

2017

HADLEY MASTER PLAN UPDATE



Adopted by:

the Hadley Planning Board

June 6, 2017

Assisted by:

the Pioneer Valley Planning Commission

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Acknowledgements

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1 INTRODUCTION

Back in the early 1960's when Hadley first adopted Zoning the decision was made to direct the town's future economic development opportunities to the easterly end of Route 9 by the Amherst town-line. The thought process was to concentrate the commercial tax base along Route 9 which would have the end result of keeping the overall residential tax base low and the rest of the town, beyond Route 9, rural. At the time the town was a quiet rural community and Route 9 was a two lane road lined by working family farms and single family residences. As the city of Northampton to the west began its renaissance in the 70's, and the town of Amherst to the east began its growth spurt with the expansion of the University of Massachusetts, and the traffic flows rapidly increased, Route 9 began to become a less and less desirable place to reside and properties began converting to commercial uses. In large part the objective of the early zoning was achieved.

While the commercial development has now expanded to the full length of Route 9, the rest of Hadley to this day has remained relatively rural thanks, in large part, to the successful utilization of the state's Agricultural Preservation Restriction Program and the support and level of importance that the town places on its agricultural community. This, as well as its proximity to the University of Massachusetts, continues to make Hadley a very attractive place to live. With the University providing a steady supply of well paying jobs Hadley has become somewhat "recession proof" in that changes in the national and regional economy don't necessarily have the impact on Hadley that it does on other communities. This has resulted in a steady increase in household incomes as well as housing prices in the community, with a stable residential tax rate, and the results of the Community Survey and Public Forum clearly indicate that residents would like this trend to continue. There are concerns however that certain demographic groups (including seniors and the children of Hadley residents) are running out of housing opportunities in Hadley.

The Hadley Planning Board, with the assistance of the Pioneer Valley Regional Planning Commission, undertook this effort to update the town's 2005 Master Plan using a planning process that built on existing efforts, facilitated meaningful public involvement and integrated the plans implementation into the plan development process. In developing this Master Plan Update the Planning Board conducted a thorough and comprehensive community engagement process which involved a town-wide community survey, interviews with community "stakeholders" and facilitating a Public Forum to gain citizen input in the manner that Hadley would like to develop over the next 10-20 years. The Pioneer Valley Planning Commission assisted the Board in developing opportunities for public discussion, leading public meetings, helping develop Master Plan recommendations, and prepared reports, maps and graphics.



Residents Participate at the Public Forum

This Master Plan Update is structured in conformance with the state requirements outlined in M.G.L. Chapter 41, Section 81D which describes a Master Plan as "A statement through text, maps, illustrations or other forms of communication, that is designed to provide a basis for decision making regarding the long-term physical development of the municipality..." and is comprised of nine specified elements:

Goals and Strategies - identifying the goals and Strategies of the municipality for its future growth and development, including the conducting of an interactive public process, to determine

community values, goals and to identify patterns of development that will be consistent with these goals.

Land Use - identifying present land use and designating the proposed distribution, location and inter-relationship of public and private land uses. This element matches the proposed standards of population density and building intensity with the capacity of land available or planned facilities and services and includes a land use plan map illustrating the land use policies of the municipality.

Housing – identifying and analyzing existing and forecasted housing needs and objectives including programs for the preservation, improvement and development of housing including identifying policies and strategies to provide a balance of local housing opportunities for all citizens.

Economic Development - identifying policies and strategies for the expansion or stabilization of the local economic base and the promotion of employment opportunities.

Natural and Cultural Resources - providing an inventory of the significant natural, cultural and historic resource areas of the municipality, and policies and strategies for the protection and management of such areas.

Open Space and Recreation - providing an inventory of recreational and resources and open space areas of the municipality, and policies and strategies for the management and protection of such resources and areas.

Services and Facilities - identifying and analyzing existing and forecasted needs for facilities and services used by the public.

Circulation - providing an inventory of existing and proposed circulation and transportation systems.

Implementation Program - defining and establishes a schedule for specific recommended municipal actions necessary to achieve the objectives of each element of the master plan update.

The chapters that follow explore the existing conditions in Hadley and identify issues, challenges, and needs as well as proposing strategies or recommendations to address them.

The plan recommends strategies to guide the community in achieving its primary goals which continue to include the preservation of the agricultural and natural resources, manage and direct future growth and development by guiding land uses to appropriate areas that have the infrastructure to accommodate it, buffer incompatible land uses from each other, and continue to provide the expanding need for the necessary resources and public services that the residents expect. These strategies focus on continuing the trends that have provided the quality of life that residents enjoy, while promoting a mix of commercial and residential uses to maintain the town's rural character and encouraging continued expansion of economic development, job opportunities and a diversified tax base. The plan also addresses two of the greatest influences on the town, Route 9 and the University of Massachusetts, both of which have great positive and negative impacts on the community, much of which is out of the direct control of the town but which the town must continue to exert its influence as much as possible.

Master Plans are developed to guide a town's policies and strategies over the next ten to twenty years. The plan is not etched in stone and requires that periodic reviews and updates of the plan accordingly to be certain that it reflects the ever changing trends and evolving needs of the community. It is also

important to understand that this Master Plan is a policy document, not a bylaw, and is intended to be used as a guide providing the various town boards and commissions with a set of common goals and strategies which can be uniformly taken into consideration when making decisions and weighing options.

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2 COMMUNITY ENGAGEMENT

HADLEY MASTER PLAN UPDATE

COMMUNITY ENGAGEMENT

In order to solicit public input and encourage community participation in the process of updating the town's Master Plan, PVPC and the Hadley Planning Board developed an effective public participation strategy which resulted in a strong understanding of community sentiment on a range of issues facing the Town. The public participation included a town-wide community survey, interviews with key players, stakeholders, focus groups, and facilitating a Public Forum.

COMMUNITY SURVEY

- A Community Survey was developed and posted on Survey Monkey
- The survey was available from the beginning of June through the middle of August 2016
- A Notice with the survey link was:
 - posted on the Homepage of the town's Web Site
 - included in the Tax Bill mailed to every property owner in Hadley
 - placed in the Town Hall mailboxes of all town Departments, Boards and Commissions
 - emailed to all town Departments, Boards and Commissions and encouraged to forward to any email groups that they may have
 - continually broadcast on the Hadley Public Access TV station
- Hard copies of the survey were available at the:
 - Town Hall
 - Goodwin Memorial Library
 - Hadley Senior Center
 - Hadley Public Safety Complex
- Posters including the survey Link were displayed at the:
 - Town Hall
 - Goodwin Memorial Library
 - Hadley Senior Center
 - Hadley Public Safety Complex
 - 18 public business located throughout the town

- Press Releases with the survey link were sent to the:
 - Local and regional newspapers
 - Three regional television stations
 - MassLive
 - Local radio station

COMMUNITY SURVEY RESULTS (354 Respondents)

Who Responded

- 79% were aged 45 or greater
- 20% were aged between 19-44
- 53% were employed full-time
- 30% were retired
- 13% were employed part-time
- 3.7% were students

Top 10 Important Aspects of Living in Hadley

1. Rural areas and agricultural heritage (99%)
2. Quality of public safety services (99%)
3. Quality of public schools (98%)
4. Quality of homes and neighborhoods (98%)
5. Property tax rates compared to other towns (96%)
6. Open Town Meeting form of government (93%)
7. Historic sites and buildings (96%)
8. The Town Common (95%)
9. Cultural opportunities (92%)
10. Goodwin Memorial Library (91%)

Top 5 Important Development Goals for Hadley's Future

1. Preserve air and water quality (98%)
2. Protect the natural environment (96%)
3. Support local farms and agricultural businesses (98%)
4. Preserve open space (farmland, forests) (96%)
5. Manage and control commercial development (97%)

Least Important Development Goals for Hadley's Future

1. Encourage residential development of agricultural land (26%)
2. Encourage more commercial economic development (60%)

Preferred Types of Residential Growth for Hadley's Future

1. Single family homes with large yards (3/4+ acres) (61%)
2. Homes for people with Disabilities (55%)

3. Senior Housing (55%)
4. Single family homes in compact neighborhoods (39%)
5. Mixed Use buildings (shops, offices and residences) (31%)
6. Apartments and condominiums (15%)
7. Duplexes and three-family homes (14%)

Who Can Afford to Buy/Rent Where You Now Live at its Current Market Value?

- Yes (59%)
- No (22%)
- Not Sure (19%)

Top 5 Preferred Types Of Commercial Growth For Hadley's Future

1. Small locally owned stores (85%)
2. Farm and agricultural businesses (88%)
3. Home based businesses (43%)
4. Offices for business, medical and services (36%)
5. Restaurants and grocery stores (29%)

Least Preferred Types Of Commercial Growth For Hadley's Future

1. Large national chain stores (9%)
2. Industrial businesses (trucking, manufacturing) (10%)
3. Hotels and tourist oriented services (12%)

Top Issues Needing Attention

1. Sewer treatment cap and operation (92%)
2. Reducing trash and solid waste (91%)
3. More energy efficient town buildings/vehicles (89%)
4. Pedestrian and bicycle safety (88%)
5. Traffic safety, short-cuts, speeding (88%)
6. Protection of wetlands, streams (88%)
7. Easier to live/commute without a car (88%)
8. Quality of emergency services (85%)
9. More solar, wind and hydro generated electricity (85%)
10. Health concerns, obesity, asthma, diabetes, cancer (77%)
11. Quality of public schools (76%)

Top 10 Supported Solutions

1. Find new ways to preserve open land (78%)
2. Focus economic development on small businesses (76%)
3. Help homeowners with energy efficiency measures (75%)
4. Improve quality of town roads (75%)
5. Extend/connect sidewalks, especially in commercial areas (73%)
6. Improve appearance of Town Center (72%)

7. Encourage more senior housing (65%)
8. Improve trails for hiking, cycling, snowmobiles, ATVs (62%)
9. Better PVTa service (58%)
10. Shared emergency services with other towns (58%)

Least Supported Solutions

1. Attract more industrial businesses (17%)
2. Encourage more large retail stores on Route 9 (19%)
3. More apartments and condominiums in suitable areas (37%)
4. Allow “cluster” neighborhoods in sewer areas (45%)

The Most Important Themes Identified to Improve the Quality of Life in Hadley:

- “Stop with the big box cluster which causes traffic, pollution and is unsightly. Preserve farms and open space. Wetlands? Mostly destroyed, with one area left for sale on Route 9.”
- “Maintain our agricultural character (i.e. constrain conversion of ag land to new housing as much as possible, limit the pace of new housing. Encourage young farmers starting out, etc.)”
- “Encouraging, Promoting and Preserving Agricultural Heritage and Find Ways to Make Housing Affordable so that those of us who grew up in Hadley can stay in Hadley.
- “Encourage more outdoor activity by promoting use of existing Town Common and recreation areas.”
- “Increase Fire and Ambulance Service. Build new Public safety complex. Have a true dept. to oversee building maintenance.”
- “A town hall/space for these gatherings, social activities, place to meet people, athletic events, cultural events.”

COMMUNITY SURVEY ANALYSIS

- The preservation of farmland and the support for the town’s agricultural businesses is a universally recognized and supported goal in the town
- Residents want to manage and control the town’s commercial development, shying away from the big box retailers and supporting more small locally owned businesses
- Respondents appreciate the numerous quality of life aspects (emergency services, schools, neighborhoods, library, cultural activities) that makes Hadley a desirable place to live and raise their families
- While residents enjoy a relatively stable and low residential tax rate, as compared to neighboring communities, and the large areas of permanently preserved agricultural lands, they may not be aware that much of this is a result of the commercial development on Route 9

- Residents would prefer that Hadley continue with the current residential development pattern of detached single family homes on moderately sized lots, which tend to be more expensive
- Residents are not inclined to support multi-unit housing styles which could provide alternate and less expensive residential alternatives
- Residents feel that the town needs to address its sanitary sewer capacity and solid waste disposal issues
- Respondents want the town to be more progressive in terms of energy conservation and promoting alternative forms of energy generation
- Pedestrian and bicycle safety issues need to be addressed through the development and connecting of sidewalks
- The Town Center is recognized as an important part of the community

PUBLIC FORUM

**Conducted on December 3, 2016 6:30 – 9:00pm
Hadley Senior Center/Community Center at
Hooker School**

Attendance: 40 people (5 tables)



Residents Participate at the Public Forum

- A Notice of the Public Forum was:
 - posted on the Homepage of the town's Web Site
 - placed in the Town Hall mailboxes of all town Departments, Boards and Commissions
 - emailed to all town Departments, Boards and Commissions and encouraged to forward to any email groups that they may have
 - continually broadcast on the Hadley Public Access TV station
- Posters were displayed at the:
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| Public Forum Responses | | |
|---|--|---------|
| At the end of the Forum all groups reconvened and identified Hadley's top issues. They then ranked them in terms of importance (each participant could vote for up to 5). | | |
| Rank | Community Issues | # Votes |
| #1 | Route 9 and Public Safety | 21 |
| #2 | Rural character = farm/open space (not necessarily colonial New England) | 17 |
| #3 | Market Rate Affordable Senior Housing | 14 |
| #4 | Market Rate Affordable Housing for Young People | 10 |
| | Stronger Village Center | 10 |
| #5 | Community/Senior Center | 8 |
| #6 | Pedestrian & bicycle safety | 5 |
| #7 | Park & Recreational Opportunities | 4 |
| #8 | Develop New Blood in Town Government (leadership and volunteers) | 3 |
| | Improve/Maintain Sense of Community | 3 |
| #9 | Library | 2 |
| | Public Transportation | 2 |
| | Better Communication between Town Government and Residents | 2 |

PUBLIC FORUM ANALYSIS

As with the Community Survey and Stakeholder meetings, Route 9 and farmland dominated the conversation and were considered Hadley's most influencing features. Many of the attributes of Route 9 (i.e. major transportation route readily connecting Hadley to the rest of the region and providing much of the town's economic base) were also identified as its problems (traffic congestion, strip development and public safety).

Interestingly, when the discussion turned to the town's rural character residents made a clear distinction between it being a farming community as opposed to a typical colonial New England village, although the town center area around the Town Common certainly does display those characteristics. The Town was lauded for its commitment to preserving farms and open space, and encouraged to continue and expand that program.

The discussion on the University of Massachusetts also demonstrated a conflicting plus and minus relationship. While it provided jobs, hosted cultural events and provided higher educational opportunities to Hadley's residents, there were concerns about the traffic it generates, students displacing family housing, student behavior creating problems and adding stress to emergency services, and about expansion of UMass facilities in Hadley.

Also noted by many participants was a perceived decrease in the sense of community in town. Some neighborhoods seemed to have it, others do not. A number of suggested contributing factors included:

- Hadley's growing population
- Hadley's aging population
- An increasing division between new and old residents
- an increase in Hadley becoming a bedroom community where people sleep but spend much of their waking hours working/schooling elsewhere
- the lack of a traditional downtown and not having a clearly identified Town Center
- A Lack of communication from town government to town residents. Also lack of communication about who to go to for town matters

Some suggested solutions were:

- developing a Community Center for all ages could help build community
- The Town Center should be a walkable village center with a mix of civic functions and small businesses
- Infill historic town center
- Getting new blood in town government

STAKEHOLDER INTERVIEWS

Conducted on September 14, 2016 throughout the day and evening

Hadley Senior Center/Community Center at Hooker School

Invited: 30 people representing Hadley's government, farming, business and environmental communities were invited.

Attendance: 14 people (4 sessions)

The Stakeholder Interviews were conducted in four sessions:

1. Town Resident/Public Services (attended by School, Council on Aging and environmental officials)
2. Business (attended by members of Hadley's business community, primarily representing the Route 9 commercial strip)
3. Planning/Zoning (attended by Hadley Planning and Zoning Officials)
4. General Government (attended by Hadley town officials)

Stakeholder Comments

Town Resident/Services Focused

Top Concerns

- Schools
 - Need to shift way people (parents) think about teen alcohol use (doesn't appear to be an opiate issue in town)
 - Create Safe Homes Network
 - How do we make excellent high school and make it top in the country; huge asset that we need to capitalize on; can do far better
 - Trilium Learning - work with NASA on science programs - taught to do group problem-solving
 - new elementary school built in 1990s with no AC
 - insufficient space at Hopkins; insufficient lab space; fields are a big priority for town people; girls locker room needs to be updated
 - Town focuses on cost cutting; should instead focus on cost-avoidance (which might require investment now)
 - create educational technology plan that we can commit to so kids working with relevant technology
 - Need training for high-tech businesses, small precision mechanics. Smith Voc doesn't provide that have that
- Infrastructure
 - Town lacks Comprehensive Capital Plan
 - Municipal buildings are falling apart
 - Town should buy Montgomery Rose for new fire department
- Open Space
 - Lake Warner: Kestrel owns lake - plan is to turn ownership over to Friends of Lake Warner plus \$50K trust fund to manage the lake
 - Need a mechanism to bring future farmers into family farms that would otherwise be sold to development

Hadley's Assets

- Public is invested in quality of education and the public sector (through passing budgets, town has supported increases)
- It's a well-governed little town; office holders reflect change in demographics of the town; old guard represents selling land for development

Businesses

Top Concerns

- Should find way to deal with condemned buildings that are an eyesore. Aqua Vita is an example. That's the gateway.
- From Connecticut River to Lowe's - make better connection to "quaint" part of town.
- Sign regulations don't make sense and are too restrictive
- Need to increase maximum number of stories.
- Retail guys are cannibalizing each other at the malls. Online competing. Lifestyle center would come after hampshire mall if it were to be knocked down. Long-term leases there right now. Would have to make open-air, would be weird with Target and Dicks (Target owns).
- Can't build more behind the malls because of farmland. Keep focusing new commercial development where it is
- Natural gas moratorium prohibits development of certain dependent commercial uses (i.e. restaurants)

Traffic

- Backups used to happen. East Street is not programmed right. Should put a time when people can't go to West Street; that's peoples' bypass
- Avoid the area between 4-6, but as far as businesses, doesn't do anything for hotels but hurts for retail. This area is a soft market and would be surprised if Lowe's will remain open. But our taxes are ridiculously low.

Permitting and Regulations

- Hadley has grown up. These Home Depots etc. know what they're doing. Board members are smart, but bylaws have not kept up. Best thing for developers is to make bylaws clear and understandable. Town of Hadley puts themselves at risk by not making themselves clear.
- Sign regulations don't make sense and are too restrictive
 - For sites with multi-uses the difficulty is that everything has to be on one main marquee sign. If I subdivided, I could have more signs than if I did one big development.
 - Makes it difficult for developers to negotiate with retail
 - College visitors have one shot to see where retail is, so signage is important

- Permitting and approval processes were fine, because we were familiar with it
- Information flow is a little challenging
- DPW permitting process is confusing

Water Quality

- Had to replace linens when testing out wells, had to replace all the copper on first floor of Marriott because of water. Meets state requirements. Pre-treatment filter, and DPW gives us a heads up when they do a wash. Responsive but no solution.
- They are inconsistent when they add chlorine.
- Sewer impact fee is super high. Is almost more than the land. Water treatment plant is almost at capacity. Fee is based on what you'd have to build for Title 5. Excessive barrier to entry. Especially for a restaurant (not so much for a hotel). They have to come in and pay as new users come in.

