmed fields are also in probable wetlands with a frequent tendency to flood. The vast majority of currently cultivated soils all show signs of degradation after centuries of regular disturbance. And approximately 80% of Hatfield's farmland remains unprotected from the threat of future development, vulnerable to rural sprawl and a permanent loss of productivity.

The landscape of agriculture in Hatfield has changed dramatically over the last half century. In addition to navigating broad economic, technological, and social changes, farms today are now facing major challenges around shifting seasons, heavier precipitation, prolonged droughts, and higher intensity storm systems due to climate change. Hatfield farmers report that the unpredictable climate is threatening already slim margins and further increasing the risks of being financially dependent on agriculture as a source of income. The last three years, 2021-2023, have been some of the most difficult farming years in recent history, and many producers talk about the toll uncertain farm futures is taking on their mental health.

Small family farms are the economic engine of agriculture in Massachusetts. According to the 2022 USDA Census of Agriculture, 69% of farms in the state are under 50 acres and 91% are under 180 acres. 80% have agricultural sales below \$50,000 and 93% have agricultural sales below \$250,000. The average age of a principal operator is 58.7 years old. Between 2017 and 2022, the total number of farms in the state decreased by 2.1% and the total amount of land in farms decreased by 5.5%. Hampshire County fared slightly better with a slight increase in both the number of farms and the amount of land in farming, with the most gains in farms under 10 acres. Total harvested cropland in the country decreased 3%, though the average value of agricultural products per farm increased 23%. Still, current trends indicate that without careful planning, Hampshire County could still see the conversion of 3,700 acres of its best agricultural land by 2040.¹

While just 4% of Massachusetts land is active farmland, agriculture and food processing contributes \$1.3 billion in direct sales and \$13.3 billion in total economic impact² and is a key driver of cultural identity, community resilience and environmental justice. At the same time, conventional food systems and land use contribute 24% of all anthropogenic greenhouse gas emissions, making it a key leverage point for municipalities to both reduce their carbon footprint and support local food security, economic growth and environmental resource conservation. And, land-based carbon sinks are the largest resource available for drawing down carbon emissions in the atmosphere (See Figure 1). As Hatfield and other small, agriculturally-inclined communities plan for the future, valuing the importance of healthy local farm ecosystems will help to drive innovation and bolster the local agricultural economy, while protecting the lasting rural character of the town.

Connecting Themes

Climate change and other threats are requiring farms to constantly adapt to new conditions and work collaboratively with state and local governments to obtain the financial and knowledge-based support they need to continue farming. While this chapter cannot comprehensively address all the challenges identified by local producers and stakeholders, it offers recommendations and solutions that tackle the

Key Takeaways and Recommendations

The recommendations in this chapter focus on four priorities: protecting more farmland, supporting regenerative farming practices, resolving ditch and wetland conflicts, and re-activating the town Agricultural Commission. Many other ideas are also included, both on-farm climate mitigation and adaptation strategies, and additional regulatory action steps for the town to consider (See Section 4).

A thoughtful and proactive local government, along with informed and engaged residents, are integral components of any set of strategies to achieve the goals of this chapter. The next generation of farmers in Hatfield will need major public support and investment to sustain their operations and adapt their farming practices if the local agricultural culture and economy is going to continue to be a part of Hatfield's future.

¹ Hunter, M., A. Sorensen, T. Nogeire-McRae, S. Beck, S. Shutts, R. Murphy. 2022. Farms Under Threat 2040: Choosing an Abundant Future. Washington, D.C.: American Farmland Trust.

² Lopez, R., Jelliffe, J., Laughton, C. 2020. Northeast Economic Engine: Agriculture, Forest Products and Commercial Fishing. Farm Credit East.

major themes of managing climate change risks, supporting the local agricultural economy, and protecting and enhancing agricultural lands. None of these themes are unique to Hatfield, but there are steps the Town can take to address some of these challenges and demonstrate leadership in exploring bold and innovative solutions that will inform and inspire other municipalities across the state.

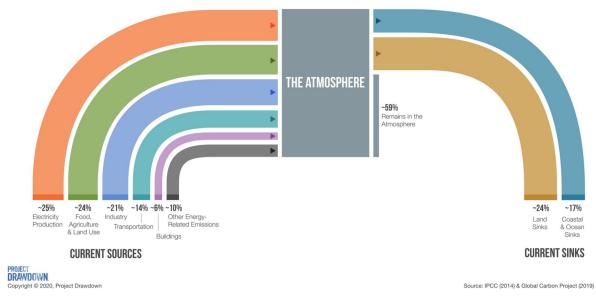


Figure 1: Emissions Sources and Natural Carbon Sinks

Source: Project Drawdown ©2020

Summary of Outreach and Public Engagement

The Executive Office of Energy and Environmental Affairs encourages public engagement throughout the Massachusetts Municipal Vulnerability Program process. Development of this chapter involved: two gatherings with Hatfield farmers in March of 2023 and 2024, a written survey that received a very low-response rate; one-on-one interviews with nine farmers during the summer of 2023 (to supplement the survey).

In the first round-table discussion (March 2, 2023), producers talked about the major challenges they are facing in their businesses. The key themes that emerged were:

- climate change and the increasingly volatile/unpredictable weather year to year
- Hatfield's defunct local ditch and drainage system that has been negatively impacted by decades of development and neglect
- decreasing soil fertility
- the challenges to implementing cover crops
- unaffordability of farmland
- unavailability of labor

• high cost of infrastructure

These themes were further explored during one-on-one interviews (via phone and inperson) with nine active Hatfield-based farmers in August and September 2023. These conversations followed a number of severe weather events over the 2023 growing season; a damaging late spring frost, followed by severe flooding along the Connecticut River and Mill River in July and early September. The outlook of many farmers during this time was less than optimistic; many were actively pursuing disaster relief assistance to cover financial losses and feeling some hopelessness about finding any improvement to their situations in the near future.

The second workshop (March 9, 2024) included informative presentations on climate change adaptation strategies with a focus on soil health, perennial cover cropping, tree crops, and agroforestry. The group of farmers and agricultural service providers in attendance reviewed the preliminary recommendations presented in this chapter and ranked them according to the strategies that would most help individual farms to adapt and survive, and the strategies that would most help agriculture as a whole to thrive in Hatfield.

Farmer's Top Ranked Priorities on their own farms:

- 1. improve drainage
- 2. improve soil health
- 3. collaborate on funding opportunities

Top Ranked Priorities for all Hatfield agriculture:

- 1. re-activate Agricultural Commission
- 2. encourage public support and advocacy
- 3. protect farmland
- 4. improve drainage
- 5. collaborate on funding opportunities

While these priorities do not represent a consensus among the farming community, input from those who were interviewed and/or attended one or both gatherings was used to deeply inform the final recommendations.

2. Existing Conditions

Background and Context to Hatfield Agriculture

The town of Hatfield, situated alongside the Connecticut River in Western Massachusetts, is home to some of the richest and most productive soils in the world.³ Multiple generations of farm families have farmed Hatfield's meadows and floodplain terraces, some of which are still in farming today.⁴ Two farms still operating today were established in the 17th century and several have been passed down through three generations or more. 37% of the town's acreage is classified as prime farmland (4,001 acres). Another 27% of the town's acreage has been classified as farmland of statewide (1,601 acres) or local (1,333 acres) importance. About a quarter (2,755 acres) of the total land in town is currently cultivated as cropland or pasture, producing corn, hay, tobacco, dairy products, vegetable, nursery, and greenhouse crops.⁵ There are currently 36 active farms with harvested cropland, 21 of which sell commodities wholesale or direct to consumer.⁶ Today, the top three crops in broadacre annual production are potatoes, corn, and hay.⁷

Hatfield (2017)	Hampshire County (2022)
 36 farms 2,755 acres of farmland 965 acres (35%) in the 100-year floodplain* Mean farm size: 97 acres 4 farms greater than 250 acres 	 718 farms 53,268 acres farmland Mean farm size: 74 acres 10.3% of farmland in Massachusetts 9.5% of farms in Massachusetts

Table 1: Agricultural Statistics for Hatfield and Hampshire County

* Based on 1980 effective FEMA flood map for Hatfield.

According to the 2017 USDA Agricultural Census, most farms in Hatfield are under 50 acres (28 farms), with just two farms harvesting more than 500 acres of cropland. The majority (21 farms) also generate less than \$50,000 annually in sales, though 7 farms report sales between \$50,000-\$249,999 and 8 farms generate more than \$250,000. There are just 17 full-time farm owners in Hatfield, and 23 part-time

³ Hatfield Reconnaissance Report, Connecticut River Valley Reconnaissance Survey, Massachusetts Heritage Landscape Inventory Program. June 2009. https://www.mass.gov/doc/hatfield/download. Accessed March 2023.

⁴ Hatfield Historical Society. May 2022. https://hatfieldfamilyfarms.weebly.com. Accessed March 2023.

⁵ USDA/NASS Cropland CROS 2016. https://croplandcros.scinet.usda.gov. Accessed March 2023.

⁶ USDA/NASS 2017 Ag Census. https://quickstats.nass.usda.gov. Accessed March 2023. The 2022 Agricultural Census Data was not yet available by zip code at the time of this report.

⁷ USDA/NASS Cropland CROS 2016. https://croplandcros.scinet.usda.gov. Accessed March 2023.

owners. 32 individuals list farming as their primary occupation, and 83 individuals count themselves as producers engaged in farming at least part-time.

Although the number of farms and acres in production in Hatfield has significantly declined over the last 50 years, agricultural activities remain a prominent feature of the town, and protection of working farmland and the town's agricultural economy is consistently named a top priority by residents concerned about the pace and impact of development.⁸

Key Crops and Farm Industry

Since the early 1970s, Hatfield's farmland has been prized for potato growing. Local production increased after the closure of the South Deerfield pickling plant in 2006. Over 900 acres are currently in cultivation, yielding over 30 million pounds of potatoes (267 cwt) which are sold to fresh market grocery wholesalers from Maine to Florida. Potatoes grow well in the silty loam soils along the river, though producers struggle both in dry years to maintain adequate irrigation and in wet years to solve drainage problems and address disease pressures. However, remaining competitive in the industry is challenging. In 2022, Massachusetts accounted for less than 10% of all potato production in New England and a very small fraction of overall potato production in the United States.⁹

Despite no longer being a widespread cash crop, tobacco also remains an iconic crop for the region and keeps Hatfield connected to its agricultural heritage. Around 3,500 acres were once cultivated during the heyday of tobacco farming at the turn of the century before the industry consolidated, and over 120 old tobacco barns still dot many fields and farms. A small resurgence of broadleaf tobacco returned in the early 2000's for wholesale export to new emergent markets in Asia, but tobacco remains a very difficult and labor intensive crop to grow, and production in town has remained level over the past decade at around 50 acres.

Strawberries, pumpkins, gourds and decorative corn are additional prominent specialty crops grown on Hatfield farms, attracting local customers to roadside farm stands around town throughout the year. However, Hatfield agriculture has been diversifying in recent years in response to consumer demand for more locally grown products to include cut flowers, maple syrup, mushrooms, vineyards, and cannabis. Two local farms also offer vegetable CSA (Community Supported Agriculture) shares to local residents, although growing memberships and maintaining profitability through this model has proven challenging for both farms in recent years.

⁸ Priorities identified through surveys and communities meetings as reported in the Hatfield Master Plan (2001), https://www.townofhatfield.org/sites/g/files/vyhlif3246/f/uploads/masterplan.pdf and Open Space Plan (2014), https://www.townofhatfield.org/sites/g/files/vyhlif3246/f/uploads/2014openspaceplan.pdf

⁹ USDA/NASS January 2023 Crop Production Summary Report. https://quickstats.nass.usda.gov. Accessed January 2023.

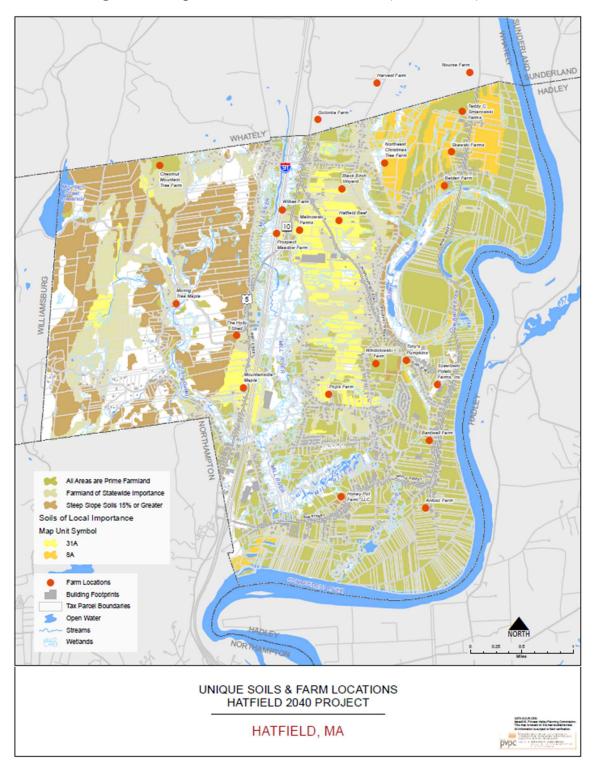


Figure 2: Unique Soils and Farm Locations (for 20 farms)

Hatfield is also home to two major agricultural inputs service providers, Helena Agri-Enterprises, LLC (headquartered in Tennessee) and TurfCare Supply, LLC (headquartered in Ohio). Black Birch Vineyard, a popular agritourism destination, and Good Stock Farm, an award-winning cooking school located on Main Street, draw visitors from across the state. Prospect Meadow Farm, a non-profit therapeutic farming social enterprise run by ServiceNet, Inc, also serves hundreds of families throughout the region.

Hatfield Farms	Year Est.	Products
Antosz Farm	2008	Field corn, onions, hay
Bardwell Farm	1685	Vegetables
Belden Farm	1661	Dairy, beef
Black Birch Vineyard	2017	Grapevines, winery
Chestnut Mountain Tree Farm	1983	Christmas trees, hay
Go Farm	2012	Pork, Chicken, Veggies, Soap
Golonka Farm	1960	Vegetables
Honey Pot Farm	1902	Vegetables
Malinowski Farm	1908	Specialty pumpkins
Mountainside Maple	2019	Maple products
Northeast Christmas Tree Farm	1982	Christmas trees
Pop's Farm		Asparagus, decorative corn,
Prospect Meadow Farm	2010	Diversified vegetables
Riquezas del Campo	2019	Diversified vegetables
Skawski Farms		Nursery/greenhouse
Smiarowski Farms	1923	Potatoes, strawberries
Start Farm	1965-	Vegetables, popcorn
Szawlowski Potato Farms	1910	Potatoes

Table 2. Inventory of Direct Retail Farms in Hatfield

Appendix B - Farming

Tony's Pumpkins		Pumpkins
Wendolowski Farm	1945	Onions, tobacco, vegetables,
Wilkes Farm		Cut flowers, vegetables

Geological History

Around 20,000 years ago, Hatfield was submerged in a glacier two-miles thick. As the climate warmed and the glacier receded, a large glacial lake formed that stretched from central Connecticut to as far north as Vermont. The lake lasted for around 4,000 years, after which a combination of erosion and continuing geological changes slowly caused it to drain out into Long Island Sound. Varves, or banded layers of silt and clay that built up annually on the bottom of the lake, can be found throughout the Connecticut River Valley. These deep, rich alluvial soils, augmented by frequent flood events, are rich in organic matter and minerals, making way for the highly fertile and productive lands found in Hatfield today.

In addition to the fertile lowlands and terraces, the topography in Hatfield also includes the eastern half of Horse Mountain and the Rocks, rising 100 ft above the river floodplain. The higher elevations also serve as the aquifer recharge area for both of the Town's drinking water supply wells.

Hatfield Soils

Hatfield's greatest agricultural asset are its excellent floodplain soils, of which 37% (4,001 acres) are classified as prime farmland. They consist of fine silt and sandy loam soils, the majority of which still flood either occasionally or frequently. Of the 21 soils found in the lowlands, 14 are class III or better. The dominant soil is Hadley silt loam, a class I soil (See Soils Map 1).¹⁰

The two predominant soils associations in the lowlands are the Hinckley-Merrimac-Windsor association, and the Hadley-Winooski-Limerick association.

• The Hinckley-Merrimac-Windsor association soils are deep, nearly level to steep, excessively drained, both sandy and loamy, and formed in outwash deposits in outwash plains. They are found mostly in the terraces above the floodplain. These soils are suited best to tree growth but can be droughty which may limit plant growth. The rapid permeability also increases the possibility for groundwater contamination.

¹⁰ NRCS Soils Classification system; 1 is best, 8 is poorest and most constrained

• The Hadley-Winooski-Limerick soils are deep, nearly level, well to poorly drained, loamy soils formed in alluvial materials on floodplains. They are found mostly in broad bands adjacent to streams and rivers. They are exceptionally suited for growing agricultural crops as well as for tree growth. These soils are subject to occasional flooding and seasonally high water tables.

Current Land Use

Hatfield currently cultivates crops or pasture/hay on 2,756 acres in town (25.6%) (RDG Map 1). Although nearly two-thirds of Hatfield is situated on prime farmland and farmland of statewide or local importance, only half of its prime farmland is currently in cultivation. Additionally, the majority of Hatfield's farmland of statewide importance (85%) and local importance (64%) are found on non-cultivated land, largely in the rural residential district (RDG Map 2). The Agricultural District (AG), encompasses just 39% of these important soils.

Land Use (2016)	Total Acreage	% of Town
Cropland	2,282.0	21.2 %
Pasture or Hay	473.7	4.4 %
Total Ag Land	2,755.7	25.6%

 Table 3: Agricultural Land in Hatfield (10,767 acres total)

	Total Acreage	% of Town	Acres on Ag Land	% of Total Ag Land	Acres not on Ag Land
Prime Farmland	4,001.3	37.2%	1,992.3	72.30%	2,009
Farmland of Statewide Importance	1,601.0	14.9%	231.6	8.40%	1,369.4
Farmland of Local Importance	1,333.9	12.4%	474.8	17.23%	859.1
Total	6,936.1	64.4%	2,698.7	97.93%	4,237.5

The Floodplain Overlay District is determined by the FEMA 100-year floodplain that was mapped in 1980. Current land use shows that 35% of cultivated crop and pasture land is within the 100-year floodplain, and an additional 30% is within the 500-year floodplain (RDG Map 3). Additionally, Hatfield has a probable wetland area of 2,637 acres, or 24.5% of the town. 508 of these probable wetland acres are currently cultivated in crops or pasture/hay.

	Total Acreage	% of Town	Acres on Ag Land	% of Total Ag Land
100-year Flood Plain	2,664.6	24.7%	965.3	35%
500-year Flood Plain	1,492.8	13.9%	833	30.2%
Probable Wetlands	2,637.0	24.5%	508	18.4%

Table 5. Land in the 100-year and 500-year floodplain; Probable Wetlands

Hatfield's best agricultural lands have been farmed continuously for over 350 years. The advent of broad acre mechanical cultivation and chemical use in the 20th century has lead to increasing levels of degradation to soil structure, biology, and carbon content has risen dramatically. Soil organic carbon (SOC) stocks are currently estimated to be medium or low in most areas of town; within cultivated areas, 745 acres (27%) are either low or very low, indicating unstable soils that are highly readable and unable to effectively infiltrate rain and floodwaters (RDG Map 4). In total, 3,929 acres (36.5%) of the town has been assessed as having highly degraded soils. However, wth 2,292 acres of that land currently in cultivation, there is a high regeneration potential (RDG Map 5). This land is not only critical to protect from development, but should be prioritized for initiatives that restore and regenerate the productive capacity of the land (RDG Map 6).

Agricultural History

In the 20th century, Hatfield experienced a number of social and ecological events that continue to reverberate today. National politics, technological innovation, immigration policies, and natural disasters have all deeply imprinted local families and shaped the current patterns of local land use and agricultural production.

Prior to colonial arrival in 1661, the Norwottuck tribe built settlements that dotted the floodplain and practiced horticulture, fishing for shad and salmon in the river, and hunting in the wooded uplands. From the 17th to the 20th century, fertile floodplain soils facilitated an agricultural boom that formed the base of the colonial economy, with commodities ranging from wheat, flax, and broom corn to cattle, hogs, and sheep.

At the turn of the 20th century, just two crops dominated all agricultural production in Hatfield: tobacco and onions. After a long period of relatively steady growth, Hatfield experienced an unprecedented population increase of 65%, mostly attributable to the influx of immigrants from Austria and Poland. In 1915, nearly 40% of the town's 2,600 residents were foreign-born. While most of Hatfield's post-colonial French and Irish immigrants had initially come as railway laborers, the booming tobacco and onion industry offered plentiful employment opportunities for newly arrived farmworkers from Eastern Europe. After the tobacco industry consolidated in 1937 and prices dropped, many farmers turned to potatoes, cucumbers, asparagus and other field crops to diversify their operations.

The post-war era in Hatfield brought increasing industrial development, economic diversification, and agricultural consolidation, and included the completion of the I-91 Interstate Highway, bifurcating the agricultural assets along the river from the burgeoning commercial corridor along Routes 5&10. A housing boom in the 1970s and 1980s mirrored another significant 30% increase in population from 2,350 in 1960 to 3,045 in 1980, which reflected another silent crisis in the agricultural world: the advent of broad-acre mechanization and the development of new national policies favoring large farming operations over the small family farm, which also coincided with the rise of major agribusiness corporations. During this time period, a significant amount of family farmland in Hatfield was sold for its one-time developmental potential, creating a surge of single-family residential housing on two-acre lots that divided and checkered the open landscape.

Farmland Protection

In a 2022 report, "Farms Under Threat: 2040" American Farmland Trust (AFT) found that between 1985 and 2016, 31% of available Massachusetts farmland was lost to development or reforestation; notably, a little over half of this 31% was converted to non-developed land cover, including reforestation and expanding wetlands.¹¹ Under the AFT scenario modeling, depending on the pace of protection and improvement of land-use planning, Hampshire County stands to lose between 3,200 and 5,900 acres of farmland by 2040. Additionally, Massachusetts saw the conversion of nearly 16,000 acres, or 8%, of its productive cropland to other uses between 2007 and 2017. During those 10 years, an average of more than four acres per day were lost to development, infrastructure, and other purposes, most likely never to return to active agricultural production. "Farms Under Threat" ranks Massachusetts sixth in the United States in farmland loss from 2001–2016, and ninth in terms of continued threats to farmland into the future.

¹¹ Hunter, M., A. Sorensen, T. Nogeire-McRae, S. Beck, S. Shutts, R. Murphy. 2022. Farms Under Threat 2040: Choosing an Abundant Future. Washington, D.C.: American Farmland Trust.

Hatfield has been proactive over the years to utilize regulatory levers for the protection of farmland and open space. Yet the town has struggled to balance the preservation of natural resources with the need to attract preferential developers to generate more municipal revenue and provide more affordable housing in town. Still, protecting existing farmland remains a key priority for both farmers and residents, and barriers remain to ensure that this land is protected in perpetuity. Some land in town has reportedly been sold to long-time farming families as a de facto way of keeping it in farming. However, any unprotected farmland that is privately owned could abruptly transition out of production should the owners decide to fold their agricultural businesses due to a lack of economic viability or operable succession plan.

In 1977, the Massachusetts Department of Agriculture (MDAR) established the Agricultural Protection Restriction (APR) Program to begin addressing the development pressures on farmland throughout the state. The program provides payment for the difference between the "fair market value" and the "agricultural value" of the land in exchange for a permanent deed restricting the use of the land for agricultural purposes only. Belden Farm, one of the oldest farms in the state, was an early APR adopter, and has placed over 220 acres of farmland in Hatfield under APR protection. However, the program has not been as popular with Hatfield farmers compared to surrounding towns. In 2023, there were just 7 farms with 406 acres (14.3% of cultivated land) enrolled in the program, compared to over 2,695 acres protected in nearby Hadley. There are many reasons why farms may choose not to participate in this voluntary program:

- > The APR payment rate does not meet the needs or expectations of farm owners
- Farm owners do not wish to restrict the future development potential or uses of their land
- Farm parcels, particularly in the meadows, are non-contiguous and/or under 5 acres, and are thus not eligible for the APR program

The APR program has gone through some changes over the decades, and policy advocacy is continuing to improve the program's effectiveness. Yet barriers remain, as the program requires the cooperation of many private and municipal stakeholders to see the process through to completion.

Chapter 61A is a tax relief incentive program that gives the town the first right of refusal (ROFR) to purchase any land in 61A listed on the market in exchange for a reduced assessment rate. If a parcel is withdrawn from the program for residential, industrial, or commercial use, a penalty of back taxes and interest must be paid for the previous five years under certification. The program requires a minimum of 5 acres and active farming with annual gross sales of at least \$500 to qualify for the tax relief. There are currently 2,972 acres enrolled in 61A, with 69% currently cultivated in

cropland or pasture (RDG Map 7). However, that leaves 852 acres of cultivated land not enrolled in the program. While 61A is not a reliable method to permanently protect farmland, it does provide the town some ability to track key opportunities to purchase the development rights on land most vulnerable to development.

	Total Acreage	% of Town	Ag Land in 61A	% of Total Ag Land in 61A	Ag Land not in 61A	% Ag Land not in 61A
61A	2,972	27.6%	1,903.7	69%	852	31%

Table 6. Chapter 61A Land

Another critical tool for farmland protection is the Community Preservation Act (CPA), a 3% surcharge on local real estate taxes established in 2008. Land conservation is an important eligible expense under CPA and projects are reviewed by the local CPA Committee and typically recommended to Town Meetingfor approval. Through the program, Hatfield has raised \$1.9 million from local CPA collections and received \$1.6 million from the State Trust Fund – an 88% state match. Through FY 2023, \$2.4 million has been awarded in support of 44 projects. One of those projects funded the development of a half-acre community garden located next to Hatfield Elementary School in 2018; another project funded the purchase of a conservation easement on 22 acres of the Sliwoski Farm (now farmed by Black Birch Vineyard) on Straits Rd that was slated for an 18-lot subdivision in 2019. More CPA funds could be used to protect more farmland, if approved by Hatfield residents.

The town has also taken the additional proactive step of setting up a local APR Fund. A new stipulation of the APR program requires a municipal match of between 5-20% of the cost, and Hatfield was one of the first municipalities in the state to adopt an APR Fund out of their CPA Funds, setting aside \$40,000 in 2013¹². This fund is a critical tool that allows the Town to respond quickly to APR opportunities, and only requires the approval of the Select Board rather than a Special Town Meeting. To date, the fund has been used twice to provide matching funds for APR projects, protecting a total of 37 acres of farmland. It will need to be replenished periodically from the CPA funding pool to continue to support local contributions to future APR purchases.

Lastly, a new opportunity through the National Resource Conservation Service (NRCS) permitted the town in 2019 to become the first in the state to identify

¹² See Article 29 of the 2013 Annual Town Meeting Warrant

farmland of local importance. These soils must contain at least 50% important farmland soils that have historically been farmed, despite not being classified as "prime farmland" in the National Soil Survey Geographic Database (SSURGO). By identifying and mapping these soils, Hatfield is now eligible to apply for federal funding through the Agricultural Conservation Easement Program (ACEP) when attempting to preserve parcels on farmland of local importance.

	Total Acreage	% of Total Ag Land
APR	406	14.7%
CR	84	3.1%
Other	31	1.1%
Total	521	18.9%

Table 7: Protected Farmland

As of December of 2023, Hatfield had a total of 521 acres of legally protected farmland, approximately 19% of total cultivated land (RDG Map 8). Most of the protected farmland in town has been protected with an Agricultural Preservation Restriction (APR) or Conservation Restriction easement; and an additional 27 acres are owned by the Town through a CPA-funded purchase, and 4 acres are protected by the Kestrel Land Trust for use as a community farm (Table 7).

Agricultural Bylaws

In 2003, Hatfield adopted an Agricultural District (AG) and new bylaws to begin restricting the types of development permitted on prime farmland and farmland of statewide importance. The bylaws require a special permit for any new construction or renovation in the agricultural district, with input from the Agricultural Commission on recommendations to help reduce the negative impacts of the proposed development. Such measures can include wider buffer zones, visual screens, and windbreaks. Within the current Agricultural District, 1,427.7 acres (69%) are currently under cultivation. However, 1,328 acres (48%) of currently cultivated land lies outside the Agricultural District, and thus would not be reviewed for special permit considerations unless it was also placed into Chapter 61A or another conservation program. See 2021 Hatfield Zoning Map.

Land Use	Total Acres	% of Ag Zone
Cultivated or Pasture	1,427.7	69.2%
Not Cultivated or Pasture	634.7	30.8%
Total:	2,062.4	

Table 8: Hatfield Agricultural District

Land Use	% inside Ag Zone	% outside Ag Zone
Cultivated or Pasture	51.8%	48.2%

Hatfield has also adopted two bylaws to encourage the preservation of natural resources: the Open Space Development Bylaw (OSB) and the Transfer of Development Rights Bylaw (TDR). In the past five years, the OSB has been applied to just one development project on Old Stage Rd. Another bylaw permitting the Accessory Dwelling Units (ADUs) in the rural residential district was approved in 2019 to help diversify housing options: a key regulatory tool that could also help reduce development pressure on surrounding farmland.

Table 9: Timeline of local initiatives to support agriculture and preservefarmland

Year	Initiative	Who/How
2002	Established an Agricultural Commission	2002 Master Plan
2002	Designated Agricultural District	2002 Master Plan
2003	Open Space Bylaw	Planning Board
2003	Transfer of Development Rights Bylaw	Planning Board
2004	Adopted Right-to-Farm Bylaw	Ag Commission
2004	Lowered agricultural water rates ¹³	Ag Commission and DPW
2004	Published the Hatfield Farm Guide + Map	Ag Commission

¹³ In 2004 Ag water rates started at \$1.00/ccf versus the regular rate of \$1.75. In FY24 ag water rate is \$3.27/ccf versus regular rate of \$6.31. Farms must gross \$15,000 per year on a Schedule F to qualify.

2005-2012	Art of Farming Mural Project	Ag Commission and Smith Academy
2007	Hatfield Harvest Festival and 5K	Ag Commission
2008	Local Food Preference Bylaw	Ag Commission
2008	Adopted CPA at 3%	CPA Commission
2010	Launched Hatfield Farm to School FRESH program	Ag Commission and Hatfield Public Schools
2013	Published guidelines for solar installations on farms	Ag Commission
2013	Established an APR Fund	CPA Commission/ Town Meeting
2014	Lowered Ag rates for building/greenhouse permits and inspection services	Ag Commission/Building Inspector
2019	Accessory Dwelling Units Bylaw	Planning Board
2020	Identify soils of local importance	Ag Commission/NRCS
2023	Elementary School Garden Program	Hatfield Public Schools

3. Challenges and Opportunities

Hatfield's Changing Climate

A variable and unpredictable climate is not new to agricultural producers. However, the unpredictability and the severity of climate events in the area has noticeably increased in the past decade, and producers are now facing unprecedented challenges relative to risk management and climate adaptation (See the Addendum to this chapter).

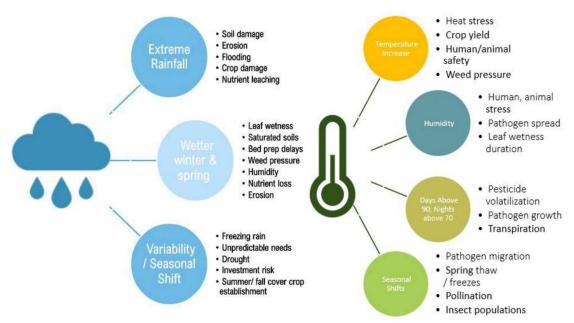


Figure 3: Climate Impacts in the Northeast. Source: American Farmland Trust, 2023

Both 100- and 500- year flood events have occurred in the town's recent history. The first short section of an earthen levee dike was hand built in 1902 to control spring flooding from the Connecticut River in the center of town. The dike was later expanded by the Works Progress Administration (WPA) following the Great Flood of 1936, which buried fields in silt that had to be hand dug and removed. The hurricane of 1938 also leveled barns and caused widespread flooding. Major hurricanes returned to Hatfield in 1954, 1955, 1960 and 1976, and a large flood occurred again in the spring of 1984 causing major damage to local farms.

Flooding events in 2005 and 2014 remained localized to the Mill River, yet still heavily impacted many farms. More recently, rainfall from several large storm systems in 2021 and 2023 caused widespread damage. In July of 2023, Hampshire

County received 11.75 inches of rain, a 7.44 inch departure from the usual monthly average rainfall of 4.31 inches.¹⁴ July of 2021 was an even heavier month of rainfall with 12.34 inches of rain; another 3.53 inches fell in a single day in September 2021. These two years contrasted alarmingly with a drought in 2022, during which only 11.4 inches of rain fell over the entire growing season from May to August.¹⁵

One of the most difficult situations arising during high precipitation events is the inundation of the old and unmaintained network of drainage ditches constructed around the turn of the 20th century during the rapid expansion of the local agricultural industry. Flood waters can easily bury fields in silt and contaminate crops, but they normally rise and recede relatively quickly. However, waters that do not drain away for several days can cause even more damage to infrastructure, adding additional liability and lasting financial implications for affected farms. Even if the ditches had been maintained for agricultural use, they were ultimately never developed to handle the new emerging hydrological regime of extreme precipitation and frequent flooding. Finding a new approach to ditch management on a town-wide basis is a top priority for local farmers.

Warmer winter temperatures in recent years have also reduced the amount of snowpack in the lower elevations of Hatfield. In February of 2023, windy conditions, combined with fields left bare of vegetation for the winter, resulted in dust storms that were visible across the low lying floodplains; a soil loss event that could be preventable using conservation field management practices such as winter cover cropping.

Also in February of 2023, an unusual deep freeze of arctic air all but wiped out peach and plum crops across the state, and an unexpected late frost in May damaged about 60% of the state's apple, pear, and blueberry crop. In Hatfield, Black Birch Vineyard lost 80% of their grape crop when temperatures dipped to 25°F for five hours on the morning May 17, 2023. Other local farms lost strawberries, a high value specialtycrop that generates much needed income early in the growing season. These climaterelated disasters, along with the devastating floods in July and September, ruined over 3,000 acres of crops, primarily in the Connecticut River Valley of Western Massachusetts. Special disaster relief was deployed through the State's Natural Disaster Recovery Program, which provided \$20 million to 347 farms.¹⁶ Many other

14 Monthly Precipitation Totals and Departures from Normal - July 2023. Northeast River Forecast Center (NERFC) https://www.weather.gov/nerfc/ESSJUL. Accessed September 2023.

16 Moran, B. "Slammed by climate emergencies, Mass. farmers ask, 'Now what?" WBUR, August 9 2023, https://www.wbur.org/news/2023/08/09/massachusetts-farms-2023-frost-floods-climate-change. Accessed September 2023.

¹⁵ Hampshire County, Massachusetts Weather Data. National Centers for Environmental Information (NCEI). <u>https://data.thespectrum.com/weather-data/hampshire-county/25015/2023-07-01/table/</u> Accessed September 2023.

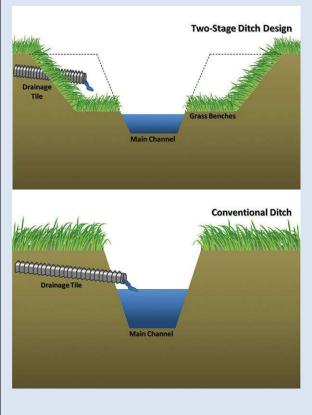
private, non-profit, and community-based organizations stepped up to raise additional funds to provide support, relief and recovery. While most farms were able to survive with help, the stress of climate unpredictability and future uncertainty was deeply felt.

Drainage Ditches were constructed in the late 1800s and early 1900s all along the Connecticut River to turn Hatfield's wet, fertile floodplain into tillable farm fields. Some were hand dug, but many were blasted with dynamite during the heyday of land clearing for the rapidly expanding agricultural industry. These ditches formed an extensive network of drainage channels and sinks throughout the "lowlands" of Hatfield to help heavy rains and flooding to dissipate more quickly; it also represented a massive shift in the ecological makeup of these lands, which included a large-scale removal of trees and other riparian wetland species to create bare open soil for tillage-based annual agriculture.



Use of dynamite on a Pennsylvania Farm, 1911 (Licensed under the Creative Commons)

As Hatfield farmland was gradually developed for more residential and commercial uses, many of these ditches have become overgrown, or separated from their original farm. Where they have not been maintained, farms who rely on old drainage systems to relieve some of the pressures of increased rain and flood events have been left without the ability to farm some of their fields, suffering significant crop losses when they do attempt to plant them. Furthermore, wetlands protection laws in Massachusetts can complicate matters when old ditches not on continuously farmed land are re-classified as wetlands, with costly penalties for disturbance. Farmers are unwilling to risk conflict with conservation officials, yet are left with few options to restore the drainage systems, especially when the ditches are no longer on their land.



Drainage ways reverting back to wetlands may better represent the previous character of the land: a valley filled with back channels and wetland complexes. Such ecosystems are vital for the optimal functioning of local ecologies by increasing land-based carbon sinks and sequestration capacity. Yet there may still be innovative options to achieve multiple ends, such as installing vegetated ditches and two-stage ditches to help reduce agricultural runoff. Hatfield will need to carefully assess which ditches to prioritize and repair for agricultural use and which to protect as wetland habitat, as well as come up with a long-term plan for ongoing evaluation and maintenance.

Source: Kobel, R. Two-stage Ditch Design. University of Notre Dame Environmental Change Initiative, 2015 https://environmentalchange.nd.edu/newsevents/news/farmers-reduce-pollution-after-ditchingold-way-of-handling-runoff/

Lost production for corn, soy, hay, and potatoes in the Connecticut River Valley due to climate change is projected to reach \$1.6 million annually by 2030, \$2.7 million annually by 2050 and \$3.7 million annually by 2090, relative to \$21 million in current production for these crops.¹⁷ Increasing the resiliency and adaptive capacity of Hatfield's farms will require major community support and public investment to help farmers adapt their farming practices if the local agricultural economy is going to continue to be a part of Hatfield's future. However, there is no one-size-fits-all approach. The actual risks to each individual farm vary considerably, and each farm

¹⁷ Kirshen, P. Luna, M., Kinney, P., Douglas, E., Massachusetts Climate Change Assessment. 2022. Resilient Mass. https://www.mass.gov/infodetails/massachusetts-climate-change-assessment

will need access to a suite of financial, ecological, and business support to develop a unique operation that is resilient to disturbance and ultimately regenerative in creating new opportunities for economic growth and ecological flourishing.

Currently, about 90% of the food consumed in New England comes from outside the region¹⁸, with relative abundance but often detrimental impacts to soil, water, and climate systems around the planet. Food Solutions New England, an interstate, multistakeholder advocacy and research organization based out of the University of New Hampshire claims that New England could grow and consume as much as 50% of the region's food (vegetables, meat, dairy, and seafood) by 2060 if we increase our agricultural land base from 2 million acres to 6 million acres, or 15% of the region. This bold vision, when combined with climate smart and nature-based land management practices, offer an enormous opportunity for a new generation of New England farmers to reclaim a prominent role in creating a healthier, more just and economically viable food system. However, implementing this goal will require the coordination and transfer of considerable financial and knowledge-based resources across public and private spheres; farmers alone cannot do this work without broad engagement and support from all sectors.

Additional Challenges

Farms in Hatfield face a number of challenges to stay in business year after year, though most of these challenges are not unique to Hatfield. They threaten almost all producers throughout the region, and will require continued advocacy and collaboration between public, private, and non-profit partners to address and resolve.

Hatfield faces many notable challenges to maintaining the continuity of its local agricultural economy including managing climate variability, restoring soil health, balancing the municipal budget, and supporting more diversified and robust local food markets. Climate risks thread through a variety of other economic and regulatory issues common to agriculture throughout the region that also threaten the health of Hatfield's farming sector.