Planning

Hadley's Assets

- Small-town atmosphere
- lots of farmland preserved
- School system is excellent.

Concerns

- famers are getting older and not sure if it's going to carry on to the next generation
- Kids can't afford to come back to the town they grew up in. New construction is not affordable, existing is not affordable. I couldn't afford my house if I had to buy it today.
- Endangered species habitat is limiting developable lots; NHESP is running up price of building lots
- Building roads is becoming cost-prohibitive because of the sewer etc. A new way to do it would be infill, but is controversial. Smaller lot sizes in the village area.
- Town doesn't follow its Capital Improvement Plan. We're playing catch up on a lot of things
 - Big problems in a small town, and don't have foresight to address them (fire, police)
 - Lack of foresight - we do too many short-term fixes, band-aid solutions
 - Meals tax for instance goes to capital budget, but doesn't reflect capital needs
- Highest need is infrastructure
 - Many roads lack an adequate subbase
 - Treatment facility - state says in need of expansion. Not sure how much is infiltration/SW from development.
 - No plan to sewer everything. Concentrate on high-risk areas when state paid for

it through grants. Worry that this type of system is archaic; worried that in future we'll have stand-alone systems.

- Very limited how much build-out we can do for infill, saving sewer space for commercial
- Lot of traffic on Bay Road and Rocky Hill Road. But it's not our traffic!! It's commuter traffic
- Planning/Zoning has gotten very complex
 - Planning Board has done a good job
 - In some respects it is too rigid, not enough give and take
 - Town needs to review it more often
 - Lot of bylaws have little planning board discretion because that wouldn't sell at town meetings.
- UMass is a serious problem with police and traffic
 - How long can we hold the line on being bedroom community for students
 - Balanced with not turning into student housing ghetto. Puts lots of pressure onto services.

General Government

Hadley's Assets

- Small-town feel, strong sense of community
- Hadley's done great in balancing commercial opportunities and preservation
- Town has preserved more than 4000 acres
- Town needs to continue to support the farmers but the biggest problem is the next generation
- People can age in place in Hadley due to low taxes

Concerns

- Commercial growth has plummeted in last 8 years, partly due to big box capped 75,000 sf maxed.
- We lack a town center and tend to see each other at Home Depot rather than along a Main Street. We don't have zoning for small village center.
- We don't get enough volunteers and people involved. We don't understand how to communicate anymore; people get involved in social media now.
- Capital expenditures are a problem. The Capital Improvement Plan is a good program, you just can't fund it. Maintenance on buildings, infrastructure, water, sewer, stormwater and the Dike get deferred.

UMASS

- 25% of Hadley residents work at UMass. Golden cow and elephant in room at the same time. Consuming more services. 1/3 of UMass is in Hadley. Having problems with private rental properties.
- UMass has made this valley recession-proof. We never see the lows that other

communities see.

- UMass doesn't do anything about problem students that do stuff here. Amherst has started cracking down on apts (registration), so starting to spill into here.
- Reality is there isn't enough housing for university and other colleges.
- Concern of students moved to older single-family housing. This is filtering into the neighborhoods.

Education

- Schools are a huge challenge going forward; scalability is the issue
- Kids leaving town because not enough opportunities at schools, so not going into our schools
- School gets the budget money and the town pays the choice cost for kids going out
- Senior class is opting to go to GCC and HCC for their senior classes

Planning & Zoning

- Planning and zoning are antiquated, we should be looking at more creative zoning strategies
- Could make better use of the corridor
- Cluster housing does not mean low income
- Redevelop the town center. Mixed use town center
- Rte 9 is close to maxed out. Zoning and planning rules require so much parking we cannot capitalize on remaining space. We have to have mixed use.
- Commercial zoning needs to be changed. To focus on warehouses for online retailing
- We're not doing ourselves favors with minimum lot sizes, requiring too many parking spaces that aren't used most of the year, we have a short opportunity to think smartly about growth on Rte 9.
- Planning board is not going to be same planning board in 5 years. Is it time to have a professional planner person.

3 VISION, GOALS AND STRATEGIES

Vision and Goals Statement

The Vision and Goals expressed by residents in the Community Survey and at the Public Forum remained much the same as those expressed in the 2005 Master Planning effort, although there was a stronger support for the development of a “town center” and concern over the impacts of the University of Massachusetts.

The Town of Hadley could be a community with...

1. a strong agricultural heritage and supportive of family owned farms
2. a continued stable housing stock, housing market and low tax rate
3. a town center (around the historic district) which is walkable, provides parking with multiple restaurants, small business, a campus of civic buildings, community center, public event space, a farmers market and more safe pedestrian crossings of Route 9
4. big business restricted to the Route 9 commercial strip where they are now
5. more and safer walking and biking opportunities (Complete Streets)
6. more public transportation
7. better utilization of town’s existing developed areas with the preservation of the undeveloped areas
8. more senior housing and housing that working people can afford
9. businesses that utilize more green energy
10. a younger generation getting involved in the community and town government maintaining the town’s rural character and values
11. protection against incompatible “creep” from UMass

GOALS

Based upon the Vision Statement, the following goals were developed for each of the plan elements or categories. Each Goal is more completely discussed and explained in the individual element chapters that follow:

LAND USE

Goal 1: Maintain Hadley's Rural Appearance and Small Town Feel.

Specific Objectives:

- Focus new development in sections of town that have the infrastructure and environmental conditions to accommodate growth and limit development in rural and environmentally sensitive areas.
- Limit new commercial development to Route 9 and other identified areas while prohibiting new commercial development on Bay Road, North and South Maple Streets and other agricultural, residential or sensitive areas.
- Ensure that any new development on Route 47 is appropriate for and sensitive to the surrounding neighborhoods and environment.
- Manage new development through appropriate regulation and limit overall size of new buildings.

Key Strategies:

- A. Discuss Strengthening the Town's Site Plan Review Bylaw and Process: The town should look at ways to modify and strengthen the current Site Plan Review Bylaw and coordinate it with the Design Guidelines to ensure that development and redevelopment are consistent with the scale, massing and character that the town is trying to achieve. The Boards should be pro-active in working with developers to develop projects that are a visual asset to the community and promote Hadley's small town New England rural character.
- B. Discuss Strengthening Floodplain Regulations: Increase restrictions on development in the 100-year floodplain, including a list of specific prohibited uses (i.e. gas stations, businesses using hazardous chemicals, mobile homes), requirements for elevating structures and stronger limitations on allowable uses.
- C. Discuss Creative Development to Control ANR (Approval Not Required) Residential Sprawl: Reduce incremental ANR large-lot development along Route 47 and other town roads. Adopt a Creative Development Bylaw that provides strong incentives for off-road clustered development, and disincentives for on-road large lot development. Creative development preserves open space along town roads and permits.
- D. Discuss Controlling Commercial Sprawl along Route 9: Rather than continuing to rely on single Business Zoning District along the full length of Route 9, Hadley should divide the corridor into districts of varying intensity and purpose, including: a Historic Village Center District with design guidelines in the town center; a High Intensity Commercial District in the mall area which can encourage the emergence of a "walkable downtown" with building streetlines in this area; and a Low Intensity Commercial/Multi-family Residential District to reduce sprawl in the remaining Route 9 areas.

- E. Discuss Minimizing Commercial Sprawl along Route 47: The current Hadley zoning allows many business uses by Special Permit in the Limited Business District, which runs along 2/3 of the length of Route 47, including retail businesses, personal and consumer services, banks, professional offices and others. As traffic levels increase and Route 9 builds out, there will be considerably more development pressure on the Route 47 corridor, which is a designated National Scenic Byway. Use regulations should limit business development to farm-related operations to better protect this scenic corridor.
- F. Discuss Billboard Removal and Sign Control: Hadley's character is negatively impacted by the large number of billboards and very large tall signs on Route 9. Billboards should be phased out through amortization and removal under the authority of the Massachusetts Outdoor Advertising Board, and through locally adopted billboard restrictions. Large signs should be phased out by improving zoning regulations for signs to reduce height and size maximums and restrict interior lighting.
- G. Discuss Protection of Hadley's Scenic Vistas: Much of Hadley's rural appearance is the result of the many undeveloped lands that provide vast scenic vistas. This includes large areas of concentrated farmlands and working farms, viewsheds of the Connecticut River and the ever dominant Holyoke Range and Skinner State Park. Discussion could include Ridgeline and River Protection Zoning.

Goal 2: Enhance the Town Center as a Livable, Workable, and Walkable Community Center.

Specific Objectives:

- Allow for the appropriate use, development and redevelopment of land in the town center to facilitate the creation of a true New England town center.
- Improve and/or create pedestrian network in and around town center.
- Create consistent sign, streetscape and architectural themes.

Key Strategies:

- A. Discuss promoting mixed use village center development: Amend the Village Center Overlay District to create incentives for a Mixed Use developments, including business, retail, residential and civic uses, in an overlay district consisting of village centers.
- B. Discuss promoting development supporting Norwottuck Rail Trail: Create zoning incentives for recreation-based (bike shops, rentals) and dining businesses along the Norwottuck Rail Trail. Incentives could include reduced setbacks and lot sizes.
- C. Discuss promoting Traditional Neighborhood Development: In residential areas surrounding the town center, and North Hadley, promote Traditional Neighborhood Development (TND). TND replicates the layout, density and amenities of traditional New England town neighborhoods. Homes are built on smaller lots in block format around greens or commons, with sidewalks and a mix of uses.

Goal 3: Ensure New Development is in Keeping With Character of Hadley's Landscape and Architecture.

Specific Objectives:

- Create enhanced design review guidelines that reflect Hadley's architectural heritage, character and preferences.

Key Strategies:

- A. Discuss creating a walkable, attractive new village center or downtown style development: Build vertically and create streetlines in the village center and along Route 9: Develop new commercial development regulations with incentives or requirements for multi-story buildings and buildings that create a pedestrian-friendly streetscape. Examples include increased height limits, maximum set-back requirements, sidewalk requirements.
- B. Discuss adopting green development performance standards: Adopt standards for green development including limits to site disturbance and tree removal, passive solar siting, landscaping and water conservation, parking and trip reduction, bicycle and pedestrian access.
- C. 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.
- D. Discuss promoting home occupations and cottage industries: Develop a new bylaw to permit the development of home occupations and cottage industries within existing residential structures, with adequate protections for neighborhoods.

Goal 4: Protect, Enhance and Strengthen Agricultural Lands.

Specific Objectives:

- Ensure that development on and near agricultural lands is sensitive to the value of the agricultural resource.
- Create "Purchase of Development Rights" program and enhance Transfer of Development Rights program to help pay for the preservation of farmland.
- See separate Agricultural element in Chapter 6 for additional goals and objectives.

Key Strategies:

- A. Discuss strengthening the Transfer of Development Rights Bylaw: Hadley has an effective existing TDR bylaw, which has protected hundreds of acres of farmland. This bylaw should be strengthened with additional incentives for landowner participation, and ease of use.
- B. Discuss farmland impacts in review of subdivision plans: Require adjacent agricultural land uses to be identified on subdivision plans and work to avoid conflict of land uses in the planning process. Use Subdivision review process to encourage use of creative development procedures when farmland is impacted by development.

- C. Discuss leasing town-owned land to farmers: Identify parcels of underutilized town-owned land that have good farmland soils, and make them available for lease to farmers.
- D. Discuss Agricultural Preservation Funding: Continue the town's efforts funding the purchase of the development rights for farmlands and to provide required matching funds for the state's Agriculture Preservation Restriction program. Support this fund with annual town budgeted contributions, funds raised through TDR transactions, and enable private and business contributions as well.

Goal 5: Work with Route 9 Businesses to Enhance Their Business Experience

Specific Objectives:

- Provide an opportunity to engage with the business community

Key Strategies:

- A. Discuss the Planning Board conducting periodic "Listening Sessions": to open up a dialogue with the business community relative to mutual interests and conflicts
- B. Discuss reviewing the town's sign regulations: to balance the need for businesses advertising their presence while avoiding an overabundance of signs and reducing visual pollution.
- C. Discuss working with the utilities: to remove the natural gas moratorium on commercial tie-ins

Goal 6: Work with UMASS and Other Area Colleges to Ensure that their Plans are Consistent with the Hadley Master Plan and Hadley Interests and Address Off-Campus Issues.

Specific Objectives:

- Open a dialogue with UMASS and other area colleges and meet with college representatives on an ongoing basis to discuss concerns and plans for the future.

Key Strategies:

- A. Improve Town-Gown interaction: The Town of Hadley and the University of Massachusetts should consider developing a more formal and robust collaborative effort to work together in the coordination of projects and other activities that are in their mutual interest similar to the Town Gown Collaborative that the University has with the neighboring town of Amherst (<http://www.umass.edu/utac/>) which has similar issues.

Goal 7: Assess and Address the Town's Short-Term and Long-Term Planning Administrative Needs

Specific Objectives:

- With anticipated changes in Planning Board membership and the expanding role and responsibilities of Planning Boards, expanded professional planning assistance should be sought.
- Improve the Planning Board's administrative and operational efficiency by expanded use of Information Technology (IT)

Key Strategies:

- A. Discuss creating a full-time professional town planner position: under the direction of the Planning Board, or expand the working relationship with PVPC to assist in the day-to-day management and administration of the Planning Board's duties and responsibilities.
- B. Discuss appropriating funds: for the Planning Board: to purchase adequate IT hardware and software to enable the Board to:
 - more effectively store its files and information
 - conduct its meetings and Public Hearings
 - make information more readily available to the public

HOUSING

Goal 1: Maintain the Housing Stock

Specific Objectives:

- Maintain Hadley's stable housing stock, housing market and low tax rate
- Reduce foreclosures, vacant housing, or deteriorating stock
- Provide more senior housing and housing that working people can afford

Key Strategies:

- A. Discuss expanding the types of housing permitted in Hadley:
 - adjust zoning to encourage new housing typologies in locations where increased density serves other planning goals.

- amend the Zoning Bylaw to make clustered residential zoning a by-right use, and require a special permit for standard subdivisions.
- C. Discuss maintaining 10% of housing stock as affordable housing: Raise the affordability requirement for senior housing rental or assisted-living developments.
- D. Discuss creating an Affordable Housing Trust Fund. Tie projects approved under this provision to the TDR program.

ECONOMIC DEVELOPMENT

GOAL 1: Deepen the Property Tax Base

Specific Objectives:

- Maintain a strong commercial tax base
- Avoid the “creep” of commercial zones into residential and rural areas
- Better utilization of existing commercial zones
- Diversify commercial to reduce dependency on retail

Key Strategies:

- A. Discuss ensuring that agriculture remains a viable economic activity: Revise zoning to discourage subdivision of farmland
 - consider revising zoning to discourage the subdivision of farmland.
 - consider developing agricultural tourism
 - consider establishing retail and business size limitation tied to TDR program.
- B. Discuss the traditional town center: Create and enact a base (non-overlay) Village Center Zoning District and redesign Russell Street and other streets within the town center to support productive town center development
 - consider creating a Village Center Zoning District
 - consider the redesign Russell Street and other streets within the town center to support productive town center development

- C. Discuss plans for densification and redevelopment of aging commercial properties on Route 9: Revise zoning to allow additional density along Route 9. Prepare concept plans for the transition of the most vulnerable large-format commercial properties to a more sustainable development model.
- consider revising zoning to allow additional density along Route 9
 - consider preparing concept plans for the transition of the most vulnerable large-format commercial properties to a more sustainable development model

NATURAL RESOURCES

Goal 1: Protect Hadley's Agricultural Character and Economy.

Specific Objectives:

- Enhance Hadley's agricultural economy and reputation through marketing or other forms of promotion.
- Continue to use Agriculture Preservation Restrictions and other means to protect farmland while strengthening partnerships and other sources of funding.
- Protect continued use of Prime Farmland soils for agriculture by encouraging solar development to take place elsewhere.

Key Strategies:

- A. Discuss continuing pursuing APRs to protect more farmland, particularly large contiguous expanses (such as the Great Meadow)
- B. Discuss developing strong coordination with other agencies or organizations protecting farmland to ensure strategic conservation
- C. Discuss assisting landowners in finding alternative approaches to developing solar arrays on prime agricultural land
- D. Discuss involving the agricultural commission in town policy development in order to incorporate interests of the town's agricultural economy

Goal 2: Protect Soil and Water Quality.

Specific Objectives:

- Protect Hadley's public water supply.
- Promote and pursue soil and water conservation strategies.

Key Strategies:

- A. Discuss proactively protecting land in water supply protection districts, (e.g. along the Fort River)
- B. Discuss updating design guidelines and/or requirements and site plan review criteria to promote installation of green infrastructure
- C. Discuss promoting efficient irrigation systems and techniques to agricultural and large landowners, and general water conservation throughout town
- D. Discuss developing a hazardous materials response plan to prepare for flooding events that may contaminate soils

Goal 3: Protect the Town's Ecosystems, Wildlife Habitat, and Biodiversity.

Specific Objectives:

- Protect areas in Hadley that provide ecological services such as flood storage, pollutant filtration, wildlife habitat and breeding areas, and climate change resilience
- Integrate protection of Hadley's ecological systems with other town goals such maintaining rural character, preserving the agricultural economy, and providing recreational and open space opportunities

Key Strategies:

- A. Discuss Creating an open space prioritization plan that is updated regularly based on changing conditions and opportunities
- B. Discuss acquiring conservation land and restrictions, particularly in the Fort River area
- C. Discuss conducting outreach and develop partnerships with agricultural landowners to reduce agricultural impacts on wetlands and waterways
- D. Discuss conducting outreach to landowners of important habitat areas about the value of conservation
- E. Discuss investigating the feasibility of a stormwater utility to fund MS4 compliance and stormwater best management practices throughout town

Goal 4: Preserve Historic and Architecturally Significant Structures and Landscapes.

Specific Objectives:

- Inventory all historic buildings, neighborhoods, and landscapes within Hadley.
- Pursue Historic Register designations for critical areas.

- Preserve and protect the town's historic public resources such as cemeteries, commons, museums, and scenic roads and vistas

Key Strategies:

- A. Discuss updating the historic resources inventory, including landscapes and distinctive agricultural outbuildings
- B. Discuss preparing an Historic Preservation Plan, with a focus on keeping historic and scenic landscapes intact
- C. Discuss nominating structures and places to the State and Federal Historic Register
- D. Discuss considering creating local historic districts to existing National Register districts to provide additional protection
- E. Discuss pursuing Historic Preservation Restrictions for outbuildings on APR-protected lands, or in conjunction with APRs

OPEN SPACE

Goal 1: Prioritize Open Space Protection Opportunities

Specific Objectives:

- Assess the town's natural resources and the potential availability of parcels
- Prioritize potential parcels

Key Strategies:

- A. Discuss creating a comprehensive prioritization plan of open space protection: Identify: key areas for protection based on ecological integrity, scenic views, recreation potential, linkages between green space, water supply protection, and climate resiliency/hazard mitigation; what types of protections are most suited for various properties (purchase, conservation restrictions, etc.) in order to plan for needed funding; potential funding programs or sources that correspond with the types of protections needed for each parcel
- B. Discuss coordinating with other partners and agencies on protection and potential protection of open space: Develop an open space inventory with key land protection partners that both the town and local land protection organizations and state/federal agencies can refer and add to as land is protected (a land protection organization may be willing to maintain the list). Review inventory on a regular basis (e.g. annual or bi-annual) in context of available funding opportunities and acquisition potential to prioritize

- C. Discuss educating targeted audiences about conservation options: Develop easily accessible information with key contacts about conservation options (conservation restrictions, APRs, etc.) in Hadley for landowners interested in land protection. Ensure this information is distributed to landowners in targeted areas where land protection supports ecological integrity, scenic views, etc. Outreach might be done in partnership with a land conservation organization, or perhaps through “ambassadors” – fellow landowners and neighbors that have protected land (an approach being considered by Friends of Lake Warner for agricultural runoff BMPs)

Goal 2: Integrate Open Space and Recreation Concerns into Other Town Plans and Practices

Specific Objectives:

- Other town plans and practices should be utilized to reinforce and advance open space and recreation goals beyond purchasing land or easements.

Key Strategies:

- A. Discuss revising zoning, site plan review, and other development policies to lessen or divert development pressure on open space areas: Zoning regulations can be refined to ensure that development that does occur near or within open space areas has a lessened impact on landscape/habitat fragmentation. Increase commercial Route 9 and increase lot sizes in agricultural-residential zones to direct development towards already-developed areas and away from open space resources
- B. Discuss integrating open space protection with stormwater treatment, drinking water quality protection, and hazard mitigation: Integrate into any stormwater management plan that is developed in response to the 2016 EPA MS4 requirements. Coordinate with MassDOT to meet MS4 permit requirements along Route 9. Encourage FEMA to update the 1978 FIRM maps to reveal potential contemporary risk areas and provide justification for further limiting development within floodplains.

Encourage and work with FEMA to update the 1978 FIRM maps. Revised FIRM maps could reveal contemporary risk areas and provide justification for further limiting development within floodplains (such as along the Fort River, which is also critical habitat area).

Goal 3: Improve Access to Existing Recreational Resources

Specific Objectives:

- Enhance access to existing natural resources, open space areas, and recreational facilities to promote and increase usage of existing recreational opportunities.

Key Strategies:

- A. Discuss pursuing opportunities to connect green spaces and recreational resources where possible: Prioritize areas around the Fort River, Mill River, and Connecticut River for habitat protection and wildlife corridors and identify areas where scenic and cultural resources can be better connected to natural resources. Prioritize areas for sidewalk installation that enhance bicycle/pedestrian routes to recreational and open space features, including the rail trail and Town Common
- B. Discuss rehabilitating and promoting existing park spaces, recreational facilities/programs, and public gathering areas: Support citizen efforts to rehabilitate Zatykra Park, cultivate and support “friends” groups for other programs or recreational areas to build support and capacity for investment and pursue cooperative agreement with UMass to allow resident use of recreational facilities, such as ball fields. Pursue grant funding to enhance existing recreational facilities and increase awareness about existing recreational programs such as yoga, basketball, and after-school activities

TRANSPORTATION

Goal 1: Grow a Diverse and Sustainable Transportation System That Supports Land Use and Economic Development Goals.

Specific Objectives:

- Increase transportation options and lessen Hadley’s residents and businesses reliance on vehicular transportation.
- Work to coordinate road improvements with other goals, and begin to diversify the transportation network so as to serve growth without increasing congestion.

Key Strategies:

- A. Discuss coordinating road improvements and land use goals: Work with MassDOT to create place-centric improvements for Route 9 development nodes and create movement-centric improvements for Route 9 between and beyond development nodes. Curtail cut-through traffic and short-cuts.
- B. Discuss supporting transit service improvements: Work with MassDOT and PVTA to create an effective bus service from and through Hadley.
- C. Discuss improving Hadley’s bicycle network: Improve Norwottuck Trail crossings to increase safety and improve connections between the Norwottuck Trail and Hadley destinations. Expand the on-street bicycle network.

- D. Discuss improving and expanding pedestrian facilities where walking is most viable: Expand pedestrian facilities in the town center and create pedestrian connections within shopping centers and to transit stops along Route 9.

PUBLIC FACILITIES

Goal 1: Maintain Hadley's Commitment to Superior Fire, Police and Emergency Services

Specific Objectives:

- Maintain Hadley's safety through effective police, fire, and emergency medical services

Key Strategies:

- A. Address personnel shortages: Increases in responses to calls can have a significant impact on the breadth of service the departments provide resulting in a lack of time to undertake other required duties.
- B. Obtain training and technology: Especially relative to the activities of the National Office of Homeland Security.
- C. Keep the emergency services operating at pace with the rate of development. Explore new ways to keep the emergency services operating and develop a long term public safety plan addressing issues as if and when the town may need a full-time fire department or more police officers, etc.
- D. Increase Department Funding: The town needs to explore ways to:
- expand regional opportunities
 - pass costs of increased services on to commercial developers where appropriate
 - as a town, develop a long term public safety plan addressing issues such as if and when the town may need a full-time fire department or more police officers, etc.

Goal 2: Maintain Hadley's Commitment to School Services

Specific Objectives:

- Maintain Hadley's commitment to provide superior education opportunities for its residents

Key Strategies:

- A. Development a School Building Master Plan: This assists the town in forecasting anticipated needs before reaching a crisis situation. In preparing a School Building Master Plan the town can prepare to upgrade aging or out-of-date facilities and replace retiring staff.

- B. Expand adult education opportunities: The town should pursue additional local options available for the adult population, including programs ranging from adult basic education to basic technology training to more recreational classes and programs that could be administered by the Park and Recreation Department.
- C. Continuously improve and support existing schools: Upgrade school labs, bring new technology into schools.

Goal 3: Maintain Hadley's Commitment to Superior Utility Services

Specific Objectives:

- Maintain Hadley's physical infrastructure through strategic investment
- Enhance communication about Hadley's infrastructure to residents and development community

Key Strategies:

- A. Invest in priorities identified in Hadley Water System Master Plan: Rehabilitation of the Mt. Warner well pumps and the construction of a new treatment facility are listed as top priorities in the town's 2015 water supply master plan. Replacing water mains when the opportunity arises, such as during road repairs. The town should plan to make annual, proactive investments in the water supply infrastructure on an ongoing basis to prevent larger, reactive costs down the road
- B. Invest in sewer line replacement/repair priorities identified as part of 2017 sewer smoke/leak testing: Replacing sewer lines when the opportunity arises, such as during road repairs. The town should plan to make annual, proactive investments in the sewer infrastructure on an ongoing basis to prevent larger, reactive costs down the road.
- C. Develop sidewalk plan, or identify top streets/roads for sidewalk implementation during road projects: Respondents to the master plan survey questions and stakeholder interviews expressed a desire for more options to walk or commute by means other than car. Opportunities to install sidewalks in an organized manner should be pursued in conjunction with road projects, when possible.
- D. Seek funding to construct permanent DPW building
- E. Explore feasibility of municipal broadband, if such a need is identified
- F. Conduct targeted outreach to or create informational materials for developers about the current state/capacity of Hadley's infrastructure in key areas: There is confusion among the development community about whether the wastewater treatment plant was nearing capacity (it is not) and how that would impact economic development. Such misunderstandings could be addressed through targeted outreach to developers.
- G. Provide updates in additional communication outlets about investments in Hadley's infrastructure, and identify important needs to resolve as well: The master plan survey and stakeholder interviews revealed frustration about the cost of the sewer impact fees, including that

they represent a high barrier to entry for smaller businesses. But the impact fees have also allowed the town to proactively upgrade some sewer infrastructure before their failure created more expensive problems down the road. These are important trade-offs that the town and its residents need to continually discuss and consider as the economy and condition of infrastructure evolves. Ongoing communication about the impact of infrastructure improvements on the everyday lives of residents and articulating needs in other areas is important to maintain dialogue and support decision making about existing and new infrastructure investments.

- H. Promote the importance of water conservation to municipal water users: WMA/Source Water Management Initiative permitting rules and the extreme drought of 2016 indicate the ongoing importance of communicating and promoting water conservation.

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4 LAND USE

Introduction

‘Land use’ is the term used to describe the overall development pattern of a community. The issues surrounding land use cut across the other elements explored as part of this master plan. Issues such as transportation, infrastructure, and housing are all related to land use while conversely, land use is often dependent on the underlying natural resources. Land use is thus the central hub of a master plan, with the other elements acting as critical spokes. All are important, but land use is the element that ties them all together.

Historically, land use policy simply focused on single use zoning, but as the town’s development and buildout analyses demonstrate the folly of such zoning, more creative and comprehensive strategies are called for. Without new and comprehensive land use strategies, future growth will eventually overwhelm Hadley and the town will lose much of the rural character, agricultural heritage and small-town feel that makes Hadley such a special place to live. Creative land use strategies can be used to help Hadley manage future growth in a manner that preserves its character and is consistent with the community’s vision, goals and objectives stated in **Chapter 3**.

This section provides an overview of the town’s existing population trends, land use patterns, existing zoning, and the buildout ramifications of that zoning.

Hadley’s Landscape

The Town of Hadley is nestled along the eastern bank of the Connecticut River bordered by Amherst on the east, Sunderland to the north, and South Hadley to the south. Route 9, a major state road, cuts through the community from I-91 to Amherst. While Route 9 bisects the town from east to west, Route 47 traverses north/south along Hadley’s western border near the river.

The corridor along Route 9 contains most of the town’s commercial development, the historic town center and serves as the principal gateway to the community. Several of the town’s municipal structures, including the library, Town Hall, post office and the middle school/high school are located along Route 9. Near its intersection with Route 116, Route 9 contains one of the larger concentrations of commercial and retail uses in the region.



Hadley Town Center

Hadley center contains a significant number of municipal structures, but it also has historic and charming residential neighborhoods, the Hadley Senior Center, the Farm Museum, the historic Town Common, important local businesses and religious institutions. To the north on Route 47 lies North Hadley center, a small, compact village center with a former community hall, church, local businesses, and historic homes located along Lake Warner and Mill River.

Along virtually Hadley's entire southern border lies Skinner State Park, a heavily wooded landscape in the Mt. Holyoke range that towers over the remainder of the town. To the north lies Mount Warner, the only other major area of woodland within Hadley. These two woodlands are connected through a tenuous ribbon of trees that cling to the various streams and corridors running north to south. The remainder of the community contains some of the most valuable and productive agricultural land in Massachusetts. This cropland makes up almost 42 percent of Hadley's total land area and is spread through virtually the entire community. Significant clusters of agricultural land lie along the western half of Route 9, around the Moody Bridge area, in the Great Meadows area, along portions of Route 47 and to the north along Knightly Road, among others.



Hadley Tobacco Fields

Local Population Trends: Hadley Growing Faster Than Region

Hadley's population growth rate has slowed, since peaking in the decade 1990-2000. Still, Hadley has continued to grow at rate higher than the rest of the region, and is expected to continue to grow at a 9-11% rate for several decades.

Chart 4-1 compares Hadley's population trends to those of the region. In the past decade, Hadley's population has grown significantly faster than the region's. The 2010 population in Hadley was 5,250, an increase of 9.5% since 2000. During the same time, the Pioneer Valley region grew by only 2.1% .

Hadley's growth rate of 9.5% during the past decade from 2000-2010 was lower than the growth rate during the 1990s, when the town's population increased by 13.3%.

As shown in **Chart 4-1**, Hadley is expected to continue growing faster than Hampshire County as a whole between 2010 and 2035. Hampshire County's overall population growth rate is expected to slow and then begin to decline between 2030 and 2035. Even Hadley's growth rate is projected to slow considerably after 2030, according to the Donahue Institute. Population projections prepared by the MassDOT estimate an even slower growth rate for Hadley. This population growth and pressure has had and will continue to have an impact on land use patterns. Increases in population inevitably result in more open land being converted to subdivisions and this in turn leads to more land being used for commercial uses and other services to support the increase in population.

Chart 4-1
Population Growth and Projections for Hadley and Hampshire County
1970-2035

| Year | Hadley Population | % Change | Hampshire County Population | % Change |
|---|-------------------|-----------------------------|-----------------------------|----------|
| 1970 | 3,760 | - | 123,997 | - |
| 1980 | 4,125 | 9.7% | 138,813 | 11.9% |
| 1990 | 4,231 | 2.6% | 146,568 | 5.6% |
| 2000 | 4,793 | 13.3% | 152,251 | 3.9% |
| 2010 | 5,250 | 9.5% | 158,080 | 3.8% |
| 2020 (projected) | 5,850 | 11.4% | 160,077 | 1.2% |
| 2030 (projected) | 6,381 | 9.0% | 161,277 | 0.7% |
| 2035 (projected) | 6,595 | 3.3% | 160,451 | -0.5% |
| Projected Build-out | 13,144 | 174.2% (increase from 2000) | | |
| Sources: U.S. Census Bureau. Census. Population projections provided by Donahue Institute | | | | |

Land Use Patterns

In recent years, Hadley has faced several issues related to its growing population and the new development required to accommodate it. As noted above, Hadley's total population increased nearly 10 percent from 2000 to 2010(see **Chart 4-1**). Predicted to continue, although at a slower pace, this level of population growth requires creative solutions to accommodate new residents while preserving and maintaining Hadley's rural character.

Hadley lost 2,913 acres of cropland between 1971 and 2005, although it appears about 1000 acres of this cropland were converted to pasture (still remaining in agricultural use), for a net cropland loss of 1,913 acres (see **Chart 4-2**). This change indicates that 1,000 acres of farmland was taken out of active cultivation and turned over to uncultivated pasture, while 1,913 acres were converted to other uses. Over this same time period, urban land use increased by 665 acres, including 448 acres of residential use, 200 acres of commercial use, and 17 acres of industrial use. Most of the residential growth has been in the form of large lot development, or lots over .5 acre in size.



Hadley Farmland

Hadley's current land use is presented on the map, "Land Use, 2016 Master Plan", which is included in this plan. Farmland losses and development increases are illustrated on the map "Changes in Agricultural Land (1971-2005)" which is included in this plan. Hadley's increase in population between 1970 and 2010 corresponds with the increased consumption of land in Hadley.



View Mt. Holyoke, Hadley

Accompanying the loss of 925 acres of open space from 1971-1999 (see Chart 3-3) was an increase in lot size. In 1970, the average acreage of developed land per person was 0.29. By 2000, this number increased to 0.35, indicating that along with a rise in both population and developed land, there was also an increase in the amount of developed land per person. Over time, development patterns have shifted from the historic, compact centers to conventional single family large lot subdivisions.

Another major shift in land development patterns is that residential development has spread past the town

center and into the outlying areas of town. The relatively compact development pattern in the Hadley Center and North Hadley Center helped maintain the small town character that attracted many Hadley residents. Most development prior to 1971 was located around interconnected roads in the center of town while new development has ventured further from this compact pattern. Much of this development came at the price of agricultural land; between 1971 and 1999, 8.5 percent of the town's agricultural land was lost to development.

Chart 4-2 on the following page summarizes the land use changes from 1971 through 2005.

In utilizing this data it should be noted that, beginning in the 1950's the State of Massachusetts started an ongoing program of land use data collection of its cities and towns. Originally conducted by William MacConnell and the University of Massachusetts, the land use patterns of Massachusetts communities have been documented through the analysis and interpretation of aerial photography. Hadley's aerial photographs were again taken and analyzed in 1971, 1985, 1997 and most recently in 2005 (the 2005 data was produced by the Sanborn Company). There are a number of considerations that need to be taken into account when reviewing and comparing the data contained in these land use interpretations and mappings:

1. The need to aggregate land use categories into those identifiable from aerial photography and comparable over several decades of analysis, may result in some categories offer misleading information because of limitations of the technology and methodology. An example of this is how "Wetland" was categorized. This category did not necessarily reflect the vast majority of acreage consisting of Bordering Vegetated Wetlands, a resource area regulated under the Wetland Protection Act.
2. The 2005 aerial photography interpretation changed some of the classifications and created some new ones including:
 - a. "Forested Wetland" – prior to 2005 forested wetlands were not included in the "Wetland" category, but were included in the aggregate total of "Forest" lands. However, for the 2005 aerial photographs a new classification of "Forest Wetland" was established, which now changed the aggregate for the former Forest and Wetland (now labeled "Non-Forested Wetland") acreages from prior years.
 - b. "Residential Very Low >1 acres lots" was previously included in "Residential Greater than ½ acre lot"
 - c. "Open Land" no longer includes power lines.
 - d. "Urban Open, parks, institutional, cemeteries" was split into separate classifications
3. Because of technological advances in aerial photography and the ability to analyze and interpret them, the 2005 data is substantially more accurate than the data from previous years. Prior to 2005 the land use data was manually interpreted from aerial photographs. Beginning in 2005 the land use map was derived directly from an ortho image.

While all of the above new methodology maintains much compatibility with the older system, it also explains some of the significant changes in land uses since 1997 which previously may have been misinterpreted or classified and have skewed the percentage of change from 1997 to 2005.

Chart 4-2.