A short list of additional challenges, gathered through conversations with Hatfield farmers and town officials, includes the following:

Farmland Protection

While 69.2% of Hatfield's agriculture is located within the Agricultural District, the rest is located in other areas of town. It is currently difficult to protect these parcels from development using existing resources at the state level, yet new federal funding options may now exist to support additional acquisition and protection.

¹⁸ Donahue, Brian, et al. A New England Food Vision. Durham, NH: Food Solutions New England, University of New Hampshire, 2014.

Limited land access

There is practically no affordable farmland in Hatfield. Farmable land rarely goes on the market and is almost always retained within current farming families. Beginning farmers without a connection to an existing farm family are almost entirely excluded from starting a new farm enterprise in town.

Decreased soil fertility

Due to the unavailability of land and slim profit margins, fields are rarely allowed any period of rest. Land swapping is becoming a more common practice between farms to better rotate field crops, but soil health and productivity is in decline in many fields, especially fields with short-term leases. The economic need to maximize production each year discourages farmers from taking fields out of production or investing in expensive new strategies like cover cropping.

Limited Labor Supply

Agricultural labor is difficult to secure, and very few Hatfield residents are employed on local farms. Larger farms rely on temporary foreign workers registered through the H-2A Visa Program, or on undocumented workers from more urban centers. Providing access to housing, health care, and transportation for workers amidst complicated immigration and labor laws present significant hurdles to farms who need a reliable and skilled labor force. One farm reported at least a 25% shortage in their labor supply in 2023.

Farm Succession

Several of Hatfield's farms have been in the family for multiple generations. However, high debt loads and a general dissatisfaction with the prospect of earning a livable wage from farming has discouraged many young inheritors from staying in town to continue the family business. Finding successors to a farm operation takes an enormous amount of time and dedication and the lack of a succession plan threatens the viability of many farms with aging principal operators.

Limited Market Access

While a few of Hatfield's smaller farms have successfully diversified to produce a variety of different vegetables and other value-added products, most of the larger farms are dependent upon one crop or market for the majority of their income. They have invested heavily in harvesting and processing equipment that is suitable for one type of use, and the costs of altering their primary production are prohibitive. Most businesses try to cut costs wherever possible in order to achieve any level of business growth.

Grant Programs

While it is true that the federal government manages a litany of programs designed to help farmers manage risk and even infuse needed funds for key conservation practices, these programs and grants can be notoriously slow to deliver, with some farmers waiting one or two years for a response. Grant application deadlines also often directly conflict with critical farming timelines, restricting the applicant pool to those who have the time and capacity. And some farmers simply do not trust government programs and feel that only entitled growers should access these resources.

High Taxes

Like most small towns in the region, Hatfield struggles to offer high quality municipal services without overburdening its tax payers. Hatfield has already taken steps to further reduce the tax burden on agricultural producers through a discounted water rate (almost 50% lower) and reduced fees on building inspections for agricultural structures. However, agricultural buildings are still assessed at the same rate as residential properties, and there is no mechanism for reducing the excise tax on farm vehicles.

Adaptation and Resiliency Opportunities for Farms

There are many different approaches to dealing with the challenges of a volatile and unpredictable climate. Most fall into the category of either mitigation or adaptation. Mitigation strategies work to reduce carbon emissions, draw carbon out of the atmosphere, and prevent the further exacerbation of climate change; examples include switching to renewable energy and reducing fertilizer applications. Adaptation strategies work with the changes to buffer negative impacts and allow for a relatively rapid return to essential functions; examples include building hoop houses, applying compost and installing irrigation. Many strategies fall into both categories, such as improving soil health, which increases both carbon sequestration and water infiltration during high precipitation events. Both strategies are vital, and a thoughtful integrated approach can successfully develop into a regenerative process that increases both the resiliency and operational capacity of a system over time, positively impacting the environment, economy, and society as a whole.

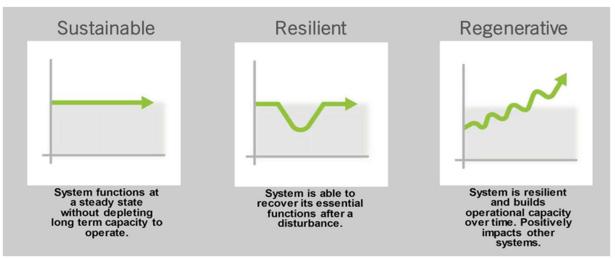


Figure 4: Regenerative Agriculture: A Whole Systems Approach

Regenerative Design Group

While the threats and challenges of climate change are many, farmers have long been the leaders in researching and developing innovative solutions to complex land management challenges, and they are often the ones on the forefront of understanding and implementing adaptation and resilience strategies.¹⁹ The following list includes the most impactful resiliency actions that farmers around the region are taking to mitigate and adapt to changing climate conditions, lower the risks of staying in business, and ultimately improve the outlook for rural farmlands and agricultural economies in the coming decades.

Soil health	Utilize cover crops and intercropping to reduce erosion, cycle nutrients, and fix nitrogen
	Limit soil disturbance and the use of heavy equipment
	Use contour or keyline plowing to enhance water infiltration
	Increase soil organic matter (SOM) with compost and mulch

Table 10: Key Climate Resiliency Opportunities for Hatfield's Farms.

¹⁹ Chambers, R., Ghildyal, B.P. Agricultural research for resource-poor farmers: The farmer-first-and-last model, Agricultural Administration, 20:1, 1985.

	Increase soil cover and maintain living roots in the soil year round
	Integrate annual crop, livestock, and tree crop systems
	Improve pasture forage with perennial crops
	Increase biodiversity
Flood and drought	Improve soil health to increase water holding capacity
resilience	Reduce peak flow, runoff velocity, and soil erosion
	Adjust nutrient application timing in excessive rainfall periods
	Expand irrigation capacity
	Install permanent raised beds
	Use sensors to measure water needs and application rates
	Water bank in non-drought years and develop rainwater storage systems
	Install tile drainage
	Convert wet cropland to perennial crops or riparian buffers
	Fallow land that is flood prone and allow to revert back to wetland conditions
Ecological Health	Restore natural ecosystems and enhance landscape connectivity
	Manage woodlands to reduce wildfire potential
	Create pollinator habitat
	Prepare for smoke and poor air quality

Temperature fluctuation	Use season extension greenhouses and high tunnels
	Use shade cloth and intercrop heat sensitive crops with taller crops
	Trial new more tolerant varieties or breeds
	Adjust the timing and/or location of farming activities
	Utilize climate-controlled storage facilities
	Optimize post-harvest cooling systems
	Ensure adequate shade and rest for employees
Reduce pest and disease pressure	Implement IPM practices
	Trial new more resistant varieties
	Improve soil biology
Economic risks	Diversify farm products and income
	Apply for grants to cover the cost of new infrastructure
Energy	Generate on-farm renewable energy (solar, wind, methane, biomass)
	Reduce on-farm fuel usage

While innovative, many of these adaptation strategies or practices require an upfront investment in time, equipment, knowledge, labor, and/or supplies. This adds additional financial and resource constraints on already slim profit margins. Asking farmers to bear these costs as individual businesses in challenging economic conditions is not a sustainable approach. Widespread comprehensive adaptation is possible if a coalition of stakeholders can provide the significant investments needed to cover farmer-to-farmer education and any associated lost revenue during the time it takes to learn, implement, trial, and refine new farming practices.

Agricultural Resiliency Opportunities for the Town

The Town of Hatfield can undertake several initiatives to reduce regulatory obstacles for farmers, promote the agricultural sector, increase farmland protection, and improve land access for beginning farmers. The following is a list of regulatory recommendations gathered with key input from producers and municipal workers.

Protect Farmland	Use CPA funding to purchase and protect more farmland coming out of Chapter 61A
	Replenish APR Fund (with CPA funds) as needed to support local contributions to future APR purchases
	Create a system to track the presence of APRs on land in town to avoid any unintended construction or subdivision. (Enables the town to get a reduction in the local contribution required for future APR purchases.)
	Create a local farmland protection program that can be used to protect farmland of local importance through the NRCS ACEP Program
	Strengthen incentives for creative multifamily and cluster development and increase the number of small and accessory dwellings permitted on one lot
	Utilize a siting bylaw to ensure that new residential construction preserves as much open space as possible and can still be potentially leased as farmland
	Develop a solar overlay district that prioritizes solar development on non-agricultural land, incentivizes dual-use agrivoltaics to minimize harm and maintain productivity, or otherwise ensures that projects strengthen farm viability
Agricultural Ditches	Initiate a town-wide (or participate in a multi-town) initiative to map, inventory, and evaluate agricultural ditches for improvement or wetland restoration
	Implement a bylaw to authorize the Department of Public Works to perform necessary ditch maintenance on private land
	Explore the possibility of funding tax breaks or incentives for private residents to improve and/or maintain priority-identified agricultural ditches

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Tabla 11• Muniai	nal Ragulatary	Opportunities to Sur	oport Agriculture in Hatfield
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Land Access	Open access to small plots of town-owned conserved farmland for beginning farmers	
	Promote the use of protected land in Open Space Developments for farming use	
Affordable Farm Housing	Automatically allow additional small or accessory dwelling units (ADUs) on residential parcels in the Agricultural District for family or farm labor.	
	Explore or incentivize affordable housing development on converted farmland that uses Open Space Development (OSB) or Transfer of Development Rights (TDR) for Chapter 40B Compliance; connect farmland owners with preferential potential developers.	
Leverage CPA or other grant funding	Reinvigorate the town's Conservation Fund and/or capitalize with private donations to fund soil health education and incentives	
	Support and promote farmer and public education programing on conservation and regenerative farming practices	
	Build capacity in the town to pursue larger agricultural grants and conservation funding opportunities	
	Establish a local disaster fund for farms	
	Offer incentive payments to private landowners to maintain drainage ditches	
Tax Code	Consider a tax incentive for farmers who develop and implement a soil health and cover crop plan for 5 consecutive years	
Local Resolutions and Bylaws	Create provisions within the Agricultural District that incentivize best practices such as low-till, cover cropping, riparian buffer plantings, agroforestry, and other conservation measures	
	Pass non-binding resolutions at Town Meeting that support regenerative farming practices and regenerative local food systems	
	Broaden the definition of farming and regularly examine town bylaws for clauses that may unintentionally hinder agricultural producers and creative new agricultural enterprises, especially in the Rural Residential and Town Center Districts	

4. Examples from other Communities

Hatfield is not alone in working to identify strategies that they can apply to support, promote, and protect the agricultural community in the 21st century. Rural communities across the country are grappling with the pressures of consolidated agriculture, economic stagnation, aging populations, and inadequate housing, to name a few. Hatfield has already made a considerable amount of progress in support of its agricultural heritage through initiatives coordinated by the Town's Agricultural Commission, several of which serve as models for other communities to replicate. Some initiatives that may serve to inspire additional steps that Hatfield can take as a municipality or as part of a larger coalition of rural towns are included below:

- 1. Build Maine is a coalition of stakeholders working across disciplines to build economically stronger, more successful towns and cities in Maine through strategic, high-impact investments. Low-density residential development (LDR), otherwise known as "rural sprawl," is a major threat to farmland in many rural communities in Maine. The coalition has engaged in policy action in several areas to help reduce rural sprawl, including recommending a comprehensive overhaul and modernization of the subdivision laws that promote development in growth areas such as crossroads, villages, neighborhoods, downtowns, and high-impact corridors. They have also worked to promote the establishment of municipal, regional, and state Land Banks, which are focused on the conversion of vacant, abandoned, and tax-delinquent properties into more productive and creative uses. These initiatives protect farmland by taking the development pressure away from outlying working lands and refocusing energy on revitalizing existing villages and neighborhoods. www.build-maine.com
- 2. A study on rural sprawl and farmland protection in Williamstown, MA outlined a number of zoning strategies and economic measures the town could take to reduce less desirable rural development, particularly of large homes by seasonal residents. The study did not support a reduction in the lot sizes or an increase in overall housing density, citing evidence that such strategies do not necessarily lead to the development of smaller, more affordable housing options. Rather, it encouraged passing bylaws to encourage more creative housing options in existing populated areas through renovation, infill development, cluster design, and multifamily zoning.

https://ces.williams.edu/files/2022/01/McMansion-Envi-Planning-Final-Report.pdf

3. In Whately, MA, the Planning Board has approved a zoning strategy with two distinct Agricultural Districts. In Ag Zone 1, lot sizes with public water can be just 40,000 sq ft with 175 ft of frontage. In Ag Zone 2, minimum lot sizes without public water are 120,000 sq ft with 300 ft of frontage. There are also

differing provisions for the approval of seasonal farm stands, outdoor marijuana cultivation, commercial kitchens, breweries, and solar. The two districts both offer key protections to farmland by graduating the types of land and building uses permitted in different areas of town. <u>https://www.whately.org/sites/g/files/vyhlif5211/f/uploads/2019_4-</u> <u>30 zoning bylaws approved by ag 3.pdf</u> (See Section 171-10).

- 4. Regular maintenance on drainage ditches in Hadley, MA is performed by the Department of Public Works in accordance with town bylaws. Chapter 218, Article V authorizes action to prevent undesired water and/or ice from accumulating on roads, ways, and public or private property in the Town. Offending obstructions are subject to a \$50 per day fine. Chapter 195, Article III also authorizes the Planning Board to serve as the Stormwater Authority to enforce the bylaw controlling the adverse impacts associated with stormwater runoff from new development and redevelopment. Ch. 218, Article V: <u>https://ecode360.com/13510433</u> Ch. 195, Article III: https://ecode360.com/35956989
- 5. In 2021, the Connecticut Land Conservation Council (CLCC) was awarded \$6.7 million through the USDA Regional Conservation Partnership Program (RCPP) to create the Connecticut Conservation Partnership Program. The program provides a critical source of funds for Connecticut land trusts and municipalities to receive matching federal funds for applications to the Open Space and Watershed Land Acquisition Grant Program (OSWA). The program aims to conserve 30% of land in CT by 20230.
- 6. Funding from the USDA in 2019 supported the development of an Agricultural Innovation District in West Kingston, RI in partnership with the University of Rhode Island. The project, which includes 25 acres of greenhouses adjacent to a 15,000 sq ft Agriculture Innovation Center, hopes to become the epicenter for agricultural innovation, entrepreneurism, internships, and education.²⁰ Controlled environment agriculture is an area of rapid private sector growth and will need a trained workforce in order to develop the systems and technology needed to increase the quality and efficiency of production. Locally, Nourse Farms in Whately and Hatfield is already a leader in the biotech field adapting technological innovations to agricultural production.
- 7. Franklin County, PA offers a "Conservation Farmer of the Year" award to farmers who champion soil and water conservation practices. The award is given publicly in conjunction with other local farm promotion activities. Similar awards

^{20 &}quot;Gov. Raimondo, URI President Dooley announce first round of Innovation Campus projects." *Rhody Today*, December 18 2018, https://www.uri.edu/news/2018/12/gov-raimondo-uri-president-dooley-announce-first-round -of-innovation-campus-projects/. Accessed March 2024.

are also given out in Charleston, WV, Cumberland County, IA, Dubois, IN, and by the Northwest Connecticut Conservation District. This type of recognition uplifts the voluntary efforts of farmers and helps to educate the general public <u>https://franklinccd.org/calendar/conservation-farmer-of-the-year/</u>

5. Recommended Goals and Strategies

Many of the ideas that Hatfield is already considering to mitigate vulnerability from climate change, enhance economic viability, protect natural resources, and improve the quality of living will also positively impact the protection of farmland and the overall viability of Hatfield's agricultural sector. Hatfield has already taken a number of steps to support farms over the last two decades, with both regulatory and non-regulatory initiatives. However, the town must ardently continue this trend and implement even more creative solutions to support, promote, and protect the agricultural community into 2040 and beyond.

The top four priority goals and strategies emerging from this chapter are as follows:

Protect More Farmland	 Protect an additional 800 acres by 2040 Promote Open Space Bylaw Limit low-density residential development
	 Support and promote existing funding opportunities Celebrate local farms using best practices Act on future conservation funding opportunities
Resolve Ditch and Wetland Conflicts	 Assess the current ditch and drainage network Develop a town-wide plan for improvement Restore key wetland areas for flood mitigation
Re-activate the Town Agricultural Commission	 Improve representation of farmers in Town Government Promote Hatfield farm products and agritourism Educate the public

1. Protect More Farmland

Given Hatfield's firm roots in agriculture, it is important that the Town take a leadership role in conserving more farmland. During the development of the 2023 Massachusetts Farmland Action Plan, the state discussed setting a state-wide goal of protecting 50% of its farmland by 2050. Currently Hatfield has a total of 521 acres of

protected farmland. To reach the 50% goal of protected farmland, Hatfield would need to conserve an additional 857 acres for a total of 1,378 protected acres by 2050. These farmland protection goals are conservative in that they apply only to land currently in cultivation and not all classified farmland soils in town. Taking an incremental approach, this goal could be achieved over the coming decades by preserving about 35 acres of farmland per year.

While the town works to expand its portfolio of permanently protected farmland, additional regulatory steps can be taken to actively promote creative cluster developments and appropriate siting of developments through the Open Space Bylaw. Other new zoning bylaws to promote the redevelopment of 3- and 4-unit multifamily houses, and increase the number of small dwellings or accessory dwelling units on each lot, will help limit the amount of new low-density residential construction and increase the amount of affordable housing available to low-income residents and first-time homebuyers.

2. Support Regenerative Farming Practices

Hatfield's best farmland has been farmed continuously for over 350 years. Farming practices changed considerably with the advent of modern tractors and cultivation equipment, and Hatfield's soils have degraded considerably in the effort to maximize short term production and profit. Many farmers in the Connecticut River Valley are beginning to explore novel cultivation techniques such as low-till farming and cover cropping that reduce the negative impact of industrial farming and help to conserve and rebuild the rich agricultural soils. These practices are also becoming vital measures to both mitigate and adapt to a changing climate. However, these practices must become more widespread, and there are a growing number of non-profit, state and federal financial resources available to farmers to help speed the rapid adoption of regenerative farming practices.

While Hatfield may not realistically have any regulatory levers to incentivize better farming practices, the Town must do everything possible to support and promote existing funding and educational opportunities. By creating a culture of support with non-binding resolutions and supportive bylaw language and celebrating local farmers who are improving their practices, the Town can help foster a sea change in public opinion about farming and the important role that farmers play in stewarding the town's most precious natural resources. Additionally, the Town must be prepared to act upon new grant opportunities that may become available to municipalities in the future to fund projects such as town-wide wetland restoration, riparian buffer implementation, and other key climate-smart conservation practices.

3. Resolve Ditch and Wetland Conflicts

A top concern for many Hatfield farmers revolves around the poorly-functioning network of agricultural drainage ditches constructed before the advent of environmental regulations. The direct conflict that has emerged in recent decades between conservation and agriculture over the maintenance of these ditches remains unresolved in many flood plain communities along the Connecticut River. The Town must develop a plan of action to address this conflict. A necessary first step will be to assess the current ditch and drainage network to identify which ditches remain vital for agricultural production and do the least amount of harm to environmentally sensitive areas. These ditches should be prioritized in a town-wide plan for improvement (i.e. with vegetation and/or two-stage reconstruction) and ongoing maintenance. Those remaining can then be targeted for wetland restoration as vital carbon sinks and compensatory storage for flood mitigation. A coordinated effort by the Conservation Commission, Agricultural Commission, and Department of Public Works, in cooperation with the Department of Environmental Protection, will serve both farmers and private residents in proactively preparing for future flood events.

Concurrently, the Town can also work on strategies to educate private landowners about the impacts of regrading "old" ditches or allowing them to fill with brush and debris on agricultural production in town. If necessary, a small grant or incentive program could be devised to help landowners either appropriately maintain or restore the ecological function of any ditches on their land.

4. Re-activate the Town Agricultural Commission

Many of the farmers in town have a long history of engagement with the town on various issues. Some have volunteered countless hours serving on Town Boards and Committees, or are part of farm families who have had a considerable stake in the development of local policies and bylaws. With a limited number of younger, beginning farmers to draw upon, there is a limited capacity with which the existing farming community can respond to calls to action. Over the years, not every new initiative has resulted in measurable benefits to local farms, and disengagement due to age, lack of time, and waning interest has made it difficult to maintain ongoing initiatives, let alone start new ones.

Agricultural Commissions were created in towns throughout Massachusetts in the early 2000's to help farmers engage more effectively with local town governments. Members work together with town officials to encourage the pursuit of agriculture, promote agricultural economic development and protect farmlands and farm businesses, and preserve, revitalize and sustain agricultural businesses and land. Hatfield has benefited enormously from the activities of its Agricultural Commission since its charter in 2002 (See Table 4). However, the activities of many local Agricultural Commissions have waned in recent years, and Hatfield has recently lost three of its longest serving members in the last 18-months.

The importance of re-activating Agricultural Commissions across the state with funding and resources must be brought to the attention of local legislators in order for the town to increase their capacity to engage on a more strategic level and develop and implement new ideas and projects. Hatfield's Agricultural Commission could once again serve to raise the profile and representation of farmers' interests in town regulatory matters. With fewer available farmers from which to recruit new members, the Commission may seek to recruit new membership from informed residents, who are deeply invested in promoting and protecting the interests of a thriving local food system, some of whom may be relatively new to town. Reenergizing the Commission with new members will increase the capacity to develop clear, exciting, and achievable initiatives such as creating an Agricultural Innovation District or an Agricultural Climate Adaptation Zone. The Committee must also find creative new ways to engage with the public to help unite the town around its agricultural identity; engaging regularly with the school system, organizing annual events to promote Hatfield farm products and regular agritourism opportunities, and providing abundant educational opportunities to residents to learn about regenerative farming practices and the vital role that local farmers play in stewarding the town's invaluable natural resources are all activities that could be undertaken by a revived and reactivated town Agricultural Commission.

The following is a list and timeline of possible goals and activities to be undertaken by the Agricultural Commission by 2040:

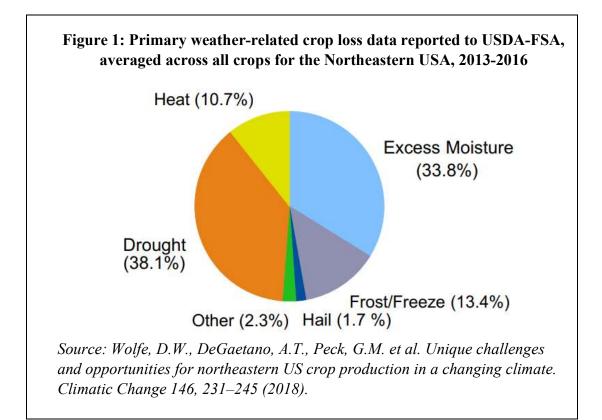
Activity	Immediate/ Ongoing	By 2030	By 2040
Recruit new members, including students, backyard farmers and informed/passionate non-farmer residents	×		
Apply for grant funding to support new initiatives through the Berkshire Taconic Foundation or the Mass Society for Promoting Agriculture; advocate for a new state funding allocation		×	
Create a system to track the presence of APRs on land in town to avoid any unintended construction or subdivision. (Enables the town to get a reduction in the local contribution required for future APR purchases.)	×		

Initiate a town-wide process to map, assess, and address ditch and wetland conflicts on behalf of farmers and residents	×		
Create an map and inventory of most vulnerable/degraded parcels to prepare for forthcoming grant opportunities to fund intervention and/or restoration		×	
Seek out opportunities to partner with surrounding towns to apply for and/or administer larger USDA grant opportunities to address regional challenges such as flooding, soil compaction, wetland restoration, water quality improvement, etc.		×	
Support the hiring of an Agricultural Grants Manager to be shared among a group of surrounding towns to help farmers apply for individual grants and coordinate larger multi- farm/collaborative grant opportunities		×	
Complete a comprehensive survey of producers to assess the total economic impact to the town; build relationships with existing and beginning farmers in town		×	
Update the Hatfield Ag Brochure and regularly promote on-farm agricultural events and agritourism opportunities; run a "Pride in Hatfield Grown" campaign	×		
Organize community-building and/or fundraising events on local farms to celebrate the town's agricultural identity; potato potluck, local ingredient chili cook-off, concerts, film and lecture series, farm-to-table dinners, 5k race, art events, etc.		×	
Give out a "Conservation Farmer of the Year" Award		×	
Regularly connect with growers to ensure they are accessing appropriate technical assistance and current grant opportunities; connect to service providers		×	

Create a farmer email listserv to facilitate the sharing of town-specific information that concerns farmers; could also be used between farms to share resources, equipment, peer learning, etc.	×		
Encourage residential participation in land link programs to keep small acreage in farming; help advertise lease opportunities to current and beginning farmers		×	
Promote the leasing of town-owned conservation land to small and beginning farmers; set up a market garden/farm incubator			×
Organize and/or promote local educational events and workshops on topics including: farm succession planning, soil health, pollinator health, regenerative farming practices, agroforestry, etc.	×		
Create an Agricultural Climate Adaptation Zone to energize and incentivize climate-smart farming practices or to create a focal point for future adaptation grant funding			×
Advocate for and advance the policy agendas of local, regional, and national food system organizations (i.e. Mass Food System Coalition, NOFA/Mass, National Sustainable Agriculture Coalition)		×	
Help fundraise or find sustainable funding sources for the Hatfield Public Schools Cafeteria to purchase Hatfield-grown produce		×	
Promote Hatfield Farmers: explore opportunities to aggregate and market Hatfield-grown products at events/fairs/festivals in surrounding towns		×	
Permanently protect 30% of Hatfield's working farmland (an additional 300 acres)		×	
Permanently protect 50% of Hatfield's working farmland (an additional 800 acres)			×

Addendum to Farm Chapter Climate Vulnerabilities and Implication for Agriculture in the Northeast

Climate anomalies of high priority for the Northeast include changing rainfall patterns, summer heat stress, and shorter, warmer winters. In 2023, the USDA released an updated plant hardiness map showing significant temperature shifts and changes in average annual extreme minimum temperatures; Hampshire County is almost entirely now located within Zone 6A, formally mapped in 1990 as Zone 5B. Both analytical and anecdotal evidence support the fact that the climate is undergoing volatile and unpredictable changes that will have broad impacts - challenges as well as opportunities - for agriculture throughout the Northeast.



According to the USDA Northeast Climate Hub²¹ and the Cornell University Climate Smart Farming Program,²² Hatfield will continue to face the following challenges from predicted changes to climate patterns in the Northeast over the next 100 years:

Precipitation / Rainfall

A warmer atmosphere holds more water. Because of this, more precipitation is occurring in heavy rainfall events (more than 2 in / 48 hrs), and this trend is expected to continue.

- Springtime flooding can delay planting
- Root damage and reduced yield due to flooding
- Soil compaction from the use of heavy machinery on wet soils
- Soil loss from erosion during heavy rain events
- Contamination of waterways from agricultural run-off
- Contamination and loss of crops touched by tainted floodwaters

Drought

The Northeast does not face the severe water shortages predicted for some other regions, but the risk of short-term summer drought is expected to increase over this century. Warmer temperatures and longer growing seasons will increase crop water demand, while summer rainfall will remain about the same or possibly decline.

- Declining and more variable yields of rain-fed crops
- Decline in quality of high-value fruit and vegetable crops

Temperature

Heat Stress Risk: The growing season across the state has already increased by an average of eight days. The number of summer heat stress days (e.g., exceeding 90°F) is expected to increase substantially, while winters continue to grow milder. These changes will create both opportunities and challenges for farmers.

- Warmer summer temperatures have been shown to decrease yields for certain varieties of grain crops (field corn, wheat, and oats) by speeding the development cycle and shortening the period during which grain heads mature
- Hot daytime (over 90°F) and nighttime (over 70°F) temperatures during critical phases of plant development can reduce the yield and quality of even "heat-adapted" crops such as squash and tomatoes

²¹ Tobin, D. et. al., 2015. Northeast and Northern Forests Regional Climate Hub Assessment of Climate Change Vulnerability and Adaptation and Mitigation Strategies. Northeast Hub Northern Research Station USDA Forest Service. https://climatesmartfarming.org/wp-content/uploads/2015/09/Northeast-Regional-Hub-Vulnerability-Assessment-Final.pdf Accessed September 2023.

²² Wolfe, D.W. (December 2014). *How is Climate Change Affecting your Farm?* Cornell Climate Smart Farming Program. https://climatesmartfarming.org/changing-climate/ Accessed September 2023.

- Increased humidity is stressful for livestock and farmworker health and promotes favorable conditions for fungal and bacterial growth, leading to increased disease in crops (powdery mildew, fruit blotch, southern wilt).
- Potatoes, cabbage, snap beans, apples, and other heat-sensitive plants will be more challenging to grow

Freeze Risk

While global warming is causing freezes to be less severe, spring frosts and freezes are not receding as quickly as flowering is advancing, resulting in increased freeze risk in frost sensitive orchards and vineyards.

• Warmer and more variable winters can increase the chance of frost and freeze damage for perennial fruit crops by inducing premature leaf-out and interfering with cold-mediated winter hardening

Insects, Weeds, and Disease

Interactions between climate, crops, insects, and disease are complex, but evidence suggests that climate change will require Northeast farmers to invest in earlier and more intensive pest and weed management. Anticipating the challenge of increased weed and pest pressure will allow for better control and more cost-effective management.

Insect Challenges:

- Spring populations of insect pests will expand, as survivorship rates of marginally over-wintering insect species increase and migratory insects arrive earlier
- A longer growing season means more insect generations per season, requiring increased intensity of management

Weed Challenges:

- Warmer weather and increasing concentrations of carbon dioxide in the atmosphere favor weed growth over crop plants in many cases
- Weeds will need to be controlled for longer and weed seed production will be greater
- Certain weed species currently restricted to the warmer South are migrating northward, such as kudzu, while some familiar weed species (e.g. lambsquarters) are projected to become stronger competitors
- Pressure to use chemical control methods will increase as pest and weed infestation intensifies, and studies have shown the climate change may reduce the efficacy of certain commonly used pesticides (pyrethroids, spinosad) and herbicides (e.g. glyphosate)

Disease Challenges:

- Wetter soils from extended periods of rain are more susceptible to soilborne pathogens, particularly *Phytophthora infestans* and *Phytophthora capsica*
- Climate-induced changes in the balance of pathogenic and mutualistic soil microbes may mediate plant nutrient supply, leading to an increase in nutritional deficiencies and decreased natural plant immunity to pathogens.²³

²³ Francisco I. Pugnaire et al. ,Climate change effects on plant-soil feedbacks and consequences for biodiversity and functioning of terrestrial ecosystems.Sci. Ad V.5 DOI: 10.1126/sciadv.aaz1834

Index to RDG Maps:

Map 1: Agricultural Land Cover

Map 2: Farmland Soils

Map 3: FEMA Q3 Flood Zones

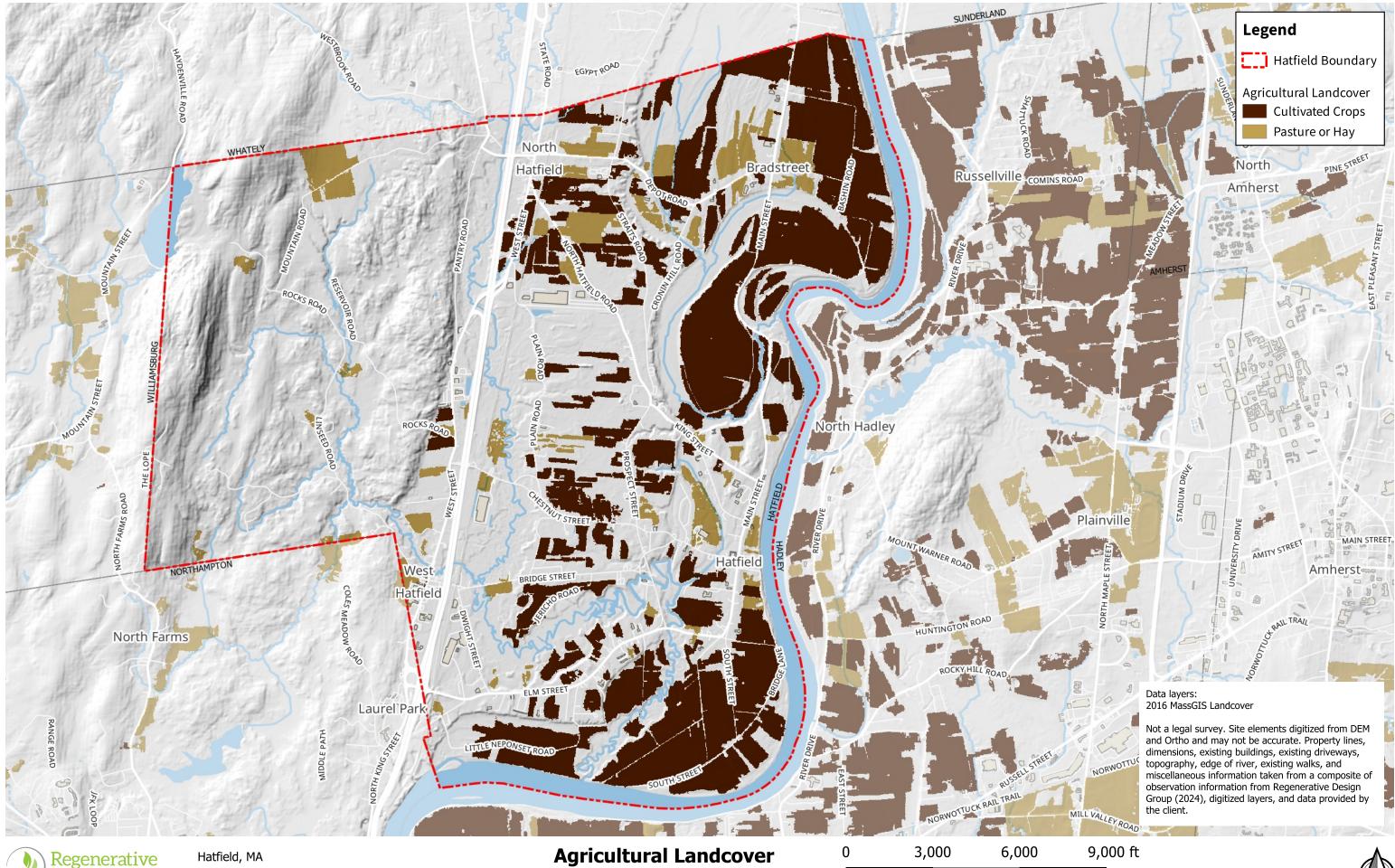
Map 4: Soil Organic Carbon

Map 5: Soil Functions for Resilience

Map 6: Ecological Planning Priorities

Map 7: Chapter 61 Lands

Map 8: Protected Farmland



DesignGroup

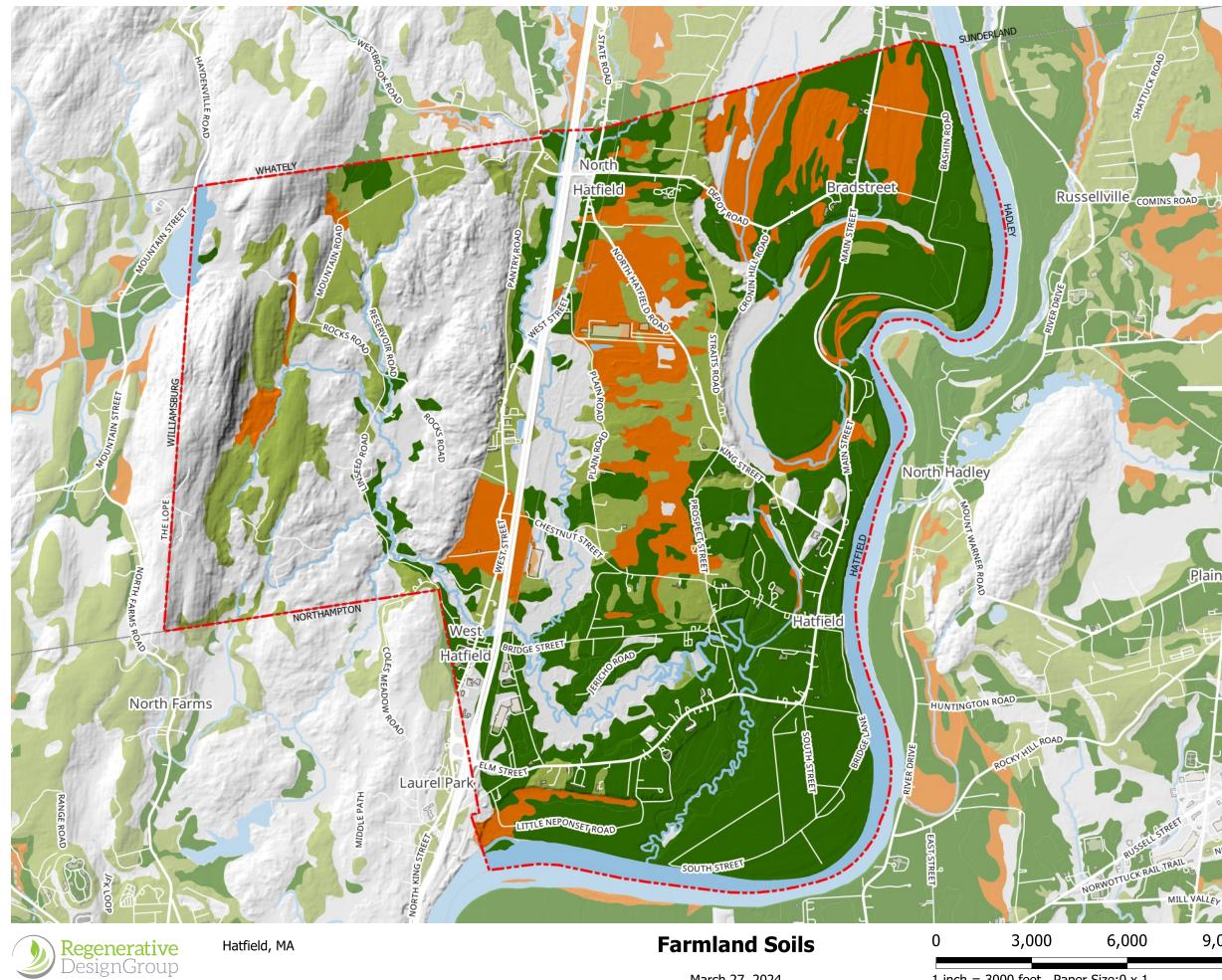
Agricultural Landcover

March 27, 2024

1 inch = 3000 feet Paper Size:11 x 17



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1 inch = 3000 feet Paper Size:0 x 1

Legend

Hatfield Boundary

Prime Farmland Soils

- Prime Farmland
- Farmland of Statewide Importance

Farmland of Local Importance

Data layers: NRCS SSURGO data

Not a legal survey. Site elements digitized from DEM and Ortho and may not be accurate. Property lines, dimensions, existing buildings, existing driveways, topography, edge of river, existing walks, and miscellaneous information taken from a composite of characteristic information (from Decementing Decime observation information from Regenerative Design Group (2024), digitized layers, and data provided by the client.