Hadley Land Use Change 1971-2005

| Land Use | 1971 | | 1985 | | 1997 | | 2005 | | '71-'85 | '85-'97 | '97-'05 |
|-----------------------------|--------|------------|--------|------------|--------|------------|--------|------------|----------|----------|----------|
| | Acres | % of Total | Acres | % of Total | Acres | % of Total | Acres | % of Total | % Change | % Change | % Change |
| Crop Land | 7,274 | 46.1% | 6,993 | 44.3% | 6,608 | 41.8% | 4,361 | 27.7% | -3.9% | -5.5% | -34.0% |
| Pasture | 704 | 4.5% | 685 | 4.3% | 685 | 4.3% | 1704 | 10.8% | -2.7% | 0% | 59.8% |
| Forest | 4,629 | 29.3% | 4,564 | 28.9% | 4,525 | 28.7% | 4,265 | 27.1% | -1.4% | -.9% | -5.8% |
| Wetland/Forest | - | - | - | - | - | - | 750 | 4.8% | - | - | |
| Wetland | 69 | .4% | 69 | .4% | 64 | .4% | 594 | 3.8% | -.7% | 0% | 82.8% |
| Mining | 2 | 0% | 5 | 0% | 7 | 0% | 0 | 0% | 150.0% | 40% | -100.0% |
| Open Land | 359 | 2.3% | 357 | 2.3% | 251 | 1.6% | 251 | 1.6% | -.6% | -29.7% | 0% |
| Active Recreation | 158 | 1.0% | 158 | 1.0% | 213 | 1.3% | 124 | .8% | 0% | 34.8% | -41.8% |
| Spectator Recreation | 38 | .2% | 30 | .2% | 30 | 1.9% | 50 | .3% | -26.7% | 0% | 66.7% |
| Recreation/ Water | 6 | 0% | 6 | 0% | 9 | 0% | 9 | .1% | 0% | 50% | 0% |
| Res. MF | 4 | 0% | 4 | 0% | 18 | .1 | 29 | .2% | 0% | 350.0% | 61.1% |
| Res. <¼A Lot | 0 | 0% | 0 | 0% | 0 | 0% | 2 | 0% | 0% | 0% | 200.0% |
| Res. ¼-½A Lot | 559 | 3.5% | 716 | 4.5% | 786 | 5.0% | 615 | 3.9% | 28.1% | 9.8% | -21.8% |
| Res. >½A Lot | 529 | 3.3% | 612 | 3.9% | 869 | 5.5% | 894 | 5.7% | 15.7% | 42.0% | 2.9% |
| Commercial | 142 | .9% | 218 | 1.4% | 295 | 1.9% | 343 | 2.2% | 53.5% | 35.3% | 16.3% |
| Industrial | 42 | .3% | 43 | .3% | 58 | .4% | 59 | .4% | 2.4% | 34.9% | 1.7% |
| Urban Open | 162 | 1.0% | 172 | 1.1% | 217 | 1.4% | 257 | 1.6% | 6.2% | 26.2% | 18.4% |
| Transportation | 71 | .4% | 79 | .5% | 92 | .6% | 82 | .5% | 11.3% | 16.5% | -10.9% |
| Waste Disposal Junkyards | 30 | .2% | 49 | .3% | 51 | .3% | 27 | .2% | 63.3% | 4.1% | -47.0% |
| Water | 940 | 6.0% | 936 | 5.9% | 936 | 5.9% | 991 | 6.3% | -.4% | 0% | 5.9% |
| Orchard/ Nursery | 76 | .5% | 88 | .6% | 77 | .5% | 135 | .9% | 10.5% | -12.5% | 75.3% |
| Successional Brushland | - | - | - | - | - | - | 200 | 1.3% | - | - | 200.0% |
| TOTAL | 15,794 | | 15,784 | | 15,791 | | 15,742 | | | | |
| Source: Mass GIS | | | | | | | | | | | |

Land in Hadley is currently divided into 3067 parcels, according to data provided by the Hadley Board of Assessors, with 58% of all parcels being residential, 15% being farm and forest land (about 2/3 protected in Chapter 61-61a), and 9% being commercial/industrial/mixed use.

Chart 4.4a Parcel Inventory Summary

| CATEGORY | # OF PARCELS |
|---|---------------------|
| Residential | 1776 |
| Condos | 0 |
| Commercial | 166 |
| Industrial | 14 |
| Mixed Use | 88 |
| Chapter | 314 |
| APR | ** |
| Other Ag Land "393" | 154 |
| Vacant Land | 380* |
| Tax Exempt | 175 |
| TOTAL | 3067 |
| *Note: Vacant count total includes 40 parcels with use code of 106. | |
| ** Note: Data not available from Assessors | |

Hadley had, as of the date of this plan, 340 vacant land parcels. There are a total of 292 vacant residential parcels with 932 acres of residential land, and a total of 40 vacant commercial parcels with 104 acres of land. There are 112 developable or potentially developable residential parcels, and 21 developable commercial or industrial parcels. If all of these parcels were developed, there would be significant impacts on Hadley's rural character, and potential impacts on the school system.

Chart 4.4b Summary of Vacant Land in Hadley

| CATEGORY | # OF PARCELS |
|---------------------------|---------------------|
| Residential | 302 |
| - Developable | 94 |
| - Potentially Developable | 18 |
| - Undevelopable | 190 |
| Commercial | 36 |
| - Developable | 20 |
| Industrial | 2 |
| - Developable | 1 |
| TOTAL | 340 |

Zoning

Zoning 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 finally "built out"—that is, there is no more developable land left. Therefore, in looking forward over the master planning period, it is critical that the town focus not on the current use and physical build-out today, but on the potential

future uses and build-out that are allowed under the town's zoning map and zoning bylaws. Zoning is the primary land use tool that the town may use to manage development and direct growth to suitable and desired areas while also protecting critical resources and ensuring that development is in keeping with the town's character.

Hadley has six base zoning districts and five overlay districts. The base districts define the allowed uses and dimensional requirements in all parts of the town, while the overlay districts provide for additional restrictions in certain areas. These districts are described below, and are shown in **Chart 4-5**.

**Chart 4-5
Hadley Zoning Districts**

| Zoning Districts | Acres | Percentage |
|---------------------------------|--------------|-------------------|
| Agricultural – Residential (AR) | 13,231 | 83.9 |
| Residential (R) | 191 | 1.2 |
| Business (B) | 781 | 4.9 |
| Limited Business (BL) | 319 | 2.0 |
| Local Business | 106 | 0.6 |
| Industrial (I) | 1,125 | 7.1 |

Source: Mass GIS, PVPC

Residential: This district allows primarily single family residences with a minimum lot size of 22,500 sq. ft. This is small district located between Rocky Hill and Mount Warner Roads.

Agricultural-Residential: This district is spread through the majority of the town and permits single family homes with a minimum lot size of 30,000 sq. ft.

Business: This district, spread along the majority of Route 9 and a large portion of Route 47 south of Route 9, permits offices, banks, and retail businesses. The only size limitation imposed is on the structure's height (2.5 - 3 stories).

Limited Business: This district is along the majority of Route 47 north of Route 9 and permits businesses of a lesser scale than the Business District. Business size on any one lot shall not exceed 2,500 sq. ft and many uses are permitted only by Special Permit granted by the Planning Board.

Local Business: This district is along a section of Route 47 south of Route 9 and permits businesses of a lesser scale than the Business District.

Industrial: This district, located north and south of the eastern half of Route 9 and encompassing the entire Hadley portion of the UMASS campus along Route 116, permits any use permitted in the Business District plus manufacturing and industrial uses.

Hadley's Overlay Districts further regulate land use within the community. These include:

Aquifer Protection District: This overlay district sets forth standards, rules and permitting procedure for uses that are located within the town's drinking water source recharge areas.

Wireless Communication Services District: This overlay district establishes the location (town owned land, and all land within the Business and Industrial Districts) which may contain personal wireless facilities (cell towers). It contains a thorough application procedure and review criteria.

Village Center Overlay: This district, located along the western sections of Route 9 outlines colonial architectural standards for the area.

Flood District Overlay: This district establishes standards to protect against flood related damages within the areas designated Zone A and A1-30 on the Hadley Flood Insurance Maps.

Commercial Site Plan Review

The Zoning Bylaw establishes a Commercial Site Plan Approval procedure for all business, industrial, and commercial buildings within the Business, Limited Business and Industrial Districts. Site Plan Review allows the Planning Board the ability to review the development proposal to ensure that the basic safety and welfare of the people of Hadley are protected.

Zoning Map

Hadley's zoning map denotes a Business District that extends as a commercial strip, the entire length of Route 9 in Hadley, from the Northampton town line to the Amherst town line. Hadley's zoning map also denotes a Limited Business District and a Local Business District, which together extend as a commercial strip, nearly two-thirds of the length of Route 47 in Hadley. There is a third highway strip along Route 116, which is zoned Industrial. Most of the rest of Hadley is zoned Agricultural-Residential.

Hadley's zoning is presented on the map, "Zoning, 2015 Master Plan" which is included in this plan.

Hadley has utilized these commercial zoning strips, in part, as a defensive mechanism to prevent development of farmland throughout the town. However, the result of this zoning has been the extensive commercial strip development along most of Route 9, which is highly auto-oriented.

Build-out

According to a recent build-out study prepared by PVPC using a methodology developed by the Massachusetts Executive Office of Environmental Affairs, Hadley has enough buildable land to accommodate more than 8,000 additional residents if all the land is developed in accordance with current zoning. It should be noted that the build-out study provides a general estimate of growth potential. Future land use decisions such as zoning changes, land preservation efforts, or Comprehensive Permit applications, could increase or decrease the build-out potential. In addition, the build-out study does not attempt to estimate how quickly the town will reach build-out, if ever. The rate of growth is highly dependent on regional and national economic and real estate trends.

The impacts associated with build-out are described in **Chart 4-6** below.

Chart 4-6
Potential Impacts of Build-Out Development

| Potential Impact Area | Multiplier | Total Impact |
|---|--------------------------|--------------------------|
| Developable Land | -- | 8,805 acres |
| New Residential Dwelling Units | -- | 2,880 units |
| New Commercial/Industrial Dev't | -- | 12,551,922 sq. ft. |
| New Residents | | 8,351 |
| New Public School Students | 0.41 students/dwelling | 1,193 |
| Total Additional Water Demand | 161 gallons/person/day | 1.34 million gallons/day |
| Total Additional Solid Waste | 1,026 pounds/person/year | 24,297 tons/year |
| (Includes recycled and non-recycled solid waste generation) | | |
| Miles of Roadway | | 58 miles |

Source: Pioneer Valley Planning Commission buildout analysis, spring 2000.

Discussion of Build-out Analysis Results

The build-out analysis represents a snapshot of the potential amount of development that could occur under the zoning controls in place at the time of the study (2000). However, it is unlikely that the actual build-out will be exactly as predicted. One major reason is that, as a result of this Master Plan, the town can make decisions that influence the build-out by amending zoning laws, setting aside land as open space, or providing incentives to encourage certain types or patterns of development. In fact, one purpose of the Master Plan is to propose policy changes that will bring the town's build-out scenario in line with its goals for the future.

The buildout analysis presents several challenges and implications for future planning in Hadley. Specifically:

- Full build out of the town would result in more than 8,351 new residents, a 174 percent increase from the 2000 population. This growth will be accompanied by commensurate increases in the demand for water, sewage disposal, schools and other public services, and solid waste disposal. Of the potential 2,880-plus new housing units, almost all are expected to be single-family houses.
- Given the implications for build-out in Hadley, the town needs to continue to effectively employ tools for land conservation, such as the state's Agricultural Preservation Restriction Program, and the town's Transfer of Development bylaw. The town also needs to develop additional zoning mechanisms to encourage creative types of development that are more in keeping with the town's goals and vision.

GOALS

This section provides additional analysis of the land use trends in Hadley in relation to the goals and objectives identified by the town. Later sections will discuss the strategies being proposed to help realize these goals and objectives.

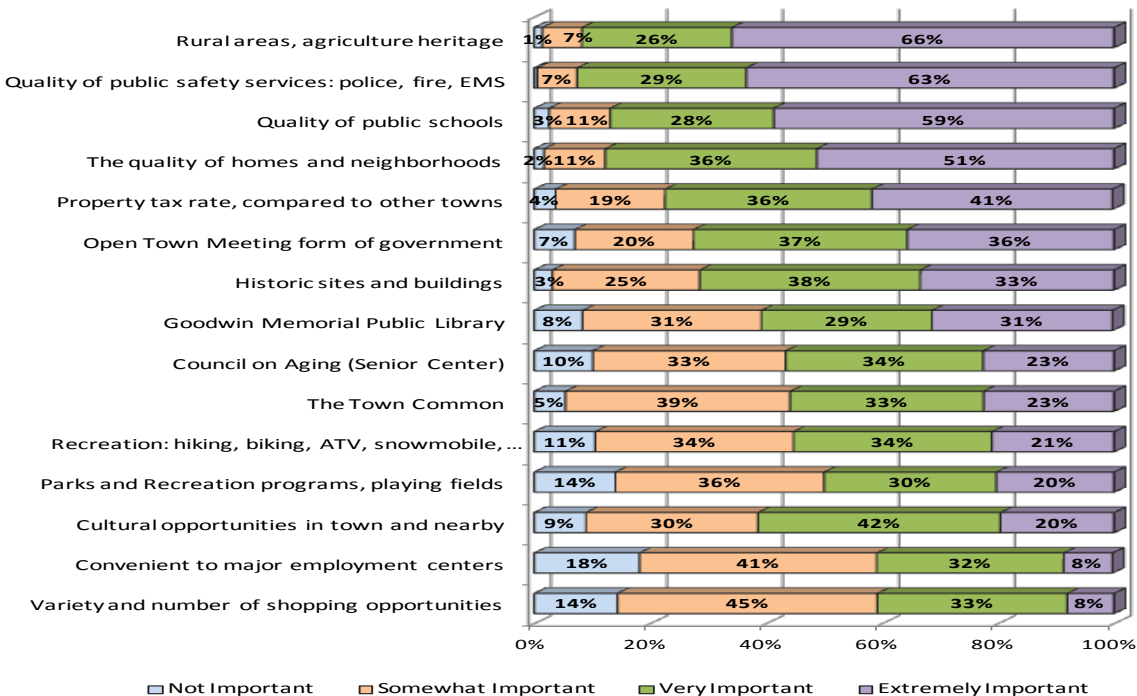
Goal 1: Maintain Hadley's Rural Appearance and Small Town Feel.

Specific Objectives:

- Focus new development in sections of town that have the infrastructure and environmental conditions to accommodate growth and limit development in rural and environmentally sensitive areas.
- Limit new commercial development to Route 9 and other identified areas while prohibiting new commercial development on Bay Road, North and South Maple Streets and other agricultural, residential or sensitive areas.
- Ensure that any new development on Route 47 is appropriate for and sensitive to the surrounding neighborhoods and environment.
- Manage new development through appropriate regulation and limit overall size of new buildings.

As Hadley develops with new subdivisions, new strip malls, and new large retail establishments, the rural character of the community slowly gives way to a more suburban character. As demonstrated in the survey responses, the people of Hadley seek to balance appropriate development with the rural characteristics of their community (See Chart 4-7). 99% of survey respondents identified the town's rural areas and agricultural heritage as the most important aspect of living in Hadley. This balance is an integral part of this Master Plan and the strategies outlined throughout seek to achieve this balance over time.

Chart 4-7
How important are the following aspects of living in Hadley to you?



Currently, Hadley does not have sufficient zoning tools to direct new development to areas where the infrastructure and environmental conditions support such development. For example, Hadley should promote expanded use of its Transfer of Development Rights bylaw, and establish zoning incentives for growth in and around existing village centers and zoning disincentives for growth in farmland and environmentally sensitive areas. Hadley should also consider establishing de facto growth boundaries, utilizing the above zoning in combination with water/sewer extension limits.

As demonstrated in **Chart 4-3**, the open space of Hadley is giving way to residential and commercial development at an increasing rate. In addition, under existing zoning large commercial development is permitted in areas, such as Route 47 south of Route 9, that are not appropriate for such use. 72% of the survey respondents felt that residential development on agricultural land should be discouraged, signaling a need for the town to create alternative solutions for residential growth.

Appropriate land use strategies would channel this development to areas in town where the infrastructure (sewer, water, road system) and the environment (water resources, agricultural soil, core forests) would support such development. This channeling could take place through a combination of Transfer of Development Rights and creative zoning that would permit increased density and a mixture of uses in certain areas.

Hadley residents would also like to manage and control future commercial development and limit such development to the established commercial areas along Route 9. 86% of survey respondents felt that the variety and number of shopping opportunities was one of the most important aspects of living in Hadley. While 60% believed that encouraging more commercial development was an important general development goal for the town's future, 97% felt that managing and controlling the commercial development was also an important general development goal. 98% of survey respondents preferred commercial growth of more small, locally owned stores while only 34% would like to see more large national chain stores.

Managing future development through existing and enhanced permitting structures such as Site Plan Review and Design Review could strengthen the town's ability to guide development in a manner consistent with local goals and values. In addition, reviewing and modifying the uses allowed in the Industrial and Business District would ensure that future construction is in keeping with the goals of the people of Hadley.

Key Strategies:

- A. **Discuss Strengthening the Town's Site Plan Review Bylaw and Process:** The town should look at ways to modify and strengthen the current Site Plan Review Bylaw and coordinate it with the Design Guidelines to ensure that development and redevelopment are consistent with the scale, massing and character that the town is trying to achieve. The Boards should be pro-active in working with developers to develop projects that are a visual asset to the community and promote Hadley's small town New England rural character.
- B. **Discuss Strengthening and Update Floodplain Regulations:** Increase restrictions on development in the 100-year floodplain, including a list of specific prohibited uses (i.e. gas stations, businesses using hazardous chemicals, mobile homes), requirements for elevating structures and stronger limitations on allowable uses.
- C. **Discuss Creative Development to Control ANR (Approval Not Required) Residential Sprawl:** Reduce incremental ANR large-lot development along Route 47 and other town roads. Adopt a

Creative Development Bylaw that provides strong incentives for off-road clustered development, and disincentives for on-road large lot development. Creative development preserves open space along town roads and permits.

- D. **Discuss Controlling Commercial Sprawl along Route 9:** Rather than continuing to rely on single Business Zoning District along the full length of Route 9, Hadley should divide the corridor into districts of varying intensity and purpose, including: a Historic Village Center District with design guidelines in the town center; a High Intensity Commercial District in the mall area which can encourage the emergence of a "walkable downtown" with building streetlines in this area; and a Low Intensity Commercial/Multi-family Residential District to reduce sprawl in the remaining Route 9 areas.
- E. **Discuss Minimizing Commercial Sprawl along Route 47:** The current Hadley zoning allows many business uses by Special Permit in the Limited Business District, which runs along 2/3 of the length of Route 47, including retail businesses, personal and consumer services, banks, professional offices and others. As traffic levels increase and Route 9 builds out, there will be considerably more development pressure on the Route 47 corridor, which is a designated National Scenic Byway. Use regulations should limit business development to farm-related operations to better protect this scenic corridor.
- F. **Discuss Billboard Removal and Sign Control:** Hadley's character is negatively impacted by the large number of billboards and very large tall signs on Route 9. Billboards should be phased out through amortization and removal under the authority of the Massachusetts Outdoor Advertising Board, and through locally adopted billboard restrictions. Large signs should be phased out by improving zoning regulations for signs to reduce height and size maximums and restrict interior lighting.
- G. **Discuss Protection of Hadley's Scenic Vistas:** Much of Hadley's rural appearance is the result of the many undeveloped lands that provide vast scenic vistas. This includes large areas of concentrated farmlands and working farms, viewsheds of the Connecticut River and the ever dominant Holyoke Range and Skinner State Park. Discussion could include Ridgeline and River Protection Zoning.

Goal 2: Enhance the Town Center as a Livable, Workable, and Walkable Community Center.

Specific Objectives:

- Allow for the appropriate use, development and redevelopment of land in the town center to facilitate the creation of a true New England town center.
- Improve and/or create pedestrian network in and around town center.
- Create consistent sign, streetscape and architectural themes.

Hadley's historic town center contains the Town Hall, Town Library, Senior Center, Farm Museum, Hopkins Academy, the Russell School building, and numerous businesses. Historic homes surround the center along Middle Street and the Town Common along West Street. The Norwottuck Rail Trail bike path runs through the center, connecting Hadley with Amherst and Northampton. The center is dominated by the intersection of Route 9 and Route 47, two of Hadley's most heavily traveled roadways.

This intersection presents Hadley with its greatest challenge in regards to preserving the historic qualities of

the town center. As MassDOT moves forward with their plans for widening Route 9, the town will have to work with Mass Highway to ensure that the historic character of the town center is preserved and even enhanced. Pedestrian connections should be strengthened, signage should be consistent and historically sensitive, trees and landscaping should be retained and enhanced, and the amount of asphalt should be minimized through landscaped islands, alternative paving and other strategies. It is critical that the town work with state and elected officials to insure that the Route 9 project takes into account the needs of Hadley residents, and not just the desire to have a wider, faster moving traffic artery running through the town for the benefit of others.

The town center is currently zoned for conventional commercial development, similar to that permitted further to the east along Route 9. The town center benefits from having a Village Overlay District in place that somewhat guides the architecture of the district; but otherwise, the zoning does not necessarily reflect the historic and rural character of the center. Future development within the town center should be of a kind that enhances the characteristics of the center and helps to create a livable, workable, and walkable town center. Such development should be at a pedestrian scale with parking to the rear or side of the structure, should be constructed of quality materials that reflects the historic surroundings, and should strengthen the economy of the center by allowing suitable shops and mixed use.

Key Strategies

- A. **Discuss Promoting Mixed Use Village Center Development:** Amend the Village Center Overlay District to create incentives for a Mixed Use developments, including business, retail, residential and civic uses, in an overlay district consisting of village centers.
- B. **Discuss Promoting Development Supporting Norwottuck Rail Trail:** Create zoning incentives for recreation-based (bike shops, rentals) and dining businesses along the Norwottuck Rail Trail. Incentives could include reduced setbacks and lot sizes.
- C. **Discuss Promoting Traditional Neighborhood Development:** In residential areas surrounding the town center, and North Hadley, promote Traditional Neighborhood Development (TND). TND replicates the layout, density and amenities of traditional New England town neighborhoods. Homes are built on smaller lots in block format around greens or commons, with sidewalks and a mix of uses.

Goal 3: Ensure New Development is in Keeping with Character of Hadley's Landscape and Architecture.

Specific Objectives:

- Administer and enforce the Planning Board's Design Guideline's to ensure that new development and redevelopment reflect Hadley's architectural heritage, character and preferences.

The Town of Hadley values its historic and architectural heritage. 84% of survey respondents felt that promoting traditional New England-style architecture was the most important general development goal for Hadley's future. Furthermore, 96% identified improving the look of the town center as a top solution that they'd support. The Planning Board recently adopted Design Guidelines to strengthen the design of new development within the Village Overlay District. Design guidelines have been used across the Commonwealth to strengthen economic development initiatives and protect communities' valuable heritage

and character. As part of the town's existing site plan review process, the Hadley Historical Commission reviews project site plans and makes recommendations to the Planning Board based upon consideration of the project's exterior appearance and overall architectural design.

Key Strategies

- A. **Discuss Creating a Walkable, Attractive New Village Center or Downtown Style Development:** Build vertically and create streetlines in the village center and along Route 9: Develop new commercial development regulations with incentives or requirements for multi-story buildings and buildings that create a pedestrian-friendly streetscape. Examples include increased height limits, maximum set-back requirements, sidewalk requirements.
- B. **Discuss Adopting Green Development Performance Standards:** Adopt standards for green development including limits to site disturbance and tree removal, passive solar siting, landscaping and water conservation, parking and trip reduction, bicycle and pedestrian access.
- C. **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.
- D. **Discuss Promoting Home Occupations and Cottage Industries:** Develop a new bylaw to permit the development of home occupations and cottage industries within existing residential structures, with adequate protections for neighborhoods.

Goal 4: Protect, Enhance and Strengthen Agricultural Lands.

Specific Objectives:

- Ensure that development on and near agricultural lands is sensitive to the value of the agricultural resource.
- Create "Purchase of Development Rights" program and enhance Transfer of Development Rights program to help pay for the preservation of farmland.
- See separate Agricultural element in Chapter 7 for additional goals and objectives.



Hadley's Agricultural Heritage

The Town of Hadley is an agricultural community with some of the most valuable and productive farmland in the Commonwealth. However, this resource is under threat from development, both residential and commercial, and parcel-by-parcel the town is losing the agricultural lands that define the community. As

discussed in subsequent sections of this report, the agricultural heritage of the Town of Hadley reaches far beyond the land and includes quality of life issues and economic development issues. 99% of the survey respondents felt that the town's rural areas and agricultural heritage was the most important aspect of living in Hadley. 98% felt that supporting local farms and agricultural business was the most important general development goal for Hadley's future.

Current development is not very sensitive to agricultural resources. Often, the valuable top soil is stripped off the site and sold. Farmable portions of the site are taken for home sites or parking lots and traditional field access points may be blocked by fences or new lawns. The town should pursue strategies that preserve these valuable farmlands.

Specific zoning provisions, such as an Agricultural Preservation Residential District and Open Space Protection Subdivision Design, could be adopted that protect the most valuable farm land.

The town strongly supports the outright protection of agricultural lands through purchase, development rights transfers, or other mechanism. 95% of survey respondents felt that preserving more agricultural land was the most important general development goal for Hadley's future". The top solution that survey respondents would support (78%) was that the town needed to "Find new ways, in addition to APR, to preserve open land. The Transfer of Development Rights provisions would be critical as it would allow farmers to receive money for the development rights of their parcels while ensuring the perpetual protection of the agricultural property. In addition, the development rights could then be used to bolster the development potential of areas in town where development is preferred such as the Route 9 corridor. The Transfer of Development Rights concept is a cornerstone of this Master Plan and is explored in detail in the Strategies Section.



Agriculture is an Integral Part of the Community Fabric

Key Strategies:

- A. **Discuss Strengthening the Transfer of Development Rights Bylaw:** Hadley has an effective existing TDR bylaw, which has protected hundreds of acres of farmland. This bylaw should be strengthened with additional incentives for landowner participation, and ease of use.
- B. **Discuss Reviewing Subdivision Plans for Farmland Impacts:** Require adjacent agricultural land uses to be identified on subdivision plans and work to avoid conflict of land uses in the planning process. Use Subdivision review process to encourage use of creative development procedures when farmland is impacted by development.
- C. **Discuss Leasing Town-Owned Land to Farmers:** Identify parcels of underutilized town-owned land that have good farmland soils, and make them available for lease to farmers.
- D. **Discuss Agricultural Preservation Funding:** Continue the town's efforts funding the purchase of the development rights for farmlands and to provide required matching funds for the state's Agriculture Preservation Restriction program. Support this fund with annual town budgeted contributions, funds raised through TDR transactions, and enable private and business contributions as well.

Goal 5: Work with Route 9 Businesses to Enhance Their Business Opportunities

Specific Objectives:

- Provide an opportunity to engage with the business community to address a number of issues

While the issue wasn't raised in either the Master Plan's community survey or at the public forum, the business Stakeholder Interviews elicited some strong opinions about the need to make the town's sign regulations more "business friendly." They were felt to be too restrictive for sites with multi-uses, the difficulty being that everything had to be on one main marquee sign which is too small to accommodate them. This not only made it difficult for developers to negotiate with potential retail renters, but college visitors have one shot to see where retail is, so signage is very important. It was also noted that this actually encouraged the projects/parcels to be subdivided so you could have more signs instead of doing a single development.

While the Planning Board is cognizant of this issue, they also note that there have been prior efforts to loosen up the sign regulations that failed to gain Town Meeting approval. There is a significant segment of the community that sees additional signage as visual pollution detracting from the character and appearance of the community.

A second major concern raised by the retail community was the effect of the natural gas tie-in moratorium currently being imposed by the natural gas utility companies. The utilities believe that they have a delivery/distribution deficiency in providing adequate supplies to portions of Hampden, Hampshire and Franklin Counties. This moratorium on new tie-ins has resulted in the inability of certain natural gas dependent uses (i.e. restaurants) from opening up or filling existing vacant restaurant venues without having to install propane, which many sites cannot retrofit for.

Key Strategies:

- A. Discuss the Planning Board Conducting Periodic "Listening Sessions":** to open up a dialogue with the business community relative to mutual interests and conflicts
- B. Discuss Reviewing the Town's Sign Regulations:** to balance the need for businesses advertising their presence while avoiding an overabundance of signs and reducing visual pollution.
- C. Discuss Working With the Utilities:** to remove the natural gas moratorium on commercial tie-ins

Goal 6: Work with UMASS and Other Area Colleges to Ensure that their Plans are Consistent with the Master Plan and Hadley Interests and Address Off-Campus Issues.

Specific Objectives:

- Open a dialogue with UMASS and other area colleges and meet with college representatives on an ongoing basis to discuss concerns and plans for the future.

Whether its reality or perception, the Stakeholder Interviews raised issues about the relationship between the town and the University of Massachusetts. The relationship can be complicated. While the University is

seen as a positive attribute to living in Hadley (it employs a large percentage of Hadley residents, it provides many cultural activities and it has made the area somewhat “recession proof”), it is also seen as the cause for some of Hadley’s most impactful negative attributes (i.e. traffic and student housing). The concern over off-campus student housing in town, the conversion of older large single-family homes in established neighborhoods into rental student housing and the impact of “party houses” and unruly behavior (real or perceived), has had a negative impact on the town’s consideration of multi-family developments (even two and three-family dwellings). This has contributed to the almost exclusive construction of detached single-family homes in town which is becoming more and more expensive and becoming out of reach of many people, including Hadley residents. While the University has limited influence over off-campus student housing issues, they do conduct periodic meetings with Hadley public safety officials as well as the Select Board.

Key Strategies:

- A. **Discuss Improving Town-Gown Interaction:** The Town of Hadley and the University of Massachusetts should consider developing a more formal and robust collaborative effort to work together in the coordination of projects and other activities that are in their mutual interest similar to the Town Gown Collaborative that the University has with the neighboring town of Amherst (<http://www.umass.edu/utac/>) which has similar issues.

Goal 7: Assess and Address the Town’s Short-Term and Long-Term Planning Administrative Needs

Specific Objectives:

- With anticipated changes in Planning Board membership and the expanding role and responsibilities of Planning Boards, expanded professional planning assistance should be sought.
- Improve the Planning Board’s administrative and operational efficiency by expanded use of Information Technology (IT)

One of the major strengths of the Planning Board is the extended tenure of most of its members. Until the recent passing of one long-term member the Board collectively had over 100 years experience of serving on the Planning Board. This has led to a long-term stability, consistency and continuity in the Board’s activities and actions providing them with a broad width of experience and exposure to a variety of intricate and complicated planning issues. This breadth of experience and dedication has also allowed the Board to function smoothly without benefit of administrative assistance or a full-time professional Planner. The Board’s functions and responsibilities are well managed and delegated amongst its members and it has developed a beneficial long-term relationship with the Pioneer Valley Planning Commission to provide specified municipal planning services on a contractual basis for the past 13 years.

But the town needs to look ahead where there will be an inevitable change in Board membership with new and less experienced members coming on-board without benefit of the institutional memory of the town’s past planning efforts. The roles and responsibilities of Planning Boards have increased over time and the necessity of understanding the level of sophistication and knowledge of current planning principals and best practices has increased, taxing the abilities of an all volunteer citizen board. The town has grown and is greatly influenced by activities and actions in the surrounding region, outside of its control, which needs to be responded to. The town should be evaluating the need for professional technical assistance beyond the abilities of a volunteer citizen board.

The Planning Board could also improve its administrative and operational efficiency by requiring electronic filings of information. The Board should consider that submitted applications, plans, reports and presentation include electronic (pdf) versions instead of multiple hard copies. Digital versions could be more easily and rapidly disseminated amongst the various town boards, committees and departments for their review, and would take up far less storage space than multiple hard copies. Digital versions of applications and plans can also be easily and quickly posted on the town's website making information more easily and readily accessible to Hadley resident's. Interested parties would no longer have to rearrange their schedules and make arrangements to go to the Town Hall during the regular daytime office hours to obtain information. Instead, from the comfort of their homes, they could access information relative to projects and applications on-line at their convenience. With the addition of a laptop computer and a projector, the Board's meetings and Public Hearings would become more effective as plans on a pdf platform could be projected so that all in attendance could see, including those at home watching on television. The advantage of the pdf format also allows you to zoom-in to view particular details of the plan. Currently plans are presented on an easel or spread out on the table before the Board with the applicant huddled around.

Key Strategies:

- A. **Discuss Creating a Full-Time Professional Town Planner Position:** under the direction of the Planning Board, or expand the working relationship with PVPC to assist in the day-to-day management and administration of the Planning Board's duties and responsibilities.
- B. **Discuss Appropriating Funds for the Planning Board:** to purchase adequate IT hardware and software to enable the Board to:
 - more effectively store its files and information
 - conduct its meetings and Public Hearings
 - make information more readily available to the public

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5 HOUSING

This chapter addresses housing trends and needs for the residents of Hadley. This includes a demographic and housing trends analysis, a brief analysis of housing barriers, as well as locations for potential housing development.

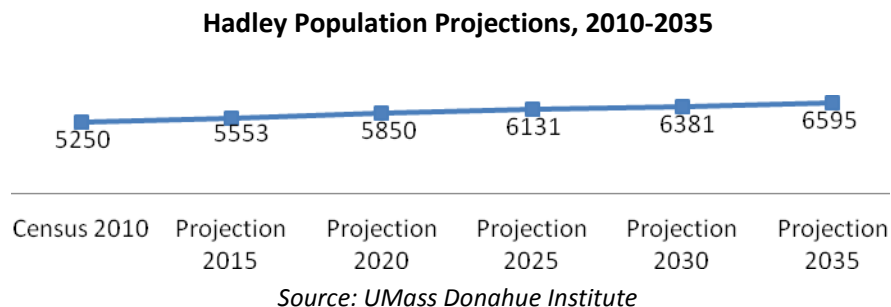
Demographic Trends

This demographic profile provides an overview of Hadley's population and household growth, as well as social characteristics of the town's population, including household composition, age, and income. This information is relevant for determining future housing trends in Hadley and how they may affect growth and the need for housing, public facilities, and services.

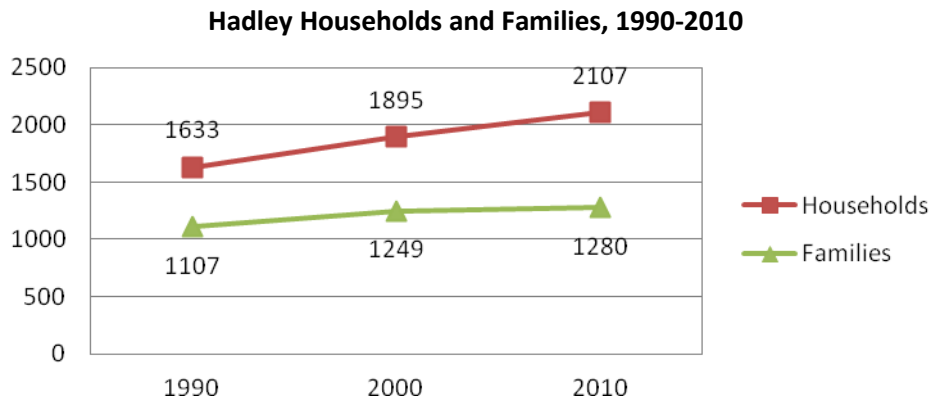
While the focus of the demographic profile is on Hadley, regional and statewide data are provided for the purpose of comparison. In some instances, information for adjacent communities is also included so that a sense of Hadley's role in the region may be established. Hadley is a member of the Pioneer Valley Planning Commission (PVPC). The PVPC area is comprised of 43 cities and towns. Hadley's neighboring communities include Amherst, Granby, South Hadley, Easthampton, Northampton, and Hatfield.

Population and Households

The 2014 American Community Survey (US Census) estimates Hadley's population at 5285, making it one of the smaller towns in its immediate area. Partly because of this relatively low starting point, Hadley is also one of the fastest growing towns in the region over the last several decades, growing by 13% in the 1990s, and 9.5% in the 2000s (compared to 3.8% and 3.8% for Hampshire County as a whole). Projections indicate modest growth to continue into the future:

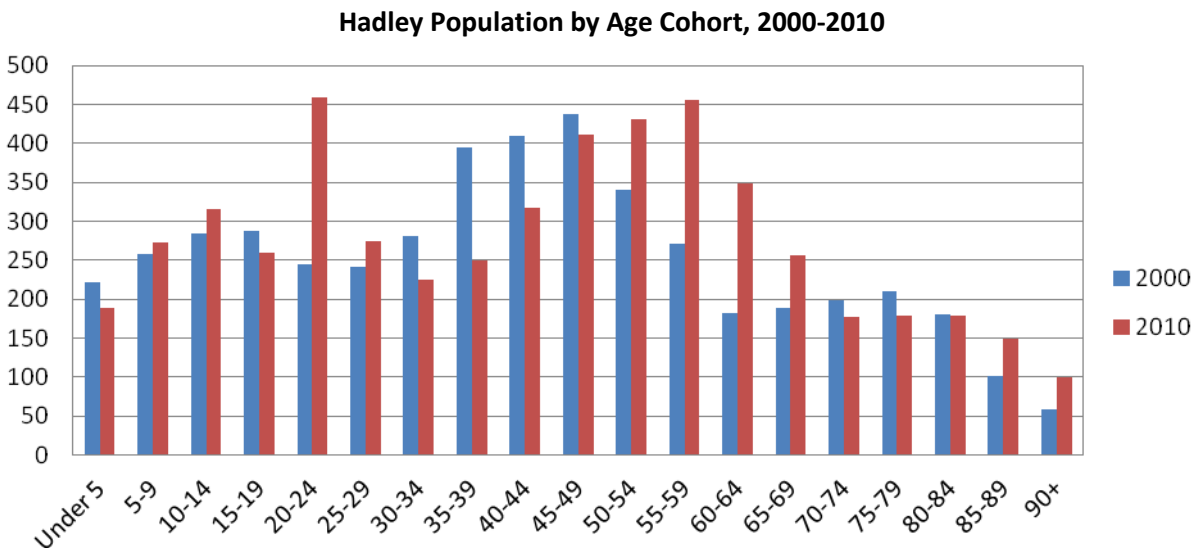


The number of households is increasing faster than the population, as household sizes decreases – the average Hadley household has 2.41 people now, compared to 2.45 in 2000. This is a common trend in many Pioneer Valley towns, where the number of families with children (and the number of children) is decreasing or growing slowly compared to households of individuals and couples and couples.