9,000 ft

MILL VALLEY ROAD

NORWOT

TRAIL

Plainville



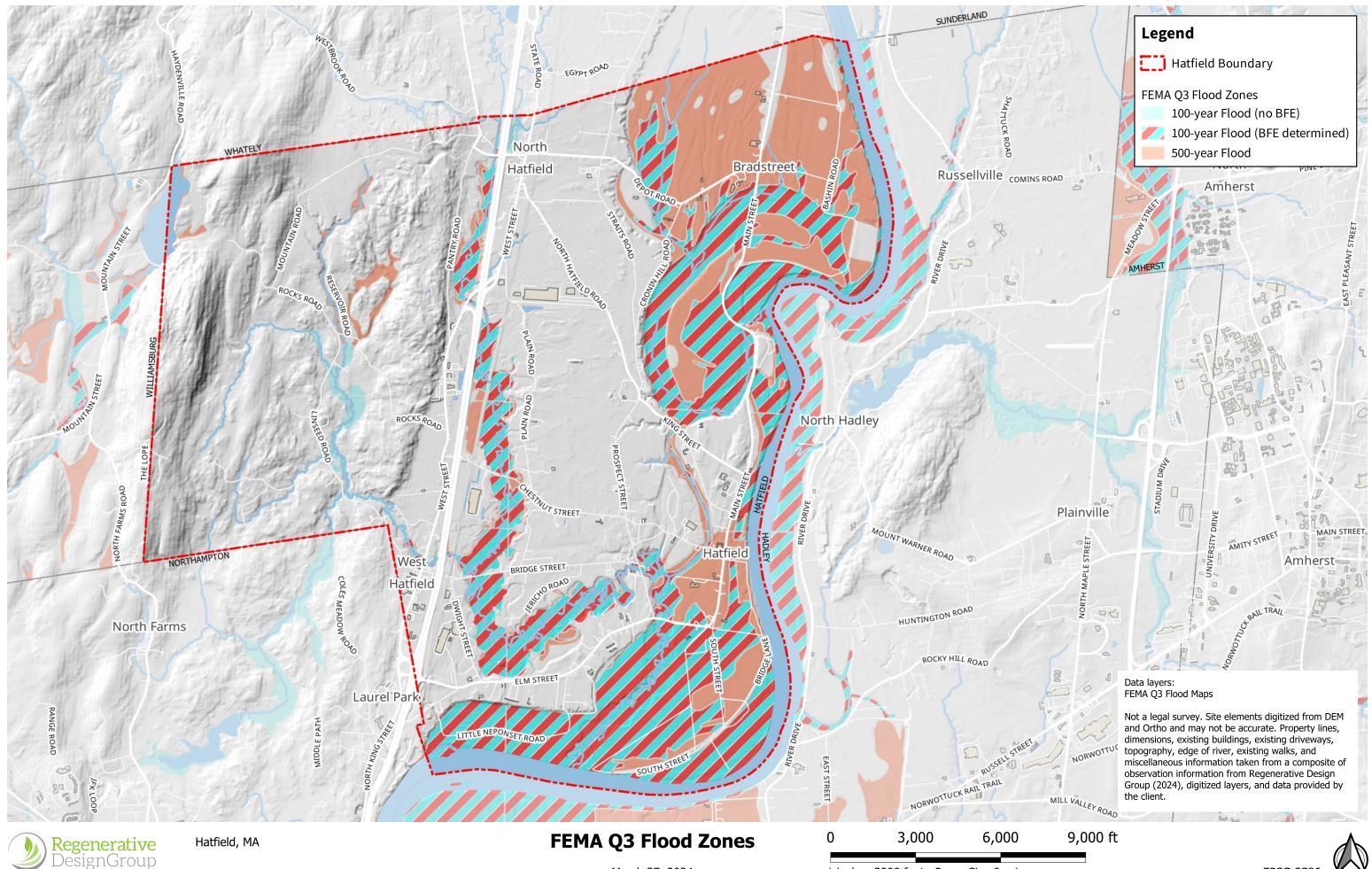
MAIN STREET

STREET

Amherst

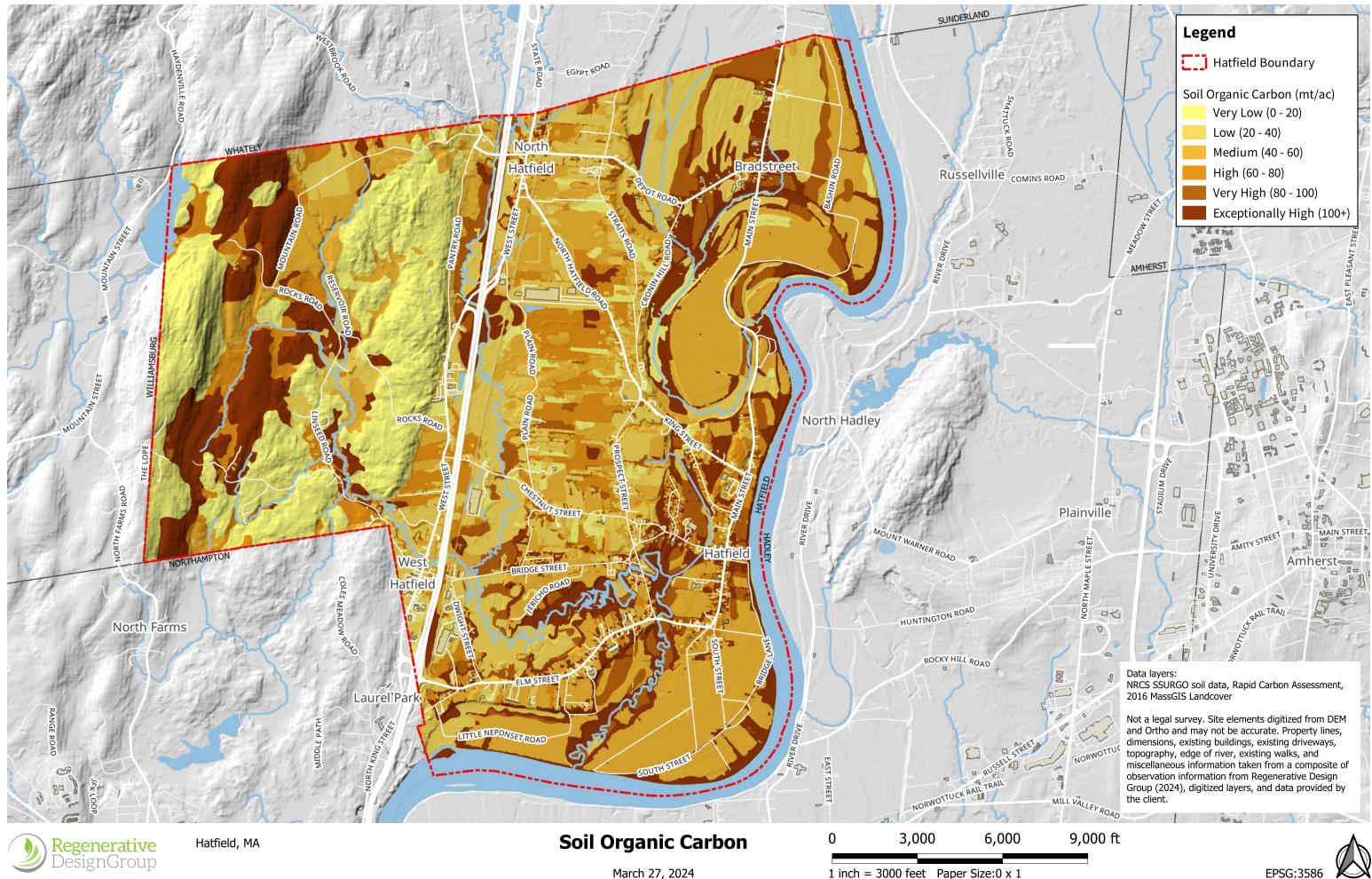
RAIL TRAIL

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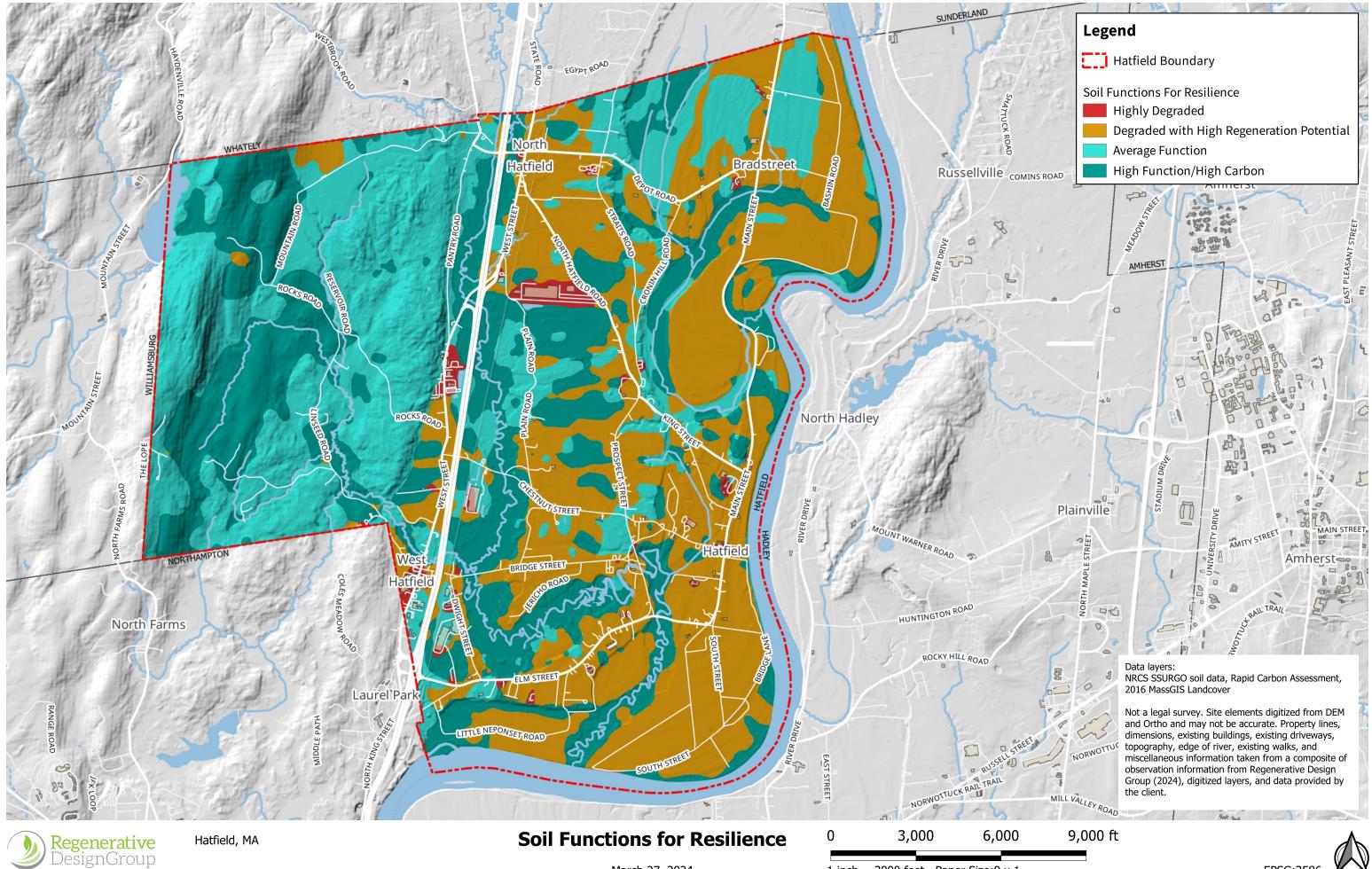




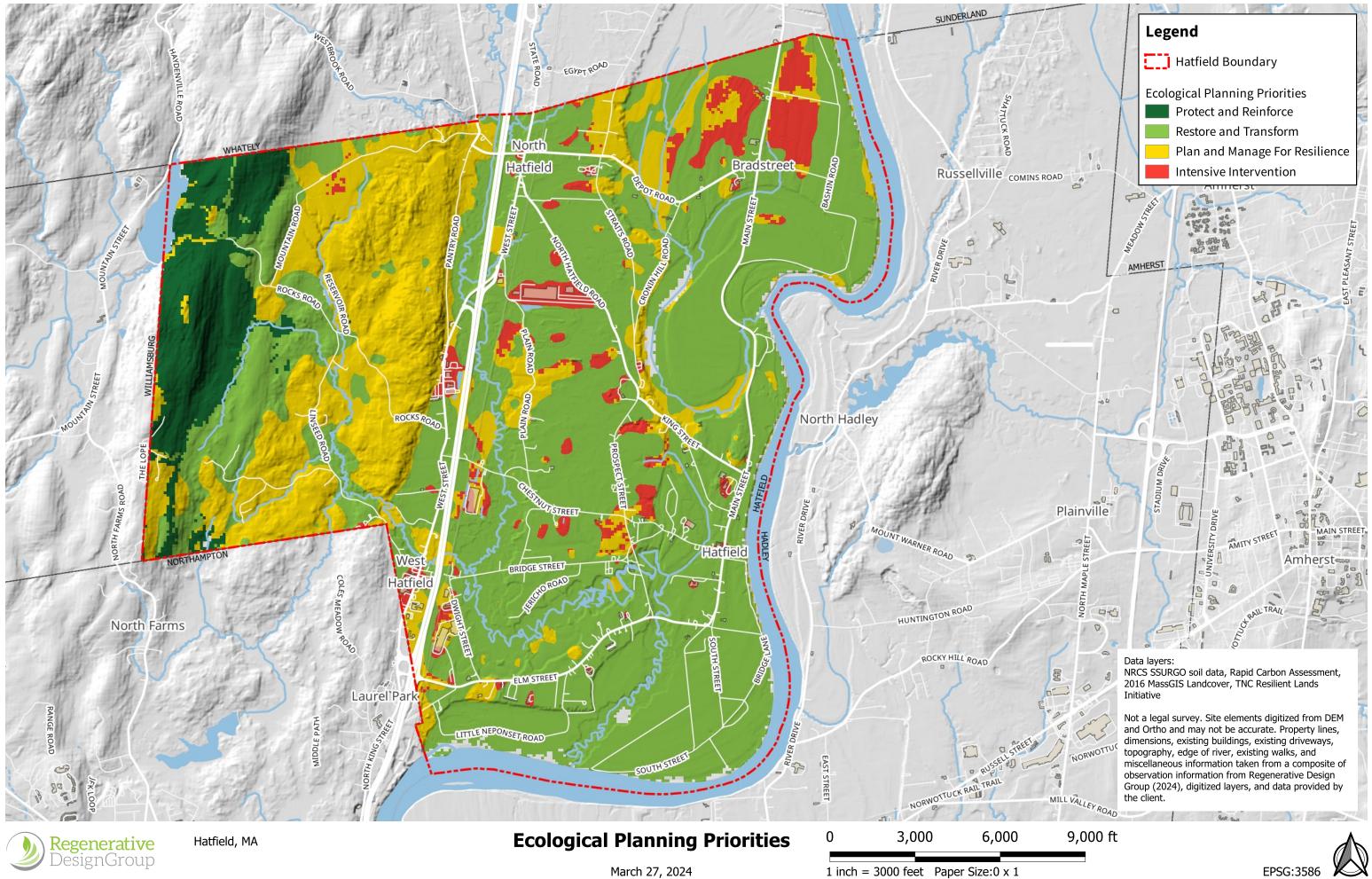
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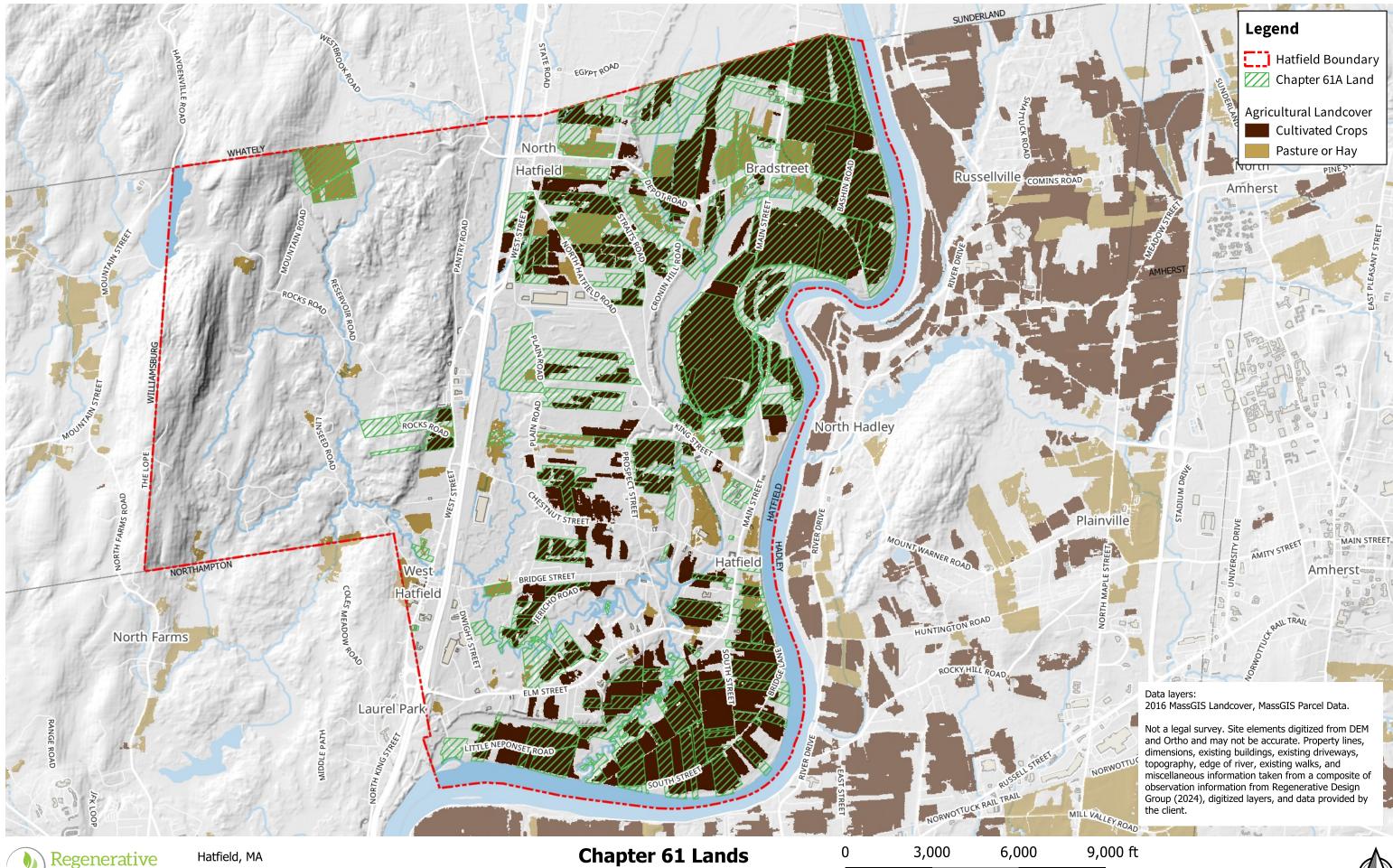


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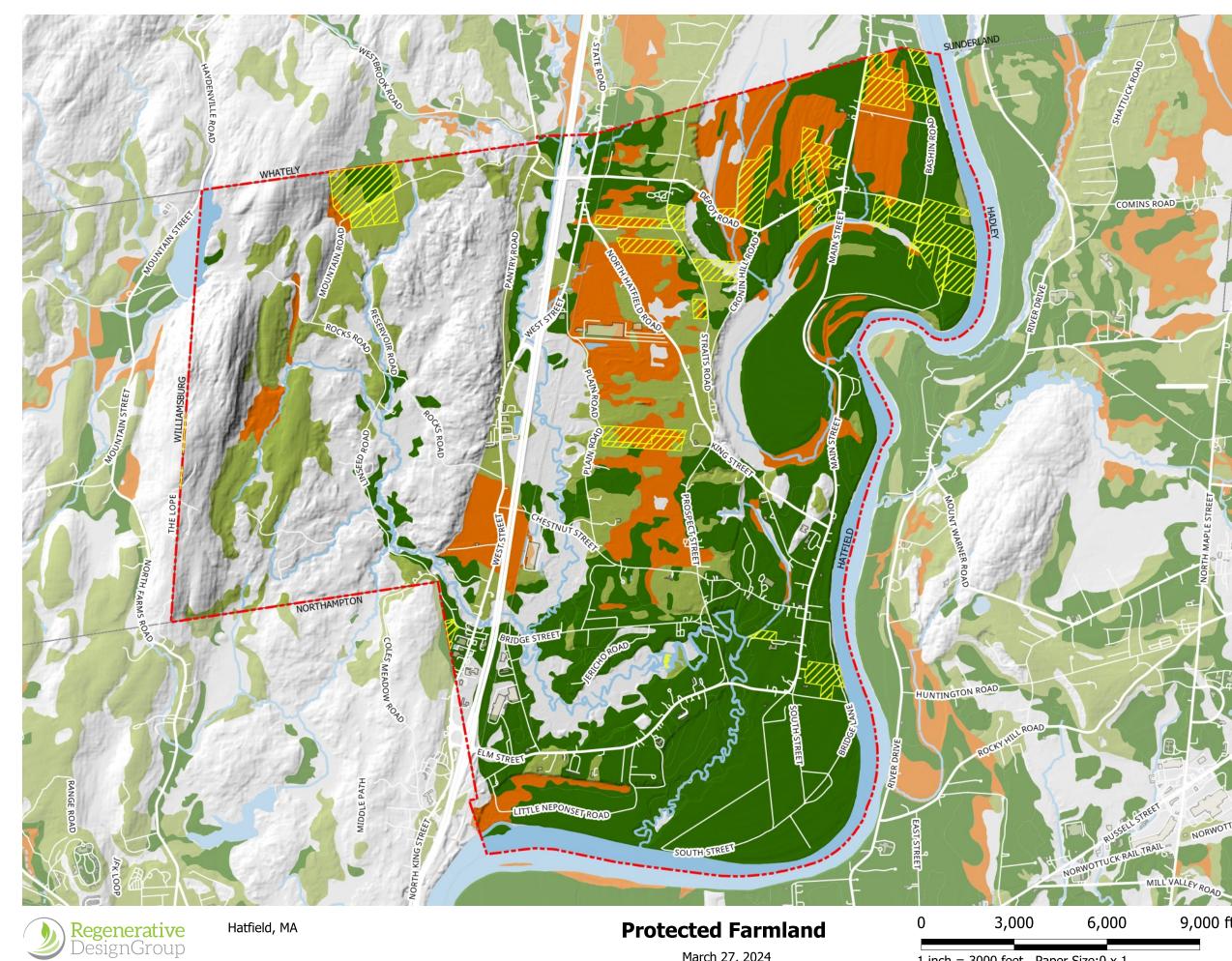
Chapter 61 Lands

March 27, 2024

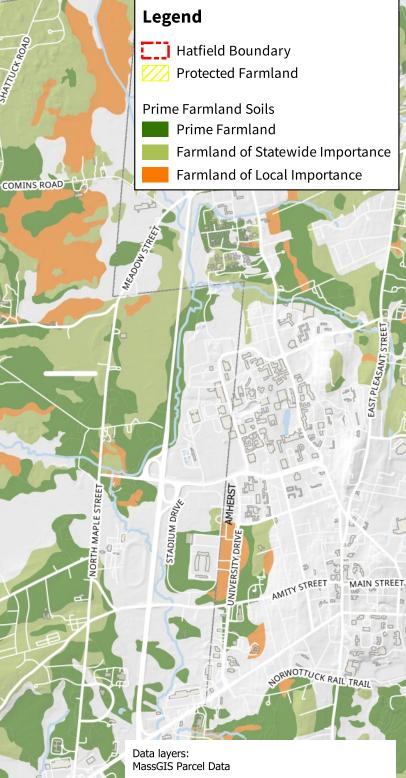
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Not a legal survey. Site elements digitized from DEM and Ortho and may not be accurate. Property lines, dimensions, existing buildings, existing driveways, topography, edge of river, existing walks, and miscellaneous information taken from a composite of observation information from Regenerative Design Group (2024), digitized layers, and data provided by the client the client.

9,000 ft

NORWOT



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Historic and Cultural Resources

1. Introduction

The history of a town is the story of the lives of its inhabitants, the rearing of the structure upon the foundations laid by its first settlers. A History of Hatfield Massachusetts, <u>1910</u>

Hatfield, especially the historic town center, retains remarkable historic character. Massachusetts Historical Commission Reconnaissance Survey, <u>1982</u>.

Historic Preservation planning for cultural resources can ensure that preservation values are considered a priority in community development decisions. Hatfield Master Plan for the 21st Century, <u>2001</u>

The historic Town Center is within the 500-year flood zone and contains critical Town facilities. Hatfield Open Space and Recreation Plan, 2023.

This chapter will highlight Hatfield's historic and cultural assets, discuss why these resources are vital for community strength, examine potential ways they can be supported to benefit the town and residents, and consider ways to plan for resiliency to ensure continued use and provide long-term protection for future generations.

An examination of how local historic preservation and cultural planning fits into the broader framework of federal and state objectives serves as a backdrop for an overview of Hatfield's historic and cultural development, particularly for this town which remains rich with built resources and historic streetscapes and landscapes dating back to the origins of local growth and provides a variety of cultural experiences enjoyed by residents and visitors. The high value placed by residents on Hatfield's historic and natural setting is a common theme in past planning efforts. This chapter will build upon that work to continue to explore ways to protect the longevity of these resources in a manner that best suits the community.

Themes

Related to Hatfield's historic and cultural resources, some of the major themes that emerged from community engagement in the spring and summer of 2023 are as follows:

The importance of preserving Hatfield's small-town atmosphere, unique historical character, and distinct identity.

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- A desire for more diverse, interactive community engagement and events, recreational outlets, public spaces, and opportunities for neighbors to get to know each other.
- A need for enhanced community and social connections through improved communications. Social media, the Town website, and a central online calendar were the top three identified desired locations for a "recreation hub" with information about events, programs, or planning processes in Hatfield.
- A "more user-friendly Hatfield website" to provide relevant and accessible information specific to the Town and residents.
- Proactively addressing and planning for the impacts of climate change, protecting the environment, and preparing for climate-related challenges. Partnering with other riverfront communities to work on a regional approach was also highlighted.
- Preserving the character of Hatfield was identified as a high priority goal for the Town to focus on in the next 10-20 years by about 70% of survey respondents.
- Preserving historic areas, sites, and buildings was identified as a top priority by 30% of respondents.
- Providing improved recreational and cultural opportunities was identified by more than 20% of respondents.

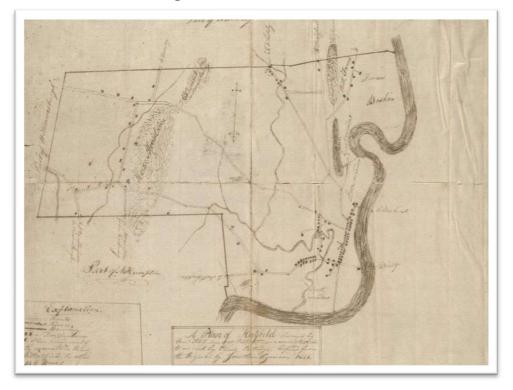


Figure 1: Plan of Hatfield, 1801

The status and integrity of existing documentation of local historic resources and cultural offerings will be reviewed, and a consideration of past planning conclusions will help to define goals, objectives, and strategies for ensuring resilience of Hatfield's community character. As an emerging field of study, for the purpose of this plan, the review of cultural resources will include visual, literary, and performing arts as well as festivals and sites which provide tangible and intangible experiences. Project research and community outreach will clarify current challenges and opportunities and relevant case studies will provide information in support of goals and strategies related to the resiliency and protection of historic and cultural resources.

In alignment with the Hatfield 2040 vision, this work strives to examine ways to protect the resiliency of Hatfield's historic and cultural resources, to prepare for next steps to achieve this goal, and to prosper with ensuring compatible and resilient rehabilitation and new development while also providing continued cultural offerings.

2. Existing Conditions

The Federal Foundation for Historic Preservation

Past planning work in Hatfield, as well as in other communities throughout the Commonwealth and country, has identified local historic and cultural resources to be integral aspects of community planning. On a federal level, formal groundwork was laid for this in 1966, when the National Historic Preservation Act (NHPA) was passed, primarily to acknowledge the importance of protecting our nation's heritage from unmitigated development. Some key elements from the Act were that it:

- Set federal policy for preserving our nation's heritage
- Established a federal-state and federal-tribal partnership
- Established the National Register of Historic Places and National Historic Landmarks Programs
- Mandated the selection of qualified State Historic Preservation Officers
- Established the Advisory Council on Historic Preservation
- Charged Federal Agencies with responsible stewardship
- Established the role of Certified Local Governments within the States

The NHPA required each state to have a state historic preservation office. In Massachusetts, the Massachusetts Historical Commission (MHC) was formed even before the NHPA through enabling legislation passed in 1963 that established the MHC and encouraged cities and towns to create their own, local historical commission.¹ M.G.L. Chapter 40, Section 8D relates to the establishment, powers, and duties of local historical commissions "for the preservation, protection and development of the historical or archeological assets of such city or town."² Locally, the Hatfield Historical Commission is a five-member board charged to inventory, preserve, protect, and develop the historical and archeological assets of the town.³

Cultural Planning

There is often a symbiotic relationship between a community's historic and cultural resources. The Mass Cultural Council (MCC) is the state agency involved with the promotion and encouragement of community art and culture to include supporting spaces and places where public cultural programming happens. The MCC strives to "promote excellence, inclusion, education, and diversity in the arts, humanities, and sciences, fosters a rich cultural life for all Massachusetts residents, and contributes to the vitality of our communities and economy." As stated on the MCC website, "Culture elevates. In all its forms, culture is essential to the health and vitality of the Commonwealth...Culture lifts the human spirit and makes Massachusetts a better place to live, work, and prosper."⁴ Hatfield's Cultural Council works in tandem with the MCC to provide funding for local cultural events.

Hatfield's Historic Overview

(with excerpts from the 1982 <u>MHC Recon Survey</u>, 2009 <u>DCR Recon Report</u>, <u>Hatfield 350</u>, and the 1910 <u>A History of Hatfield</u>)

The complete history of Hatfield cannot be fully addressed in a short chapter, but some major themes relevant to past, present, and future planning are as follows:

Indigenous People

The Capawonk and Nonotuck or Norwottuck tribes, who were sometimes allied with the Nipmucks to the east or the Pocumtucks to the north, are noted to have been the original land occupants around what would become Hatfield and continued to fish, farm, and hunt in the area after Colonial settlers laid out their properties. A 1910 history of Hatfield states describes these indigenous people.

The Indians of the vicinity were of various small tribes or clans, known by the general name of River Indians. The Agawams were at Springfield, the Warranokes at Westfield, the Nonutucks or Norwottucks just about Northampton, the Pocumtucks at Deerfield, and the Squakheags at Northfield...Farther to the east were the warlike

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https://malegislature.gov/Laws/GeneralLaws/PartI/TitleII/Chapter9/Section26

² https://malegislature.gov/Laws/GeneralLaws/PartI/TitleVII/Chapter40/Section8D

³ <u>https://www.townofhatfield.org/historical-commission</u>

⁴ Mass Cultural Council, <u>https://massculturalcouncil.org/</u>

*Nipmucks, or Nipments, near Brookfield, or, as it was then known, Quabaug.*⁵

Many members of these tribes died after exposure to and lack of immunity from European illnesses such as smallpox introduced to the area by the Colonists.

Colonial Settlement

Today's Hatfield was part of the original 1653 Nontuck grant for Northampton including the southwestern section to Capawonk meadows (Mill River). The Connecticut River meadowland was granted as part of Hadley Plantation in 1659 and described as Hadley West Side by 1660, "secured in three purchases" with the first on July 10, 1660, signed by the sachem Umpanchala and approved by his brother Etowong, who "reserved for their use the "Chickons of planting Field"...and liberty to hunt and fish, to set wigwams on the common, and to cut trees for use."6 The second purchase, the meadow called Capawonk, was deeded by Northampton settlers in 1663, and the third was a tract of land deeded from the heirs of Quonquont and signed by his widow Sarah Quanquan, his son Pocunohouse, his daughter Majessit, and Mattatabange and Momecuse for fifty fathoms of wampum."7 Hatfield was laid out as a linear street village in eight and four acre homelots that extended east and west along what is now the southern end of Main Street. as part of Hadley in 1661. Hampshire County was organized in 1662. Hatfield's residents traveled across the river to Hadley for church and town meetings from 1661 to 1668 until they built their own Meetinghouse by 1668 and laid out a burial ground in 1669. Early graves were not marked and by 1910, the grave marker for Captain John Allis (1642-1691) was noted to be the oldest in Hill Cemetery Elm Street (1669, HTF.802). The highway between Hatfield and Northampton was probably laid out in 1665 and a bridge across the Mill River was constructed in 1668. Hatfield became a separate Parish and town in 1670 with western and northern portions later defined as the towns of Williamsburg and Whately, resulting in a loss of population for Hatfield. The first school was established in Hatfield in 1679.

Colonial Conflicts

This 1910 narrative speculates that there were less than 200 Norwottucks left in the Hatfield area at the outbreak of King Philip's War (1675-1676). Philip, son of Massasoit, Chief of the Wampanoags is the namesake of this conflict, which

⁵ Daniel White Wells and Reuben Field Wells. A History of Hatfield, Massachusetts, 1660-1910. Springfield: F.C.H. Gibbons, 1910. Archive.org

⁷ Ibid.

originated in eastern communities and quickly spread west with tensions rising between the Norwottucks and Western Colonists. In late August of 1675, a bank of Pocumtucks, Norwottucks, and roving members of other tribes left their gathering and were pursued by Colonial detachments from Hadley and Northampton, engaging in conflict below Sugar Loaf mountain with Colonial and Native American casualties. Other conflicts took place on the area's meadows and within the palisaded settlement and in May of 1676, a force including 12 volunteers from Hatfield, set out to the Native camp at the falls between Gill and Montague for an attack which ultimately resulted in loss of life on both sides. Another attack occurred in Hatfield on May 30th with 12 houses and barns outside of the palisades destroyed by fire. Midday on September 19, 1677, Hatfield was attacked, 12 residents were killed, 17 were captured and taken, and houses and barns were burned. During the three years of warfare, "the losses suffered by Hatfield were greater in proportion to the population than those of any other town in the valley except...Deerfield and Northfield."8 By the end of the conflict, the remaining local indigenous population had left or been pushed from Hatfield and the greater region and fear from future attacks led to a 1695 act prohibiting trading with Native Americans in Hampshire County and a 1697 General Court Order that any Natives found within 20 miles of the west side of the Connecticut River should be considered enemies and treated as such.⁹ Over time, much of their history has been distorted and erased.

Colonial conflicts, including the French and Indian War (1754-1763), continued but the collaboration of the increasing number of neighboring settlements contributed to the strength of the whole region. The middle portion of the eighteenth century is remembered for being a period of "great prosperity" with an increase of wealth and influence for Hatfield residents.¹⁰

American Revolution

The loss of political liberties and trade restrictions contributed to increased discontent by American Colonists with British rule with key responses to include the 1773 Boston Tea Party. It is noted that 125 Hatfield men engaged in the Revolutionary War including Hatfield's Joseph Guild (1760-1846), Bradstreet Cemetery, who was at the battles of Saratoga and Stillwater, Monmouth, wintered at Valley Forge in General Washington's Army, served under General Greene in his southern campaign, and saw

⁸ Ibid.

⁹ Ibid, 119.

¹⁰ Ibid, 166.



Figure 2: C.K. Morton House, 30 School Street, (ca. 1730, HTF.122)

Lord Cornwallis give up his sword at Yorktown.¹¹ Reputed to be a leading town in the cattle industry, Hatfield supplied large quantities of beef to the troops and General George Washington stationed a Commissary officer in the town during the duration of the conflict. The Hubbard Inn <u>4 Elm Street (1750, HTF.232)</u>, established circa 1760, was a "famous hostelry" during this time.¹² After the War, as the new nation was working through this "Critical Period of American History," the Shays's Rebellion (1786-1787) uprising, named after Pelham farmer Daniel Shays, involved a series of attacks on courthouses and other government properties in Massachusetts by farmers and war veteran farmers who were minimally compensated and struggled to make post-war ends meet. A related convention to discuss the grievances of Massachusetts residents was held in Hatfield in August of 1786 with the representation of 50 towns declared as a constitutional body.

Agriculture and Industry

Hatfield was an early center for agriculture with its rich soil supporting the growth of corn, winter and summer wheat, peas, and tobacco and the raising of cattle and sheep. The waterfall on the Mill River powered grist and sawmills and the Running Gutter Brook powered a linseed oil mill, which was the first one in Massachusetts.¹³ Over

¹¹ Ibid, 191

¹² Ibid, 195

¹³ Ibid, 169

time, Hatfield also had a fulling mill, a corn mill, and a blacksmith shop and goods were later traded with markets in Springfield and Boston and a thriving lumberindustry. By the mid-1700s, the town's farmers were prospering. An early 1800s broom corn industry lasted into the 1860s and mid-1800s tobacco cultivation led Hatfield to become the largest tobacco grower in the region. A bridge from Hatfield across the Connecticut River was opened in 1807, increasing opportunities for travel and trade. This bridge was later removed, and a new bridge constructed in 1808 between Hadley and Northampton "proved profitable."¹⁴ By the mid to late 1800s through the early 1900s, crops for onions, asparagus, and potatoes were in high demand. The newly developed method of growing shade tobacco, became another profitable 20th century crop.



Figure 3: Onion planters near Hatfield, 1936

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¹⁴ Ibid, 217

Slavery and Abolition

Dating back to 1697, there is record of Hatfield Colonists who kept slaves, including Lieut. and Mrs. David Billings, prior to this practice being abolished in Massachusetts in 1781.¹⁵¹⁶ During the Civil War (1861-1865), Hatfield residents volunteered service, sheltered runaway slaves, and sent teachers south after the War to support education of freed slaves in Southern states. Charles Morris Billings was known to have pronounced anti-slavery views and his house at <u>29 Main Street (1831, HTF.146)</u> is remembered for use as an Underground Railway station to harbor fugitive slaves.¹⁷ There is undoubtedly much information that could be uncovered about the history of Hatfield's Black residents, like work underway in Amherst by the African Heritage Reparation Assembly. A 1982 Massachusetts Reconnaissance Report for Hatfield noted the archaeological potential for subsurface remains of a freed slave village on Northampton Road, likely in the vicinity of West Hatfield, as local histories mention cabins there in the early 20th century.¹⁸

Population and Immigration

The construction of the first railroad through Hatfield in 1846 attracted immigrants to settle in Hatfield, with many working in the local agricultural industry. Irish and German residents immigrated to the area beginning circa 1845, primarily due to the potato famine in Ireland and the 1848 revolution in Germany. French-Canadians settled in Hatfield beginning around 1850, with many providing expertise and support in the broom corn industry. Over the second half of the nineteenth through early twentieth centuries, the high production of tobacco and commercial demand for onions, asparagus, and potatoes required more labor and attracted immigrants from Eastern Europe, with Hatfield described as becoming "exceedingly cosmopolitan for a quiet farming community."¹⁹ Beginning around 1900, a steady "influx of people from southern Europe" led to the description of the "old town" becoming "exceedingly cosmopolitan for a quiet farming community." New residents included Polish people from Austria and Russia, Bohemians, Slovaks, and Lithuanians.²⁰

Some Notable Residents

Rebecca Dickinson (1738-1815) was a Hatfield gownmaker best known for her journal which describes her life as a self-sufficient artisan and single woman during a

¹⁵ Daniel White Wells and Reuben Field Wells, *A History of Hatfield*, *1660-1910*, Springfield: F.C.H. Gibbons, 1910. 129

¹⁶ Ibid, 196-197

¹⁷ Ibid, 228-229

¹⁸ <u>https://www.sec.state.ma.us/mhc/mhcpdf/townreports/CT-Valley/htf.pdf</u>

¹⁹ Daniel White Wells and Reuben Field Wells, *A History of Hatfield*, *1660-1910*, Springfield: F.C.H. Gibbons, 1910. 129

²⁰ Ibid, 235

time of "extremely influential historical events. She was also the daughter of Canada Waite, born to Martha Waite while in captivity by Native Americans.

The Smith family of Hatfield were descendants of Lieutenant Samuel Smith, one of the first settlers of Hadley. Sophia Smith (1796-1870) <u>22 Main Street (1820,</u> <u>HTF.151</u>) believed in the possibilities of higher education for women and used her inherited fortune to establish Smith College (opened 1875) in Northampton and Smith Academy (1872) in Hatfield. Smith's Will illustrates her belief in the importance of supporting equal educational opportunities for women.

"the establishment and maintenance of an Institution for the higher education of young women, with the design to furnish for my own sex means and facilities for education equal to those which are afforded now in our Colleges to young men."²¹

Hatfield resident Jonathan Dickinson (1688-1747), a leader in the Great Awakening religious revival of the 1730s-1740s, was co-founder and first president in 1747 of the College of New Jersey, today known as Princeton University.

Environmental Challenges and Planning

More than 120 years ago, Hatfield residents understood the challenges that came along with proximity to the "great river." Prior to Colonial settlement, it was imagined that the Connecticut River "was probably much the same in appearance then as now, with its banks fringed with trees and bushes, its sand bars and stretches of sandy beach, its every shifting channel and its destructive tendencies in time of flood."²²

The homesteads where some of the early settlers lived and died, the lands which they cultivated, and the highways which they traveled, have been carried away, and more serious consequences have been threatened.²³

²¹ Sophia Smith, Smith College (site), <u>https://www.smith.edu/discover-smith/history-traditions/sophia-smith</u>

²² Daniel White Wells and Reuben Field Wells. A History of Hatfield, 1660-1910, (Springfield: F.C.H. Gibbons, 1910), 129. Archive.org,

https://archive.org/details/ahistoryhatfiel00wellgoog/page/n10/mode/2up?view ²³ Ibid.



Figure 4: Barn damage from the 1936 flood

A dike was built in Hatfield in 1904 for protection from flooding, which also impacted the availability of previously abundant Salmon and Shad that came up the stream to spawn. In March of 1936, two weeks of snow melt and heavy rain caused "the worst floods in regional history" which major devastation to farmland.²⁴ (Figure 4) The combined effects of a frontal system and "the Great New England Hurricane of 1938," produced rainfall of 10 to 17 inches across most of the Connecticut River Valley, resulting in some of the worst flooding ever recorded.²⁵ Severe rainstorms and related flooding in July of 2023 caused an estimated \$15 million in damages to Western Massachusetts farmers, mostly on land along the Connecticut River.²⁶ Today, Hatfield's Connecticut River dike system offers some protection from flooding. Planning for present and future resiliency continues to be an issue at the top of Hatfield's priority list.

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 ²⁴ Guy McLain, "The Flood of 1936," <u>https://springfieldmuseums.org/blog/flood-of-1936/</u>
 ²⁵ "The Great New England Hurricane of 1938," National Weather Service, <u>https://www.weather.gov/box/1938hurricane</u>

²⁶ Alden Bourne, "Western Massachusetts famers say dam operators could have limited damage from July floods," <u>https://www.wgbh.org/news/local/2023-10-18/western-massachusetts-farmers-say-dam-operators-could-have-limited-damage-from-july-floods</u>

Early Preservation and Improvement Efforts

The importance of historical documentation, preservation, and community story telling was formalized with the 1870 establishment of the Pocumtuck Valley Memorial Association (PVMA) in the neighboring community of Deerfield ²⁷ The PVMA was the first historical society in Western Massachusetts and organized a field day in Hatfield upon the 212th anniversary of the 1677 Native and Colonial conflict.²⁸ This organization is still active in Deerfield.²⁹ A Village, or Rural Improvement Society was established in 1885 with the following goals:

...to cultivate public spirit, quicken the social and intellectual life of the people, promote good fellowship, and secure public health by better hygienic conditions in our houses and surroundings, improve our streets, roads, and public grounds, sidewalks, and in general to build up and beautify the whole town, and thus enhance the value or its real estate and render Hatfield a still more inviting place of residence.³⁰

Twenty-five years after its establishment, it was remarked that under the direction of the Society, "much improvement in the appearance of the streets and grounds have been made...Fences have been removed and the lawns receive better care, trees have been set out, the cemeteries are kept in good order, and in every way the residents are encouraged to beautify their places. Today, the Hatfield Historical Society manages the town's historical collections, including oral histories, with a museum on the second floor of Dickinson Memorial Hall. (Figure 5) The town library is on the first floor.³¹ The Hatfield Historical Museum holds an extensive collection of archives and material culture from the 17th to 20th centuries that help to tell the story of Hatfield.³² The Hatfield Farm Museum, located in a tobacco shed, has a collection of farm tools primarily from the 19th and early 20th centuries as well as other items related to the Town's history. Hatfield continues to honor and memorialize its history, most recently with a community-wide multi-event 350th anniversary celebration held in 2021.

https://www.loc.gov/resource/gdcmassbookdig.212thanniversary00bart/?sp=5&st=image&r=-0.416,0.05,1.758,0.893,0

²⁹ <u>https://deerfield-ma.org/about/</u>

²⁷ <u>https://deerfield-ma.org/about/</u>

²⁸ Pocumtuck Valley Memorial Association, "212th Anniversary of the Indian Attack on Hatfield, and Field Day of the Pocumtuck Valley Memorial Association," *loc.gov*,

³⁰ Daniel White Wells and Reuben Field Wells. A History of Hatfield, Massachusetts, 1660-1910. Springfield: F.C.H. Gibbons, 1910. Archive.org

 $[\]underline{https://archive.org/details/ahistoryhatfiel00wellgoog/page/n8/mode/2up?view=theater}$

³¹ https://hatfieldhistory.weebly.com/

³² http://chc.library.umass.edu/blog/hatfield-historical-society/

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Figure 4: Dickinson Memorial Hall, 39 Main Street (1894, HTF.143)

Identifying and Supporting Historic and Cultural Resources

Federal and State Framework for Documentation and Preservation

The United States Department of the Interior (DOI) is responsible for the protection and management of the country's natural resources and cultural heritage.³³ The Secretary of the Interior (SOI) considers types of historic resources to be prehistoric and historic districts, sites, buildings, structures, and objects.³⁴ As a bureau of the DOI, the National Park Service (NPS) "cares for special places saved by the American people so that all may experience our heritage."³⁵ The NPS defines the nation's historic and cultural resources as the physical and spiritual reminders of the decisive times, people, and places in American history and culture.³⁶ The NPS considers a general fifty-year cut-off or older to initially determine the potential for historic significance of a historic resource. Other factors such as context, social history, and integrity of location, setting, design, materials, workmanship, feeling,

³³ "About Interior," <u>https://www.doi.gov/about</u>

³⁴ U.S. Department of the Interior, "Historic Preservation," <u>https://www.doi.gov/pam/asset-management/historic-preservation</u>

³⁵ "National Park Service," <u>https://www.nps.gov/index.htm</u>

³⁶ National Preservation Institute, "What are 'Cultural Resources'"? <u>https://www.npi.org/what-are-cultural-resources</u>

and association, are also important in determining the level of a resource's significance.³⁷

National Register of Historic Places

The NPS National Register of Historic Places (NR) is the official list of the nation's historic places worthy of preservation. Authorized by the NHPA, the NR is part of a national program to coordinate and support public and private efforts to identify, evaluate, and protect America's historic and archeological resources.³⁸ Listing is an honorary designation and does not place restrictions on property owners when using private funds to do work related to a listed property.³⁹ NR listed properties are automatically included in the Massachusetts State Register of Historic Places (SR). In addition to recognizing the historic and cultural significance of a property or district, NR and SR listing provides limited protection from adverse impacts by federal or state involved projects. Listing also provides opportunities for benefiting from preservation and rehabilitation incentives like historic rehabilitation tax credits, and grant programs which are only available to NR properties.

Massachusetts Historical Commission

The MHC is the State Historic Preservation Office, as mandated by the 1966 National Historic Preservation Act and supported by enabling legislation in Massachusetts General Law.⁴⁰ The MHC has specific forms that are used to document historic resources. The MHC has also developed a map using GIS data which shows properties that have been identified in the <u>Massachusetts Cultural Resource</u> Information System, also known as MACRIS. GIS data is displayed through the <u>MACRIS Map</u>, providing a visual for documentation throughout the Commonwealth. The MHC also oversees the State Register of Historic Places, established in 1982 as a comprehensive listing of the buildings, structures, objects, and sites that have received local, state, or national designations based on their historical or archaeological significance. NR and SR listing is often an eligibility requirement for historic preservation grants.

Hatfield Historical Commission

The <u>Hatfield Historical Commission</u> (HHC) is a five-member board that is responsible for ensuring that local historic preservation concerns will be considered in

³⁸ "National Register of Historic Places," <u>https://www.nps.gov/subjects/nationalregister/index.htm</u>
 ³⁹ Massachusetts Historical Commission, "There's a Difference!"

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³⁷ "How to Apply the National Register Criteria for Evaluation," *National Register Bulletin*, 1995, nps.gov, <u>https://www.nps.gov/subjects/nationalregister/upload/NRB-15_web508.pdf</u>

https://www.sec.state.ma.us/mhc/mhcpdf/difference.pdf ⁴⁰ MHC enabling legislation: M.G.L. Ch. 9 ss.26-27C

community planning. The HHC presence on the Town web site lists Commission members, contact information, past agendas, a 2015 hearing video, and links to Hatfield Historical Museum and Hatfield Historical Society collections and resources. The HHC does not currently oversee any local historic districts but it is authorized with advising the Hatfield Building Inspector with respect to demolition permit applications for significant buildings which the HHC determines to be preferably preserved.^{41 42} Significant buildings are defined as any building within the Town which is in whole or in part one hundred years or more old and which has been determined by the Commission or its designee to be significant based on any of the following criteria:

- The Building is listed on, or is within an area listed on, the National Register of Historic Places; or
- The Building is importantly associate with one or more historic persons or events, or with the broad architectural, cultural, political, economic, or social history of the Town or the Commonwealth; or
- The Building is historically or architecturally important (in terms of period, style, method of building construction, or association with a recognized architect or builder) either by itself of in the context of a group of buildings.

No demolition permit for a building which is in whole or in part 100 years or more old shall be issued without following the provisions of the bylaw. If the HHC determines that a building is preferably preserved, no building permit for new construction or alterations on the premises shall be issued for 12 months from the date of the determination unless agreed to by the HHC.

Cultural Planning in Massachusetts

There are varying definitions related to the question of what makes up a community's "cultural resources." The establishment of the Mass Cultural Council (MCC) has provided a statewide framework for cultural planning in communities. The MCC asserts that "In all its forms, culture is essential to the health and vitality of the Commonwealth."⁴³

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⁴¹ <u>https://www.townofhatfield.org/historical-commission</u>

https://www.townofhatfield.org/sites/g/files/vyhlif3246/f/uploads/town_bylaws_may_14_2019_approv_ed.pdf

⁴³ <u>https://massculturalcouncil.org/</u>

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Local and Regional Cultural Councils are addressed in M.G.L. Chapter 10, Section 58:

Any city or town may establish a local cultural council and any consortium of cities and towns, with the approval of the council, may establish a regional cultural council. Local cultural councils shall consist of at least five and not more than twenty-two members to be appointed by the mayor of a city, the city manager in a city having a Plan D or E form of government, the board of selectmen of a town or the executive officer in a town having a town council form of government.44

Hatfield Cultural Council

The <u>Hatfield Cultural Council</u> (HCC), currently made up of five members, supports programs that promote excellence in the arts, humanities, and the interpretive sciences by administering small grants from funds awarded by the MCC. The HCC members are appointed by the Select Board, to allocate grants funded by the Massachusetts Cultural Council, a state agency. Funding is based on the town census.⁴⁵ A 2020 HCC Community Survey identified as priorities projects celebrating local history and cultural diversity; revitalization projects within the community; and community-wide gatherings such as concerts and sing-alongs. In 2022, the HCC funded local cultural programs which were Smith Academy Park, the Hatfield Senior Center, the Hatfield Public Library, and First Church Hatfield.

From this perspective there are an abundance of cultural sites and programmatic offerings in Hatfield including many which relate to and utilize historic buildings, sites, and landscapes and highlight the town's heritage and culture.

Existing Conditions of Historic and Cultural Resources

It is evident through exploring the current state inventory of Hatfield's historic resources that there has been a strong past effort to research, document, and achieve National Register (NR) listings for many of the town's historic resources, found within the MACRIS database by the identifier "HTF" followed by an inventory letter or number. There are currently 734 "HTF" inventory points in the MHC's MACRIS database and visible on MACRIS Maps. This can be compared with Hadley (1,229), Northampton (1,717), Williamsburg (75), Whately (291), Leverett (369), Amherst (1,447) and South Hadley (219).

⁴⁴ <u>https://malegislature.gov/Laws/GeneralLaws/PartI/TitleII/Chapter10/Section58</u>

⁴⁵ <u>https://www.townofhatfield.org/cultural-council</u>

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Within MACRIS, Hatfield currently has 13 inventoried Areas, 693 Buildings, 2 Objects, and 20 Structures. A marked difference between Hatfield and many other communities in Massachusetts is that out of the town's 734 total inventory items, 651 are related to one of the eight districts listed on the NR. For a comparison, Hatfield, with a total area of 16.8 square miles, has 8 NR Districts with a 2020 census population of 3,352 and Northampton, at 35.8 square miles, has 8 NR Districts with a population of 29,311.

Local work to document and achieve listing in the NR spans from the early 1980s with the Old Mill Site Historic District through the early 2000s with the West Hatfield Historic Districts and periods of significance spanning the 1650s through the 1950s.

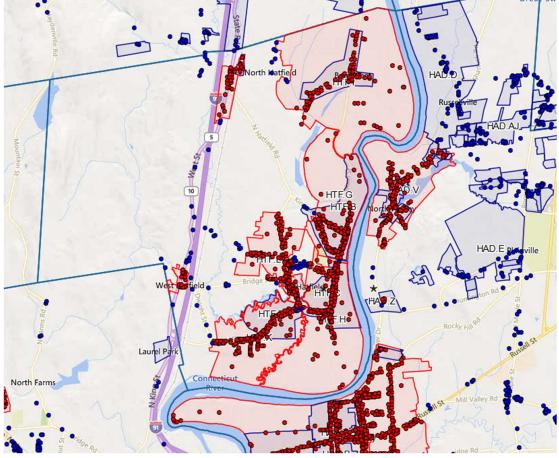


Figure 5: MHC MACRIS Maps showing historic documentation in Hatfield

•= *Inventoried* •= *National Register*

Burial Ground and Archaeological Resources

Older burial grounds are often considered to have historical and archaeological significance. There have been six burial grounds documented in Hatfield with no current listings on the National Register of Historic Places.

Documented archaeological sites are not shown on MACRIS and information is only available through a permitting process. Past reports have noted the likelihood of remaining archaeological resources in Hatfield due to the known presence of Native Americans, community development beginning in the seventeenth century, and areas of undeveloped land, and recommendations have been made for greater protections of these resources. ⁴⁶ The 1982 MHC Reconnaissance Report speculated that there was probably extensive Native American settlement in what would become Hatfield, with the fertile lowlands likely attractive due to agricultural potential.

HISTORIC NAME & MACRIS ID	PERIOD OF SIGNIFICAN	YEAR DESIGNAT
	CE	ED
Old Mill Site Historic District (HTF.F)	1881-1891	1982
Upper Main Street Historic District (HTF.G)	1705-1944	1994
Hatfield Center Historic District (HTF.H)	1669-1944	1994
Bradstreet Historic District (HTF.I)	1682-1946	1997
North Hatfield Historic District (HTF.J)	1820-1946	1997
Elm Street Historic District (HTF.K)	1740-1950	2000
Mill-Prospect Street Historic District (HTF.L)	1659-1952	2002
West Hatfield Historic District (HTF.M)	1830-1955	2005

National Register Districts in Hatfield as of 2023

Hatfield has eight NR Districts

Source: https://mhc-macris.net/

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⁴⁶ <u>https://www.sec.state.ma.us/mhc/mhcpdf/townreports/CT-Valley/htf.pdf</u>

Historic Name and MACRIS ID	Period of Significance
First Burying Ground (HTF.800)	circa 1669
Hill Cemetery (HTF.802)	1669
North Hatfield Cemetery (HTF.801)	circa 1844
West Street Cemetery (HTF.803)	1845
Main Street Cemetery (HTF.804)	circa 1846
Bradstreet Cemetery	circa 1849
Bridge Street Cemetery (HTF.805)	circa 1900
Holy Trinity Cemetery (Polish National Cemetery)	
Six documented burial grounds	
None are listed in the National Register	

Hatfield Burial Grounds in MACRIS

Source: https://mhc-macris.net/

Figure 6: School Street view to the east



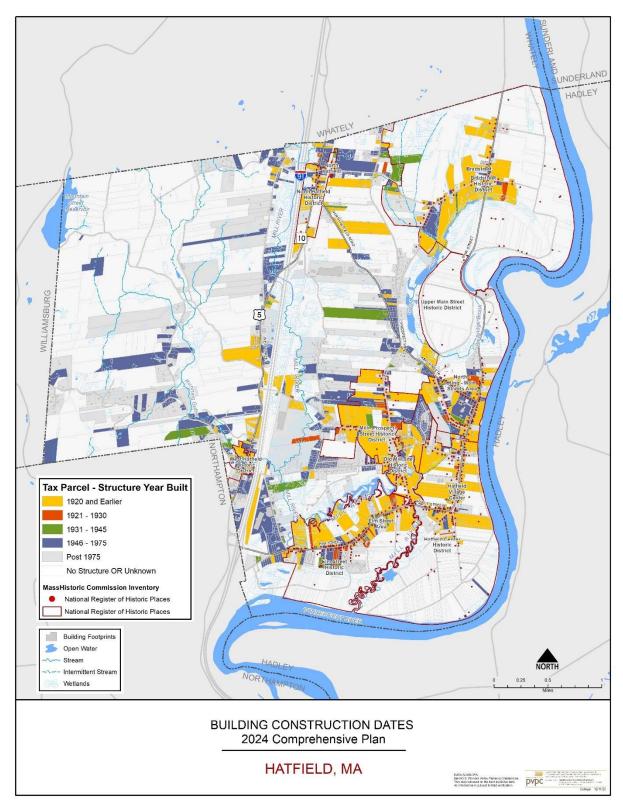


Figure 7: Building Construction Dates

Existing Conditions in the 21st Century

Despite minimal protection measures in place to control exterior alterations, Hatfield has a large number of historic resources which retain integrity of location, design, setting, materials, workmanship, feeling, and association, particularly at the town center. This is in part due to the large number of historic buildings which dominate the town's landscape.

As of 2021, approximately 39% (581) of Hatfield's 1,568 total housing units were constructed prior to 1939. (Figure 7) Out of the total housing units, 925 were built prior to 1970 and 447 were non-owner occupied. This is a marked increase from 349 non-owner-occupied units in 201. Hatfield's historic center is within the 500-year flood zone and contains critical Town facilities including the Town Hall and Senior Center, the town's historical records and archives, the police and fire stations, the Capawonk Housing for the Elderly, and irreplaceable historic residential buildings.⁴⁷



Figure 8: Elisha Hubbard House, 40 School Street (1840, HTF.123)

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⁴⁷ <u>https://www.mass.gov/doc/hatfield-report/download</u>

Current Protections

Aside from the Preservation of Historically Significant Buildings 12-month demolition delay bylaw, which was attributed with saving the town's historic Center School in 2015⁴⁸, Hatfield does not have any local regulations which would provide a process for reviewing proposed exterior alterations to designated buildings such as inclusion within a local historic district. Owners of NR-listed buildings within the town are not limited in how they handle their property exteriors unless there is state or federal involvement in a project (such as federal licenses, permits, or funding).⁴⁹ While multiple past planning efforts have recommended the creation of local historic districts or architectural conservation districts to restrict exterior alterations to historic resources, there has not been a local appetite for a regulatory approach. Despite this current absence of architectural protections, a high percentage of Hatfield's streetscapes and built resources maintain integrity of location, design, settings, materials, workmanship, feeling, and association.

Hatfield's Cultural Resources

There is not currently a MACRIS-type database to document and identify cultural resources, but this chapter will aim to compile data of Hatfield's cultural assets to highlight cultural resources and partnerships and support the potential pursuit of a local cultural district.

cultural gatherings.	
Recreational Sites and Facilities	Summary
Smith Academy Park & Gazebo	https://www.townofhatfield.org/sites/g/files/vyh
	lif3246/f/uploads/saparkpresentation.pdf
Black Birch Vineyard	https://www.blackbirchvineyard.com/
Good Stock Farm	https://goodstockfarm.com/
Prospect Meadow	
Old Mill Inn & Cafe	
Hatfield Public Library & Museum	https://www.townofhatfield.org/hatfield-public-
	library
Hatfield Memorial Town Hall	https://www.townofhatfield.org/
Albert E. Labbee Senior Center	Hatfield Town Hall, 59 Main Street
First Congregational Church	https://www.hatfieldchurch.org/
Hatfield Historical Museum	39 Main Street
Hatfield Farm Museum	7 Billings Way

Recreational sites and facilities in Hatfield provide locations for community and cultural gatherings.

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⁴⁸ <u>https://centerschoolcondominiums.com/</u>

⁴⁹ There's a Difference! Massachusetts Historical Commission Brochure

Hatfield Lions Club Pavilion	15 Billings Way
Pioneer Valley Indoor Karting	https://www.pioneervalleykarting.com/

Organizations in Hatfield facilitate and sponsor programming, education, outreach, and advocacy to provide residents and guests with ways to experience the town's unique local history and culture. These types of Community Partners can be very effective in working together to provide cultural events.

Cultural Organizations	Summary
Hatfield Historical Commission	https://www.townofhatfield.org/historical-commission
Hatfield Cultural Council	https://www.townofhatfield.org/cultural-council
Hatfield Historical Society	https://hatfieldhistory.weebly.com/
Hatfield Community Television	https://www.townofhatfield.org/hctv-hatfield-
	community-television
Recreation Committee	https://www.townofhatfield.org/recreation-committee
Hatfield Celebration Committee	https://www.townofhatfield.org/celebration-committee
Hatfield Council on Aging	https://www.townofhatfield.org/council-aging
Smith Academy PTA	

There are a variety of local events specific to Hatfield. These events instill local pride, encourage community engagement, and provide the potential to attract visitors from the region.

Cultural Events	Summary
Hatfield Bonfire Music Festival	
Luminarium	Annual December event
Hatfield Summer Concert Series	https://www.facebook.com/
Hatfield Memorial Day Parade and	
Exercises	
Hatfield Lions Club Dan Berry Memorial	Early November 5 mile road race –
Road Race "Potato Race"	participants receive a free bag of potatoes –
	ends at Lions Pavilion with food and a baked
	potato bar. Running for more than 20 years.
Smith Academy Homecoming Parade	https://www.hatfieldps.net/
Spooktacular	Hatfield Elementary School PTA
Summer Blastoff	
Cars & Karts	Pioneer Valley Indoor Karting West Hatfield

Past Plans: Key Findings and Recommended Actions

The April 2023 Background Paper and group meeting for this chapter highlighted some key findings and recommended actions from past Hatfield plans related to the town's historic and cultural resources.

MHC Reconnaissance Survey Town Report, 1982

Encouraged continued inventory work, including identifying areas of archeological potential.

Hatfield Master Plan for the 21st Century, 2001

Recommended prioritizing farmland preservation; Expanding the review responsibilities of the Hatfield historical commission; Considering a historic overlay zoning district; Developing non-regulatory design guidelines. Community values included rural character and open space with preservation of town character a top goal.

DCR Hatfield Reconnaissance Report, 2009

Encouraged the development of a cemetery preservation plan; the adoption of bylaws (demolition delay bylaw, scenic roads bylaw, scenic vista protection bylaw, transportation corridor protection bylaw, archaeological resource protection bylaw, agricultural preservation bylaw); and the designation of the town center and Mill River Districts as local historic districts or architectural preservation districts to support the preservation of exterior architectural features.

Town Center Revitalization Study, 2010

Promoted the adoption of regulations that encourage preservation of the town's historic features.

Master Plan Land Use Update, 2012

Promoted compatible infill construction and the adoption of design standards to guide and control the appearance of new development.

Town of Hatfield Housing Production Plan, 2015

Noted that more than 64% of Hatfield homes were built before 1969 with older homes typically located in the three village centers. Recommended the adoption of Residential Design Guidelines with the Hatfield Historical Commission and Planning Board as the responsible entities.

MVP Planning Grant Report, Hatfield, 2021

A large portion of the east side of Hatfield is in either a 100-year (1% risk of flooding annually) or 500-year (.2% chance of flooding annual) floodplain, as are areas adjacent to the Mill River and Running Gutter. The Town Hall, Police Department Headquarters, Fire Department Headquarters, Elementary School, and Library are all in a 500-year floodplain.⁵⁰

An interactive map related to planning for Hatfield Climate Resilience Features and Actions notes that the historic downtown, while in a vulnerable location with flooding risks, represents a "really distinct, unique period of American history" and that Northfield, Hatfield, Deerfield, and Whately are the most representative of this period.⁵¹

⁵⁰ <u>https://www.mass.gov/doc/hatfield-report/download</u> 51

https://dodsonflinker.maps.arcgis.com/apps/instant/minimalist/index.html?appid=442f6604871d43ca9f c6e2ac8803eab8

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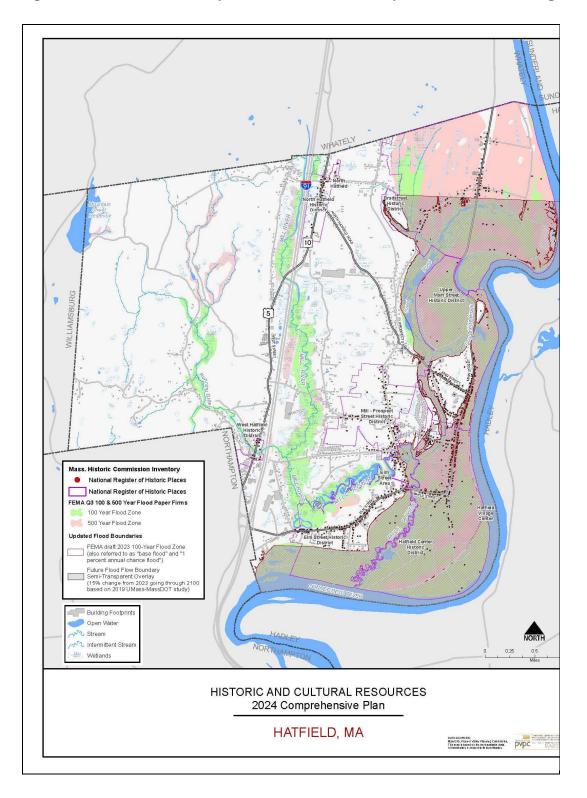


Figure 90: Flood Zone overlay with MACRIS Inventory Points and NR Listings

3. Challenges and Opportunities

Planning

Hatfield does not have a historic preservation plan

Challenge - lack of long term coordinated planning for protection of the abundance of existing built, archaeological, and cultural resources and landscapes

Opportunity – preservation planning, inventory and National Register assessment, design guidelines, architectural conservation district, archival collections assessments and grants⁵²

Silos

Hatfield would benefit from increasing coordinated cultural planning Challenge - Various groups are working separately on cultural initiatives.

Opportunity - Coordinating planning and development of a Community Calendar and pursuing cultural district listing would strengthen cultural offerings and potentially identify additional funding sources.

Protection

Hatfield does not have protections or guidelines for preservation and design *Challenge* – other than demolition delay, currently no protections or guidelines in place for appropriate preservation, rehabilitation, and new compatible construction. An increasing percentage of residential properties are non-owner occupied.

Opportunity - strengthen demolition delay, pursue the development of communitywide design guidelines, establish design review committee.

Extreme weather could irreparably damage Hatfield's historic and cultural resources Challenge - flood risk is high for historic and cultural resources and landscapes

Opportunity - preparedness and resiliency planning to include accommodating natural river movement and retrofitting historic resources to sustain flooding⁵³

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⁵² State Historical Records Advisory Board (SHRAB)

https://www.sec.state.ma.us/divisions/archives/shrab/shrab-grants.htm

MA Libraries Board of Library Commissioners https://mblc.state.ma.us/programs-andsupport/lsta/grant-opportunities/archives-arrangement.php

https://scholarworks.umass.edu/cgi/viewcontent.cgi?referer=&httpsredir=1&article=1464&context=ma

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4. Examples from other Communities

Trend: Preservation Planning

Here are links to some recent preservation plans in Massachusetts communities: <u>Case Study 1</u>: <u>Amherst Preservation Plan</u> (2005) <u>Case Study 2</u>: <u>City of Beverly Historic Preservation Plan</u> (2020) <u>Case Study 3</u>: <u>Lenox Communitywide Historic Preservation Plan</u> (2018) Case Study 4: <u>Historic Preservation Plan</u> – Town of Falmouth (2014)

Trend: Outreach and Engagement Through Municipal Websites

Sample Historical Commission sites in our region: <u>Case Study 5</u>: <u>Westfield HC</u> – Responsibilities/History/Efforts/Virtual Tours <u>Case Study 6</u>: <u>Sturbridge Historical Commission</u> – Overview, links, survey work, FAQs, Annual Report <u>Case Study 7</u>: <u>Amherst Historical Commission</u> – Overview, plans, guide books, NR info, Awards of Merit, etc.

Trend: Resiliency Planning

Case Study 8: Flood Protection Guidelines to Preserve Cape Cod's Historic Structures

This project was a collaboration of the Cape Cod Commission and the United States Army Corps of Engineers <u>Silver Jackets</u> team. The final report will detail floodproofing options suitable for specific building types and locations, as well as cost estimates for the work, designed to aid the preservation of historic properties and serve as a resource for historic property owners on Cape Cod and in similar coastal communities.

Project partners include the Cape Cod Cooperative Extension, Woods Hole Sea Grant, Massachusetts Emergency Management Agency, Massachusetts Department of Conservation and Recreation, National Oceanographic and Atmospheric Administration, Federal Emergency Management Agency, United States Army Corps of Engineers, and the towns of Sandwich, Falmouth, and Provincetown.

Case Study 9: Strawbery Banke Museum

"Retreat is not on the table - adapting to the changing climate"

<u>sters_theses_2</u> and Guidelines on Flood Adaptation for Rehabilitating Historic Buildings, <u>https://www.nps.gov/articles/000/guidelines-on-flood-adaptation-for-rehabilitating-historic-buildings.htm</u>

- Four of the Museum's historic structures are extremely vulnerable to sea level rise and are experiencing deterioration due to saltwater infiltration during storm surge and astronomically high tides.
- The Museum is a member of the advisory committee for the Climate Change Vulnerability Assessment in Portsmouth (NH), and is working with the city of Portsmouth to seek solutions and provide educational awareness efforts including the <u>Water Has a Memory: Preserving Strawbery Banke and Portsmouth from Sea</u> <u>Level Rise</u> exhibit.
- The Museum is working with an architect & landscape architect to redesign hardscapes to absorb water and altering buildings for resiliency.
- <u>Already Underwater: Strawberry Banke Adapts to Climate Change to Preserve</u> <u>History</u> 2022

Case Study 10: Brandywine and Christina River Flooding in Delaware

- The Brandywine Conservancy launches a flood survey to examine river flooding and how to protect surrounding communities
- The man-made South Wilmington Wetlands Park, was created to help reduce flooding in the historic neighborhood of Southbridge. The project was completed in conjunction with the Delaware Department of Natural Resources and Environmental Control, the Nature Conservancy, and Brightfields, Inc., a brownfield redevelopment firm. Rain gardens, stormwater management, and green infrastructure were also included in the plan throughout the city. <u>Shoring up</u> <u>Coastlines and Communities with Green Infrastructure</u> (2022)

Trend: Community Design Guidelines

Case Study 11: Town of Wellesley Historic Preservation Design Guidelines (2021)

- Developed as a resource for property owners within local historic districts and a resource and guide to the preservation and enhancement of historic character within Wellesley's other historic residential neighborhoods.
- •

Case Study 12: Northampton Central Business Architecture Committee

• The Central Business Architecture Committee oversees the Central Business Architecture Ordinance, to preserve and enhance the pedestrian-scale character, culture, economy of downtown Northampton by preserving historic and architecturally valuable buildings and features and encouraging compatible building design. A volunteer board composed of representatives from the real estate industry, the Chamber of Commerce, the Northampton Historical Commission, the building and construction trades industry and a registered architect come together as needed for technical assistance and public hearings for permit applications for downtown renovation and construction projects requiring design review. Governed by common bylaws for Central Business Architecture, Conservation Commission, Historical Commission, Planning Board, and Zoning Board.

Case Study 13: Brown Street, Wickford Village Design Guidelines

• With the assistance of a Certified Local Government grant from the Rhode Island State historic preservation office, the Town of North Kingstown is developing a set of <u>design guidelines</u> for Wickford Village focused on buildings in commercial use primarily along Brown Street, with possible inclusion of properties along West Main Street and portions of Main Street and Phillips Street. The guidelines are intended to ensure that any new construction, including additions to existing buildings, is sensitive to and compatible with the surrounding National Register Historic District. The document will also provide guidance regarding the maintenance of existing historic buildings.

Case Study 14: Cape Cod Commission - Community Design Guidelines and Resources

• Designing the Future to Honor the Past-Design Guidelines for Cape Cod (1994-2019) is an award-winning design manual that includes comprehensive information on site planning, landscape design, lighting, and architecture. It was created in cooperation with the University of Massachusetts Amherst Center for Rural Massachusetts.

Case Study 15: Town of Franklin Design Review Commission Design Guidelines (2005)

• These design guidelines have been prepared to assist business and property owners in protecting and enhancing the design character of commercial and industrial areas in the Town. Its guiding principles are based on a general believe that high quality of design and construction contribute to enhancing the economic vitality of business districts, and improve the overall quality of living.

•

Trend Cultural Planning Resources

Case Study 16: Arts and Planning Toolkit - MAPC

- Arts and Culture Planning draws from many other forms of planning, community development, and artistic practices. Below is a list of ideas and tools complete with links to additional resources from MAPC and beyond to accelerate your engagement with the field.
- The content is divided into three categories to help you navigate and situate knowledge based on whether the topic is generally about a concept or approach, a place-based intervention, or a people-focused engagement. However, these

categories may remain fluid as this practice demands that people, place, and ideas are woven together.

<u>Case Study 17</u>: <u>A Cultural Plan for the City of Worcester, Massachusetts</u> – WCC (2019)

 "A year in the making, the Cultural Plan is a foundational document for municipal cultural planning and service delivery in Worcester. The plan is primarily funded by the Barr Foundation through its <u>Creative Commonwealth</u> <u>Initiative</u>, the Worcester Cultural Coalition, and is a fulfillment of the City's cultural compact with the Massachusetts Cultural Council, which was designed to "promote a shared vision for cities and towns to recognize the power of culture and make communities better places for people to live, work and thrive...The Worcester Cultural Plan is unique in that it is embedded in the City's Masterplan," noted City Manager Edward M. Augustus Jr. "Arts and culture are catalysts for creative economic development, embedding art into our streetscapes and design, lifting up our rich immigrant experiences and shining a spotlight on all we offer, knowing that great cities embrace arts and culture."

Case Study 18: Turners Falls Cultural District (Montague, MA)

- <u>The Mass Cultural Council's Cultural Districts Initiative</u> was authorized by an act of the Massachusetts state legislature in 2010, and launched in April 2011. The goals of the Cultural Districts are to attract artists and cultural enterprises, foster cultural development, encourage business and job development, establish the district as a tourist destination, preserve and reuse historic buildings, and enhance property values.
- The Turners Falls Cultural District was designated by the Mass Cultural Council in May, 2017. The boundaries of the Cultural District extend along Avenue A from the <u>Great Falls Discovery Center</u> to the <u>Carnegie Library</u>, a grand Georgian building built in 1906 by Andrew Carnegie.

The Avenue A and Third Street business district features restaurants, breweries, parks, public art and unique shops along a wide, tree-lined street. The 330 seat <u>Shea</u> <u>Theater Arts Center</u> is the hub of entertainment. Built in 1927 and completely renovated in 2016, the Shea Theater presents regional, national and international artists as well as community theater, dance and all forms of music.

The Turners Falls Cultural District also offers <u>uncommon recreational opportunities</u>, all situated with gorgeous views of the Connecticut River. <u>Unity Park</u> is designed to encourage physical fitness, relaxation and a connection with nature. With well-appointed ball fields, basketball courts and play structures, Unity Park is a place for people of all ages to recreate. <u>Unity Skatepark</u> is considered the best in the region. Its comprehensive design links a variety of transitions, stairs, banks, and rails making it fun and challenging for riders of all skill levels.

Don't forget to bring your bike! The <u>Canalside Rail Trail</u> is the perfect place to ride, walk or just take-in views of the Industrial Era canal district. Named "Best Bike Path in New England" by Yankee Magazine, the paved, 3-mile trail is wheelchair accessible.

Figure 11: Hatfield Farm Museum/Billings Way Tobacco Barn (HTF.490) and Main Street Cemetery (HTF.804)



5. Recommended Goals and Strategies

A. Protect Hatfield's Community Character (existing landscapes, built resources, and collections)

Objectives:

- Pursue and strengthen community-wide preservation planning
- Update inventory in MACRIS to include underrepresented populations
- Conduct a local historic district feasibility study for the town center
- Provide guidance for compatible and resilient design for new construction
- Strengthen existing Demolition Delay Bylaw
- Plan for storage and display of archival and physical collections

Strategies:

- Work with Tribal representatives to develop a Native American presence statement.
- Add information to the Hatfield Historical Commission page.
- Develop a Hatfield Historic Preservation Plan.
- Updated inventory documentation to meet current state and federal standards.
- Redefine priority Heritage Landscapes.
- Develop Hatfield non-regulatory Design Guidelines and Standards.
- Establish a Design Review Board.
- Create a Historic Overlay District for Village Centers.
- Pursue a Scenic Road bylaw for protection of trees and other features like stone walls.
- Pursue Archaeological Protection by-law.
- Plan for and identify funding sources for archival and physical collections storage and display for research and community access.

B. Identify and Support Hatfield's Cultural Assets

Objectives:

- Work to engage residents in and promote community events
- Strengthen partnerships and offerings with local community cultural organizations
- Conduct cultural asset mapping
- Encourage portable vendors, pop-up shops, and cultural events
- Pursue cultural resiliency planning to protect Hatfield's heritage

Strategies:

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- Identify the best location for Hatfield's Museum and Archival Materials.
- Develop a <u>Community Calendar</u> and establish management of this resource.
- Add information to Hatfield Cultural Council site to provide resources and facilitate understanding of purpose.
- If appropriate, pursue a Local Cultural District with the Mass Cultural Council.
- Establish more annual festivals and invest in staff to support Celebration Committee or partner with a local non-profit group to plan and coordinate volunteers.
- Initiate emergency preparedness planning for cultural resources using COSTEP best practices and framework.

C. Support Stewardship of Historic Resources and Landscapes

Objectives:

- Conduct outreach to support engagement and build consensus of best practices to preserve Hatfield's valued community character
- Provide resources for owners of historic buildings
- Position Hatfield to gain access to local technical assistance and other programs to support the abundance of historic resources

Strategies:

- Strengthen the Hatfield Historical Commission page on the town website to provide resources and facilitate understanding of purpose.
- After strengthening protections and updating documentation, pursue Certified Local Government designation with the support of the National Park Service.
- Conduct historic tree (and stone wall and barn) inventory.
- Develop a community Historic Plaque Program and Preservation Award program.
- Pursue the installation of interpretive signage like a heritage trail to share the town's history.
- Promote design guidelines and best practices.