Source: US Census

This trend of decreasing household size and a slowing in the growth of family households is occurring along with an aging of the population in the Pioneer Valley. Over the next several decades, the median age will continue to increase as the large Baby Boomer generation ages. Donahue Institute projections show the retired age cohorts (70+) in Hadley rapidly increasing, which will shape housing preferences over the next few decades.



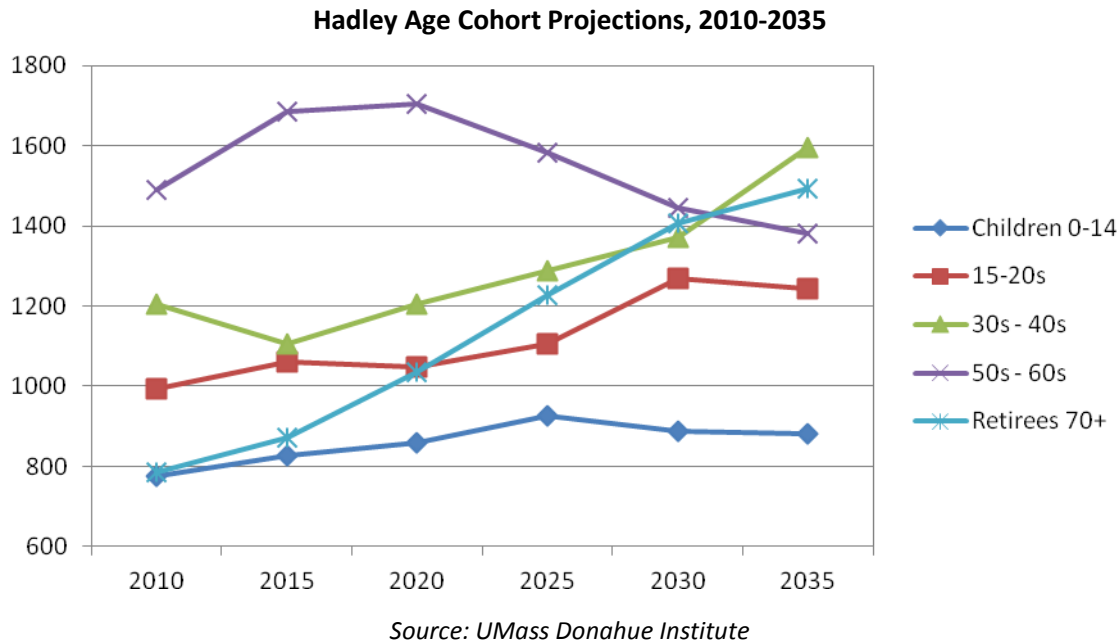
Source: US Census

Market research from around the country shows the following location trends concerning retiring Baby Boomers:

- Many baby boomers wish to age in place, staying close to their social network and children.
- In surveys, many baby boomers say they continue to prefer suburban communities, but many are seeking to downsize and live in maintenance-free homes.
- A growing portion of baby boomers are seeking walkable locations near cultural and entertainment destinations such as theaters, museums, and restaurants. College towns and successful downtowns have seen growth from this group.

- Others seek low-tax rural havens, especially those areas with natural amenities such as Cape Cod, the Berkshires, and Vermont.
- Some retirees are continuing to move to other regions of the country, especially the Sun Belt.

Finding ways for aging residents to remain in, and move to, South Hadley while accommodating demand for smaller, maintenance-free housing will be important. The town might capitalize on interest in mixed-use living close to amenities such as the village center or nearby college campuses.



Another trend visible in the age cohort charts is the recent and projected decrease in working-age adults in their 30s and 40s. Since these are also the typical parenting ages, we can expect the number of children to drop accordingly in the next decade or two, along with demand for larger multi-bedroom housing units.

The age cohort charts also shows a large increase in college-aged populations over the last 10 years. While census numbers are often not reliable concerning this group, anecdotal evidence supports this increase as well. Nearby universities continue to increase enrollment and housing costs in towns such as Amherst and Northampton have been increasing rapidly, so we expect more students will be attracted to relatively affordable housing in places like Hadley with reasonable commutes to school.

The large post-college Millennial generation is now entering the housing market in greater numbers. Several factors concerning housing are unique to this generation:

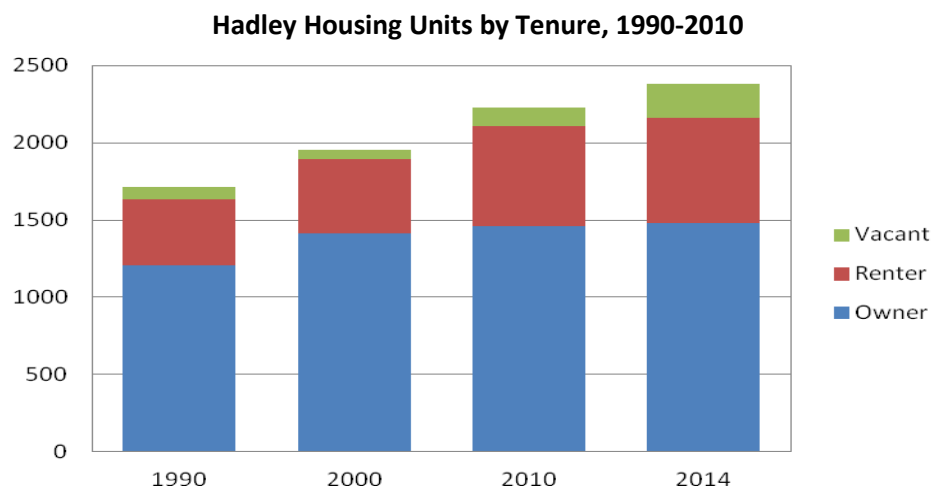
- Across the country, less-dependable employment has translated into an increasing demand for rental rather than owner-housing. This may be even more important in the Pioneer Valley where, generally, housing values do not appreciate rapidly.
- A larger share of young adults are saddled with student loan debt, and individual debt is larger than previous generations. This delays the ability to buy a home or car, and increases demand for rentals, and smaller, more affordable homes.

- Perhaps tied to the above, Millennials have been shown more willing to use public transportation, walk, or bike, and are drawn to locations where this is possible.
- In addition, young adults tend seek locations where other young adults are, especially in places with vibrant arts scenes and social amenities such as bars, restaurants, and cafes. This trend is illustrated in the ongoing revitalization of Easthampton center.
- The Millennial generation is far more ethnically and racially diverse than previous generations. When seeking housing, they seem to emphasize the racial mix of a neighborhood or school less.
- Millennials are having fewer children, later in life. Early housing choices rely less on the perceived quality of public schools. Whether this preference increases as the generation ages remains to be seen.

Generally, entry-level employment growth in the Pioneer Valley is not as robust as in other regions. As a result, Millennials are often leaving the Valley for other regions. For those remaining here, Hadley might be an attractive choice because of its location between relatively stable education and health employment nodes and in Amherst and Northampton, proximity to arts and culture centers in Northampton, Amherst, and now Easthampton, and relatively affordable housing prices and low property tax rates compared to these towns. However, Hadley's housing stock might not suit Millennial tastes, and has to compete with similar housing stocks in other Valley towns. Millennial attraction can be furthered by fostering affordable rental and starter-housing as part of mixed-use developments in desirable, walkable nodes.

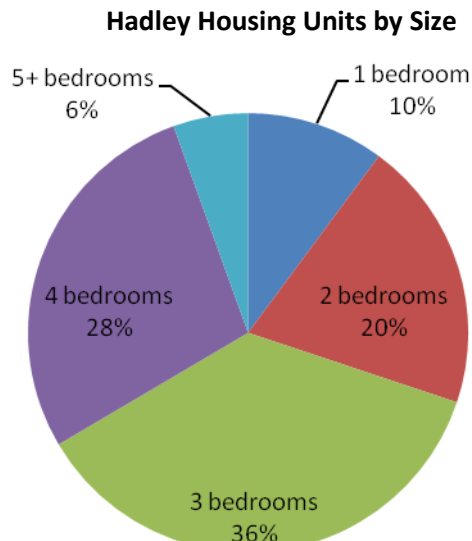
Housing Stock

Hadley has seen a steady increase of housing units over the last few decades, in conjunction with its population growth. A growing portion of units are rental housing – as of 2010, rental units constitute 31% of occupied units, which is a similar portion as Hampshire County as a whole (34%). Approximately 36% of owned homes are owned free and clear (64% are mortgaged), which is higher than the county (30%). A recent jump in the number of vacant units may reflect data collection errors, given the turnover and seasonal variation related to college rentals.

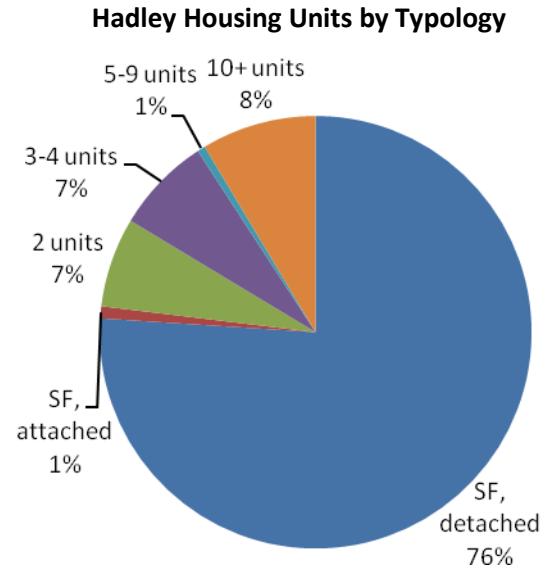


Source: US Census

The housing stock in Hadley overwhelmingly consists of single-family detached units (76% of total) and family-sized units of 3 or more bedrooms (70%). This is not surprising given the rural history of the town and its relatively recent suburbanization. The next largest housing typology is larger multi-family developments of 10 or more units (8% of Hadley's stock) – these include more recent income- and age-restricted developments.



Source: US Census, 2014 ACS



Source: US Census, 2014 ACS

Reliance on a narrow range of housing types may become problematic in the future. Only 36% of Hadley households have 3 or more people in them (and at least a portion of these households are un-related roommates, e.g. students sharing a house.) In the near-term, as household sizes continue to shrink and the population ages, many long-time residents may find themselves with over-sized homes and seek smaller and maintenance-light housing. Since there are few market-rate units geared to small households and individuals in Hadley, these households may choose to leave town.

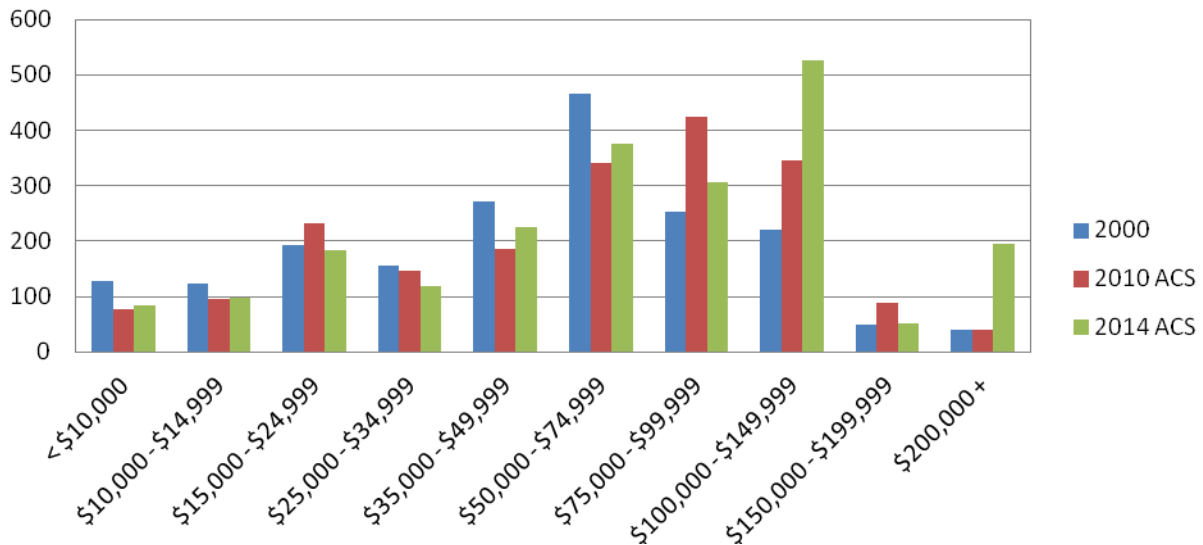
In the longer term, as the stock of larger single-family houses ages and requires higher maintenance and rehabilitation investments, high enough returns will be necessary to justify these investments. Otherwise, catering to a growing student and young adult rental demand will become an attractive option for property owners. Hadley therefore will need to continue to attract families wealthy enough to maintain the building stock and property values. For this, its location and amenities give the town an edge, though it is important to remember all other nearby towns also compete this relatively small cohort.

While a more diverse housing will address demographic trends and regional planning efforts, Hadley residents themselves might not understand its importance. The public survey completed as part of this Master Plan update found that 61% of survey respondents cited single-family houses as their preferred type of residential growth. 55% of respondents also preferred “homes for people with disabilities” and “senior housing.” Fewer respondents preferred SF homes in compact neighborhoods (39%) and mixed-use buildings (31%), while only 15% and 14% prefer apartments/condos or duplex/triplexes respectively. It should be noted that survey respondents were not representative of the town's population as a whole – for example, 79% of respondents are 45 or older.

Income and Affordability

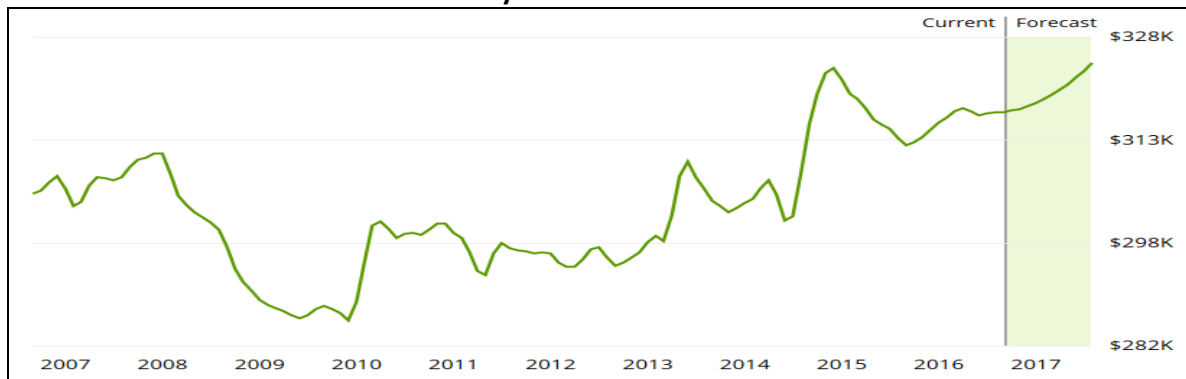
The ability to exercise housing choice depends on the amount of money a household can afford to spend on housing. The median household income in Hadley has been higher than many surrounding communities for many years and it continues to rise rapidly as residents earn more and additional high-income households move in. The current median household income is \$74,737, up from \$51,851 in 2000 (US Census ACS). By comparison, the 2014 median household income in Hampshire County was \$61,460.

Hadley Household Income Cohorts, 2000-2014 (Source: US Census)



Estimates of median housing values in Hadley vary slightly – the US Census’ 2014 American Community Survey gives a median value of \$333,500 while Zillow.com estimates it as \$317,700 in 2016. Both sources agree this is substantially higher than surrounding towns (Amherst is fairly close in value, at around \$300,000). Both sources also agree that the median value has risen since the low following the 2008 recession. Zillow estimates the median price in Hadley at \$196/s.f.; Amherst at \$192/s.f.; Northampton at \$164/s.f.; and South Hadley at \$155/s.f.

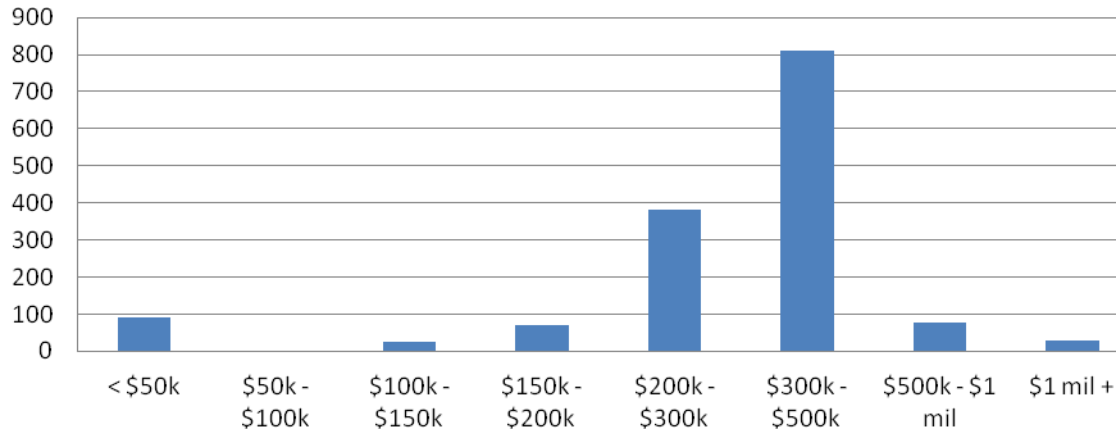
Hadley Median Home Value



Source: Zillow.com

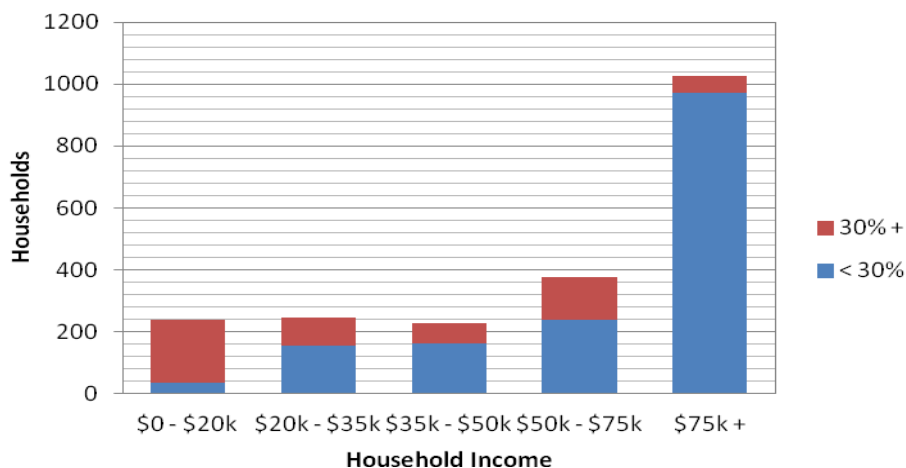
The range of housing values in Hadley skews towards the expensive end – fully 62% of houses are valued at \$300,000 or higher. Of the 12 properties listed for sale in September 2016, the median asking price was \$617,000. Three under-construction properties were listed for between \$750,000 and \$830,000.