D. Plan for Resiliency of Historic and Cultural Resources

Objectives:

- Proactively plan for resiliency particularly for resources at risk for flooding
- Identify local, state, and federal partnerships and funding sources
- Improve community access to historic resources and collections
- •

Strategies:

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- Partner with other riverfront communities and dam owners to coordinate planning.
- Pursue planning for resiliency in place and appropriate retrofitting of at-risk resources.
- Redesign of hardscapes, as appropriate, to absorb flood waters.
- Activate Institutional and Residential Emergency Preparedness Planning (COSTEP).
- Investigate archival grant programs for increased organization and funding.
- Identify the best location for Hatfield's Museum and Archival Materials.

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FIGURES

Figure 1: Lyman, Jonathan Huntington. "A plan of Hatfield." Map. 1801. *Digital Commonwealth*, <u>https://ark.digitalcommonwealth.org/ark:/50959/2z10wv37d</u> (accessed February 07, 2024).

Figure 2: 30 School Street. Photograph taken by Doug Hall, PVPC, February 2024.

Figure 3: Carter, Paul, photographer. *Onion planters near Hatfield, Massachusetts*. United States Hampshire County Hatfield Massachusetts, 1936. Apr. Photograph. <u>https://www.loc.gov/item/2017764080/</u>.

Figure 4: United States Resettlement Administration, Carter, Paul, photographer. Barn of client after the Connecticut River had subsided, Hatfield, Massachusetts. United States Hatfield Massachusetts, 1936. Mar. Photograph. https://www.loc.gov/item/2017734350/.

Figure 5: Dickinson Memorial Hall, 39 Main Street. Photograph taken by Doug Hall, PVPC, February 2024.

Figure 6: MHC MACRIS Maps showing historic documentation in Hatfield, https://maps.mhc-macris.net/

Figure 7: School Street view to the east. Photograph taken by Doug Hall, PVPC, February 2024.

Figure 8: Building Construction Dates Hatfield MA. PVPC GIS Map, 2023.

Figure 9: Elisha Hubbard House, 40 School Street. Photograph taken by Doug Hall, PVPC, February 2024.

Figure 10: Hatfield Climate Resilience Feature & Actions: <u>Interactive Map</u> from Town of Hatfield Community Resilience Building Workshop Summary of Findings, 2021

Figure 11: Flood Zone overlay with MACRIS Inventory Points and NR Listings. PVPC GIS Map, 2023.

Figure 12: Hatfield Farm Museum/Billings Way Tobacco Barn (HTF.490) and Main Street Cemetery (HTF.804). Photograph taken by Doug Hall, PVPC, February 2024

Natural Resources, Open Space, and Recreation

1. Introduction

Chapter Overview

The *Natural Resources, Open Space and Recreation* element of the Hatfield Comprehensive Plan provides: an overview of land, water, vegetation and wildlife resources in Hatfield; issues and opportunities for both natural resource conservation and the provision of active and passive recreation; and examples of ways in which other towns have addressed similar challenges, and goals and recommendations.

This chapter draws on data collection and public input from the extensive efforts the Town undertook in 2022 and 2023 to update the Open Space and Recreation Plan (under the leadership of the Open Space Committee), as well as the larger more recent Comprehensive Planning public engagement process.

Connecting Themes

The natural, open space and recreational resources in Hatfield encompass all of the elements that contribute to the community's ecological health, as well as to residents' physical and mental health, and quality of life. The abundant open spaces and natural resources in Hatfield include working farms, forests, rivers and streams, aquifers, wetlands, and scenic vistas.

Hatfield residents highly value these resources and put a high priority on protecting them. Recreational assets such as hiking trails, biking routes, access to water-based recreation, and athletic fields and facilities are also of great value to the community, and residents have expressed a strong desire to expand some of these assets, particularly hiking trails and walking paths.

2. Existing Conditions

Topography and Soils

Hatfield has two different topographic relief forms, one being the fertile lowlands in the eastern two thirds of Town, and the second being Horse Mountain and the Rocks, located in the western one third of Town, just west of Interstate 91.

In the densely wooded terrain of West Hatfield, outcroppings of bedrock alternate with pockets of wetlands, most of which flow into Running Gutter Brook, the primary stream draining these western hills. Soils within the Horse Mountain and Rocks region are very thin, generally poorly drained and wet, with shallow bedrock. These soils pose moderate to severe limitations on intensive development. This area is also where the Town's reservoir is located and is the aquifer recharge region for both of the Town's drinking water supply wells.

East of the Interstate, the fertile Connecticut Valley lowlands constitute terrain with very little slope—elevations can be as low as 110 feet above sea level. The soils in the lowlands east of Interstate 91 are in sharp contrast to the rugged soils of West Hatfield. Much of this area contains deep, nearly level, well to poorly drained, loamy soils formed in alluvial materials on floodplains. These soils are extremely fertile and exceptionally suited for growing crops. Over one-third of the town's acreage, 4,001 acres, is classified as Prime Farmland, and another 1,601 acres is designated as farmland of statewide importance. Almost all of these soils are located east of I-91.

Watersheds

The entire landmass of the Town (10,766 acres of land) is located in the Middle Connecticut River Watershed Basin. All naturally draining surface water in Hatfield flows into the Connecticut River, with drainage occurring within three subwatersheds.

One sub-watershed drains through Running Gutter Brook in West Hatfield, which originates in the upper reaches of West Hatfield along Mountain Road. It includes the Hatfield Town Reservoir. The brook is also fed by flows from Whately and Northampton. Broad Brook feeds into Running Gutter Brook from Northampton. Two minor watershed areas in West Hatfield drain into Northampton, one of which includes Mountain Reservoir. About one-third of this 35-acre reservoir is in Hatfield's far northwestern corner.

The second sub-watershed drains through the Mill River, a primary tributary of the Connecticut River with its headwaters in the Town of Conway. Running Gutter Brook joins the Mill River just east of I-91 in south central Hatfield. The dam at Prospect Street, the site of former water-based industry, causes the watercourse to run deep upstream of the dam with wide meanders and broad marshes that have become important wildlife habitats.

The third major watershed is within the northeast corner of Hatfield. This area drains the remnants of an old Connecticut River meander—once an "oxbow lake" including Great Pond and Cow Bridge Brook, and eventually drains to the Connecticut River. This area was originally an oxbow lake, which, over the years, has aged due to sedimentation and eutrophication, and the oxbow is now a series of ponds and marshes. It remains a significant wildlife habitat and Connecticut River flood storage area.

Surface Water Resources

Hatfield is heavily influenced by watercourses. There are approximately 35 miles of stream and river channel within the town boundaries, primarily consisting of the Connecticut River, the Mill River, Running Gutter Brook, Mountain Brook, and Broad Brook.

About 7.5 miles of the Connecticut River forms the eastern and part of the southern boundaries of Hatfield, providing approximately 450 acres of open water. The dike, adjacent to the river in the Indian Hollow section of Town, offers 2 miles for hiking, mountain biking, snowshoeing, and cross-country skiing. Access to the river is possible from Old Farms Road, Upper Farms Road, Bashin Road, at the state boat ramp, the dike, the Indian Hollow boat ramp near Kellogg Hill Road, and at the confluence of the Mill and Connecticut rivers.

The Mill River is a central geographic feature within Hatfield, draining from a watershed of five communities. The Mill River enters the Town along the northern boundary with Whately. In the northern portion of Town, the Mill River parallels the west side of Route 91, but then flows in a broadly meandering southeasterly path to its confluence with the Connecticut River. Major tributary streams to the Mill River include Running Gutter Brook and Mountain Brook, which drain much of West Hatfield. Running Gutter Brook drains most of the Rocks and Horse Mountain areas, feeds the Hatfield Reservoir and includes the tributary of Broad Brook, whose watershed extends into Northampton. Mountain Brook drains the northwest portion of Hatfield and extends into Whately. It originates at the Northampton water reservoir system, and a portion of its natural watershed contributions are diverted to other portions of the Northampton water system.

The Mill River is considered one of the most biologically diverse river systems in Massachusetts, supporting four of the state's seven listed species of freshwater mussels, including the Federally endangered dwarf wedgemussel *Alasmidonta heterodon*. There are additional protected flora and fauna that inhabit this river corridor, including the wood turtle *Clemmys insculpta*. River otter live along the brook, the favorable water quality of which also supports brook trout. There are at least five access points to the Mill River (Plain Road, Chestnut Street, Bridge Street, off Elm Street, and off Farm Road) for fishing and other activities.

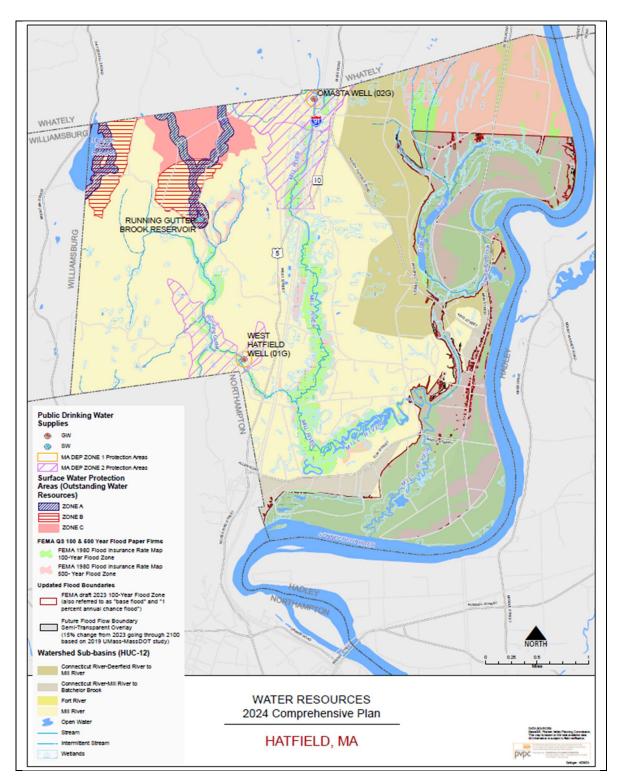


Figure 1: Water Resources Map

The D.F. Riley Grist Mill Dam on Prospect Street is close to the mouth of the Mill River at its confluence with the Connecticut River. This dam blocks the movement of fish (Atlantic salmon, American shad, blueback herring and lamprey) and other aquatic organisms between the Connecticut River and the upper watershed. The D.F. Riley Grist Mill Dam is rated as a Significant Hazard dam by the Office of Dam Safety. This means that structural failure of the dam may cause loss of life and damage to homes, commercial facilities, roads or other critical infrastructure. The last inspection of the dam was completed in May 2019, and it was found to be in unsafe condition. This is a serious potential hazard that the Town will need to address within the next few years.

Most wetlands in Hatfield are located in the Town's eastern and northern sections, bordering the Connecticut River, the Mill River, Great Pond, and the old oxbow meander. The wetlands in West Hatfield are primarily narrow wetlands bordering Running Gutter Brook and its tributaries, with larger expanses within the Rocks area and at the base of Horse Mountain. Several small, isolated wetlands exist in this area as well, and also provide important wetland wildlife habitat. Wetland areas are home to frogs, fish, freshwater clams and mussels, beaver, muskrats, great blue herons, waterfowl, and bitterns, among other species. In Hatfield, riparian areas exist along the Connecticut River, Mill River, Running Gutter Brook, and Great Pond. Many of these riparian areas remain intact, aided by the Rivers Protection Act and regulations restricting floodplain development.

Drinking Water Resources

There are three sources of drinking water in the Town of Hatfield. The primary source is the Running Gutter Brook Reservoir. This surface water source provides most of the water reaching homes and businesses in the Town. A filtration plant treats the water for distribution to users in the Town. Two public wells supplement the supply from the reservoir: the Omasta Well and the West Hatfield Well, neither source of which is treated with filtration or chlorination.

Cost has dictated that the primary water supply come from the reservoir, as the operation of the filtration plant remains less expensive than the electrical power used to operate the two wells. The wells are used primarily in two situations: 1) to provide adequate water supply during peak demand hours (summer months), and 2) to bypass the reservoir supply during times of high turbidity (primarily after heavy rainstorms).

Vegetation

The forest resources and woodlands in Hatfield lie primarily west of the I-91 corridor. An extensive range of forestland encompasses approximately 4,800 acres, which consists of 45 percent of the total land area in the Town. There are approximately 135 species of trees and woody shrubs naturally occurring in Hatfield. Hatfield is located in what is considered a transition zone, with the primary forest types being a mix of southern oak-hickory forests and the northern maple-birch climax forests. Over time as the climate warms, the forests will likely slowly transition to support more of the southern species and fewer of the northern species.

Most of the rare plants in Hatfield are species of riparian areas – river and streamside specialists. Because floodplain areas are also prime agricultural lands, habitat for these species has diminished over the years. The remaining undisturbed and even moderately disturbed lands along the rivers provide important habitat for these rare species and more common native species. Table 1 lists the endangered, threatened, and species of concern found in Hatfield.

BioMap is a tool developed by MassWildlife and the Nature Conservancy to identify critical lands and waters in Massachusetts in need of conservation. A new version was released in 2023, and according to BioMap Data, Hatfield has1,502 acres of permanently conserved land, or 14% of the total area. The BioMap components and their identified acreage in Hatfield are described below.

Core Habitat identified areas critical for the long-term persistence of rare species, exemplary natural communities and resilient ecosystems. The acreage within the BioMap Core Habitats in Hatfield are the following:

- Rare Species Core: 4,581.1 acres
- Wetland Core: 846.1 acres
- Forest Core: 0.0 acres
- Vernal Pool Core: 839.8 acres
- Aquatic Core: 11,734.2 acres
- Priority Natural Communities: 57.5 acres

Critical natural Landscape identifies large landscape blocks that are minimally impacted by development and buffer core habitats, enhancing connectivity and resilience. The acreage within the Critical Natural Landscapes in Hatfield are the following:

- Landscape Blocks: 1,036.1 acres
- Aquatic Core Buffer: 1,517.1 acres
- Wetland Core Buffer: 771.3 acres

Local Components are new additions to BioMap that complement Core Habitat and Critical Natural Landscape and are assessed at the local level, providing data for local conservation efforts.

- Local Landscapes: 936.9 acres
- Local Wetlands: 476.9 acres
- Local Wetlands Buffer: 278.1 acres
- Local Rare Species Core: 156.9 acres

• Local Aquatic Habitat Buffer: 18.3 acres

Regional Components are new addition to BioMap that show areas important for habitat connectivity and regionally important areas for rare species.

- Regional connectivity: 1,803.7 acres
- Regional Rare Species Core: 1,608.2 acres

Fisheries and Wildlife

Hatfield is home to a variety of wildlife due to its many habitat types. The wooded areas of West Hatfield are primary habitat for several upland mammal species including white-tailed deer, black bear, bobcat, eastern coyote, red and gray fox, porcupine, skunk, weasel, red and gray squirrel, flying squirrel, fisher cat, opossum, raccoon, snowshoe hare, cottontail rabbit, mice, voles, moles, shrews, woodchuck, chipmunks and bats. These upland forests are contiguous with vast forest tracts of the Appalachian Range in the American northeast, so sightings of moose that move along these corridors have become more frequent in recent years. Upland birds include ruffed grouse, turkey, woodcock, turkey vulture, several species of hawks and owls, crows and ravens, woodpeckers, and deep wood songbirds such as wood thrush, scarlet tanager, and veery among others.

Lowland wildlife mammals are primarily beaver, muskrat, otter and mink, although mink can also be found in uplands. Lowland birds are primarily Canada geese, several species of ducks, osprey, green and blue herons and kingfishers. Grasslands and open fields are habitat for grassland birds such as meadowlarks, bobolinks, vesper sparrows, and mammals such as mice.

Fish range from warm water species like bass, pickerel, catfish, sunfish and walleye to cold-water species such as brook, rainbow and brown trout. Trout are found mainly in the Mill River and Running Gutter streams.

Most of the currently known rare animal species in Hatfield are associated with wetlands. A few, such as the Marbled Salamander and Wood Turtle, also use uplands for much of their lives, including for food foraging. Marbled Salamanders breed in vernal pools in the fall and spend most of their time under the leaves in surrounding uplands forests (as a result, they and their relatives are called "mole salamanders"). Wood Turtles spend time in upland and riverside forests, but over-winter in stream banks.

Bald Eagles nest in old trees near water, along rivers and oxbows. Least Bitterns are reclusive marsh bird, nesting in tall grassy marshes in backwaters with patches of open water, where they hide their nests and raise their young in areas of little disturbance. Vesper Sparrows are species of upland grasslands, such as old fields and

pastures. Although considered secure globally, they have declined significantly in eastern North America due to changes in agricultural land use.

Invertebrates such as freshwater mussels and dragonflies depend on the rivers and streams for habitat. The Mill River, in particular, provides exceptional habitat and is a hot spot for aquatic biodiversity, with four of the state's seven listed species of freshwater mussels found there. Rare dragonfly species in Hatfield also depend on healthy aquatic conditions, as their young spend several years in streams and ponds (depending on the species) before emerging. Rare, threatened, and endangered wildlife species in Hatfield are listed in Table 1 below.

Table 1: Threatened, Endangered and Species of Special Concern in Hatfield				
Common Name	Taxonomic Group	Scientific Name	Status	Most Recent Year Sighted
Vertebrates				
Marbled Salamander	Amphibian	Ambystoma opacum	Threatened	2010
Wood Turtle	Reptile	Glyptemys insculpta	Special Concern	2012
Jefferson Salamander	Amphibian	Ambystoma jeffersonianum	Special Concern	2009
Bald Eagle	Bird	Haliaeetus leucocephalus	Threatened	2019
Least Bittern	Bird	Ixobrychus exilis	Endangered	1991
Eastern Whip- poor-will	Bird	Antrostomus vociferus	Special Concern	2018
Vesper Sparrow	Bird	Pooecetes gramineus	Threatened	2012
Eastern Silvery Minnow	Fish	Hybognathus regius	Special Concern	1978
Shortnose Sturgeon	Fish	Acipenser brevirostrum	Endangered	2017
Invertebrates	1		1	
Spine-crowned Clubtail	Dragonfly/ Damselfly	Hylogomphus abbreviatus	Special Concern	2017
Skillet Clubtail	Dragonfly/ Damselfly	Gomphurus ventricosus	Threatened	2001
Brook Snaketail	Dragonfly/ Damselfly	Ophiogomphus aspersus	Special Concern	1998
Riverine Clubtail	Dragonfly/ Damselfly	Stylurus amnicola	Endangered	2016
Creeper	Mussel	Strophitus undulatus	Special Concern	2014
Dwarf Wedgemussel	Mussel	Alasmidonta heterodon	Endangered	2016
Eastern Pondmussel	Mussel	Ligumia nasuta	Special Concern	2016
Yellow lampmussel	Mussel	Lampsilis cariosa	Endangered	2009

Common Name	Taxonomic Group	Scientific Name	Status	Most Recent Year Sighted
Plants				
Frank's Lovegrass	Eragrostis frankii	Vascular Plant	Special Concern	1984
Green Dragon	Arisaema dracontium	Vascular Plant	Threatened	1993
Giant St. Johnswort	Hypericum Ascyron	Vascular Plant	Endangered	1974
Mated Spike- sedge	Eleocharis intermedia	Vascular Plant	Threatened	1984
New England Blazing Star	Liatris novae- angliae	Vascular Plant	Special Concern	1860
Sandbar Willow	Salix exigua ssp. interior	Vascular Plant	Threatened	1984
Shore Pygmy- weed	Crassula aquatica	Vascular Plant	Threatened	1984
Tussock Hairgrass	Deschampsia cespitosa ssp. glauca	Vascular Plant	Endangered	1991
Source: Natural Heritage and Endangered Species Program (Rare Species Viewer), 2022				

Scenic Landscapes

Hatfield abounds with landscapes of scenic value. The following landscape viewpoints have particularly good scenic value, and efforts should be maintained to protect these areas:

- Grand open vistas from wooded trails along the peak of Horse Mountain (in particular a location known locally as "White Rock") that look over Hatfield toward Hadley and Amherst to the East, with views of the Holyoke Range to the south, and Mount Sugarloaf and Mt. Toby to the north;
- Similar but less expansive views at lower elevations seen from the northeast corner of Chestnut Mountain Christmas Tree Farm on Mountain Road, and points along Mountain Road as it descends to Pantry Road;
- Banks of the Connecticut River, in particular the areas defined by public access points in the Bashin Beach area and along the dike from the Town center south and then west to the confluence of the Connecticut River with the Mill River;
- Canary Island beach in the Connecticut River near the Northampton Town line that is accessed from Little Neponsett Road.
- The Mill River itself, which has been identified as part of MA DCR's "Commonwealth Connections, A Greenway Vision for Massachusetts."

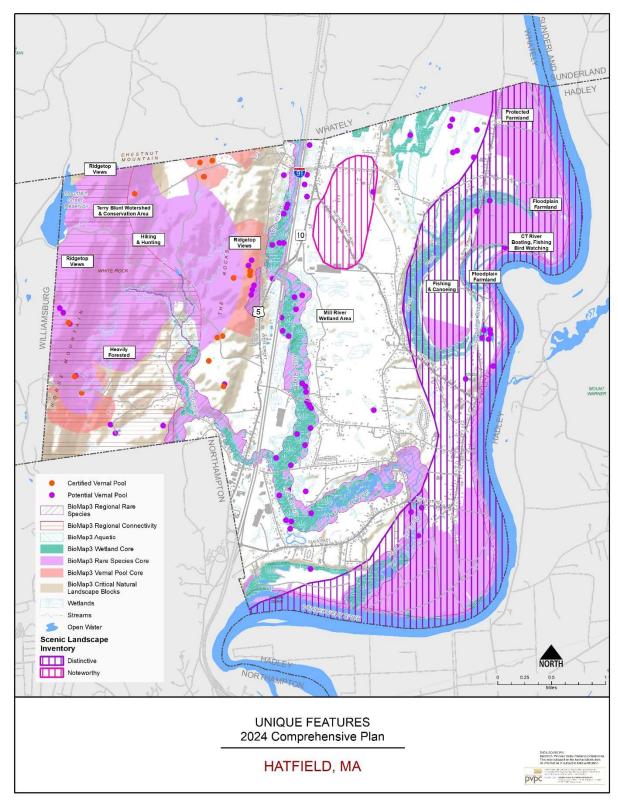


Figure 2: Unique Features Map

Inventory of Conservation and Recreation Lands

Public recreation and conservation lands may be permanently protected open space, provided that they have been dedicated to such uses as conservation or recreational use by deed. Municipal properties may be protected via Town Meeting vote to acquire them. Private, public and non-profit conservation and recreation lands can be protected under Article 97 of the Articles of Amendment to the State Constitution. Lands acquired for watershed and aquifer protection are often permanently protected open space.

Private lands can be protected in perpetuity through deed restrictions, or conservation easements (yet some easements only run for a period of 30 years and those lands are therefore not permanently protected open space).

A Conservation Restriction (CR), sometimes called a conservation easement, is a legal agreement between a landowner and a qualified conservation organization or government agency that permanently limits a property's uses in order to protect its conservation values. CRs can be flexible and written to meet the particular needs of the landowner while protecting the property's resources. For example, the easement may allow for sustainable forestry practices, recreational uses such as the construction of trails, or management of the land for particular wildlife habitat or control of invasive species. The easement is permanently recorded with the deed, remaining in force when the land changes hand. There are 703.09 acres with Conservation Restrictions in Hatfield.

The Agricultural Preservation Restriction Program (APR) is a voluntary program that offers a non-development alternative to farmland owners for their agricultural lands. The program, operated by the Massachusetts Department of Agricultural Resources (MDAR), offers farmers a payment up to the difference between the "fair market value" and the "fair market agricultural value" of their farmland in exchange for a permanent deed restriction, which precludes any use of the property that will have a negative impact on its agricultural viability. Hatfield is one of 162 cities and towns in Massachusetts with APR protected farms. Currently, there are 406 acres under APR in Hatfield.

Lands under special taxation relief programs, Chapter 61, 61A or 61B, qualify based on their active management by owners for forestry, agricultural, horticultural or recreational use. There are 219 acres in Chapter 61 (forestry), 2,309 acres in 61A (agriculture), and 468 acres in 61B (recreation). It is important to recognize that enrollment in the Chapter 61 program is not a permanent form of land protection from development. Towns do have the first right of refusal on lands under Chapter 61 if such lands are sold for residential, commercial, or industrial purposes. In this case, the right of first refusal is a legal interest in the property that grants the town the right to match a bona fide offer for conversion of the property from its forest, agricultural, or recreational use. As such, it is important to prioritize these lands and consider steps the community can take to permanently protect properties of interest.

Municipal Recreation Lands

There are 742 acres of municipally owned land in Hatfield. Below is an abbreviated list of some of the most prominent sites.

Smith Academy Park

The Town has renovated the Smith Academy Park which is a $1\pm$ acres parcel next to Town Hall. The park is being used for outdoor concerts and other passive recreation. A plan is in place to construct a pavilion in the park to further enhance passive recreation opportunities.

Hatfield Elementary School Grounds

There are two soccer fields and two baseball/softball fields behind the new school. There are also two playgrounds on school grounds: one for preschool and kindergarten age children and second for older elementary school children.

Smith Academy Fields

The 38 acres around Smith Academy, the Town's public High School, offer the opportunity for field recreational sports. There are 2 baseball diamonds, 2 softball fields, a soccer field, a field hockey field, and an outdoor basketball court. While most heavily used by the school system, which manages the areas, other groups may use the field with permission from the school committee. In the summer the Recreation Department uses the fields for summer programming. Construction has recently been started on a recreational walkway around the playing fields. There is undeveloped land available in this tract for field expansion if the need arises.

Former Center School Grounds

The fields around the former Center School in the center of town offer additional opportunity for field sports. This $6\pm$ acres parcel, owned and managed by the Town, has a baseball and softball diamond. The area also connects with the dike and thus is contiguous with the river.

Town Hall Basketball Courts and Playground

Completed in 2013, the new basketball courts and play structure are located next to the Fire Station behind town hall. This facility is managed by the Recreation Commission.

Town of Hatfield, Terry Blunt Watershed and Conservation Area

Since the beginning of the 20th century, Hatfield has acquired land in the north-west corner of town for the purposes of maintaining a drinking water reservoir and watershed. In Spring 2013, the area was dedicated as the Hatfield - Terry Blunt

Watershed and Conservation Area in memory of the legendary conservationist and Hatfield resident. The conservation area contains approximately 600 acres. An approximately 1-mile long trail was built by the Open Space Committee on the southern portion of the area in 2013 and is open to the public for hiking. Access to the trail is on Rocks Road at the south end, and Reservoir Road at the north end. The unpaved path traverses some of the highest elevation in Hatfield under a high open forest canopy offering a unique outdoor experience in Hatfield.

State Recreation Lands

State Boat Ramp

The Commonwealth of Massachusetts owns $5.7\pm$ acres near Kellogg Hill Road for use as a public boat ramp. This ramp serves as one of the few access points to the river from the west bank in this area, drawing people locally and throughout the region. Parking is provided and the parcel is large enough to accommodate additional picnic or recreational facilities.

Bashin Beach

Owned by the Commonwealth of Massachusetts as part of the Connecticut River Greenway, this beach and swimming area has few amenities but is an important recreational facility in Hatfield. This area is not maintained and shows evidence of litter and the lack of sanitary facilities. Given its lack of development, it is not particularly safe or attractive as a swimming area and does not meet the outdoor recreational needs of many Hatfield families.

Other Public Lands

The City of Northampton owns 150.84 acres of open space in Hatfield. The majority of those acres are for watershed protection of the City's Mountain Road Reservoir located west of Hatfield's Running Gutter Reservoir. A smaller almost 8-acre parcel was recently acquired along the southern boundary of Hatfield with Northampton for development of a proposed shared-use rail trail.

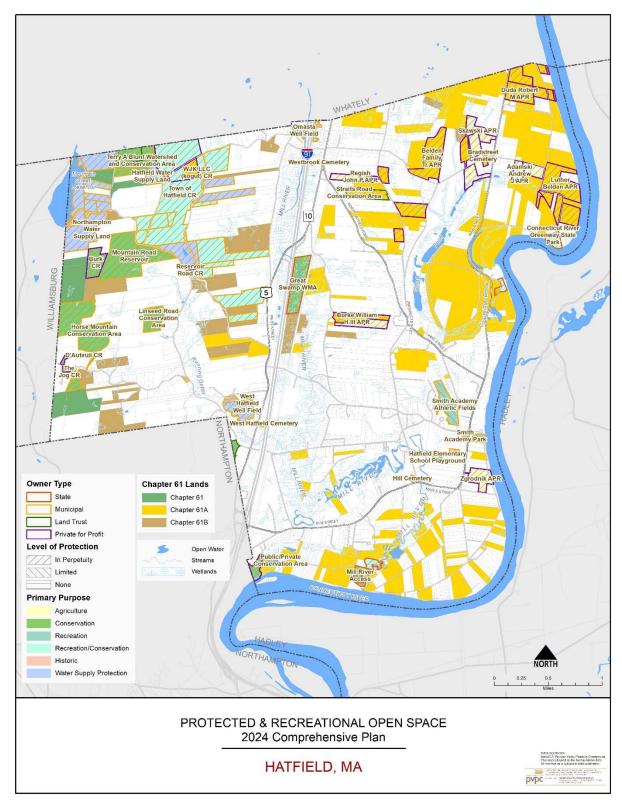


Figure 3: Protected and Recreational Open Space Map

3. Challenges and Opportunities

The planning process for both the Comprehensive Plan and the Open Space and Recreation Plan (OSRP) provided an opportunity for Hatfield residents to identify their top concerns and priorities regarding open space, natural resources, and recreation in Hatfield. More than 80% of OSRP survey respondents felt that it was "very important" to conserve surface waters, groundwater and aquifers, wildlife habitat, and working farms and farmland. More than 75% of respondents also ranked farmland, forestland, and floodplains as very important to conserve in order to help the Town prepare for and be more resilient to the impacts of climate change.

In the Comprehensive Plan survey, working farms were ranked as the second most important feature that respondents valued most in Hatfield, and access to open spaces was ranked as fifth important (out of twelve features). Respondents also ranked these in a similar order when asked how the Town should prioritize spending. Finally, when asked what goals are most important for the Town of Hatfield to focus on in the next 10-20 years, respondents chose "protecting open space, natural resources, and environmental quality" as the fourth most important goal out of fifteen.

The narrative below describes challenges and opportunities in two parts: natural resource protection and recreational needs.

Natural Resource Protection

Risk of losing valuable farms and farmland

Protection of farmland in Hatfield is critical for keeping fertile land in agricultural use, ensuring a local food supply, as well as maintaining the scenic views of farm fields and preserving the historic and bucolic character of the town. Much of the farmland in Hatfield is in floodplains as well, so protection of these farmland parcels provides additional value as helping to provide some mitigation of flood flows.

Most farms in Town are currently profitable and the owners have little interest in selling. This could change in the future as farmers age with no identified successors and climate impacts compound the challenges of farming. The Town should continue to work with farmers on strategies to promote farmland protection, including clear internal procedures put in place for assessing and acting on the Town's right of first refusal to purchase land coming out of Chapter 61A.

Need to protect the Town's drinking water supply

Running Gutter Brook watershed is critical to maintaining the integrity of Hatfield's water supply, and the Town has made significant strides in assuring that water quality in Running Gutter Brook is not jeopardized. However, reliance on a surface water reservoir as the primary supply of water to Hatfield presents several challenges:

Vulnerability and sensitivity to land use changes in the watershed

Human-made changes in land use that remove natural cover, such as forest, and replace it with buildings, driveways, parking lots, and roads can directly and quickly impact the quality of drinking water supply. Development in particular, leads to an increased threat of contamination via increased use of lawn chemicals (pesticides, herbicides, and fertilizers), and increased pest waste, hazardous waste spills (even motor oil and gasoline), and failing on-site septic systems. All of these threats can result in contamination of drinking water supply, especially if located near to Zone A and Zone B areas around drinking water supply reservoirs.

Vulnerability to climate change impacts

At the same time, higher rates of storm flows that are occurring with the more frequent larger downpours have been carrying more organic matter than usual into reservoirs. In some communities, including Hatfield, this is presenting certain treatment challenges as disinfection processes can produce Haloacetic Acids (HAAs), a byproduct linked to causing certain cancers over years of exposure. Recent Annual Water Quality Reports for Hatfield show that testing is indicating levels of HAAs below the Maximum Contaminant Level (the highest level allowed in drinking water) of 60 parts per billion (ppb). The HAA amounts reported for Hatfield have been: 47 ppb for 2021, 58.4 ppb for 2020, and 52.4 ppb for 2019.

Capacity for growth

There are limits on the number of gallons that can be affordably and practically provided to users of the water supply system when surface waters are the primary source. The current safe yield of Running Gutter Brook Reservoir is approximately 500,000 gallons per day, and up to 1million gallons per day with the two wells online. Water usage averages 300,000 gallons per day. The metering of all town residences on public water was completed in 2006. Metering generally creates a reduction in usage and can function as conservation or demand management measure. Water users are more likely to use less water when they are paying for their water based on their actual usage versus a flat fee, and don't want to see their water bill go up.

Threats to drinking water resources follow closely those same threats to watershed areas and waterways. They include:

- Residential development in sensitive areas—particularly in the forested water supply area feeding the reservoir
- Clearing of vegetation that borders waterways, and replacement of this natural landscape with human residences increases storm water runoff contaminated by lawn fertilizers, pesticides, de-icers, motor oil, and other damaging substances
- Alteration of stream conditions such as temperature, velocity and volume of flow, and turbidity (amount of particulate matter in the water)
- Non-point source pollution from households, septic systems, roadways, agricultural operations, and industries

- Overuse or misuse of recreational resources
- Poor stewardship of forest lands through inappropriate timbering practices

Two forested parcels in the watershed have recently been permanently protected and protection of the remaining undeveloped land within the watershed to Running Gutter Brook, as well as the primary recharge area for the two wells, continue to be priorities. It is important that the Town review the zoning bylaws to ensure the drinking water supply has adequate protection. In addition, the following is important: review of Zone A, Zone B, and Zone II maps; prioritization of lands for protection, and then working to acquire land or purchase development rights within Zone A and B areas and within the Town well's Zone II area.

Need to reduce invasive plant species growth and improve forest ecosystem health The health of forested lands in Hatfield is threatened by the proliferation of invasive plant species. The Horse Mountain area is the most problematic, but this issue needs to be addressed in other areas of the Town as well. The Town should work with a consultant to document areas with significant invasive plant growth and develop a treatment and management plan. The Town should also work with a forest management consultant to develop a forest management plan for the large, forested areas in West Hatfield, including managing the invasive species. It is also important to educate residents about invasive species and the benefits to wildlife and ecosystems of planting native species, as well as to encourage the planting of native species in any municipal and commercial projects.

Recreational Needs

Need for more active and passive recreational opportunities

Residents would like to see additional hiking trails in Town, particularly more trails that are connected to the existing trails in West Hatfield. It is a high priority of the Open Space Committee to build a new hiking trail that connects the Three Bridges Trail to the Chestnut Mountain Trail. Other high priority projects include completing the recreational walkway at Smith Academy, restoring Day Pond and improving access to the pond for fishing and walking, constructing tennis courts, and completing the construction of a pavilion at Smith Academy Park. There is a lot of interest among residents in access to the Mill River for kayaking or canoeing above the Mill River Dam, and the Town should continue to explore this possibility.

Lack of public information about recreational resources

During outreach for the OSRP and Comprehensive Plan, many Hatfield residents indicated that they would like to see more information about hiking trails as well as trail maps made available. Priority action items for the Open Space Committee area to post hiking trail maps on the Town website, as well as to print trail maps and make them available at Town Hall. The Open Space Committee will also work on improving signage at trail parking areas and along trails.

Need for increased options for non-motorized transportation

In addition to more hiking trails, Hatfield residents also have a strong interest in more paved paths for walking and biking. The Town will continue to work with Northampton to explore alternatives toward a multi-use pathway that will connect Hatfield to the Northampton Connecticut River Greenway. The Town should also work on expanding the sidewalk network in all areas of Town where there is a significant amount of pedestrian use.

4. Examples from other Communities

Williamsburg Woodland Trails Committee

Two of the main goals that came out of the Hatfield open space planning process in 2022 and 2023 were to build additional trails and to provide more information online and in print about the trails, including trails maps. Williamsburg provides a good example of how a small town can utilize partnerships and volunteer efforts to build, maintain, and publicize a network of trails.

Williamsburg has a smaller population than Hatfield, and like Hatfield it has very limited town staff capacity and relies on volunteers to manage open space resources.

The Williamsburg Woodland Trail project and Trails Committee were formed in 2002 with the goals of: working with public and private landowners to open and improve trails for community use; collaborating with local land preservation organizations and volunteers to promote use and maintenance of the trails; and strengthening community bonds through this shared effort. Working with landowners, organizations such as Hilltown Land Trust, Kestrel Trust, Mass Audubon, and Trustees of Reservations, and volunteers, the committee has helped to facilitate land purchases, build trails, and maintain trails. The committee also maintains a website that lists all of the trails, with a description of each trail and links to trail maps.

Mountain Waters Project: Partnership between the Town of Southampton and Kestrel Trust to conserve land for drinking water protection and recreation

The Town of Southampton has been working with Kestrel Trust, as well as neighboring communities of Westhampton and Montgomery, to permanently conserve 1,025 acres of wild and working land that will protect drinking water and watershed land that feeds into the Barnes Aquifer. Conserving this land through conservation restrictions will also protect critical wildlife habitat and linkages as well as open space for passive recreation.

Southampton had previously preserved smaller parcels of critical drinking water protection land in partnership with the Kestrel Trust, utilizing funding from the CPA,

a LAND grant, and a Drinking Water Supply Protection grant. The funding for the 1,025 acres will come from a MA Executive Office of Energy and Environmental Affairs grant, as well as a match from the CPA. This project provides an excellent example of how a small community such as Hatfield can partner with land trusts and property owners to preserve land critical for drinking water protection.

5. Recommended Goals and Strategies

Goal 1: Protect farmlands

Objectives:

- Promote farmland protection opportunities for all landowners.
- Preserve Farmland that is being converted out of Chapter 61A tax relief program.

Actions:

- Continue to support efforts to protect farmland in Hatfield from development through dialogue with farmers and other means.
- Develop internal procedures for the Town regarding right of first refusal for Chapter 61A lands.

Goal 2: Protect drinking water supply

Objectives:

- Prevent residential and non- agricultural development from occurring within the Running Gutter Reservoir watershed area.
- Permanently protect open space within the primary recharge areas to the Town Wells and Running Gutter Reservoir watershed.

Actions:

- Review zoning to ensure drinking water supply has adequate protection.
- Review Zone A, Zone B, and Zone II maps and prioritize lands for protection.
- Acquire land or purchase development rights within Zone A, Zone B and Zone II areas.

Goal 3: Protect woodlands

Objective:

• Support sustainable forestry practices on private & town-owned lands to ensure healthy forest ecosystems & control of invasive species, and prevent down gradient erosion and flooding.

Actions:

- Contract with a consultant to document areas of significant invasive plant growth in the Town, and develop a treatment and management plan.
- Contract with a consultant to develop a forest management plan for the large blocks of forested lands in West Hatfield, including for management of invasives.
- Educate residents about the importance of planting native species for wildlife and ecosystem benefits. Encourage planting of native species in municipal and commercial projects.

Goal 4: Expand the trail system in Hatfield and increase awareness and promotion of trails

Objectives:

- Build additional trails for passive recreation.
- Promote responsible recreational use of Town-owned forested land.

Actions:

- Build hiking trail that connects Three Bridges Trail to Chestnut Mountain Trail
- Expand recently established trail systems to other woodland areas of town-owned land.
- Post hiking trail maps on the Town website.
- Print hiking trail maps and make them available at Town Hall.
- Improve signage at trail parking and along trails.

Goal 5: Expand opportunities for passive and active recreation in Hatfield

Objectives:

- Expand recreational opportunities for walking, jogging, bicycling, non-motorized watercraft, and racquet sports.
- Expand and improve existing recreational facilities.

Actions:

- Provide non-motorized small boat access to the Mill River above the Mill River Dam.
- Work with Northampton to complete construction of the multi-use pathway connecting Hatfield to the Northampton Connecticut River Greenway.
- Expand the sidewalk network in all areas of the Town.
- Construct tennis courts on Town-owned land.
- Complete construction of recreational walkway at Smith Academy.
- Restore Day Pond and improve access for fishing and walking.
- Complete construction of pavilion at Smith Academy Park.

Transportation and Mobility

1. Introduction

Chapter Overview

The Transportation and Mobility Chapter assesses the community's existing infrastructure and transportation services and identifies goals and strategies that address challenges and community needs. The assessment includes measurements of traffic data and input from residents regarding their needs and desired vision for the future. While local budgets often drive opportunities, access to outside funding and external programs plays a significant role. Planning for transportation also includes coordination with local zoning, permitting, and related infrastructure improvements to create opportunities for local businesses and maintain the community's valued rural environment.

Connecting Themes

Major themes that emerged from community engagement in the spring and summer of 2023 included:

- Preserve the quality of life and enhance the community's economic vitality through healthy, sustainable transportation choices.
- Ensure that Hatfield's transportation infrastructure is resilient and prepared to respond to future challenges.
- Continue improving and adapting transportation infrastructure and services to support an aging population while appealing to a diverse, younger demographic.

2. Existing Conditions

This section provides a technical evaluation of the transportation components throughout the study area. It includes a presentation of the data collected, an analysis of traffic operations, and a series of short-term recommendations to improve overall performance and safety.

Hatfield has been efficient in managing the Town's roadway infrastructure. By leveraging allocations of Chapter 90 funds (\$238,386 in 2024), municipal budgets, federal highway funds, and state grant programs, the Town continues to maintain the roadway network and has also been resourceful in improving pedestrian crossing and upgrades to sidewalks.

Data Collection

The Comprehensive Plan Working Group provided recommendations for data collection. The data was used to identify opportunities and provide a reference for future traffic studies.

Daily Vehicle Volume

PVPC staff used vehicle volume data to measure the travel demands on an average weekday. The Average Daily Traffic (ADT) volumes include a weekday 48-hour period at various mid-block locations using Automatic Traffic Recorders (ATRs). The average weekend traffic volumes are the actual traffic volumes counted during October and early November 2023. The 2023 average weekday and weekend traffic counts collected by PVPC staff are included in Table 1. The highest volume roads include West Street south of Linseed Rd. (6,296) and Elm Street east of the I-91 ramps (5,723).

		Average V	Weekday	
Roadway	Location	NB/EB	SB/WB	Total
Bridge Street	W/O Gore Ave.	336	361	697
Chestnut St.	W/O BROSCO	562	645	1207
Depot Road	W/O Straits Rd.	642	676	1318
Elm St.	E/O I-91 NB Off Ramp	2935	2788	5723
Main St.	N/O Depot Rd.	749	731	1480
Main St.	S/O Day Ave.	1159	1154	2313
Maple Street	W/O Valley St.	1033	983	2016
North Hatfield Rd.	S/O Hatfield Beef	424	408	832
Prospect St.	S/O Prospect CT	732	619	1351
West St.	@ Whatley T.L.	2750	2485	5235
West St.	S/O Linseed Rd.	3129	3167	6296
West St.	S/O Plain St.	3222	2978	6200

Vehicle Classification

Vehicle classification data identifies the percentage of heavy vehicles and passenger cars on the roadway. Heavy vehicles include trucks, recreational vehicles, and buses. The percentage of heavy vehicles in the traffic flow calculates the serviceability of a corridor or intersection. Trucks impact traffic flow because they occupy more roadway space than passenger cars and have poorer operating capabilities concerning acceleration, deceleration, and maneuverability.

PVPC collected vehicle classification information at every traffic count location. Vehicles are classified based on the number of axles and the distance between each axle. Two axles, six-tire vehicles, and vehicles with three or more axles are classified as "trucks" or heavy vehicles. The percentage of heavy vehicle traffic on a roadway is important as large vehicles have different operating characteristics than normal passenger vehicles. This information is also a key factor in the pavement design of a roadway. Table 2 shows the highest percentage of heavy vehicles on West Street south of Plain Road (8.1%) and Bridge Street west of Gore (5.2%). Note that trucks as a percentage of total volume do not necessarily correlate with the highest total volume of trucks for a given roadway. See Table 3 below for total number of trucks.

Roadway/Location		Motor- cycles	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	>3 Axle	Heavy Vehicle
Bridge St.	EB	0.0%	55.3%	34.2%	0.0%	5.3%	0.0%	5.2%	5.2%
W/O Gore Ave.	WB	0.8%	68.0%	23.1%	0.3%	5.8%	0.6%	1.2%	1.8%
Chestnut St.	EB	0.2%	63.1%	23.4%	0.6%	8.3%	0.3%	3.9%	4.2%
W/O BROSCO	WB	0.0%	68.9%	20.7%	1.0%	4.9%	0.4%	3.9%	4.3%
Depot Rd.	EB	0.1%	67.0%	22.9%	0.7%	6.4%	1.0%	1.9%	2.9%
W/O Straits	WB	0.1%	53.5%	20.7%	1.2%	20.9%	0.7%	3.0%	3.7%
Elm St.	EB	0.8%	70.1%	19.0%	1.3%	5.5%	0.9%	2.3%	3.2%
E/O I-91 NB Off Ramp	WB	0.7%	66.7%	19.5%	1.2%	8.0%	0.8%	2.8%	3.6%
Main St.	NB	0.7%	62.1%	18.8%	1.2%	13.4%	1.3%	2.1%	3.4%
N/O Depot Rd.	SB	0.7%	60.1%	19.7%	2.0%	14.3%	0.7%	2.5%	3.2%
Main	NB	0.6%	71.0%	22.0%	0.8%	3.8%	0.6%	1.1%	1.7%
S/O Day Ave.	SB	0.9%	53.2%	25.0%	1.2%	16.9%	0.8%	1.7%	2.5%
Maple St.	EB	0.4%	69.8%	21.8%	0.9%	5.3%	0.4%	1.3%	1.7%

 Table 2: Vehicle Classification Data (percent)

W/O Valley St.	WB	0.3%	67.2%	19.5%	0.8%	10.2%	0.4%	1.4%	1.8%
North Hatfield St.	NB	0.2%	55.8%	26.0%	2.0%	12.1%	0.6%	1.9%	2.5%
S/O Hatfield Beef	SB	0.0%	56.5%	25.8%	2.4%	10.7%	0.7%	3.0%	3.7%
Prospect St.	NB	0.4%	74.2%	19.5%	1.1%	3.6%	0.3%	0.4%	0.7%
S/O Prospect	SB	0.3%	61.7%	21.3%	1.4%	13.5%	0.3%	1.1%	1.4%
West St Route 5/10	NB	0.6%	66.2%	18.8%	1.0%	9.3%	0.7%	3.0%	3.7%
@ Whatley T.L.	SB	0.6%	67.2%	18.8%	0.8%	8.9%	0.7%	2.7%	3.4%
West St Route 5/10	NB	0.8%	62.0%	18.4%	1.0%	14.7%	0.7%	2.0%	2.7%
S/O Linseed Rd.	SB	0.6%	70.1%	20.2%	0.7%	5.2%	1.2%	1.7%	2.9%
West St Route 5/10	NB	1.3%	61.6%	15.1%	1.2%	12.2%	1.0%	7.1%	8.1%
S/O Plain St.	SB	1.5%	68.6%	16.2%	1.2%	4.5%	1.1%	6.4%	7.5%

Table 3: Heavy Vehicles (By Volume)

		Delivery & Dump Trucks	Tractor Trailers	T (1 T 1
Roadway/Location				Total Trucks
Bridge St.	EB	18	17	35
W/O Gore Ave.	WB	21	6	27
Chestnut St.	EB	47	24	70
W/O BROSCO	WB	32	28	59
Depot Rd.	EB	41	19	60
W/O Straits	WB	141	25	166
Elm St.	EB	161	94	255
E/O I-91 NB Off Ramp	WB	223	100	323
Main St.	NB	100	25	126
N/O Depot Rd.	SB	105	23	128
Main	NB	44	20	64
S/O Day Ave.	SB	195	29	224

Maple St.	EB	55	18	72
W/O Valley St.	WB	100	18	118
North Hatfield St.	NB	51	11	62
S/O Hatfield Beef	SB	44	15	59
Prospect St.	NB	26	5	31
S/O Prospect	SB	84	9	92
West St Route 5/10	NB	256	102	358
@ Whatley T.L.	SB	221	84	306
West St Route 5/10	NB	460	84	544
S/O Linseed Rd.	SB	165	92	257
West St Route 5/10	NB	393	261	654
S/O Plain St.	SB	134	223	357

Vehicle Travel Speeds

Travel Speed data was used to establish "bins" of data to summarize the ranges in which vehicles were measured to be traveling. The speed data also calculates the "85th Percentile" speed for each direction on the roadway. The 85th Percentile Speed is the speed where 85 percent of all traffic is traveling at or below. By comparing the 85th Percentile Speed to the posted speed limit a community can determine how well traffic is complying with the current posted speed limits and if increased enforcement of the posted speed limits is necessary. Speed data is summarized in Tables 4 and 5

Based on the speed data, most vehicles are driving slightly faster than the posted speed limits. The speed measurements on Elm Street near I-91 Exit 27 (previously Exit 21) may be slightly lower than actual conditions due to traffic exiting and entering the I-91 Ramps. Vehicles also exceeded the 35-mph speed limit in the town center. This could be a result of the higher posted travel speeds along approaching roadway segments. Figure 1 below shows four locations where there is a higher non-compliance with posted travel speeds.

	0-15	16-20	21-25	26-30	31-35	36-40	41-45	46-50	51-55	56-60	61-65	>65
EB	0.9%	1.5%	2.8%	9.1%	27.2%	33.5%	18.8%	4.8%	1.0%	0.3%	0.0%	0.0%
WB	0.7%	1.6%	3.6%	10.4%	27.6%	35.0%	16.3%	4.0%	0.5%	0.1%	0.0%	0.0%
EB	0.6%	0.8%	4.4%	14.8%	35.6%	32.0%	10.3%	1.4%	0.1%	0.0%	0.0%	0.0%
WB	0.4%	1.7%	5.0%	14.7%	34.6%	30.7%	11.0%	1.7%	0.2%	0.0%	0.0%	0.0%
EB	0.2%	0.6%	1.3%	13.0%	43.0%	34.4%	6.8%	0.7%	0.0%	0.0%	0.0%	0.0%
WB	0.3%	0.6%	1.3%	6.2%	23.8%	37.7%	23.0%	6.1%	0.8%	0.1%	0.0%	0.0%
EB	0.2%	0.1%	0.4%	2.1%	13.8%	46.5%	31.0%	5.3%	0.6%	0.0%	0.0%	0.0%
WB	0.2%	0.6%	0.8%	3.4%	12.9%	32.9%	35.0%	11.9%	1.9%	0.3%	0.1%	0.0%
NB	0.8%	0.7%	0.3%	0.7%	2.0%	10.3%	31.0%	36.4%	14.4%	2.5%	0.1%	0.0%
SB	0.7%	0.7%	0.8%	1.8%	5.8%	14.4%	35.1%	28.7%	9.0%	2.4%	0.4%	0.1%
NB	0.4%	1.8%	2.4%	12.3%	40.8%	34.3%	7.3%	0.5%	0.0%	0.0%	0.0%	0.0%
SB	0.3%	1.7%	2.3%	6.5%	23.3%	40.1%	20.0%	5.1%	1.0%	0.1%	0.0%	0.0%
EB	0.4%	0.8%	4.1%	24.6%	48.0%	19.7%	2.1%	0.2%	0.0%	0.0%	0.0%	0.0%
WB	0.5%	1.0%	6.0%	28.2%	47.3%	15.4%	1.5%	0.1%	0.0%	0.0%	0.0%	0.0%
NB	3.1%	1.0%	0.7%	5.4%	20.3%	39.4%	23.2%	5.6%	1.2%	0.1%	0.1%	0.0%
SB	2.5%	0.8%	1.4%	5.0%	23.3%	41.4%	21.6%	3.7%	0.2%	0.0%	0.0%	0.0%
NB	1.3%	1.2%	2.4%	13.5%	37.7%	32.1%	9.7%	1.9%	0.1%	0.0%	0.0%	0.0%
SB	1.8%	0.8%	3.4%	18.3%	39.0%	28.2%	7.4%	0.9%	0.1%	0.0%	0.0%	0.0%
NB	0.3%	0.3%	0.4%	0.7%	3.0%	18.0%	44.4%	25.7%	5.6%	1.0%	0.3%	0.1%
SB	0.3%	0.4%	0.4%	0.7%	3.4%	20.0%	43.7%	24.8%	5.3%	0.7%	0.2%	0.0%
NB	0.4%	0.5%	1.2%	2.7%	8.8%	25.1%	35.6%	20.4%	4.5%	0.6%	0.1%	0.1%
SB	0.4%	0.9%	2.6%	6.1%	22.6%	40.7%	22.9%	3.4%	0.3%	0.1%	0.0%	0.0%
NB	0.6%	1.1%	2.7%	4.1%	8.3%	17.9%	30.4%	26.0%	7.6%	1.0%	0.2%	0.2%
SB	0.6%	1.1%	4.6%	2.5%	5.6%	23.3%	43.3%	16.2%	2.5%	0.2%	0.1%	0.0%
	WB EB WB EB WB SB SB NB SB	WB 0.7% EB 0.6% WB 0.4% EB 0.2% WB 0.3% EB 0.2% WB 0.2% NB 0.8% SB 0.7% NB 0.4% SB 0.7% NB 0.4% SB 0.3% EB 0.4% SB 0.3% SB 2.5% NB 1.3% SB 1.3% SB 1.3% SB 0.3% SB 0.3% NB 0.3% SB 0.3% NB 0.3% SB 0.4% NB 0.4% NB 0.4% NB 0.4%	EB 0.9% 1.5% WB 0.7% 1.6% EB 0.6% 0.8% WB 0.4% 1.7% EB 0.2% 0.6% WB 0.3% 0.6% WB 0.2% 0.1% WB 0.2% 0.1% WB 0.2% 0.6% WB 0.2% 0.6% WB 0.2% 0.6% NB 0.2% 0.6% NB 0.2% 0.6% NB 0.2% 0.6% NB 0.4% 0.7% SB 0.4% 0.8% WB 0.4% 0.8% WB 0.5% 1.0% SB 2.5% 0.8% NB 1.3% 1.2% SB 1.8% 0.8% NB 0.3% 0.4% NB 0.3% 0.4% NB 0.4% 0.9% NB 0.4%	EB 0.9% 1.5% 2.8% WB 0.7% 1.6% 3.6% EB 0.6% 0.8% 4.4% WB 0.4% 1.7% 5.0% EB 0.2% 0.6% 1.3% WB 0.2% 0.6% 1.3% WB 0.2% 0.6% 1.3% EB 0.2% 0.6% 0.8% WB 0.2% 0.6% 0.8% WB 0.2% 0.6% 0.8% NB 0.8% 0.7% 0.3% SB 0.7% 0.7% 0.8% NB 0.4% 1.8% 2.4% SB 0.3% 1.7% 2.3% EB 0.4% 0.8% 4.1% WB 0.5% 1.0% 6.0% NB 3.1% 1.0% 0.7% SB 1.3% 1.2% 2.4% SB 1.3% 0.4% 0.4% NB 0.3% <td>EB 0.9% 1.5% 2.8% 9.1% WB 0.7% 1.6% 3.6% 10.4% EB 0.6% 0.8% 4.4% 14.8% WB 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Table 4: Travel Speed Breakdown

Vehicle 85th Percentile Speeds

Travel speeds were measured over 48 hours and the 85th percentile speed was calculated. Most roadways have speeds within a reasonable threshold. Table 5 shows the 85th percentile speed for vehicles at a particular location in comparison to the posted speed limit. Based on the data collected in the fall of 2023, vehicles that were most likely to exceed the posted speed limit included Elm Street westbound at the I-91 ramp, Prospect Street south of Prospect Court, Maple Street eastbound west of Valley Street, and North Hatfield Street northbound south of Hatfield Beef.

Several of these locations have been identified as locations for speed feedback signs.



Speed feedback sign at Prospect Street

Roadway/Location		85 th percentile	Posted Speed	% Vehicles over 85 th
Bridge St.	EB	42	35	0.20
W/O Gore Ave.	WB	41	35	0.17
Chestnut St.	EB	39	30	0.30
W/O BROSCO	WB	39	30	0.30
Depot Rd.	EB	38	35	0.09
W/O Straits	WB	43	35	0.23
Elm St.	EB	43	40	0.08
E/O I-91 NB Off Ramp	WB	45	30	0.50
Main St.	NB	50	45	0.11
N/O Depot	SB	49	35	0.40
Main	NB	38	35	0.09
S/O Day Ave.	SB	42	35	0.20
Maple St.	EB	36	25	0.44
W/O Valley St.	WB	35	40	-0.13
North Hatfield St.	NB	43	30	0.43
S/O Hatfield Beef	SB	42	30	0.40
Prospect St.	NB	39	25	0.56
S/O Prospect Court	SB	38	25	0.52
West St Route 5/10	NB	48	40	0.20
@ Whately TL	SB	47	45	0.04
West St Route 5/10	NB	47	45	0.04
S/O Linseed Rd.	SB	42	45	-0.07
West St Route 5/10	NB	48	45	0.07
S/O Plain St.	SB	46	45	0.02

Table 5: 85th Percentile Speed (in mph) for Vehicles at Given Locations

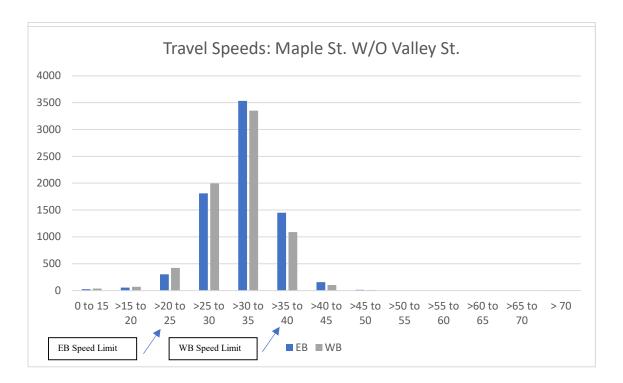
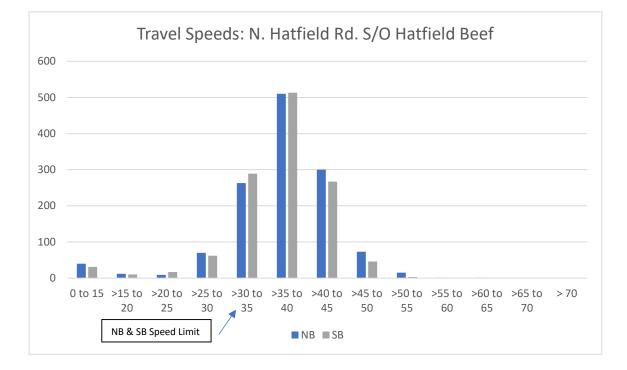
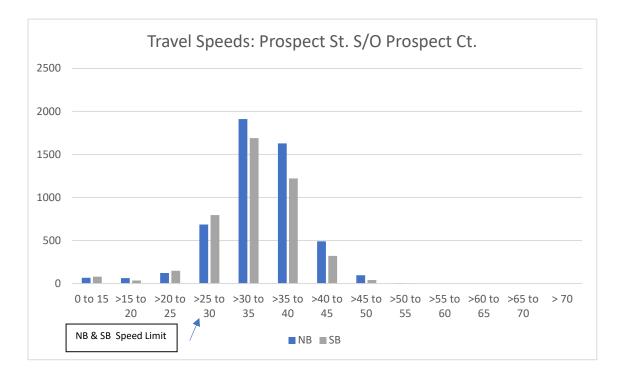


Figure 1 – Travel Speeds at Four Locations with Higher Non-Compliance





Public Transit

The Franklin Regional Transit Authority (FRTA) makes four daily trips from Greenfield to Northampton on Routes 5/10. The Route 5/10 FRTA bus, which makes requested stops at C&S and Brockway Smith, has currently suspended fares on all its fixed bus routes and ADA service through June 30, 2024.

FRTA's service is accessible to persons with disabilities. Buses and vans have wheelchair lifts or ramps that enable people in wheelchairs or people who cannot navigate steps to ride. Buses have priority seating for persons with disabilities. FRTA provides ADA Paratransit services for individuals who are unable to independently ride FRTA's accessible fixed route system.

Mobility Assistance for an Aging Population

The Hatfield Council on Aging (COA) provides van transportation services for adults who are 60 years of age and older, including those who are wheelchair-bound. Wheelchair clients are required to have someone assist them to and from their appointments. Priority is given to those individuals without any means of transportation. Appointments can be made by calling the COA office in advance. The van service continues to be an asset. For many, this is the only reliable means of transportation to the daily lunch program, medical appointments, physical therapy, grocery shopping, and miscellaneous trips. Having transportation service helps to maintain their independence. There are currently two vans, a 2015 Ford Eldorado-Aero eight-passenger van which was donated to the Hatfield Senior Center in 2020 with 100,000 miles. This van currently has 126,000 miles. The Senior Center received its new van, a 2023 Ford Econoline 8-passenger van in February of 2023. The current mileage on this van is 11,170 miles. Figure 2 below indicates people's preferences for van service when they can no longer drive.

Currently, the population of people over 60 is 1,255. Hatfield's aging demographics will change, with population numbers expanding and an increasing need for transportation. The demand for van use decreased significantly during COVID. Pre-COVID trips averaged approximately 2000 trips per year and ridership has gradually rebounded to 1,194 trips in 2023. It is anticipated that ridership for this popular service will continue to grow in the future and that meeting demand will require additional resources.

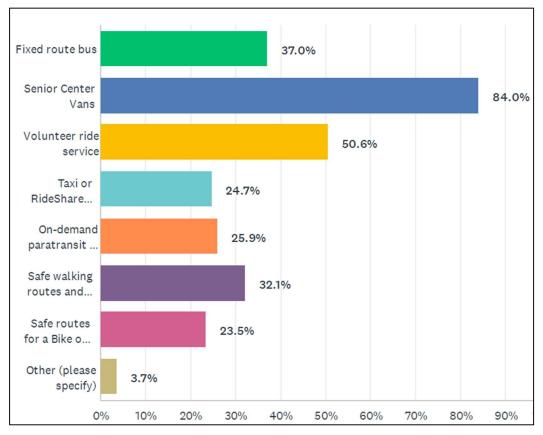


Figure 2: When driving yourself is no longer an option, what transportation methods would you like to have in place? (check all that apply)

Source: 2023 Age-Friendly Pioneer Valley Community Survey

There are potential alternatives to purchasing and operating the senior van. While none of these options will match the personalized and convenient service provided by the Council on Aging, the other options include:

1) The Franklin Regional Transit Authority provides paratransit service. The FRTA has established successful programs that operate efficiently in neighboring communities. This option would expand the current service to include residents under the age of sixty who qualify. The "local share" costs (\$9,539) are paid through the state budget (2023).

2) The Mobility Assistance Program is a Massachusetts Commonwealth-administered program that provides grants to purchase vans for agencies and non-profit groups seeking to provide transportation for seniors, disabled, and other eligible clients. The grants typically require a 20% local match to purchase the vehicles.

3) MassHealth provides non-emergency transportation for many members living in the community who are going to medical appointments. This service, referred to as non-emergency medical transportation, is at no cost to eligible MassHealth members.

Pedestrian and Bicycle Accommodations

The Town Center has an extensive sidewalk network that provides convenient access for residents in and around the center of the Town. The sidewalk system is well-used by a large cross-section of the population including seniors, school-aged children, and adults. Destinations served by the sidewalk network include the Town Hall (including Council on Aging) and Public Safety Office, the Post Office, Smith Academy, Hatfield Elementary, the American Legion, the Public Library, local churches, and various businesses. The 6.3 miles of sidewalks are comprised of both asphalt and cement. During the winter months, the DPW provides for snow removal and treats for surfaces for ice. Sidewalks in some locations have recently been resurfaced as part of larger roadway reconstruction projects. Table 6 summarizes the sidewalk segment based on condition and length.

Ref #	Street Name	Side of Street	From Street	To Street	Length (miles)	Condition*
1	Elm St.	N	Prospect St.	Dwight St.	1.6	G to E
2	Maple St.	N	Prospect St.	Main St.	0.4	G to E
3	Main St	W	Maple St.	North St.	0.8	G to E
4	Main St	E	14 Main St.	18 Main St.	0.1	G to E
5	Main St.	Е	56 Main St.	Ferry Road	0.7	G to E
6	King St.	N	Main St.	14 King St.	0.1	F to P
7	School St.	S	Main St.	Prospect St.	0.8	G to E
8	School St.	S	Prospect Ct.	Prospect St.	0.1	G to E
9	North Street	Е	Main St.	25 North St.	0.2	G to E
10	North Street	W	26 North St.	68 North St.	0.3	G to E
11	Chestnut St.	S	School St.	Prospect St.	0.2	G to E
12	Prospect St.	Е	Maple St.	School St.	0.7	G to E
13	Smith Academy Entrance	E	School St.	Main Entrance	0.1	G to E
14	Hatfield Elementary	n/a	Main St.	Main Entrance	0.1	F to P

Table 6: Hatfield Sidewalk Inventory

* The pavement condition of each segment was based on a visual inspection and the identification of broken pavement that would present a tripping hazard.

Crosswalks in Hatfield are well-delineated and repainted regularly. In 2022 and 2023 the Town installed Rectangular Rapid Flashing Beacons (RRFB) at marked crosswalks at four locations. RRFBs have been an effective safety initiative in school zones, near housing for older residents, and as part of streetscape projects, increasing rates at which vehicles yield at crosswalks by more than 90%. Recent sidewalk improvements have also included "pedestrian crossing" warning signs and ADA-compliant detectable warning panels on ramps. Many crossings in Town have street lighting that heightens visibility for pedestrians during low-light hours.



Hatfield DPW installed Rectangular Rapid Flashing Beacons pedestrian actuated signals on the Main Street intersection with North Street in 2023.

PVPC used the MassDOT demand model to identify sidewalk corridors that would have a higher likelihood of creating walking trips. Figure 3 below demonstrates where these trips might occur.

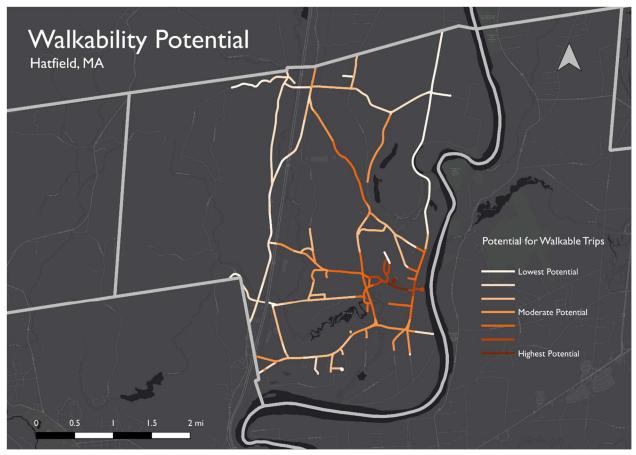


Figure 3: Travel Model Forecasting Demand for Walking Trips

Residents expressed a preference for extending the existing sidewalk network during Comprehensive Plan's public outreach events and through comments solicited. The highest-priority corridors for new sidewalks are shown in Figure 4.

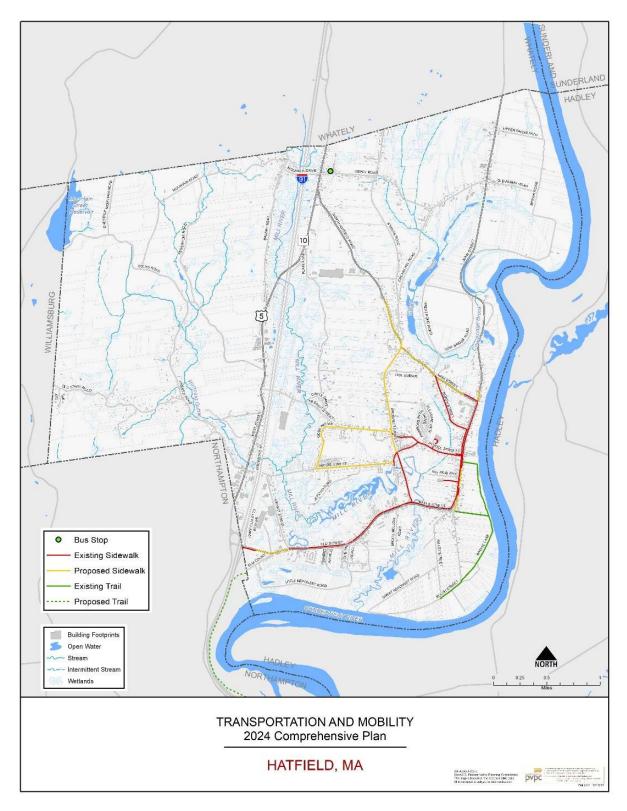


Figure 4: Map of Existing and Proposed Sidewalks

Bicycling

Hatfield residents and visitors choose to use a bicycle for daily trips, whether for getting to work or school, running errands, or for fitness or recreation. Based on feedback from residents, many more people would bicycle for short daily trips if only there were safer, more comfortable, and better-connected routes they could use. MassDOT developed the <u>Resource Guide</u> for municipal staff, elected officials, and community members, which introduces core concepts to enhance community bike-ability and provides additional resources.

Hatfield is a popular location for sponsored bicycle rides and charity fundraisers with many of these events starting at the <u>Hatfield Lion's Club pavilion on Billings Way</u>. Some of the regionally significant bicycle rides (Connecticut River Valley Century, Hatfield Lions Club Bike Tour, Will Bike 4 Food, Competitive Edge Racing Gravel Grinder, and Road Ride) attract hundreds of participants each year.



Cyclists pass the Hatfield Community Garden on Billings Way

Ridesharing and Commuting

Most employed Hatfield residents (89.5 %) do not work in town and commute to jobs. The most popular workplace destinations include Springfield (10.4 %), Holyoke (6.3%), Northampton (6.1%), Chicopee (5.2 %) and Greenfield (4.8%).

While there are currently no ridesharing and park-and-ride lots identified in Hatfield, a joint effort with the surrounding communities along Route 5/10 to identify a preferred location for a park-and-ride lot should be considered. The MassHighway District 2 Office at exit 27 in Northampton may be a potential location. The park-and-ride lot would provide a measure of encouragement to area commuters traveling the I-91 corridor. The Town of Hatfield should consider requesting assistance from PVPC to study the feasibility of locating a park-and-ride lot.

The University of Massachusetts (a major employer) offers shared ride options for the campus community. Additional rideshare services are available through Lift and Uber. Figure 5 shows the most popular origins and destinations for ride-sharing trips.

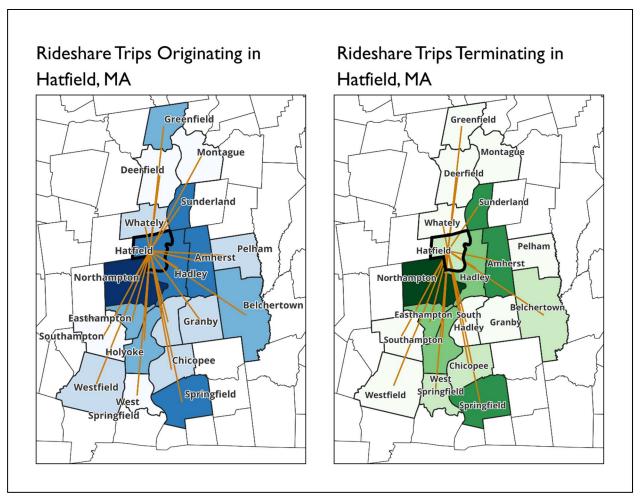


Figure 5: Hatfield Ridesharing Trips

Student Transportation in the Hatfield School District

Municipalities are responsible for transporting students to and from home and public schools and to and from related public educational programs.

Safe and dependable transportation to and from school is a critical component of the student learning experience. With an enrollment of 357 (HES=218 SA=139), there were approximately 153 students in 2023 eligible for transportation by bus (HES=80 SA=73). On a typical day, approximately 75 students (HES=55, SA=20) use the school bus. The school bus service is paid for by the Town (no State assistance) and the contractor provides three full-size buses including two buses and two routes at Smith Academy and two buses and two routes at the elementary school (with either a sixty-five or seventy-two capacity). A third bus provides transportation to Smith Vocational High School in Northampton when requested. The bus contract includes a provision for transportation to special school activities and school sports. Periodically, the school administration will review bus routes and evaluate bus stop locations.

The School District also provides the "non-bus" school pupil transport vehicles or vans ("7D vehicles") used to transport students with special needs. The vehicles are owned by the Town and frequently parked at Hatfield Elementary School when not in service.

School of choice students and families play a significant role in the quality of education and contribute to a healthy school culture. In 2023 there were approximately 100 school of choice students in the district. Some school-choice families will coordinate transportation needs and establish carpools.

Walking and biking also play a critical role in school transportation. As documented in the sidewalk assessment, the maintains a safe network of sidewalks that provide convenient access to the Elementary school and Smith Academy. The DPW plows sidewalks in the winter. Both schools provide bicycle parking, marked crosswalks, school zone signage, and on-street lighting. The Town currently does not have a designated school zone in front of Smith Academy. A school zone would lower the posted speed on School Street to 20 mph in the vicinity of the crosswalk.

Figure 6: Hatfield School District Transportation Policy

Hatfield School District Student Transportation Policy

Students are entitled to transportation to and from school at the expense of the public schools when such transportation conforms to applicable provisions of the Massachusetts General Laws. Reimbursement to the school system for transportation costs is given by the Commonwealth, **subject to appropriation**, only for (a) students living at least one and one-half miles from school, (b) students who live more than one mile from the nearest bus stop, and (c) students with special needs for whom transportation must be provided. Additionally, the School Committee will provide transportation for students as follows:

Kindergarten: All students, except those living in immediate proximity to the school, as determined by the Superintendent.

Grades 1 - 6: Students living more than one (1) mile from school. Grades 7 - 12: Students living more than one (1) mile from school.

Exceptions to these guidelines may be made at the discretion of the Superintendent. This will apply particularly to any student who must travel in a hazardous area to and from school. These students will be transported regardless of the mileage limits listed.

A student, whose parents/guardians do not reside together but share parental time with the student, may be transported to and from either residence if such residence is one and one-half $(1 \frac{1}{2})$ miles or more from their school or if such transportation falls into one of the additionally listed criteria above.

Source: Hatfield District Policies

Motor Vehicle Crash History

PVPC staff reviewed MassDOT crash data to identify safety trends on the number, type, and location of crashes. The total number of reported crashes has increased each year within the analysis period. A total of 103 crashes were recorded in Hatfield between 2015 and 2017. See Figure 7 below. Almost half of the total crashes (44%) occurred along Interstate I-91. Outside of the I-91 corridor, most collisions were single-vehicle crashes, which resulted in property damage only and no injuries.

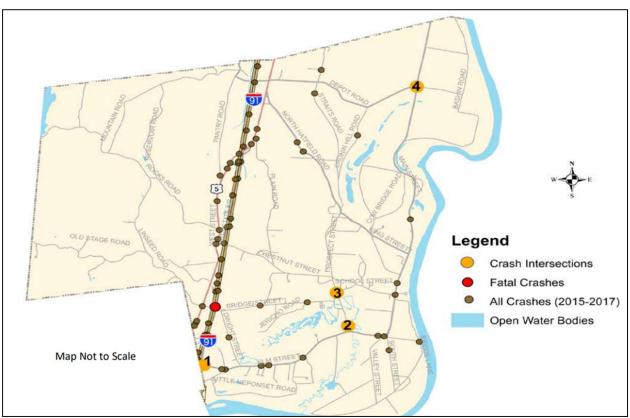


Figure 7: Crash Locations, 2015 - 2017

Year	Crashes 7 32 8 34 8 34 9 25 9 25 9 19 0 19	Manner of Collision		Severity	
2017	32	Angle	4	Non-fatal injury	10
		Head-on	1	Not Reported	1
		Not reported	1	Property damage only (none injured)	21
		Rear-end	4		32
		Sideswipe, opposite direction	1		
		Sideswipe, same direction	3		
		Single vehicle crash	18		_
2018	34	Angle	5	Non-fatal injury	5
		Head-on	1	Not Reported	1
		Rear-end	8	Property damage only (none injured)	27
		Rear-to-rear	1	Unknown	1
		Sideswipe, opposite direction	1		
		Sideswipe, same direction	1		
		Single vehicle crash	17		_
2019	25	Angle	2	Non-fatal injury	4
		Front to Rear	1	Property damage only (none injured)	20
		Head-on	1	Unknown	1
		Rear to Side	1		
		Rear-end	2		
		Rear-to-rear	1		
		Sideswipe, same direction	5		
		Single vehicle crash	12		
2020	19	Angle	3	Non-fatal injury	3
		Rear-end	2	Property damage only (none injured)	15
		Sideswipe, opposite direction	1	Unknown	1
		Sideswipe, same direction	2		19
		Single vehicle crash	11		
2021	17	Angle	1	Fatal injury	1
		Front to Front	1	Non-fatal injury	4
		Rear to Side	1	Property damage only (none injured)	12
		Rear-end	2		17
		Sideswipe, same direction	1		
		Single vehicle crash	11		

Table 7: Crashes by Manner of Collision and Severity

The Comprehensive Plan Committee requested that PVPC further examine data for highest crash locations. This included the intersection of Elm Street, Prospect Street, and Maple Street, Elm Street at the I-91 ramp, and finally Maple Street at Main Street. A summary of this data is presented in Table 8. The table highlights the significance of rear-end collisions and angled collisions at the Elm Street- I-91 ramp location.

Intersection	Year	Number of Crashes	Manner of Collis	ion
	2016	1	Angle	2
	2018	2	Single Vehicle	3
Elm Street / Prospect Street / Maple Street	2019	2	Sideswipe	1
	2021	1		
		6		
	2013	1	Angle	8
	2014	1	Single Vehicle	1
	2015	2	Rear End	10
	2016	2		
	2017	2		
Elm Street / Interstate Ramps	2018	1		
	2019	4		
	2020	2		
	2021	2		
	2022	2		
		19		
	2016	1	Angle	1
Maple Street / Main Street / Bridge Lane / South	2018	1	Head-on	2
Street / Valley Street	2022	1		
		3		

Table 8: High Crash Locations of Interest

Vehicle Deer Collisions

Vehicle-deer collisions in Massachusetts are increasing each year. According to a recent AAA Northeast report that pulls data from the MassDOT Crash Portal, Hatfield deer collisions topped the list of Hampshire County towns in 2022 with a total of 22 vehicle-deer collisions. Deer collisions doubled from 2002 to 2010 and then doubled again from 2014 to 2022. Each year the number of collisions spikes during the deer mating season in October and November when bucks are less cautious. The increasing deer population is a factor in the growing number of collisions. Drivers need to be especially cautious in the early evening between 5 and 7 pm.