Hadley Median Home Value (Source: US Census, 2014 ACS)



Housing costs are typically deemed “affordable” if they are less than 30% of a household’s income. Those households paying more than 30% may be considered “cost burdened.” (This is not likely the case for those wealthier households paying over 30% for housing). American Community Survey attempts to determine housing costs as a percentage of income annually – the 2014 data is shown below. It should be noted that fairly sizable margins of error exist for this data, but the snapshot does provide an indication of the level of housing affordability for various income groups in town. Housing affordability is of particular concern for lowest-income households, but is also creeping into other income groups. For example, over a third of households in the \$50,000 - \$75,000 income range are cost-burdened. This problem will likely increase as housing in Hadley outpaces regional income growth.

Hadley Housing Costs as a Percentage of Income



Source: US Census, 2014 ACS

Chapter 40B Housing Inventory

Massachusetts General Law Chapter 40B establishes a goal for each municipality in the state to have 10% of its year-round housing stock be deed-restricted for income, priced so that households earning 80% of Area Median Income (AMI) spend no more than 30% on housing costs. In communities that have not achieved the 10% affordability threshold, residential developers who propose new projects that will create affordable housing are entitled to receive a single comprehensive permit from the local zoning board of appeals, effectively overriding local location, density, and other standards.

As of 2016, Hadley has 12.95% of its housing stock as subsidized affordable housing units, thus meeting the state's goal. As a result, the town is not subject to the comprehensive permit acceptance requirement. These units are listed on the state's Subsidized Housing Inventory, maintained by the Department of Housing and Community Development:

Hadley SHI-Listed Housing Units, 2016

| DHCD Id # | Name | Address | Type | SHI Units | Expires | Comp. Permit | Subsid. Agency |
|--|------------------------|-----------------|--------|------------|--------------------------------|--------------|----------------|
| 1265 | n/a | Burke Way | Rental | 12 | Perp. | No | DHCD |
| 1266 | Golden Court Apts. | 42 Golden Ct | Rental | 40 | Perp. | No | DHCD |
| 1267 | Mountain View Apts | Campus Plaza Rd | Rental | 25 | 4/8/23 | No | RHS |
| 1268 | Windfields Senior Est. | Route 9 | Rental | 80 | Perp. | Yes | MHP, DHCD |
| 1269 | Windfields Family Est. | Route 9 | Rental | 80 | 2032 | Yes | DHCD |
| 4299 | DDS Group Homes | Confidential | Rental | 48 | N/A | No | DDS |
| 4563 | DMH Group Homes | Confidential | Rental | 0 | N/A | No | DMH |
| Total SHI Units in South Hadley | | | | 285 | 12.95% of housing stock | | |

Source: DHCD

One note – the SHI percentage is based on 2,200 year-round housing units in Hadley, but this number has increased recently to 2,380 units so the percentage of subsidized units is closer to 11.97%. If (as?) an additional 470 market-rate units are built in Hadley, this percentage will drop below the 10% threshold. Also, most of the SHI-listed units are deed restricted in perpetuity, but two developments have expiration dates, beginning in seven years. However, for the time being, the Town need not worry about Comprehensive Permit developments.

GOALS

Goal 1: Maintain the Housing Stock

Specific Objectives

- Maintain Hadley's stable housing stock, housing market and low tax rate
- Reduce foreclosures, vacant housing, or deteriorating stock
- Provide more senior housing and housing that working people can afford

Hadley has a fortunate situation where low taxes, attractive landscapes, retail amenities, and proximity to employment and cultural centers continue to attract wealthier households. This has created few problems with foreclosures, vacant housing, or deteriorating stock compared to many other Valley towns. However, several issues may present challenges (and opportunities) in the medium- to long-term:

- The housing stock is heavily comprised of a single typology: larger detached single-family houses, mostly on larger lots. While this typology has performed very well over the last half-century, an over-homogenous housing stock is fragile, in that it leaves the town vulnerable to changes in market preferences or economic conditions. However, single-family homes were the most popular housing preference in the public survey completed for this Plan update.
- Market preferences towards larger detached single-family houses are changing as the Baby Boomer generation ages into retirement and Millennial generation comes into home-ownership age. To be sure, there remains a strong market for large single-family houses. However, both of these cohorts have given rise to a much larger demand for smaller, low-maintenance homes in mixed-use walkable areas, which Hadley does not provide. A majority of survey respondents indicated the need for senior housing, helping support this point.
- As Hadley's population ages, older residents may have to move from town to find smaller, low maintenance homes. Hadley will need to maintain a high level of attraction and amenities to continue to attract families of adequate wealth and household size to replace these residents and maintain the existing housing stock as it ages.
- As Hadley's housing costs continue to rise, more of its residents will find themselves cost burdened by housing.

Many of these issues can be negated by diversifying the housing stock, which also has the added benefit of supporting other master plan goals in land use, transportation, and economic development.

Key Strategies

A: Discuss Expanding the Types of Housing Permitted in Hadley: Hadley's zoning bylaw only allows five types of housing:

1. Detached single-family houses are the only housing allowed by right – these are permitted in all zoning districts except Industrial. They require a half-acre minimum lot size in the Residential District, and 30,000 sf in all others (40,000 sf in the aquifer protection area). Large setback requirements and low coverage requirements do not allow for efficient use of land and increase the cost of new housing.
2. “Renting of rooms/furnishing of board for periods exceeding 14 days in duration for not more than four persons in a dwelling regularly occupied for residential purposes” is also permitted by right in all districts except Industrial. This seems to permit longer-term boarding houses, such as shared student rentals or farm laborer housing.
3. Conversion of single-family houses to two-family requires a Special Permit from the ZBA and is only available for houses built before 1961.
4. Age-restricted (55+) senior housing requires a Special Permit from the Planning Board. Conversion of existing buildings throughout town is available for those built before 1983, while new construction is only permitted in the Senior Housing Overlay District along western Route 9 (this area's underlying zoning is Business. A host of standards results in fairly low density (5 bedrooms per acre) and many smaller buildings (max 4 dwellings per building), or requires waivers and/or transfer of development rights. The number of senior units in the entire town is capped at 5% of existing single-family residential housing units in town. (The current number is somewhere around 4%).
5. Accessory apartments require a Special Permit from the Planning Board.

- **Consider adjusting zoning to encourage new housing typologies in locations where increased density serves other planning goals.** Master Plan goals and public survey results support the creation of compact mixed-use districts in the historic town center and as redevelopment of aging shopping plazas along the eastern end of Route 9. The Town should consider amending Zoning to allow mixed uses and a variety of housing types in these locations.

To ensure walkability, these areas will require new bulk requirements – smaller lot and frontage dimensions, maximum setbacks (instead of minimum setbacks), greater coverage allowances, higher height limits, reduced parking requirements. Design guidelines, perhaps in the manner of a form-based code, can help ensure attractive and high-quality design.

Much of Hadley retains rural qualities such as farms, open spaces, forests, and quaint backroads – these are some of the amenities that help set the town apart from other suburban communities, and surveys show these qualities are highly important to the quality of life of residents. However, the town's zoning by-law encourages boilerplate suburban “sprawl” residential development in these areas.

Implementing better zoning techniques such as cluster zoning (also known as Open Space Design or Natural Resource Protection zoning) will help conserve farmland and open space while

diversifying the town's housing stock. Throughout Massachusetts these developments have been shown to retain an increase in value compared to standard development, as housing is located in proximity to permanently protected open space. Development standards for screening and housing placement can help retain a rural setting along roadways.

- **Consider amending the Zoning Bylaw to make clustered residential zoning a by-right use, and require a special permit for standard subdivisions.** A primary benefit of Cluster Zoning / Open Space Design (OSD) / Natural Resource Protection Zoning (NRPZ) is permanent preservation of open space at no cost to the town while providing housing and ensuring an adequate return for the landowner. OSD is thus useful for large lots with high development potential and natural resources the community wishes to protect – farmland and forest tracts for example. For landowners and developers it has the benefit of predictable permitting, and reduced costs of construction and maintenance of roads, utilities, and stormwater runoff while maintaining sales prices.

Basically, developments are required to cluster houses closer together on smaller lots and preserve the remaining land in functional concentrations and not simply left meandering through the development. Key features of NRPZ:

- there is no “underlying zoning;” NRPZ is the zoning for the selected area. All proposed subdivisions must comply with NRPZ requirements in order to be a by-right use;
- NRPZ may allow non-subdivision development (i.e., ANR and condominiums).
- the number of allowed dwelling units or non-residential floor area is calculated up-front by formula, usually based on the net acreage (what is left after sloped, wetlands, and other restricted land is subtracted), multiplied by a density factor.
- bonus units may be added for TDR purchases, affordable housing, and other public goods such as community gardens, public access, playgrounds, walking trails, etc.
- the minimum portion of land to be permanently preserved is set by the ordinance. This might be as high as 60% in farmed or forested areas, but in developed areas suitable for growth because of existing infrastructure and a lack of natural resources, preserved land might be limited to enough to provide neighborhood parks and trails.
- a conservation analysis is used to identify significant natural, cultural, and historic features of the land to be preserved, including viable farmland.
- development is concentrated using flexible and reduced dimensional requirements. Duplexes, townhouses, and multi-family buildings may be allowed, while roadway and other infrastructure requirements may vary from standard requirements.

Model ordinance language may be found here:

MA NRPZ model

http://www.mass.gov/envir/smart_growth_toolkit/bylaws/model-osd-nrpzzoning-final.pdf

PVPC OSRD model:

<http://www.pvpc.org/sites/default/files/files/Open%20Space%20Residential%20Development%20Model%20Bylaw.docx>

- B: Discuss Maintaining 10% of Housing Stock as Affordable Housing:** Hadley has achieved the state's goal of having 10% of year-round housing stock deed-restricted for affordability, and most of these properties are deed restricted in perpetuity with the remainder many years away. Thus the Town may successfully condition or even deny any projects proposed under Chapter 40B. The Town will have to monitor ., it should continue to encourage the creation of SHI-eligible housing for several reasons. First, it will prevent the SHI inventory count from dropping below 10% as new market housing is built. Second, the strong market for housing in Hadley means housing costs are increasing faster than household incomes in the region, effectively pricing people out of Hadley, including existing residents.
- Raise the affordability requirement for senior housing rental or assisted-living developments. Currently, the zoning bylaw requires that 15% of units be set aside as income-restricted affordable housing. Raising this requirement to 25% for rental or assisted-living facilities will meet DHCD standards for implementing Chapter 40B, and allow *all* units in the development, subsidized or not, to be eligible for inclusion on the SHI.

See Section II.A.2.b. of the Guidelines document for details:

<http://www.mass.gov/hed/docs/dhcd/legal/comprehensivepermitguidelines.pdf>.

- C. Discuss Creating an Affordable Housing Trust Fund.** Affordable Housing Trust Funds are public funds established by legislation, ordinance or resolution to receive specific revenues that can only be spent on housing. Trust funds provide a flexible vehicle through which resources may be committed to the production and/or preservation of affordable housing. Dedicated, predictable and ongoing sources of revenue, such as linkage payments, specific taxes (hotel tax), fees, inclusionary housing mandates and loan repayments are desirable, however even one time donations proceeds from the sale of property, or negotiated contributions may be used to build the funds revenue. Once the Affordable Housing Trust Fund is established, the town should establish a program to accept donations from local companies to supplement the other funding mechanisms such as the payment in lieu provisions recommended in the bylaws contained within this Plan. Tie projects approved under this provision to the TDR program.

6 ECONOMIC DEVELOPMENT

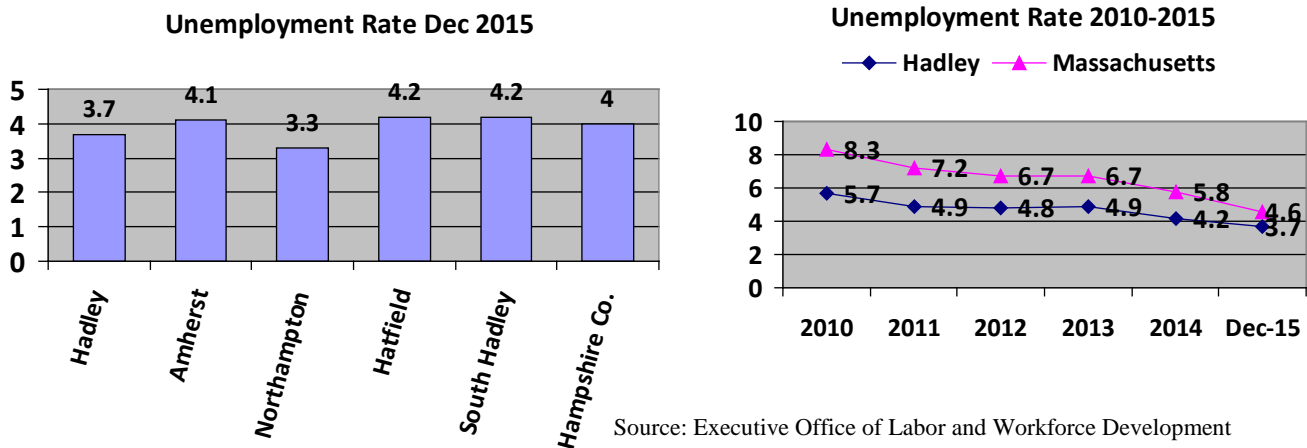
Introduction

A town's economic development strategies have two important components: people and places. This section provides an overview of these components, examining issues related zoning; the strengths and weaknesses of individual industries; and the potential of the town's business areas and industries to meet goals related to employment, tax base, and overall economic health.

Economic Development: People

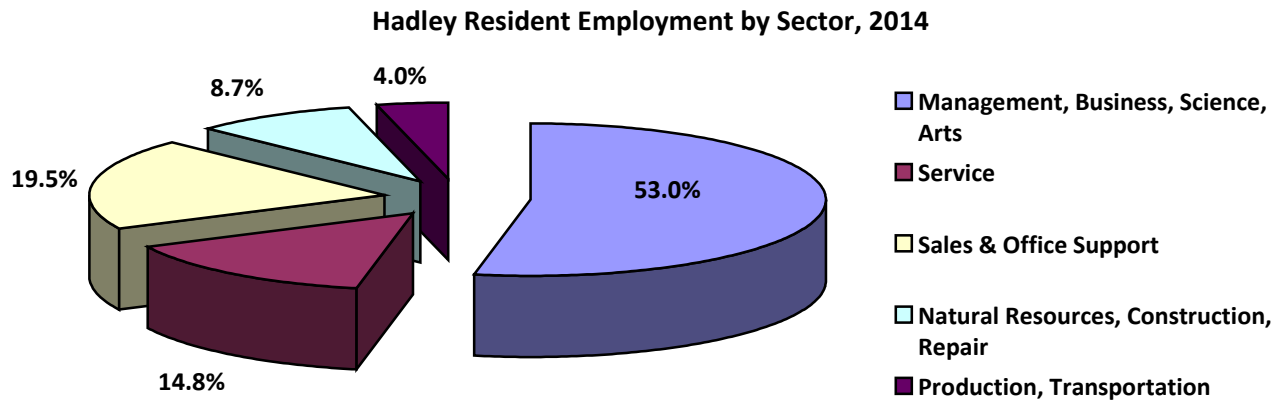
Residents

Massachusetts' Executive Office of Labor and Workforce Development estimates Hadley's resident workforce in December 2015 at 2,961 employed and 111 unemployed, a 3.9% unemployment rate. This compares favorably with nearby towns and Hampshire County as a whole. This rate has been decreasing since the Recession of 2008.



Hadley's resident population has a slightly higher level of education than Hampshire County residents or Massachusetts residents as a whole. The US Census Bureau's 2014 American Community Survey found 55.4% of Hadley residents 25 years or older have an Associate's degree or higher, compared to 52% for Hampshire County and 47.7% for Massachusetts. Simultaneously, the share of Hadley adults who have not graduated from high school (5.1%) is lower than Hampshire County (6.3%) or Massachusetts (10.5%).

Correlated with their higher education level, the majority of Hadley residents are employed in professional occupations – e.g. management, engineering, education, legal, media, healthcare (non-support). These occupations often pay better than others, contributing to a median household income of \$74,737 in Hadley, which exceeds county, Commonwealth, and national averages.

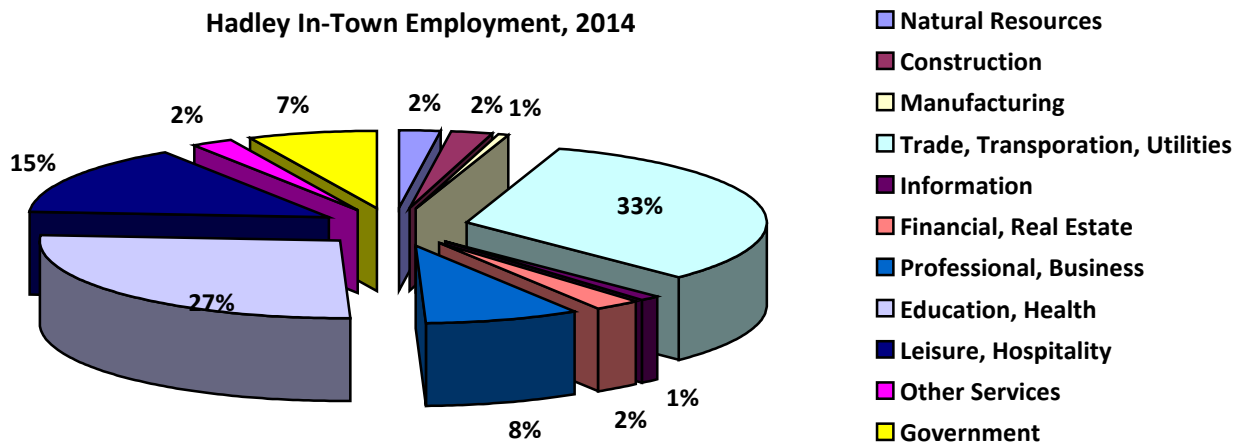


Source: 2014 American Community Survey, US Census Bureau

For its residents, Hadley is largely a bedroom community, with large employment opportunities in the five colleges and other large employers in nearby towns and beyond. The 2014 American Community Survey found that 77.5% of the workforce commutes out of Hadley for work – 16.6% of these commuters leave Hampshire County.

Workers in Town

Massachusetts' Executive Office of Labor and Workforce Development tallies employment information per town. In 2014, Hadley hosted a larger number of jobs than residents – an average of 6,241 jobs in 380 establishments. The average weekly wage in Hadley was \$717, which was below the average wage of \$820 for Hampshire County and approximately half that of Hadley residents' average household income. The proportionally larger presence of low-paying natural resources, trade (retail sales), and leisure industry employment accounts for this disparity.