Freight Transportation and the Movement of Goods

Freight is vital to the Hatfield economy. Trucks serve local businesses, the village center, farms, and other facilities as well as support essential infrastructure such as public schools. Trucks carry most of the freight in Hatfield. This dependence on trucks reflects a statewide average of 90% of the freight that travels to, from, or through Massachusetts. Significant regional transportation corridors such as I-91, Route 5/10, and Route 116 to the north carry trucks into and out of Hatfield. The highest intensity of weekday truck trips is on West Street (Route-5/10) in the vicinity of the C&S Wholesale Grocers warehouse. Recent traffic counts also suggest that truck traffic is destined for activity centers, village centers, and businesses off Chestnut Street, Elm Street, and Main Street.

Trucks also deliver electronic commerce (E-commerce) to businesses and residents. E-commerce has grown at an average annual rate of 15% over the past decade and this trend is expected to continue growing in response to demands from both businesses and residents. E-commerce is expected to continue and, by 2025, it is projected that the number of packages delivered will equal mail in overall volume. This will result in more trucks on the transportation network, increasing the potential for increased cut-through traffic on local roadways, increased air quality and noise impacts, and an increased risk for pedestrians and cyclists.

Given the projected increases in truck demand, this is an opportunity to rethink how trucks are managed as it relates to the transportation network. While freight is important to the local economy, truck traffic represents a significant concern in many neighborhoods. For example, North Hatfield Street and Plain Road have reported truck traffic through neighborhoods and residents have expressed concerns about the noise resulting from the use of engine compression brakes. The Town has worked to address these concerns in the past by providing effective wayfinding and signage and designing local streets to discourage cut-through traffic to mitigate the negative effects of this important transportation element.

Massachusetts suffers from a critical lack of truck parking and service facilities. Under the guidelines of the Federal Motor Carrier Safety Administration (FMCSA), a truck driver is limited to 11 hours of driving, followed by 10 hours of rest. When the time limit approaches, drivers must find a legal place to pull over, and it is not legal to park on the shoulder of a highway. While trucks can park at MassDOT-owned service areas and private truck stops, as well as in some private parking lots, these facilities are not always accessible for drivers making deliveries to Hatfield. When truck drivers run out of time and no parking is available, they face a conflict between Federal rest requirements and state safety regulations regarding truck parking. Therefore, trucks will park overnight near residential areas.

Other needs for truck drivers outlined in the MassDOT Freight Plan include:

- Truck repairs Like any motor vehicle, trucks suffer flat tires, and they break down. Truck stops sometimes provide repair and maintenance facilities, and all provide an opportunity for drivers to perform repairs on their own.
- Food and Fuel Both drivers and trucks must refuel during long trips. While a truck may be able to use any diesel pump at a local service station, truck stops offer many diesel pumps in purpose-built facilities.

Intercity Passenger Rail

The Valley Flyer travels through Hatfield between Greenfield and New Haven where it connects with Amtrak's Northeast Corridor service and Metro-North's New Haven Line service. There are three northbound and three southbound passenger trains during a typical weekday. This service is primarily for people in our region traveling south. For example, a day trip to New York City in the morning and returning by train during the evening.

There have been significant rail investments in the Valley Flier corridor in recent years. In 2010, MassDOT was awarded \$70 million in HSIPR funding for design and construction, and in 2014 acquisition of the "Connecticut River Line," (including rail in Hatfield) was completed. Fifty miles of track have been purchased and rehabilitated and new stations have been built in Northampton (former Amtrak station location), Greenfield, and Holyoke. Union Station in Springfield was rehabilitated with state and federal investments of \$94 million. While passenger service was originally introduced on a "trial basis" In 2022 MassDOT and Amtrak recently announced that the Valley Flyer is now a permanent service.

Roads and Pavement Management

The Pioneer Valley Planning Commission conducted a pavement management assessment for federal aid-eligible roads in Hatfield in 2023. The study assessed the town's pavement maintenance needs and determined schedules and cost-effective solutions to improve the conditions of roadways. Pavement management information also assists in allocating resources to maintain eligible roads. Pavement inventory and distress data were analyzed using the Cartograph OMS software. The data was used to calculate the Overall Condition Index (OCI) which measures the serviceability of the road on a scale from 0 - 100. The table below the OCI ranges based on roadway classification.

An "excellent" pavement condition indicates roadway segments where no improvements are warranted. "Good" pavement conditions only require preventive maintenance treatments such as crack sealing. A "fair" pavement condition is indicated that requires more substantial improvements such as resurfacing to improve the roadway. A "failed" pavement condition will require the complete reconstruction of the roadway. The overall condition indices for different segments of roadways are summarized in the graph below.

	Excellent	Good	Fair	Poor	Failed
Arterial	>89.5	>69.5 and =<89.5	>48.5 and =<69.5	>26.5 and =<48.5	<=26.5
Collector	>88.5	>68.5 and =<88.5	>47.5 and =<68.5	>24.5 and =<47.5	<=24.5
Residential Through	>87.5	>67.5 and =<87.5	>46.5 and =<67.5	>23.5 and =<46.5	<=23.5
Residential Dead End	>84.5	>64.5 and =<84.5	>43.5 and =<64.5	>20.5 and =<43.5	<=20.5

Table 9: Roadway Condition Index Ratings



The effort and expense of crack-sealing roadway pavement is an important investment.

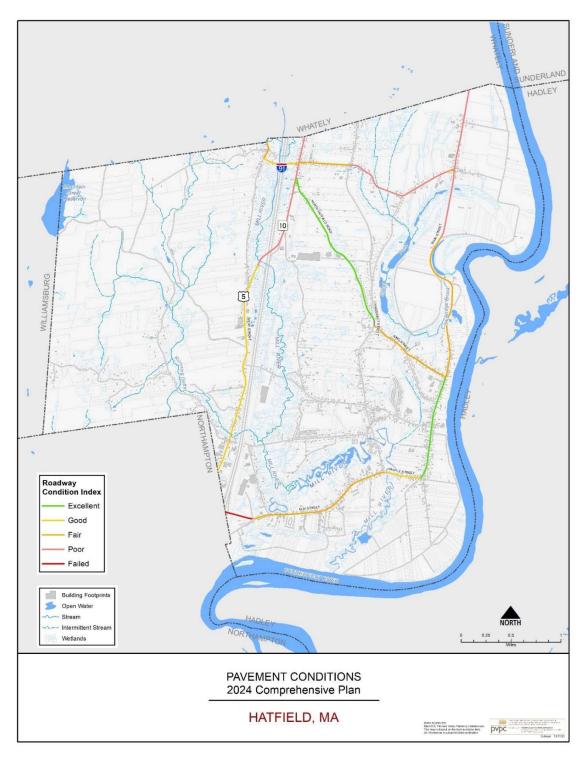


Figure 8: Existing Pavement Condition Map

The pavement conditions assessment found that the 32 miles of federal-aid eligible roads in Hatfield—including King Street, North Hatfield Road, Elm Street, Main Street, and Routes 5/10—are all operating in fair or better condition. Twenty-two percent of the roadway segments are in excellent condition, while 78 percent are in fair condition.

It should be noted that in 2023 the town completed resurfacing on Chestnut Street, Pantry Road, and Prospect Road in 2023. Other ongoing maintenance included regrading unpaved roads, crack sealing, re-striping, sign replacement, and crosswalk improvements.

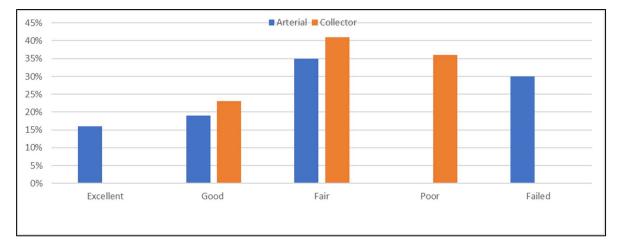


Figure 9: Roadway Pavement Condition by Functional Classification

As can be seen in Figure 9 above, the majority (70%) of the arterial roads are rated fair or better in Hatfield. That percentage drops to sixty-four for collector roadways. As can be seen in Figure 10 below, local roads make up 69% (41.34 miles) of all roads in Hatfield. The OCI for local roads falls below that of the federal aid system due to the high percentage of roadway miles and limited resources available for improvements on these roads.

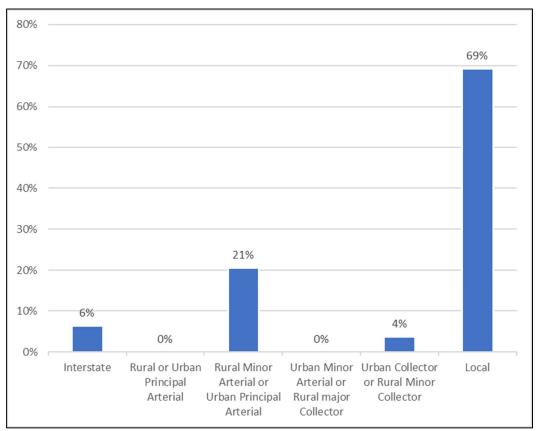


Figure 10: Roadway Classifications in Hatfield

Bridges and Culverts

Bridges are a critical component of the roadway network. Maintaining the safety and functionality of bridges in Hatfield is a top priority. The majority of bridges

located on high-volume roadways such as Route 5 (West Street) fall under the domain of the State and are inspected by MassDOT. Previously the State utilized a generally accepted rating system developed by the American Association of State Highway and Transportation Officials (AASHTO) to ascertain the condition of the bridges. Beginning in 2018, that system was updated to a new 100-point scale system that measures the Bridge Health Index (BHI). BHI is a weighted average of the health indices of all bridge elements (e.g., trusses, decks, bridge rails, etc.) to provide a comprehensive overview of the condition of bridges. A value of zero indicates that all the bridge elements are in the worst condition, and a score of 85 or greater indicates that the bridge elements are in good condition. In the Pioneer Valley Region, approximately 9% of bridges were found to be structurally deficient. Structurally deficient bridges are not categorically unsafe for use. Posted weight limits may be necessary to ensure safety on some bridges. In 2024, the only structurally deficient bridge in Hatfield is on Elm Street over the railroad. MassDOT is replacing the bridge with a structure meeting current design standard. This project will also evaluate, and address needed improvements for the intersection of Elm Street with the Interstate 91 Northbound ramps. The project is in the preliminary design phase with an estimated cost of \$21.3 million.

To assist municipalities with the repair or replacement of bridges that are not eligible for federal aid funding programs, Massachusetts implemented the Small Bridge Program in 2016. The program provides reimbursable assistance up to \$500,000 per year for work on bridges with spans of 10 to 20 feet.

In addition to bridges, culverts are a crucial part of the transportation network. The Chestnut Street culvert was constructed in 1950 and is the responsibility of the town to maintain. The culvert may be eligible for funding through the Massachusetts Culvert Replacement Municipal Grant Program. For this Comprehensive Plan, all known bridge and culverts were mapped.

Table 10:]	Bridges	and Culve	rts
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					a	D	D 11./	D 1	G	G 1		TT 1.1
	Structure				Struct	Feature	Built/	Deck	Super-	Sub-	Culvert	Health
ID	Category	Street	Length	Owner	Def	Intersected	Reconst	Condition	structure	structure	Cond	Index
H11026	Bridge	ELM ST	85	DOT	NO	I 91	1963/87	7	6	6	N	0.86
H11025	Bridge	ELM ST	77.2	DOT	YES	RR BMRR	1963	5	5	3	N	0.76
H11023	Bridge	MOUNTAIN	77.6	DOT	NO	I 91	1962	7	7	5	N	0.70
H11028	Bridge	CHESTNUT	77.9	DOT	NO	I 91	1963	6	6	5	N	0.70
	Culvert	CHESTNUT	0.9	MUN	UNKN	BOG HOLE	1950	N	N	N	6	
	Shrt- Span	MAIN ST	3.7	MUN	NO	COW BRDG BRK	1960	N	N	N	6	
H11004	Bridge	BRIDGE ST	34.1	MUN	NO	MILL RIVER	1937	5	5	7	N	0.76
H11024	Bridge	MOUNTAIN	27.1	MUN	NO	MILL RIVER	1959/62	N	N	N	7	0.97
H11003	Bridge	PROSPECT	53.9	MUN	NO	MILL RIVER	1977	6	6	7	N	0.97
H11005	Bridge	CHESTNUT	21.5	MUN	NO	MILL RIVER	1959	7	7	5	N	0.82
	Shrt- Span	US 5/WEST	5.8	DOT	NO	RUNNG GUTR BRK	1906/34	5	5	6	N	
H11031	Bridge	US 5/WEST	22.9	DOT	NO	MILL RIVER	1963	N	N	N	7	1.00
H11030	Bridge	US 5/WEST	110.7	DOT	NO	I 91	1963	5	5	5	N	0.69
H11002	Bridge	MAPLE ST	28.4	MUN	NO	MILL RIVER	1950	6	6	6	N	0.73

Registered Vehicles in Hatfield

In 2022 the RMV reported 23 zero emission vehicles and 109 hybrid vehicles registered in Hatfield. Vehicles in Hatfield averaged 30.2 miles per day for a total daily mileage traveled of 108,506. Commercial vehicles account for 14.4% of vehicle miles traveled.

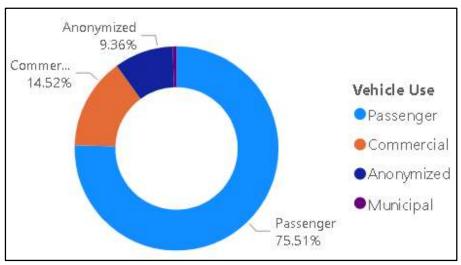


Figure 11: Vehicle Miles Traveled (VMT) by Use

Note: "Anonymized" is data that is intentionally undisclosed to protect confidentiality.

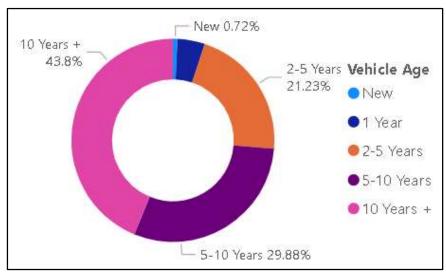


Figure 12: Age of Vehicles in Hatfield

Scenic Byways

The <u>Western Massachusetts Scenic Byways</u> program is a collection of seven state-designated scenic byways that are part of the U.S. Department of Transportation's National Scenic Byways Program. The National Scenic Byway Program aims to recognize, preserve, and enhance the archeological, cultural, historic, natural, recreational, and scenic resources of

these roadways. The byways offer a range of activities for visitors, including outdoor recreation, breathtaking views, world-class art, and American history. There are currently seven scenic byways in Western Massachusetts:

- 1. Mohawk Trail Scenic Byway
- 2. Jacob's Ladder Scenic Byway
- 3. Connecticut River Scenic Byway
- 4. Berkshire Lakes Scenic Byway
- 5. Ashuwillticook Rail Trail
- 6. Upper Housatonic Valley National Heritage Area
- 7. Rutland Route 122 Scenic Byway

A 2016 Corridor Management Plan update for the Connecticut River Scenic Byway includes an evaluation of a possible extension of the Byway to the west side of the Connecticut River to include either River Road and/or Route 5/10. Unfortunately, the Federal Highway Administration discontinued scenic byway grant funding soon after completion of the plan update so next steps, including local authorization and the petitioning of the state legislature for scenic byway designation did not move forward.

Golf Carts and Low-Speed Vehicles in Public Ways

Golf carts and low-speed vehicles can be seen in use on public roadways and occasionally on sidewalks. An LSV (Low-Speed Vehicle) and a golf cart are two distinct and different classifications. An LSV is described as an electric vehicle that has a top speed of greater than 20 MPH but less than 25 MPH. A golf cart, by contrast, is to have a top speed of under 20 MPH.

<u>State and federal safety regulations</u> dictate what requirements need to be met to be allowed to drive on public roads. Forty-seven states (including Massachusetts) have laws authorizing or allowing local governments to authorize LSV operation (<u>Connecticut</u> does not authorize LSVs however allows municipalities to permit the use of golf carts on local roads).

According to the <u>Massachusetts RMV definition</u> a "low-speed vehicle" is any 4-wheeled motor vehicle that:

- has been issued a certificate of origin.
- has a gross vehicle weight rating (GVWR) of less than 3,000 pounds.
- has a top speed greater than 20 mph but not greater than 25 mph.
- and is the National Highway Traffic Safety Administration (NHTSA)-certified as a "Low-Speed Vehicle," demonstrated by:
 - The certificate of origin, title, or out-of-state registration listing the body style or body type as "LSV" or "Low-Speed Vehicle."
 - The manufacturer's certification label is posted on the vehicle containing the VIN and indicating the type of vehicle as a "Low-Speed Vehicle."



Low-speed, zero-emission vehicles were legalized by the Massachusetts Legislature in December 2008.

3. Challenges and Opportunities

The Town of Hatfield has unique challenges and opportunities as a rural community given its proximity to nearby cities and with convenient access to an interstate highway. Development pressures along the Route 5/10 corridor will continue to grow and the push and pull tensions between the agricultural landscape and more urban types of development create both opportunities and challenges. These are outlined here.

Improving Safety for Vulnerable Road Users

The low rate of vehicle crashes are well documented in this plan, however, even with this continued trend some users remain at risk. These users include those using sidewalks and crosswalks to get to school, those transporting farm equipment, or those riding bicycles home from a sporting event. Protecting these more vulnerable users requires ongoing diligence and awareness from everyone in the community. In 2023 Massachusetts passed the "Vulnerable Road Users' Law" that requires drivers to provide a "safe passing distance" of at least four feet when passing vulnerable road users and motorists are allowed to cross a double-yellow line to pass "when it is safe to do so and adhering to the roadway speed limit." MassDOT has been collaborating with municipalities to install appropriate signs on local roads. Massachusetts defines a "vulnerable user" to include:

- People walking and biking.
- Roadside workers
- People using wheelchairs.
- People who use scooters, skateboards, and roller skates.
- People on horses or in a horse-drawn carriage
- People operating farm equipment on the roadway



Appendix B - Transportation and Mobility

Improved Visibility at Intersections and Crosswalks

Vehicles should not be parked within at least 20 feet of an intersection, and parking restrictions should consider adequate sightlines for motorists and pedestrians to be able to see and react to each other. The <u>Federal Highway Administration</u> defines the minimum setback as 20 feet in advance of the crosswalk where speeds are 25 mph or less, and 30 feet where speeds are between 26 and 35 mph.

Safe Routes to School (SRTS)

Many communities in the Pioneer Valley have begun to address pedestrian safety and healthrelated issues through the initiation of a "Safe Routes to School Program" (SRTS). SRTS is a free, federally funded program administered by the Massachusetts Department of Transportation that works to increase safe walking, biking, and rolling among public elementary, middle, and high school students. Participating schools use a collaborative, community-focused approach that bridges the gap between health and transportation.

SRTS provides infrastructure projects through its program. Infrastructure extends to within a quarter mile of a school. To be eligible, the community must apply along with a participating school. Applications to the infrastructure program can be completed online at the <u>SRTS</u> <u>Infrastructure Project Funding Program website</u>. A new SRTS Signs and Lines Program provides funding up to \$6,000 for the construction and installation of signage and pavement markings. This is also available on the same website. Six schools in five communities (Agawam, Holyoke, Longmeadow, Northampton, and Southampton) have received Safe Routes to School infrastructure projects.



Hatfield DPW installing sidewalks on Main Street.

While Hatfield has not recently been involved in SRTS, the Massachusetts Program can be an effective way to increase safe biking and walking. Through a collaborative, communityfocused approach the program bridges an important gap between health and transportation. SRTS utilizes the six E's to implement its program- Education, Encouragement, Enforcement, Evaluation, 45 Engineering, and Equity.

Through a partnership with the SRTS program, the Hatfield community could gain benefits for students, families, schools, and communities including:

- Increase safety for students walking and rolling in their community.
- Help students stay active and build independence.
- Boost attendance and reduce tardiness.
- Decrease traffic congestion and improve air quality.

By partnering with Massachusetts SRTS, Hatfield schools will help students walk and bike safely to and from school and have access to technical assistance in designing, implementing, marketing, and evaluating initiatives tailored to each school's needs and priorities. School Partners also receive free educational and promotional materials.



Hatfield Elementary School participating in the national "Walk to School Day" sponsored through the MassDOT Safe Routes to School Program.

Opportunities and Challenges for Efficiencies in Student Transportation

Most Massachusetts school systems (including the Hatfield School District) contract an outside vendor to bus students. Over the last decade, competition has plummeted for these contracts. In 2023 many schools and bus industry officials reported a bus driver shortage. According to the state's Registry of Motor Vehicles, 66 companies offer school bus services in Massachusetts and that total has dropped 20% in recent years. School districts now face fewer choices, procurement challenges, and steeper prices. The School District bus contract may not be large enough to attract competitive bids and further reducing the services required (cutting/consolidating routes) may create a less appealing opportunity for bus vendors.

Establish a School Zone on School Street near Smith Academy

There is not a delineated school zone in front of Smith Academy (grades 8-12) on School Street. While an RRFB has been installed recently at the crosswalk a defined school zone would lower the posted speed limit to 20 mph and reduce the risk of injury to vulnerable road users. MassDOT guides establishing school zones in the <u>Procedures for Speed Zoning</u> document (page 25, section 10.d). In 2022, the Bipartisan Transportation Bill extended school zones to include grades 1-12 (formally 1-8).

Off-Road Shared-Used-Paths

The Hatfield Open Space Committee has been working with the community and with officials from both Hatfield and Northampton to advance a shared-use path along the Connecticut River, which would connect south to a regional bikeway network. Shared-use paths also called trails, multi-use paths, greenways, or bike paths can bring many benefits to communities. By providing safe and accessible transportation and recreation opportunities separated from motor vehicle traffic, shared use paths benefit the individuals using them and can also contribute to economic development and sustainability goals of the community.

This project has been ongoing since the late 1990s, but progress in the design phase has been halted recently given major costs to overcome insufficient set-back distances from railroad tracks in a few locations. While the Open Space Committee has not yet had the opportunity to explore alternatives, there is tremendous local support for finding a way to connect to this important regional trail network.

Route 5/10 corridor potential

The Route 5/10 corridor has convenient access to freight rail, the interstate highway, and a potential connection for pedestrians and bicyclists. While development along 5/10 has continued to evolve in fragmented stages, the extension of water and sewer combined with pressure for development creates opportunities to think creatively about transportation. A "complete streets" approach would provide a safer corridor for all users while enhancing the value of any proposed development.

Figure 13: School Zone Speed Limits

10.d School Zone Speed Limits

School Zone speed limits are a statutory speed limit but may be marked with regulatory (black legend on white background) signage. Speed limits within a School Zone must be set at 20 mph, but the limit is only in effect during days of the week and hours of the day when children are accessing the school grounds. School Zone warrants, design, and operation are governed by the Massachusetts Amendments to the MUTCD. The following is a summary of these criteria, but the full document should be reviewed to ensure all standards are met:

- The school property abuts the public right of way within the limits of the proposed School Zone;
- School children have direct access to the street or roadway from the school property;
- There is a marked, ADA-compliant crosswalk within the School Zone; and
- The school includes one or more grades between Grade 1 and Grade 8, inclusive.

Cities and towns are responsible for modifying their Municipal Traffic Code to reflect the locations and days and times of operation for all School Zones prior to the posting any signage. The sign assembly that is used to identify the school zone speed limit for drivers should be similar to Fig. 10-4; the assembly may also contain sign plaques stating the days of the week and times of day (MUTCD code S4-6P) or "When Children Are Present" (S4-2P) or it may be supplemented with either a single yellow flashing beacon above the sign, or one yellow flashing beacon above and one below the sign that flash alternately, and a plaque stating "When Flashing" (S4-4P).

Vision Zero

The Town may find value in partnering with the Pioneer Valley Planning Commission in the region's recent adoption (2023) of a Vison Zero Policy. Vision Zero starts with the premise that traffic fatalities and serious injuries are preventable. Death and injury are not an acceptable price to pay for engaging on the roadways as a pedestrian, cyclist, or motorist.

Town officials could work with PVPC to review crash risks associated with PVPC's Safety Compass assessment. This Vision Zero approach towards public safety will not prevent injuries, but it will lessen the severity of injuries. The goal is to make Hatfield streets safer by implementing roadway designs and policies that reduce driver speeds, especially where there is a presence of vulnerable users.

Alongside the prevention of serious injuries and traffic fatalities, many communities like Hatfield are looking at ways to improve public health. Public health is a complex issue encompassing health issues such as obesity, exercise, pollution, asthma, and the current pandemic. Obesity and asthma are related to other chronic conditions causing higher mortality rates in later life. Public health outcomes can be linked with Vision Zero plans. The



Fig. 10-4: R2-1 Sign with S4-3P and S4-1P Plaques (Source: MUTCD)

idea is that if it is safer to walk and bike in a community, people will exercise outdoors more often, reducing chronic illness.

Safe Systems Approach

A safe systems approach emphasizes proactive and systemic measures to address safety rather than reactive measures that chase crash hot spots and focus on individual behaviors. A safe systems approach recognizes the fallibility of humans and seeks to reduce the consequences of inevitable mistakes (crashes) to promote survivability.

Improvements to vehicle design, roadway design, and emergency and response times all provide layers of redundancy that increase the likelihood of survivability. Self-reinforcing design is a tenet of a safe systems approach, which emphasizes a system-based (rather than individual-based, or blame-focused) approach to reducing safety risks on roadways. For example, a roadway can incorporate self-reinforcing roadway design elements so that drivers are far less likely to speed irrespective of enforcement presence.

The Safe System Approach aims to eliminate roadway fatalities and serious injuries by focusing on Safe Roads, Safe Road Users, Safe Vehicles, Effective Post-Crash Care, Safe Speeds, and changing safety culture. There are six principles that guide work in this are as described by Federal Highway Administration in Figure 14.

0	A		
Death/Serious Injury	Humans Make Mistakes	Humans are Vulnerable	
is Unacceptable	People will inevitably make mistakes	People have limits for tolerating crash	
While no crashes are desirable, the Safe System Approach prioritizes crashes that result in death and serious injuries, since no one should experience either when using the transportation system.	that can lead to crashes, but the transportation system can be designed and operated to accommodate human mistakes and injury tolerances and avoid death and serious injuries.	forces before death and serious injury occurs; therefore, it is critical to design and operate a transportation system that is human centric and accommodates human vulnerabilities.	
1	0.00	\mathcal{O}	
Responsibility is	Safety is	Redundancy	
Shared	Proactive	is Crucial	
All stakeholders (transportation system users and managers, vehicle manufactures, etc.) must ensure that crashes don't lead to deaths or serious injuries.	Proactive tools should be used to identify and mitigate latent risks in the transportation system, rather than waiting for crashes to occur and reacting afterwards.	Reducing risks requires that all parts of the transportation system are strengthened, so that if one part fails, the other parts still protect people.	

Figure 14: Safe System Approach

Railroad Noise Abatement and Establishing Rail quiet Zone or Reduced Horn Crossings (Chestnut St, N. Hatfield, Depot Rd)

Hatfield has eight to ten (8-10) trains passing through town each day. The impact of noise related to rail service can be mitigated to a degree. For lower population areas such as Hatfield, the more effective strategy is to modify windows with 3-inch air gaps and caulking and sealing gaps in houses (as opposed to installing sound barriers along the track). Appendix B - Transportation and Mobility

The Federal Rail Authority (FRA) is committed to reducing the number of collisions at highway-rail grade crossings while establishing a consistent standard for communities that opt to preserve or enhance the quality of life for their residents by establishing quiet zones where routine use of train horns is prohibited.

Federal regulation requires that locomotive horns begin sounding 15–20 seconds before entering public highway-rail grade crossings, no more than one-quarter mile in advance. Trains use a standardized pattern of two long, one short, and one long blast. This pattern is repeated until the lead locomotive or lead cab car occupies the grade crossing. The rule does not stipulate the durations of long and short blasts. The maximum volume level for the train horn is 110 decibels, and the minimum sound level is ninety-six decibels.

A <u>quiet zone</u> or "reduced train horn area" is a section of a rail line at least one-half mile in length that contains one or more consecutive public highway-rail grade crossings at which locomotive horns are not routinely sounded when trains are approaching the crossings. Train horns will still be used in emergencies and a Quiet Zone does not eliminate the use of locomotive bells at crossings. Communities wishing to establish <u>quiet zones</u> must work with MassDOT.

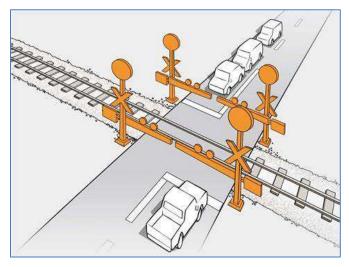
Adoption of a quiet zone in Hatfield may require modifying the rail crossing from a twoquadrant gate to a four-quadrant gate. There are currently twenty-nine approved quiet zones in Massachusetts (all located in the eastern part of the state). In 2022, the Town of Deerfield requested a "Quiet Zone."

Using the <u>Federal Railroad Administration Quiet Zone Risk Calculator</u>, and assuming all three primary crossings (North Hatfield Rd., Plain Rd., Chestnut St.) in Hatfield would be modified, a risk assessment is calculated as shown in Table 11.

Proposed Quiet Zone: Hatfield Quet Zo		
Туре:	New 24-hour QZ	
Scenario:	HATFIELD Q_69339	
Estimated Total Cost:	\$300,000.00	
Nationwide Significant Risk Threshold:	15488 .00	
Risk Index with Horns:	13990.77	
Quiet Zone Risk Index:	4200.59	

Table 11: Federal Railroad Administration Quiet Zone Risk Calculation with 4-Quadrant Gates

Figure 15: Four-Quadrant Gate



Clean Energy Fleet Conversions

The Town may want to include a discussion on "clean emission vehicles" with the Town's school bus vendor. There are incentives for "fleet conversion" through the Massachusetts Clean Cities program. The Massachusetts "Clean Air Initiative" has focused recently on tackling air pollution from diesel vehicles. Diesel exhaust can be carcinogenic and diesel engines are a source of fine particulate matter emissions, nitrogen oxides, sulfur dioxide, volatile organic compounds, and other contaminants that are hazardous pollutants under the <u>Clean Air Act</u>. Inhaling diesel exhaust can cause cancer, aggravated asthma, lung damage, and other serious health problems and is especially harmful to children, whose lungs are not yet fully developed.

A recent effort has focused on idling vehicles (especially diesel buses). The Massachusetts Attorney General's Office created a public information campaign about potential health hazards associated with the idling of motor vehicles, particularly diesel-powered school buses, and includes an <u>online tip form</u> for residents to report incidents of illegal idling.

The Town of Hatfield may also want to consider electric power and charging options for other municipal vehicles including the School District's 7D pupil transport vehicles (vans), DPW service vehicles, and police vehicles. More recently Hatfield acquired a hybrid vehicle for the office of the Building Inspector.



The Hatfield School District's fleet of 7D vehicles may be a potential candidate for electric conversion.

4. Examples from other Communities

Hampshire County Complete Streets Design Manual

Hatfield has a strong supportive community that prioritizes a safe environment for all residents. The concept of "complete streets" is a good match for these values. This document provides a design guide and manual for local planners, engineers, and advocates to improve walking and biking on roadways within their communities and create safer streets for users of all ages and abilities.

Source: <u>hampshire-county-complete-streets-design-manual_010517-final.pdf</u> (healthyhampshire.org)

American Planning Association (APA) Complete Streets: Best Policy and Implementation Practices

Complete streets serve everyone—pedestrians, bicyclists, transit riders, and drivers—and they consider the needs of people with disabilities, older people, and children. The Complete Streets movement seeks to change the way transportation agencies and communities approach every street project and ensure safety, convenience, and accessibility for all. At the heart of the complete streets movement are important political, policy, and procedural changes. This best policy and implementation practices manual explores what communities across the country have learned when implementing their complete street visions.

Source : <u>https://planning-org-uploaded-media.s3.amazonaws.com/publication/online/PAS-</u> <u>Report-559.pdf</u>

Implementing Complete Streets in Small Towns

Successful implementation of Complete Streets requires much more than a one-size-fits-all approach. Rural and small towns often face distinct challenges from urban areas when it comes to improving the conditions for people walking and bicycling.

Source : <u>https://smartgrowthamerica.org/implementing-complete-streets-small-towns-rural-</u> communities/

FHWA Complete Streets Guidance

Most States and hundreds of communities have adopted Complete Streets policies that strive to build safe streets for all users. The Federal Highway Administration supports transportation efforts to accelerate the implementation of a safe, connected, and equitable transportation network for travelers of all ages and abilities. Building Complete Streets combines innovations from multiple transportation disciplines to achieve safe, connected, and equitable street networks.

Source: Complete Streets | FHWA (dot.gov)

Pioneer Valley Coordinated Public Transit – Human Services Transportation Plan (Coordinated Plan)

The Coordinated Plan was created to improve transportation services for persons with disabilities, older adults, and individuals with lower incomes in the Pioneer Valley Region through a better-coordinated transportation system. The plan provides a framework for the development of projects for municipalities, towns, counties, tribal governments, regional transit authorities (RTAs), and private taxi operators that will address the transportation needs of the target populations, by ensuring that public transportation and human service agencies coordinate transportation resources offered through multiple FTA programs.

Source : <u>https://pvmpo.pvpc.org/wp-content/uploads/2022/05/CPT-HST-Plan-2019-PVMPO-</u> <u>Approved.pdf</u>

Flexible Transit Services

Many small towns in Massachusetts (including Whately) are considering the value of adding flexible transit services to supplement and support Council on Ageing vans and other fixed route transit services currently available. Flexible van services differ from conventional fixed-route service by adapting routes or schedules to customer demand. Historically, most transit services have operated on preplanned routes, making stops at predefined locations according to a published schedule. This is a model that can work well in communities where there is sufficient demand to fill a transit vehicle, but in communities with low density of demand and dispersed origins and destinations, fixed routes are costly and inefficient. Demand-responsive paratransit service has been operated for decades with advanced reservations following the Americans with Disabilities Act of 1990 (ADA), and technologies like smartphones and global positioning systems now allow transit vehicles to respond to customer demands in real-time.

Source : https://www.mass.gov/doc/flexible-transit-service-final-report/download

5. Recommended Goals and Strategies

Goals and Strategies	Primary	Others	Priority
Identify gaps in the sidewalk network and prioritize projects to fill gaps while updating the current network to meet ADA standards. Potential priority locations may include Main Street, Bridge Street, Gore Avenue, Prospect Street, King Street, Chestnut Street, and Elm Street	Hatfield Selectboard	PVPC, MassDOT, Open Space, DPW	Н
Utilize the Pavement Management System to prioritize roadway improvements to ensure the roadway network is resilient. Continue to support investments in roadway maintenance including crack sealing and grading of unpaved municipal roadways.	Hatfield DPW	Hatfield Selectboard, PVPC	М
Work with the Franklin Regional Transit Authority to identify opportunities to expand fixed Route or add a Micro-transit option.	Hatfield Selectboard	PVTA, PVPC, FRTA	L
Partner with MassDOT's Safe Routes to School program to improve drop-off and dismissal protocols, encourage safe walking, and provide incentives for riding the bus.	Hatfield School District	Hatfield Police Department, Hatfield DPW, Hatfield Selectboard	Н
Become a complete street community to access the benefits of the program	Hatfield Selectboard	PVPC, MassDOT	Н
Perform regular traffic data collection on roads to assess existing travel speeds, vehicle volume truck volume, and crash history at key locations in the Town. Traffic data is useful to identify growth trends, assess the potential impact of new development, and ensuring the safe and efficient use of the community transportation network by all users.	Hatfield DPW	PVPC	М
Monitor the condition of the short-span bridges and culverts. Updated deficient structures to ensure they can withstand severe weather events	Hatfield DPW	MassDOT, PVPC	L
Explore alternatives to access the regional shared-use- path network, as well as feasibility of joining the regional bike-share program	Hatfield Selectboard	PVPC, MassDOT, DCR, Open Space	Н
Complete traffic studies at high crash locations including Elm Street at I-91 ramps, Maple Street at Valley Street, Depot at Main Street, and Bridge Street at Prospect Street.	Hatfield Selectboard	PVPC, MassDOT, DPW	М

Goals and Strategies	Primary	Others	Priority
Identify opportunities for improved signage including the Massachusetts Safe Passing sign at roadway locations where bicycle use is frequent. (Elm Street, Main Street, School Street)	Hatfield DPW	MassDOT, Selectboard	Н
Monitor the performance of pedestrian crosswalks (including RRFB installations and consider additional locations based on performance.	Hatfield DPW	PVPC, MassDOT, DPW	M
Continue to support and prioritize access to the senior van service through the Hatfield Council on Aging. Explore outside funding opportunities and resources for expanding service if needed in the future.	Hatfield Council on Aging	Selectboard	М
Monitor traffic speeds on local roadways and consider adopting speed management strategies including lower posted speed limits in thickly settled areas such as Elm Street and Maple Street. Review MassDOT best practices for safe speed limits.	Hatfield Selectboard	PVPC, MassDOT, DPW	Н
Identify rest areas for freight vehicles with overnight layovers.	Hatfield Selectboard	DPW, Hatfield Police Department	М
Identify and prioritize vehicle charging stations and incorporate electric vehicles into the municipal fleet.	Hatfield Selectboard	DPW	М
Identify opportunities to consolidate pedestrian crosswalk locations in the Town Center	Hatfield Selectboard	DPW, Hatfield Police Department	Н
Install additional pedestrian crosswalk signs if needed (Main St. at King St, School St. at Prospect St., etc.)	Hatfield Selectboard	DPW	М
Install additional speed feedback signs	Hatfield Selectboard	DPW, Hatfield Police Department	Н
Evaluate the location of vehicle passing lanes on Elm Street and identify crosswalk conflicts.	Hatfield Selectboard	DPW, Hatfield Police Department	Н
Evaluate roadway sight lines and manage vegetation to improve visibility around blind corners in locations such as Main Street north of the municipal wastewater treatment facility.	Hatfield Selectboard	DPW,	L
Evaluate the long-term strategies for senior van service and fleet replacement.	Hatfield Selectboard	Hatfield Council on Aging	М
Assess the need for pedestrian scale lighting at crosswalk locations.	Hatfield Selectboard	DPW, Hatfield Police Department	L

Goals and Strategies	Primary	Others	Priority
"Daylight" crosswalks and intersections by identifying	Hatfield	DPW,	Н
curbside parking that restricts visibility.	Selectboard	Hatfield	
		Police	
		Department	
Expand the EV fleet of municipal vehicles	Hatfield	DPW,	L
	Selectboard	Hatfield	
		Police	
		Department,	
		Hatfield	
		School	
		Committee	
Install/replace ADA tactile warning panels at marked	Hatfield	Hatfield	M
crosswalks.	Selectboard	DPW	
Consider adding a school zone in front of Smith	Hatfield	DPW,	М
Academy	Selectboard	Hatfield	
		Police	
		Department,	
		Hatfield	
		School	
		Committee	

Facilities, Services, and Social Resilience

1. Introduction

Chapter Overview

The *Facilities, Services, and Social Resilience* element of the Hatfield Comprehensive Plan provides an overview of the current municipal infrastructure and public services, the relevant issues and opportunities pertaining to the Town's facilities and services, as well as examples from other communities that have faced similar circumstances.

Some Key Takeaways

The following sentiments were expressed during the community engagement phase of this comprehensive plan process, reflecting the residents' perspective on municipal facilities, services, and the social resilience of Hatfield.

- Schools are of paramount concern and there is a great interest in understanding the relationship between municipal revenues and expenses, and the need to sustain Hatfield schools over the long term.
- There is general satisfaction among residents with the level of public services received from the town, yet the challenges posed by the effects of climate change and an aging population are also apparent.
- The growing population of older residents raises concerns about services for seniors and the support available for people to age in place.
- Critical facilities are highly valued and commonly used for services, but their location within the floodplain poses challenges.
- Residents are increasingly aware of the need to adapt to climate change and similarly aware of the tension between taking climate action and preserving the Town facilities and services most at risk.
- To ensure Hatfield's resilience, or its ability to respond to crises and be better prepared for future stress, residents view the services provided by the schools, library, and Town Hall as critical.

Connecting Themes

Over the first year of the comprehensive planning process, residents engaged through multiple formats and at various community events to provide information on the current conditions and future demands on the town's Facilities, Services, and Social Resilience. Throughout the community engagement process, dynamic tensions and critical conversations emerged that demonstrate the interconnected nature of the various elements of the comprehensive plan. In regard to the Facilities, Services, and Social Resilience of Hatfield, the following themes and threads emerged:

Climate and Infrastructure

Residents recognize the importance of emergency preparedness and protecting and improving infrastructure in the context of a changing climate where hazards, especially flooding, pose greater challenges to the community. A focus on controlled growth, careful development, and protecting critical infrastructure will help guide decision making where costs will be great, whether action is taken or not.

Character and Community

Residents reflecting on the character of their community hold a desire for a welcoming environment for all, where lifelong residents and new neighbors can gather to build a strong community. Despite being a small town, residents acknowledge a disconnectedness and inaccessibility that many experience and value building new support systems and social spaces. Fostering inclusivity is a key component, not only of welcoming diverse residents new to town but also of caring for long-term residents.

Schools

The strength and stability of the school system emerged as a primary interest, both for its importance in attracting new families to Town but also as a budgetary topic. Many residents hold dear a vision that balances the benefits of good schools to quality of life in Town while remaining fiscally sustainable. Any innovations may also serve to boost school choice enrollment and the value of homes in Hatfield.

2. Existing Conditions

This section presents an overview of the existing conditions of Hatfield's facilities and services in two subsections, an inventory of existing infrastructure in town and narrative on the various services provided through Town departments, boards, and committees.

Infrastructure

Hatfield's geography has been a major factor in the development of its infrastructure. The broad, alluvial plains of the Connecticut River attracted farms, and settlement patterns grew around the fertile soils. Interstate 91 with two on and off ramps in Hatfield, provides easy access and serves as a major conduit for goods and people. Over time, this has spurred modest industrial and commercial growth as well as residential growth. The town has water and limited sewer utilities, and the boundaries and capacities of these utilities are shaping and directing growth.

Roads and Highways

The major artery running through town is Interstate 91, which connects Hatfield with Northampton and Springfield to the south and Greenfield, Northfield, and Vermont communities, such as Brattleboro, to the north. Within Hatfield, residents can travel both north and south via Route 5 & 10. There is not an east-to-west route available due to the Connecticut River, but residents can travel across the river, using Route 9 to access Hadley, Amherst, and points east as well as points west.

Sidewalks and Trails

Pedestrian infrastructure across town is limited, with most sidewalks along Main, School, Elm, Prospect and Maple streets. There are also limited walking trails along Kellog Hill Road near the public boat ramp. Despite limited sidewalks and trails, residents enjoy walking around the center of town and express strong desires to expand the existing sidewalk network to connect to more residential areas and shared paths to neighboring communities.

<u>Railway</u>

The Amtrak train was re-routed in 2014 to run from Springfield through Northampton north to Brattleboro VT, passing through Hatfield twice each day. There is not a stop in Hatfield and the passenger train route has not had an impact on the Town, although the Hazard Mitigation Planning Committee determined that there has also been an increase in the number of cargo trains. Pan Am Railways operates the freight line that runs north-south through Hatfield, which serves a handful of commercial and industrial operations in Town.

Public Transportation

The Franklin Regional Transit Authority (FRTA) makes four daily trips from Greenfield to Northampton on Routes 5/10. The Route 5/10 FRTA bus makes requested stops at C&S and Brockway Smith. FRTA'S service is accessible to persons with disabilities. Buses have priority seating for persons with disabilities, and FRTA provides ADA paratransit services for individuals who are unable to independently ride FRTA's accessible fixed route system.

Public Drinking Water Supply

Hatfield's drinking water comes from three sources: the Hatfield Town reservoir, also known as the Running Gutter Brook Reservoir; the Omasta Well; and the West Hatfield Well. The Town of Hatfield has a water distribution system with about 37 miles of water mains ranging from 2" to 16" in diameter. While a vast majority of residents are connected to public water, some residents have private wells.

For the residents who are on private wells, the Board of Health oversees relevant state and local regulations to ensure the quality and quantity of available water. Within its Rules and Regulations, adopted in 2017, the Board of Health provides guidance for the location and construction of new wells, standards for decommissioning wells, and permitting processes and procedures.

Wastewater

Approximately one-half of Hatfield is tied into the town's sewer system. Sanitary sewer service is provided to homes and businesses on Elm Street, Main Street, North Street, Colonial Acres, Chestnut Street, Nolan Circle, School Street, and portions of Prospect Street, Bridge Street, King Street, Plantation Road, Elm Court, Old Farms Road, Raymond Avenue, Dwight Street, Church Street, North Hatfield Road, and the southernmost portion of West Street.

Dams

Hatfield has two dams within its boundaries: Hatfield Reservoir Dam along the Running Gutter Brook near Reservoir Road and the D.F. Riley Grist Mill Dam on the Mill River near Prospect Ct.

- The Hatfield Reservoir Dam (aka the Running Gutter Reservoir Dam) is municipally owned and categorized as "non jurisdictional," meaning that the dam is of a low enough height and impounds a low enough volume of water that it does not require regulatory oversight by the Massachusetts Office of Dam Safety.
- The D.F. Riley Grist Mill Dam is on the Mill River just above Prospect Street, which has a hazard index rating of *significant*.¹ The Office of Dam Safety has reported that this privately owned dam is in "unsafe" condition and that they have issued a letter of non-compliance to the owner. This is a serious potential hazard that the Town needs to address.

There are also two dams that are part of the City of Northampton's reservoir system in West Whately and both dams have hazard index ratings of *high*.² These are known as the Francis P. Ryan Reservoir Dam and the West Whately Reservoir Dam, both of which are located within the watershed of the Mill River. In the event of a failure at these structures, Routes 5 and 10 would see significant impacts.³

¹ Dams with a hazard index rating of significant are dams located where failure may cause loss of life and damage to home(s), industrial or commercial facilities, secondary highway(s) or railroad(s) or cause interruption of use or service of relatively important facilities. Source: 302 CMR 10.06.

² Dams with a hazard index rating of high are dams located where failure will likely cause loss of life and serious damage to home(s), industrial or commercial facilities, important public utilities, main highway(s) or railroad(s). Source: 302 CMR 10.06.

³ It had been reported in earlier Hatfield plan documents that the other structures of concern for Hatfield are the structures associated with the Mountain Street Reservoir, also managed by the City of Northampton. It has been confirmed through review of USGS stream stats and a June 27, 2024, communication with Fire Chief and Emergency Planning Director Flaherty that it is the West Whately reservoir that is of concern for Hatfield; not the Mountain Street Reservoir, waters for which flow to Williamsburg.

Understanding and following status and condition of the high and significant dam structures that could impact Hatfield is critically important. Most dam structures in the region were built long ago and not designed to manage the challenges of increased frequency of downpours with associated flood flows.

Flood Control Structures

Hatfield's most significant flood control structure is the 2.679-mile levee along the banks of the Connecticut River. (See Figure 1 below.) The Army Corps of Engineers National Levee Database indicates that the Town is responsible for the operation and maintenance of the levee. Since its construction around 1938 this earthen levee has provided some protection from Connecticut River flooding. It was noted during discussion of the Comprehensive Plan Committee that the levee serves more to delay flood waters than prevent flood waters from reaching the town. The Federal Emergency Management Agency has indicated to the Town that for the updated flood maps, the levee will not be credited with reducing hazard from flooding.

On a smaller yet extensive scale, agricultural ditches were historically constructed by farmers along the edges of fields as a flood control system. Over time, as land has transitioned from farming to other uses, landowners have often been unaware of the function of these drainage ditches or have been unable to maintain them due to wetlands regulations. As these ditches are abandoned the frequency of localized flooding increases. Hatfield has relatively flat topography with ample low-lying land. The town does not have a comprehensive plan for assessing the long-term impacts of the abandonment of drainage ditches or for managing stormwater as land transitions from drained agricultural uses to non-farm uses. See the Farm chapter for a more indepth discussion of these agricultural ditches.

Telecommunications/IT

One cell tower is located in Hatfield adjacent to I-91 and accessible from Chestnut Street. While five service providers utilize the tower and the tower is centrally located in town, cell phone coverage in Hatfield is considered poor, especially in the area around Town Hall.

Comcast provides X finity broadband internet service across the town. Broadband internet connectivity at the school buildings is considered good.

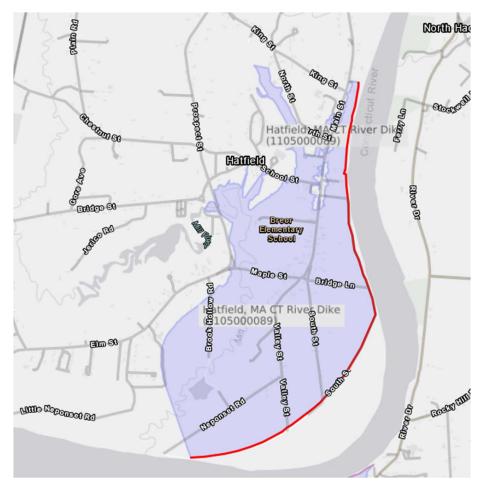


Figure 1: Map of Levee in Hatfield along Connecticut River

Source: U.S. Army Corps of Engineers National Levee Database

Public Facilities and Services

The town center of Hatfield is located within the 1980 FEMA mapped 500-year flood zone. Critical facilities here include the Town hall, Town records and historical archives, emergency management including the police and fire stations and associated vehicles, the library, elementary school, emergency shelter, and a senior assisted care facility. The area also includes the historic architecture of Hatfield's oldest buildings. (See Figure 2 below.)

Hatfield Memorial Town Hall, 59 Main Street

The Memorial Town Hall is located at 59 Main Street and is home to the majority of the Town's administrative offices, departments, and boards. Over recent years, the Town Hall building has received improvements for accessibility and energy efficiency.

Most of the town government, the town staff, and its boards and commissions are based at the Town Hall, including the following:

- Accountant
- Animal Control
- Assessor's Office
- Building Commissioner
- Council on Aging
- Town Administrator
- Town Clerk
- Treasurer
- Veterans' Agent
- Agricultural Advisory Commission
- Board of Assessors
- Board of Health
- Capital Improvement Planning Committee
- Cemetery Commission
- Community Preservation Committee
- Conservation Commission
- Cultural Council
- Disability Commission
- Emergency Management Planning Committee
- Energy Committee
- Finance Committee
- HCTV Hatfield Community Television
- Historical Commission
- Planning Board
- Recreation Committee
- Redevelopment Authority
- Select Board

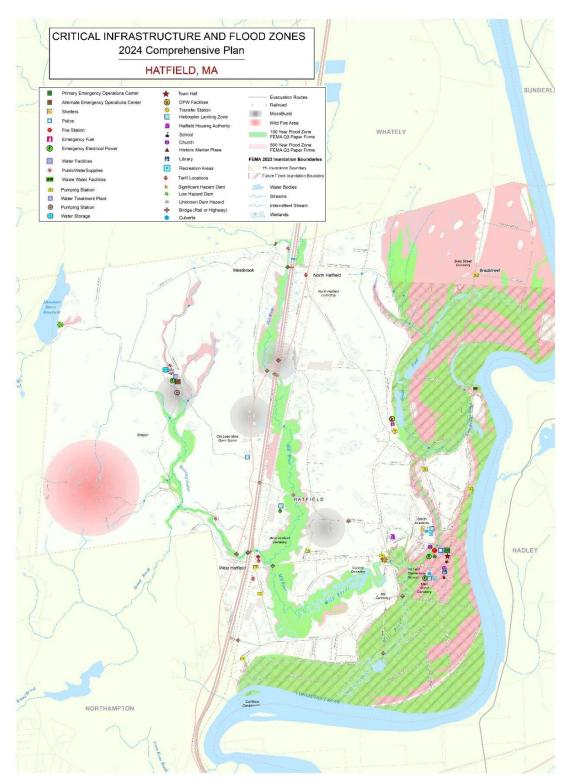


Figure 2 – Critical Infrastructure and Flood Zones in Hatfield

Council on Aging, 59 Main Street

Hatfield's Council on Aging (COA) can be found downstairs within the Hatfield Memorial Town Hall. The department aims to provide quality services to the growing population of elderly residents. Three staff members manage the various programs and services directed through the COA, which is governed by the Council on Aging Board, a group of six residents. Services offered through the COA include van services for residents needing transportation services.

Police, 3 School Street

The Hatfield Police Department is established by the citizens to provide the town with a high level of safety, security, and service. As an enforcement agency of local government, the police department has the responsibility for the preservation of public peace and for the effective delivery of a wide variety of police service.

The police station is located on the western side of Town Hall, where the town's emergency management director is also located. This facility is also located within the floodplain.

Fire, 3 School Street

The Hatfield Fire Department is established to meet both the emergency and nonemergency needs of the community. Dedicated to providing for the safety and welfare of the public, the Hatfield Fire Department also coordinates the Hatfield Ambulance service.

The fire hall is located next to the Police Department behind Town Hall.

Library, 39 Main Street

Constructed c. 1894, the Dickinson Memorial Hall has been home to the Hatfield Public Library since its completion. The handsome Renaissance-style building is also home to the Hatfield Historical Museum and town archives. From this location, the town library provides services for residents of all ages and prides itself as "a welcoming and lively center for lifelong learning, personal enrichment, and community interaction."⁴ Led by a director and the board of trustees, the town library offers programming, books, and media resources to town residents, connecting its users to ideas, to experiences, and to others in the community.

Hatfield Housing Authority, 2 School Street

The Hatfield Housing Authority owns and operates one property in town, across from Memorial Town Hall. The property is also home to Capawonk Housing for the Elderly, a complex of 44 publicly subsidized, single-story housing units for seniors.

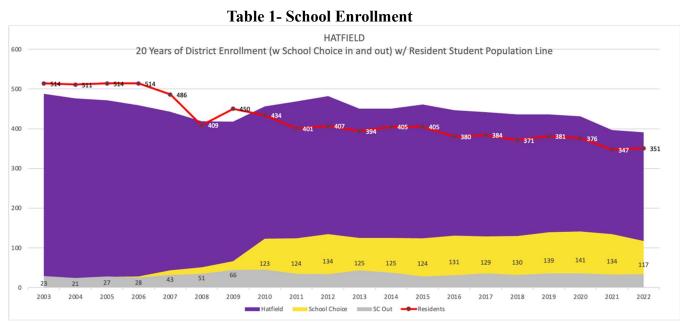
⁴ https://hatfieldpubliclibrary.org/library-history/

The property is centrally located and near to municipal offices and services, albeit within the floodplain along with other critical facilities.

Schools

The Hatfield School District is composed of two schools, enrolling 391 students in 2022. Examining total enrollment, 229 (70%) of those attending Hatfield Schools were Hatfield residents and 117 (30%) of students were "School Choice" students living in another Town. For the same academic year, 351 school-age children lived within the District, of which 33 students chose another Town for public education. Other residents chose an alternative educational path with 64 students attending vocational or charter schools, and 18 students attending private or home schools.

While the School District offices are located at Smith Academy (the Town high school), the School Committee generally hosts its meetings at Town Hall.



Source: Massachusetts Department of Elementary and Secondary Education

Smith Academy, 34 School Street

Built in 1980, Smith Academy serves students of middle and high school age in grades 7 through 12. The nearly 60,000 square foot facility sits on a 42-acre campus that is fortunately above the 500-year floodplain. The building was constructed to accommodate a projected enrollment of 300 students. Enrollment in 2022 was 175 students.

Hatfield Elementary School, 33 Main Street

Opened in 2003, Hatfield Elementary School serves the youngest students in town, from pre-Kindergarten through grade 6. The 55,000 square foot facility sits on a 12-acre site that stretches from Main Street toward the Mill River to the west and rests entirely within the 500-year floodplain. The school was built to accommodate a projected enrollment of 250 students. Enrollment in 2022 was 216 students. During the spring of 2024, the School Committee began exploring the option of relocating the 6th grade class to Smith Academy.

Transfer Station, 6 Straits Road

Residential household waste, recycling, and yard waste are accepted by the town at the Transfer Station at 6 Straits Road. Residents are required to purchase a Transfer Station Decal to utilize the facility, which has limited hours on Wednesday and Saturday.

Hatfield Department of Public Works, 10 Straits Road

The main office for the Department of Public Works is also the home of the Highway Department's facilities and emergency fuel reserve. The DPW's many departments and services are coordinated through this primary facility, including but not limited to the following:

- Roadway paving, plowing, and salting
- Tree maintenance on public lands
- Tree planting in the tree belt
- Water metering and service connections
- Sewer service expansions, maintenance, and inspection

DPW maintains an additional storage facility on Elm Court.

Wastewater Treatment Plant, 260 Main Street

Hatfield's wastewater treatment plant is located in the northeast part of town close to the Connecticut River, within the 1980 FEMA mapped 500-year floodplain. The Wastewater Management Plan Report from 2022 confirmed that the finished floor elevation is not compliant with either the 100-year or the 500-year flood elevation. The Town utilizes an Enterprise Fund for its wastewater utility while also collecting sewer use fees from properties connected to the system. The facility began construction in July 2024 to make critical updates to equipment and facility.

3. Challenges and Opportunities

Hatfield, like many smaller communities, makes annual decisions to position the Town in good financial standing and ensure the capability of providing quality services to its residents. In planning for a future Hatfield, sustaining existing infrastructure and re-investing in needed improvements seems insufficient to meet additional needs for facilities and services prepared to face unforeseen disruptions. The working group for this chapter took care in the review and elaboration of Community Survey responses that began to identify residents' main hopes, key concerns, and budgetary priorities for Hatfield and its future. The following topics emerged and are presented in no order:

- Maintaining and Improving Schools
- Capital Improvements and Financial Planning
- Relocating and Consolidating Critical Resources
- Water Infrastructure Drinking Water and Sewer Services
- Building Maintenance and Accessibility
- Planning for an Aging population
- Communications
- Cultivating Social Resilience

Maintaining and Improving the Schools

The previous Hatfield Master Plan from 2001 intentionally deferred discussion on the topic of schools to the relevant committees and boards. While Schools are not often central to the typical Facilities and Services component of comprehensive plans, the overwhelming response from community members regarding this topic has elevated it to a top priority.

"Public Schools" was the top priority for 35% of respondents to the Community Survey and one of the top 3 priorities for 55% of respondents.

As one of the smallest school districts in the Commonwealth, Hatfield Schools provide a uniquely personal educational experience. The small class sizes and low student-to-teacher ratio are qualities that residents admire in the schools. The universally increasing cost of providing quality education has become a budgetary challenge for all school districts. In 2022, the Hatfield Schools per-pupil spending was in the bottom 35% of the state. There is an ongoing need to offer competitive wages and maintain a high-quality educational experience.

With a relatively static local tax base, resident taxpayers are increasingly burdened to provide the necessary revenues to cover the expenses of maintaining the schools.

Tuition from school-choice students helps supplement the school budget approved by voters. In recent years, Town residents have needed to address the budgetary gaps created by the significantly higher fixed costs for education and a drop in available school-choice tuition.

The ongoing challenges of raising the necessary revenue, either through local taxes or from school choice tuition payments, to ensure that Hatfield Schools are attractive to residents and out-of-district families remain. This challenge, however, has sparked conversation about the opportunity to develop a complementary vision for the schools as more than the site of primary and secondary education and more of an asset to the broader community. To best gain an objective understanding of this complex issue, the Town may consider the possibility of securing a third-party assessment to consider options for increasing the sustainability of the district.

Through engaging the community and collaborating with the members of the working group for this chapter, the following strategies emerged as examples of recent successes and future opportunities:

- continuing the before- and after-care programing hosted at the Schools,
- expanding the before and after-care programs beyond the school year,
- increasing the use of school buildings for summer camp activities,
- expanding the schools' curricula, adding inter-disciplinary subjects such as climate change,
- increasing community access of school facilities for local recreation leagues,
- inviting the broader community to school functions, such as homecoming, and partnering with the Council on Aging to co-host community events.

Capital Improvements and Financial Planning

Hatfield has taken significant strides in recent years to improve the Town's financial standing, resulting in an improved credit rating. There remains the challenge of outstanding debts that need to be consolidated for the Town to receive better interest rates for refinancing. The Town's Capital Improvement Planning Committee reviews the priority funding needs for maintaining facilities and any ongoing or expanded municipal services. Looking ahead through fiscal year 2030, the Capital Improvement Planning Committee has reviewed over 50 projects to fund across various Town departments. The School District and the Water Department have identified the most projects in need of funding support. In the short term, ten projects were prioritized for funding in the current year.

- Preservation of Birth Records
- Climate-Smart Comprehensive Plan matching funds
- Fire Department Extrication equipment for new fire truck
- New laptops for ambulance and two fire trucks
- Additional police cruiser if new officer is approved for Police Department

- Elm Cort building Phase 2
- Forestry Management Plan for watershed
- Mini-splits for Town Hall second floor
- Smith Academy Park irrigation
- Hatfield Elementary School roof repair/replacement

The Town's ability to provide adequate facilities depends on effective capital planning and commitment to implementation by the town, asset management policies, and the revenues for the town to use to support those operations and maintenance requirements. Additional discussion of this key issue and the broader implications can be found in the *Economic Development Chapter*.

Relocating and Consolidating Critical Resources

As the risk of flooding increases with climate change, the many town-owned facilities in the floodplain will face increased risk of irreparable damage that could cause significant disruption to the functioning of town government and public services. In the town center, there are nearly 30 town departments, boards, and committees operating in the Town Hall, including the Council on Aging, the Fire Department, Police Department, Senior Housing at Capawonk, the Town Library, and Elementary School. With so many critical resources spread across the town center and all facing the same heightened risk, the relocation of critical services to new, consolidated facilities is both a daunting challenge and exciting opportunity.

A thorough examination of adequate, undeveloped parcels outside of the 500-year floodplain will be needed to begin the conversation about relocating these essential services. The issue of funding such an extensive project is also a significant challenge, yet the Commonwealth's Municipal Vulnerability Preparedness (MVP) program has supported communities in the Pioneer Valley with consolidation of public services, albeit not to the extent that Hatfield may face. The Commonwealth's focus on planning for the impacts of climate change means that many funding sources could be leveraged to support this initiative.

Water Infrastructure - Drinking Water and Sewer Services

Water infrastructure is critical to public health and economic growth in Hatfield. While public drinking water lines have been extended to most properties, sewer service is limited largely to the eastern half of the town. The expansion of sewer services has the potential to spur development but is a costly investment that the Town is struggling to cover. Since 2020, sewer service upgrades have been ongoing along the Route 5 corridor, connecting to both residential and commercial customers.

The challenges of funding large-scale expansion, let alone regular maintenance, tend to direct development toward areas with existing infrastructure in place. The opportunity of infill development, especially where water infrastructure is already available to meet the additional demands of new connections, can typically guide both residential and commercial construction across communities. Unfortunately, in Hatfield, most of the existing sewer infrastructure lies within the floodplain, including the wastewater treatment facility and multiple pump stations. In light of new flood projections, infill development is further constrained and limited to uplands where services are already in place.

Building Maintenance, Energy Efficiency, and Accessibility

As a small town with finite resources, the continued maintenance and operations of public buildings can be a strain. The Capital Improvement Planning Committee supports the various municipal departments and boards to prioritize upgrades to town-owned buildings and public properties. Recently, the Wastewater Treatment Plant Upgrade project has received significant attention due to essential equipment and components reaching the end of their useful lives, and the need for a more flood resilient facility. While the School buildings are not yet old, both facilities are beginning to need more than regular maintenance such as upgrading mechanical systems and repairing/replacing the roofs.

In 2010, the Town of Hatfield was designated a Green Community for its commitment to reducing municipal energy consumption and costs. The Town has received three rounds of funding (in 2010, 2014, and 2017) from the Commonwealth's Green Communities Division to prioritize conservation measures, such as weatherization and window replacements at Town Hall, Smith Academy, Hatfield Elementary School, the Wastewater Treatment Plant offices, DPW's highway garage, the Public Library, and the Fire Department. Additionally, funds granted by the Green Communities Division also helped secure an electric light duty truck for multiple department use. Continued participation in the Green Communities program means that funds for climate smart renovations of Town facilities are available to help the Town further minimize its carbon and greenhouse gas emissions.

As the Town of Hatfield plans for an aging population and seeks to address the needs of all residents, accessibility to Town buildings and open spaces is important. Accessibility to the Council on Aging's Senior Center is an example of successful accessibility upgrades in historic, town-owned buildings. Additional suggested improvements emerging from the planning process include:

- the town-owned playground
- accessing the Town Library
- offering more active recreational amenities
- adding public restrooms at popular amenities

Community Development Block Grants and Community Preservation Funds could be used to help fund some of these upgrades.

Planning for an Aging Population

Like much of Massachusetts, Hatfield's population is aging. Services and facilities for this increasing segment of the population must also be expanded. The Hatfield Council on Aging provides important programming and services for seniors in town, and residents praise the COA for their services. An increasing elderly population will also demand increased services and programming, which will need additional funding

44% of respondents to the Age & Dementia Friendly Community Survey expressed a desire for a new or larger Senior Center.

and planning.

With the Hatfield Council on Aging currently located in the Town Hall basement, room to expand is limited. Since the Town Hall is one of the Town's critical facilities located within the floodplain and at increasing risk of flooding, the relocation of the Senior Center is one of the many public facilities deserving of a new location. (Additional discussion on the challenges and opportunities related to planning for an aging population can be found in the Health and Social Environment chapter.)

Communications

For many smaller, rural communities, communication is an ongoing and important responsibility for the Town. The challenge of public outreach, especially regarding important public health and safety information, can be fraught with challenge as there is such a range in how communication could occur based on capability with use of technologies and frequency of visits to such places as Town Hall. For older residents, the Council on Aging has found a successful model in their regular newsletter, which includes a community calendar, contact information for town and regional resources, and updates from the COA. The physical newsletter seems to work well with Hatfield's senior residents, which may hold true to other resident groups. Responses to the Community Survey emphasize the value of traditional media such as local newspapers, the postal service, and town billboard as preferred means for sharing information.

For the more digitally oriented residents, the Town website is the starting point to find public notices and important Town information. The capacity for a town employee or consultant to maintain the Town website is an important consideration, as is the ability of town staff, volunteer boards, and elected officials to promptly share important information through the resource. Clear and effective policies and procedures for communicating Town business, either past decisions or upcoming deliberations, are an integral part of improving communications within the Town government and amongst the community.

Cultivating Social Resilience

Resilience is not only the ability to bounce back after a hardship or disaster, but also the ability to recover more quickly and to become better positioned prior to the next hardship. When considering the resilience of Hatfield's social fabric, residents have frequently discussed how they as a community can cultivate greater resilience so that the future, regardless of the challenges that lay ahead, is bright and prosperous for all community members. The common framing of the question itself offers, in part, what social resilience means for Hatfield: "How do we build a multigenerational community?"

The challenge of cultivating social resilience is directly contingent on many other factors in the community, from housing and economic development to transportation and infrastructure, to the services the town can provide and more. For many, before those factors can be addressed, there is a desire to affirm the Town's direction through the comprehensive planning engagement process residents have shared a collective desire to remain a small, involved community.

The work to strengthen the social resilience of Hatfield is ongoing and continues in the form of a variety of community events, focused on engaging all ages and connecting residents across generations and backgrounds. These events take the form of school functions, Friday concerts, and more. A greater variety and frequency of community events could contribute to strengthening the social ties among residents. Leveraging public spaces and facilities will be integral to this process.

Additional strategies have also been offered by residents passionate about this topic:

- Firstly, a devoted town staff-member to direct this effort and coordinate across municipal departments and bodies. This individual or small group would then take up the charge and begin sharing information more broadly with the community, via newsletters, post cards, or digital media.
- Expanding the social calendar for community events has also been identified as a primary task for cultivating greater social resilience, especially events throughout the town in various spaces, such as the Community Gardens or school buildings.
- Developing greater opportunities for multi-generational events and interaction throughout the Town, for example by integrating the Farm Museum throughout the School curriculum, having a School Farming Club sponsor a community garden plot, and mural projects across the Town connecting students to local landmarks.
- The most ambitious concept would be to build a new, welcoming community space in the form of a Community Hub where residents of all ages and backgrounds can gather to socialize, support and celebrate one another.

While this effort may invite various critique from residents, the goal of cultivating social resilience is to promote a stronger, healthier, and more welcoming community.

Returning to the definition of "resilience" as a proactive ability rather than a reactive capacity, it is worth noting that this framing suggests that cultivating social resilience is a dynamic rather than static process.

4. Examples from other Communities

Hatfield faces considerable challenges and opportunities, particularly with so many critical facilities and services located within the floodplain. By looking at examples from various municipalities, the Town may find opportunities for success in meeting its many challenges. In consultation with the members of the working group for this chapter, , the following topics were considered promising trends and with examples of success.

Consolidation of Municipal Facilities and Services

For smaller, more rural communities such as Hatfield, the cost of maintenance for municipal facilities can become a significant annual cost. By consolidating services into fewer newly built and efficient facilities, municipalities can create financial savings in the long-term while also freeing underutilized or aging buildings for redevelopment opportunity. This strategy can lead to long-term sustainability for the Town and help advance climate resilience for the community. With so many of the Town's critical facilities and services based within the floodplain, Hatfield could benefit greatly from a consolidation of facilities and services to a new location outside the floodplain.

A recent example of a town in the Pioneer Valley consolidating municipal services with a new facility can be found in Williamsburg. A new safety complex was built in 2023 to provide combined space for both the police and fire departments and garages for emergency response vehicles. The facility was funded in part through the Commonwealth's Municipal Vulnerability Preparedness (MVP) program in Fiscal Year 2023. The new public safety complex was designed to enhance community resilience through increasing energy efficiency and incorporating nature-based solutions into the building's site design. By including three specific climate resiliency goals in the design, siting, and construction of the complex, Williamsburg was granted \$1.8 million dollars by MVP toward the \$5 million project cost.

While Williamsburg offers a successful example of combining related municipal services into one complex, considering the number of town offices, departments, and services currently facing risks of flooding suggests a need for a larger municipal complex for Hatfield should this topic be further explored.

Another example of consolidating municipal facilities and services, comes from the Town of Middleton. The future Middleton Municipal Complex is sited on the former Middleton Golf Course, which the Town voted to purchase in 2017. The property, centrally located on the Town's South Main Street, will soon include two separate buildings to accommodate the fire station, police station, senior center, and town offices. The 40,000-squarefoot public safety building will house the police and fire departments while the 20,000 square foot community center/town hall will consolidate the senior center and municipal offices. The third component of the project is a town commons, a public park that will surround the two buildings. The Middleton project is ongoing and the construction phase has yet to begin, showcasing the multi-year time frame projects of this scale require.

Adaptive Re-use of Town-owned Properties

Adaptive re-use is the act of finding a new use for a building and has long been an important and effective historic preservation tool. With a new use, vacant or underutilized buildings can contribute to the local economy, encouraging businesses and investment. Additionally, a rehabilitated building will provide additional property taxes to the municipality.

With many communities facing a crisis in housing accessibility, the broad trend for adaptive re-use of municipal buildings and vacant property has been to develop new housing units. These can take the form of either market-rate or affordable housing development, with the municipality typically relinquishing ownership to a private entity to develop and manage a project. Hatfield has experienced this form of adaptive re-use in the past, as it sold the long vacant Center School property at 58 Main Street in 2016. The Town invited proposals for a 55-and-older residential development that resulted in the development of 8 condominiums. As noted by residents at a Housing Workshop in 2023, these market-rate units are likely unaffordable to the many residents who once attended the Center School.

Other communities in the Pioneer Valley have also sold municipal facilities to developers for housing. But none have faced the risk of flood that Hatfield does, especially when considering the adaptive re-use of the town-owned buildings that sit in the floodplain. Housing may not pose the best opportunity for these buildings, but communities have leveraged their underutilized public buildings for other, nonresidential uses. Springfield has sold several of its aging fire stations to developers who have repurposed the buildings for a mix of uses including office and commercial space, dining establishments, and a funeral home. Easthampton redeveloped its former town hall as an arts center and performance space renamed City Space Easthampton. Beyond the Pioneer Valley, Framingham has seen the redevelopment of their Athenaeum Hall at the Saxonville Mills as a community space, owned and operated by the non-profit Friends of Saxonville.

Regionalization of Municipal Services

While Hatfield has historically opted-out of the regionalization of services, especially regarding the school district, current financial constraints are encouraging a rethinking of the regionalization of municipal services. "Regionalization," "municipal cost sharing," "cross-jurisdictional sharing," and "inter-local cooperation" are all terms that describe a collaborative process that results in the sharing or consolidation of the purchasing of goods or provision of services between two or more entities. Cooperation and collaboration at the local and regional level can result in opportunities to maintain or improve services, and to save or enhance revenue. Such efforts can take a variety of forms, from the joint purchasing of goods or sharing of services to hiring and sharing staff, to the full consolidation of a municipal service, and creation of a regional department.

Communities in neighboring Franklin County have long collaborated to regionalize essential services that would be too costly for any single community to provide. With the support of the Franklin Regional Council of Governments (FRCOG) acting as the host agency for many inter-municipal agreements, many municipal services have been regionalized to save member community funds. Regionalized services in Franklin County include waste management, regional housing, collective purchasing, shared business inspections, and cooperative public health services.

Through conversations with the members of the working group for this chapter, the following municipal services were identified as potential opportunities for regionalization:

- Emergency dispatch for police, fire, and emergency medical technicians (EMTs)
- Certified wastewater treatment technician
- Superintendent of schools
- Food services for schools

In 2013, the Massachusetts Association of Regional Planning Agencies produced the *Massachusetts Shared Services Manual*, a toolkit of regionalization best practices for city and town officials. Additional examples of successful regionalization efforts and details on the various agreements that can produce regionalized services are provided throughout the manual. The resource is available from Pioneer Valley Planning Commission (PVPC) online at <u>https://www.pvpc.org/sites/default/files/2013-shared-permit-manual-web.pdf</u>.

Community Schools and Innovative Curricula

Hatfield's schools are valued by residents for their small class sizes and tight-knit communities. Without growing local enrollment with more school-aged residents, State and Federal funding is likely to remain flat. As such the naturally increasing costs of education will fall to the Town to support or face decreasing services to students. In keeping with State averages, the Town consistently spends 51% of the municipal budget on schooling.

However, the school-aged resident population has declined. The district has maintained a student population through the School Choice program. In keeping with

State averages, the Town consistently spends 51% of the municipal budget on schooling. In order to preserve the quality of schools, retain full enrollment of local students, and attract new school-choice students, the town must explore innovative strategies to keep its community schools.

Through the Massachusetts Department of Elementary and Secondary Education (DESE), various cost-saving and alternative funding programs can be explored. Strategies such as education collaboratives, which have operated in Massachusetts for over 50 years and Hatfield is currently a part of, could offer different mechanisms to supplement or strengthen regular school programs, to share resources and/or to provide cost-effective services for Hatfield and other participating districts. Other programs offered through DESE, such as the Innovative Schools program, could offer a means for the Hatfield School District to enhance its curriculum while finding supplemental funding to ease the burden on the Town budget.

5. Recommended Goals and Strategies

Goal 1: Maximize the Town's existing facilities and services

Ensure the Town's existing facilities and services are being utilized to their greatest potential without exceeding the demands of the Town's occupants.

Actions:

• Assess the feasibility of consolidating the Town's Fire Departments and/or Water Districts to potentially minimize excessive personnel and capital assets, as measured against the Town's needs and regulatory standards.

Lead Party: Select Board Support Parties: All Town boards/committees Timeframe: Short-term

• Working with the School Department and other local educational authorities, continue

to explore opportunities for expanded community use of school facilities. Lead Party: Select Board Support Parties: School Committee

Timeframe: Short-term

• In a centralized manner, inventory and develop use and re-use plans for Townowned properties to promote their highest and best use in consideration of community needs/benefits.

Lead Party: Department of Public Works

Support Parties: Department Heads Timeframe: Short-term

• Work with an accessibility consultant on all the Town's future facility construction activities, where appropriate, to ensure the incorporation of design, policies, and products that enhance access for all users.

Lead Party: Select Board Support Parties: All Town boards/committees Timeframe: Short-term

• Explore the expansion, relocation, or new construction of the Senior Center to enable greater use of the facility by the Town's elderly population and perhaps, the larger community, and an expansion of programming now and in the future.

Lead Party: Council on Aging Support Parties: Select Board, Capital Improvement Planning Committee Timeframe: Short-term

• Improve the existing public playground with additional amenities, including a public restroom.

Lead Party: Recreation Committee Support Parties: Town Administrator, Capital Improvement Planning Committee Timeframe: Short-term

Goal 2: Ensure the Town's departments are appropriately staffed and equipped

Ensure that the Town's departments have the resources necessary (i.e., fleet vehicles and equipment, staff, training, etc.) to meet the service demands of the community today and tomorrow.

Actions:

• Ensure the Town's public safety departments (i.e., police, fire, etc.) have the necessary members and support staff to meet the existing and projected service needs of the community.

Lead Party: Police Chief, Fire Chief Support Parties: Select Board, Finance Committee Timeframe: Ongoing, Short-term

• In concert with the Town's capital improvement planning process, perform a fleet vehicle assessment to understand if the Town's departments have the correct number, types, and sizes of vehicles in their inventories, and plan for optimizing

fleet efficiency. Ensure new and replacement vehicle purchases meet the Town's Fuel-Efficient Vehicle Policy.

Lead Party: Director of Public Works Support Parties: Police Chief, Fire Chief, School Committee, Council on Aging Timeframe: Short-term, Ongoing

• Explore the possible creation of a part-time Communications specialist to support the Town's various departments in public outreach, maintaining accessible calendars, and updates to the Town's website.

Lead Party: Town Administrator Support Parties: Department Heads Timeframe: Short-term, Ongoing

Goal 3: Efficiently manage the Town's infrastructure

Invest in routine and capital maintenance/improvement activities at local roads, bridges, water supply and resources, etc. to minimize long-term reconstruction costs and to ensure the ongoing effective use of these assets.

Actions:

• Continue to pursue federal and state grants and other advantageous financing for the maintenance/ improvement and, as necessary, replacement of the Town's existing infrastructure, including through competitive state infrastructure grants (e.g., MassWorks Infrastructure Program).

Lead Party: Select Board, All Department Heads Support Parties: Capital Improvement Planning Committee Timeframe: Ongoing

• Evaluate the impact of, and opportunities associated with, current and nextgeneration communications technologies on the Town's infrastructure and services.

> Lead Party: Department of Public Works, Capital Improvement Planning Committee, Finance Committee Support Parties: Select Board Timeframe: Ongoing, Short Term

Goal 4: Explore the strategic expansion of the community's water infrastructure

As nearly all sectors of the economy rely on water infrastructure (i.e., potable water, wastewater, and stormwater utilities), invest in such assets in line with the Town's economic development and land use goals.

Actions:

• Pursue federal and state grants for the expansion of the Town's wastewater and stormwater infrastructure. Such investments should prioritize the necessary upgrades at the Wastewater Treatment Plant and connected assets (e.g., pump stations [and generators] and sewer lines).

Lead Party: Department of Public Works, Capital Improvement, Finance Committee Support Parties: Town Administrator, Select Board Timeframe: Ongoing

• Explore potential partnerships with adjacent communities for the development of regional wastewater services.

Lead Party: Department of Public Works Support Parties: Select Board Timeframe: Short-term

 Evaluate the imposition of limited impact fees to fund a revolving account for Town-wide wastewater infrastructure among other infrastructure improvements. Lead Party: Department of Public Works, Select Board Support Parties: Finance Committee, Capital Improvement Planning Committee Timeframe: Short-term