Source: Mass. Executive Office of Labor and Workforce Development

This data leads to several conclusions:

First, there are twice as many jobs than workers living in Hadley, and the vast majority of Hadley residents don't work in Hadley. This situation has several effects:

- Large amounts of inter-town commuting, adding traffic to the main roads in and out of town.
- Hadley employers must often recruit and rely on large numbers of workers who live in other towns.
- Pressure for housing is increased, particularly for affordable and workforce housing.

Second, Hadley's residents are relatively well-educated and well-paid, often relying on academic, research, and other institutions beyond the town's borders for work. Happily, these institutions provide economic stability during economic downturns. However, many of the people who work in Hadley are not as likely educated or affluent, and the two groups may have different priorities.

Place

Business Environment

Hadley enjoys a somewhat diverse business mix, but retail and service establishments dominate. The 2012 Economic Census (US Census Bureau) found the following number of establishments in town:

| Type | Establishments | Employees | Revenue (\$1000) |
|--|----------------|-----------|------------------|
| Utilities | 1 | 20-99 | n/a |
| Manufacturing | 8 | 38 | n/a |
| Wholesale Trade | 4 | 20-99 | n/a |
| Retail Trade | 88 | 1,986 | 404,554 |
| Transportation/Warehousing | 1 | 0-19 | n/a |
| Information | 5 | 77 | n/a |
| Finance/Insurance | 11 | 100-249 | n/a |
| Real Estate | 6 | 32 | 2,611 |
| Professional, Technical Services | 29 | 358 | 27,407 |
| Administrative, Support, Waste Management, Remediation | 11 | 58 | 4,565 |
| Educational Services | 7 | 100-249 | n/a |
| Healthcare and Social Services | 28 | 407 | 31,204 |
| Arts, Entertainment, Recreation | 5 | 20-99 | n/a |
| Accommodation/Food Services | 41 | 939 | 42,722 |
| Other Services | 22 | 112 | 12,359 |

Source: 2012 Economic Census, US Census Bureau

In 2002, the largest individual employers in Hadley were Stop & Shop, Wholefoods Market, U.S. Fish and Wildlife, National Evaluation Systems, Inc. and the University of Massachusetts.⁵

Given the spending power of local residents and the presence of nearby institutions with a steady supply of employees and students, Hadley's service sector is less sensitive to national economic conditions than most other towns'. However, several over-riding national trends will likely affect sector, especially those businesses along the Route 9 corridor:

On-line Competition

Nationwide, since 2000 three-quarters of retail sales growth has occurred online. The US Dept. of Commerce estimates that online shopping in 2015 accounted for 7.3% of all retail sales. (This figure rises to nearly 16% if cars, gasoline stations, and groceries are disregarded – these entail about half of total retail sales and have been largely unaffected by e-commerce *so far*). The market for online sales is increasing about 15% annually, compared to 1-2% for total retail sales.

Collectively, this trend is reducing demand for retail space. Online sales of toys, books, and electronics reached the critical level where store usage declines several years ago. Apparel sales will soon – a worrying trend since women’s clothing stores are a significant part of typical suburban malls and power centers. Lower quality malls and shopping centers in secondary locations will suffer most, while strategically located properties serving large, affluent, and growing populations will do best. Several Hadley properties will likely face challenges in the coming decade.

To broaden their appeal, commercial centers are seeking ways to enhance the ceremony of shopping by “curating” their properties carefully to create a special experience. New and redeveloped properties often build in an array of residential, office, hotel, and convenience uses to spread risk and create genuine community centers. Pop-up stores, music, events and other programming, are typical techniques for existing properties. Individual stores are following suit, adding products, services, and experiences that cannot be replicated online. Hadley should review its zoning and other land use regulations to make sure commercial properties have the flexibility they need to adapt to a changing retail environment.

Category Killers and Poaching

Big box “category killers” and associated power centers have been a staple of regional retail development for several decades and a large share of Hadley’s tax base and employment consists of these developments. However, several issues are of concern. First, these large retailers out-compete smaller stores, while contributing less tax revenue-per-acre to municipal coffers. Moreover, national ownership often out-competes local ownership businesses, lowering the amount of revenue that is kept in the local economy.

Second, especially when grouped as “power centers” with additional anchors and convenience retailers, they will often poach customers and tenants from older shopping centers nearby. If the size of the retail market is not growing or grows slowly (the situation in Hampshire County), older centers may find it difficult to re-tenant.

Third, the big-box buildings themselves are frequently custom-built so as to be disposable after a decade or two, once the revenue stream has covered construction costs. This allows the retailer a choice of 1) improving the existing building and staying in the current location, 2) closing the store, or 3) closing and perhaps moving to another site. Unfortunately, from the Town’s perspective a closure or move leaves a decaying building that is notoriously difficult to reuse for any purpose other than a large national retailer. In addition, if relocating nearby the retailer will often leave deed restrictions on the original property to prevent

Hard data on local-versus-chain revenue retention are difficult to find, but studies reviewed for this plan consistently show 3 to 5 times as much revenue re-circulated by local retailers and 1.7 to 2.2 for local restaurateurs. The closest individual study to Hadley was a 2014 survey of retailers in the Monadnock region of New Hampshire (<http://monadnocklocal.org/Local/3720555>), which found that locally-owned businesses returned 62.4% of revenue to the local economy, while national chain retailers returned just 13.6% of revenue.

competition from using it.¹ (Some will then argue their tax assessment lower, based on the presence of vacant or underused buildings nearby.)

In short, from a taxpayer's perspective, big box stores are a high-risk development that provides a few decades of positive cash flow in exchange for the taxpayer assuming expensive long-term infrastructure and redevelopment liabilities. Hadley would be wise to limit additional exposure to these developments.

Mixed-Use Walkable Centers

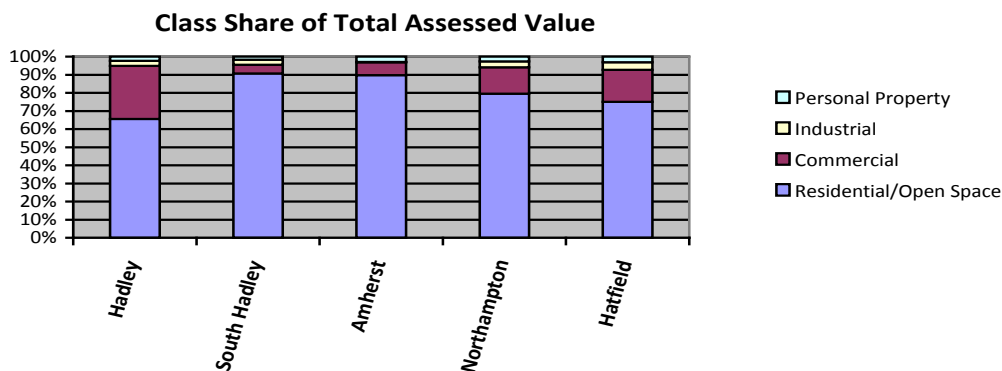
Changing demographics and lifestyle preferences have led to the resurgence of traditional Main Streets and construction of new-build mixed-use “town center” developments in many locations. Hadley is sandwiched between Northampton and Amherst, two of the best examples of successful traditional town centers in the Pioneer Valley. Nearby examples of new-build mixed-use centers include Village Common in South Hadley and Blue Back Square in West Hartford.

Economic benefits of mixed-use centers are many, whether larger planned developments or more organic traditional town centers. A mix of adaptable buildings and fluid use types is far more economically resilient than fragile single-use or large custom-format developments. Unlike national chain-driven power centers, mixed-use developments often provide cheap and versatile entrepreneurial and live-work space where start-up retailers, services, and other businesses can begin with a steady supply of ready customers from on-site hotel, office and residential uses. Mixed-use centers are also produce much higher tax revenue per land consumed than standard strip centers. Finally, mixing uses in walk-friendly developments reduces vehicular trip generation.

A new-build development could be a successful option for the larger commercial properties on Route 9 in need of redevelopment. Additionally, the town should encourage growth within the traditional town center. Revising zoning regulations to allow denser development, mixed-uses, reduced parking, and dimensional controls that reflect walkable characteristics will be needed to accomplish either.

Property Tax Revenue

Hadley enjoys a very fortunate financial situation, with a tax rate among the lowest in Massachusetts. Much of this success is due to a low population with relatively few service needs combined with a sizable amount of commercial and industrial properties. In 2014, the town collected \$9.7 million in property taxes, bringing in nearly 58% of the Town’s revenue. Over 34% of the assessed valuation in Hadley is with commercial, industrial, and personal property – this is a greater share than nearby towns, as shown below:



Source: Mass. Dept. of Revenue Municipal Databank

¹ <https://ilsr.org/dark-store-tax-tactic-makes-big-box-stores-terrible-deal-for-cities/>

The top tax-paying properties included the major shopping malls, hotels, and retail plazas on Route 9 – in 2012 these contributed over 16% of the total tax revenue.

Top Ten Tax-Producing Properties, 2012

| Property | Nature | Tax | % of Total Taxes |
|------------------------------|-----------------|--------------|-------------------------|
| W/S Hadley Properties | Shopping Mall | 313491.35 | 3.37% |
| Pyramid Mall of Hadley LLC | Shopping Mall | 275940.00 | 2.97% |
| Amherst Development Assoc. | Motels | 144836.82 | 1.56% |
| E&A/I&G Campus Plaza | Shopping Center | 136317.43 | 1.47% |
| Normaple LLC | Office Park | 120916.91 | 1.30% |
| Target Corp. | Retail | 109536.94 | 1.18% |
| Lowe's | Retail | 107756.61 | 1.16% |
| Amherst Development Partners | Office Park | 106852.14 | 1.15% |
| Home Depot | Retail | 94644.35 | 1.02% |
| Western Mass Electric | Utility | 92407.18 | 0.99% |
| | | 1,502,699.72 | 16.16% |

Source: Town of Hadley Assessor's Office

“Trophy” properties like these provide large individual tax payments, but the town should be wary of becoming overly reliant on the success of a select handful of sites. Moreover, in terms of a development's productivity – its *value per acre* – the big retail centers aren't nearly as productive as older multi-use areas of town. For example, the nine commercial properties on Route 9 between West Street and Middle Street (the traditional town center) have a collective assessed value of \$917,680 per acre – this is **33% more productive** than the brand new Home Depot plaza, with an assessed value of \$687,475 per acre. It should also be noted that many of the buildings and businesses in the traditional part of town are locally-owned, better facilitate entrepreneurship, and are more flexible to larger economic changes. Plus, they form part of a cohesive walkable neighborhood, which enhances nearby residential values.

Productivity measurement is especially important given that the amount of land available for additional commercial development along Route 9 is running out and residents have made it clear that they do not support expanding commercial and industrial zones. Future growth in commercial tax revenue will rely on increasing productivity of existing commercial land through densification and redevelopment.

GOALS

Goal 1: Deepen the Hadley Property Tax Base

Specific Objectives:

- Maintain a strong commercial tax base
- Avoid the “creep” of commercial zones into residential and rural areas
- Better utilization of existing commercial zones
- Diversify commercial to reduce dependency on retail

Hadley has a broad tax base, with a significant portion of Hadley's tax revenue is from commercial properties. While Hadley and nearby communities are fairly stable in terms of base economy, population, and spending power, several issues might present problems in the medium- to long-term future:

- Hadley is approaching build-out of its commercially-zoned land and there is little appetite for expanding commercial and industrial districts.
- Internet competition and other retail trends will likely reduce demand for traditional convenience-driven commercial space.
- The larger commercial developments on the eastern part of Route 9 are highly fragile, meaning that in form and function they are not very adaptable to market changes, age/depreciation, or anchor loss. That they contribute a significant portion of the town's revenue adds risk to the municipal budget.

To prevent these issues from becoming problems, the Town should work at deepening their tax base.

Key Strategies

A. **Discuss Ensuring that Agriculture Remains a Viable Economic Activity:** Agriculture provides the economic heritage of Hadley, and residents offer strong support for the continued viability of farming. Hadley already has many key agriculture-friendly regulatory programs and elements in place:

- The Town's Farmland Preservation District and development rights transfer mechanism is one of the most successful in the state.
 - The Town Code contains a Right-to Farm provision protecting farmers from complaints over standard agricultural activities, and a process for resolving disputes.
 - The Zoning by-law allows agricultural uses (defined via MGL Chapter 128, § 1A) in all districts. Farm stands for local products are permitted by right in all districts except Residential, and a Special Permit process exists to sell products from out of town. Non-commercial rising of animals is also permitted on less than 5 acres in all districts except Residential.
 - Zoning also exempts farm uses from requirements for nonregistered vehicle requirements, and certain Flood Overlay and Removal of Earth regulations.
- **Consider revising zoning to discourage the subdivision of farmland.** One of the greatest threat to sustained agriculture in Hadley is the competition from other uses for the same land, particularly for residential house development. This is aided by the relatively low minimum lot dimensions within the Agricultural-Residential District – 30,000 square feet of area and 175 feet of frontage (the same standards found in the business districts). Increasing these minimums will help prevent subdivision of large lots into tiny un-farmable lots. Many farm communities set minimum lot areas of 2 to 5 acres for agricultural areas without municipal water or sewer service.
- **Consider developing Agricultural Tourism.** Tourism in the town benefits from the surrounding Universities as Hadley businesses and hotels are often destinations of parents and visitors to UMASS and the other schools. In addition to existing efforts, the town can employ a more robust agricultural tourism development strategy. Farming plays a vital role in the town's history, economy and way of life. Events or attractions celebrating this heritage could enhance tourism opportunities and benefit many Hadley businesses. The abundance of agricultural land along with key open space assets, including the Holyoke Range, Skinner State Park and the Connecticut River, provide opportunities for the town to market itself as a destination for visitors. This can be a lucrative untapped resource for economic development if properly

implemented.

- **Consider establishing retail and business size limitation tied to TDR program.** For the bonus or incentive strategies (such as Strengthen Transfer of Development Rights) to work effectively, the underlying “base zoning” must first be changed to provide an incentive to developers to propose projects with some public benefit and/or that comply with the town’s stated goals. Therefore, retail and business uses that have a footprint between 5,000 square feet and 25,000 square feet should be regulated through a special permit process due to their potential impact on the community. Uses with a footprint over 25,000 square feet, or a total floor area over 50,000 square feet, should be prohibited in every zoning district under the “base zoning”. However, the Transfer of Development provisions in conjunction these suggestions would offer an opportunity to exceed these restrictions. This would ensure that large scale development is of a design and scale that matches the goals of the people of Hadley and provides a significant improvement over conventional commercial development patterns.

Retail and business size limitations are also necessary to address the clear concern of many town residents regarding the continued and unchecked growth of “big box” retail development in Hadley. There was strong support in the town-wide survey (and throughout the master planning process) for limiting the future growth of large-scale retail projects. The size limitations recommended above are intended to prohibit such developments from being constructed as of right. In addition, while the TDR program will allow these size limitations to be exceeded under the appropriate circumstances and with the appropriate benefits to the town, the TDR program must be designed with an overall cap on allowable building size designed to reflect the town’s desire to limit further “big box” development. It is the Committee’s view that such projects, if allowed at all, should face a very high hurdle given the impacts on the town.

- B. Discuss the Traditional Town Center:** Hadley’s traditional town center is the most sustainable and productive revenue-per-acre part of town. It offers lower-capital sites and buildings for small developers and low-cost space for local business entrepreneurs. It supports nearby residential uses with convenient retail and services. It reduces traffic to further commercial areas. It can support growth using existing infrastructure with minimal impacts to town services. Moreover, these buildings are flexible in terms of use, and easily adaptable to accommodate economic changes.

As older town centers go, Hadley’s is somewhat successful with low vacancy and a wide variety of quality local businesses – however, there are several obstacles to steering growth here. First, the Town’s zoning makes it difficult or impossible to expand or build new buildings. The Village Center Overlay Zoning District is certainly well meaning, but:

- It has no teeth. The legal language encourages good architecture but does not mandate it.
- The underlying zoning – Business – still controls the placement and bulk of buildings. The dimensional standards of this district mandate suburban-scale development. As a result, many of the existing town center lots and buildings are non-conforming. For such properties, expansion or new construction may require special permits and/or variances, adding great uncertainty or impossibility to the financing, timeline, and cost of otherwise good development.
- Parking, landscaping, open space, and other requirements may add difficulty and expense to projects, and can make them impossible without variances.

At their best, zoning ordinances create a clear set of expectations for landowners and developers with minimal cross-referencing of regulations and painless permitting for projects which meet regulations.

- **Consider creating a Village Center Zoning District:** A new Village Center Zoning District should be a base district (as opposed to an overlay), replacing the existing Business District controls with its own use, bulk, parking, and other regulations. This could be done as conventional zoning, or as a true form-based code. Some ideas:
 - At a minimum the new district should include the lots bounded by West Street, Middle Street, the rail-trail corridor, and Russell Street, and the lots fronting the south side of Russell Street (use their rear lot lines as a boundary).
 - Allow two- and multi-family residential uses when part of a mixed-use development.
 - Disallow auto-oriented uses such as accessory drive-thrus, gas stations, auto sales and rental, repair shops, car washes, commercial parking, livery storage, etc.
 - Use traditional walkable village-scale bulk and intensity regulations – for example:
 - Small lots, perhaps 50ft minimum frontage, 5000sf minimum area.
 - Height limits raised
 - Building coverage raised, up to 80%. Open space requirement lowered to 5-10%
 - Minimal side and rear setbacks where adjoining lots are in the Village Center District.
 - A minimum/maximum range for front setbacks, perhaps 10/25 ft.
 - Embed key design controls directly in the district zoning:
 - Require a main entrance to face the street.
 - A minimum % of fenestration (window and door openings)
 - Minimum roof pitches
 - Parking lots to the sides or rear.
 - Allow village-scale signage: blade signs, sandwich boards. Establish locations for wall signs, such as in a band above the first floor.
 - Reduce amounts of required parking for the district. Further reductions depending on use mix, or shared parking with neighboring properties. Allow the counting of public parking within 500ft.
 - Minimize the review and permitting process for development that complies with the new zoning. Allow such development by right or with a simple site plan review.

The second obstacle to growing the town center is that the public environment at present is not conducive to establishing a productive town center. Russell Street is made to serve two incompatible functions: a high-speed arterial thru-route and a local commercial “main street.” As a result, it serves neither very well – too slow to move large volumes of traffic, too fast to support productive private investment. It is a commercial sprawl environment, both inefficient and ugly.

- **Consider the redesign Russell Street and other streets within the town center to support productive town center development:** Within town centers, design parameters for streets and public spaces should support multi-modal transportation and productive economic land uses – slowed traffic, pedestrian and bicycle facilities, and attractive streetscapes.
 - Install crosswalks at West Street and other major pedestrian crossing points.
 - Minimize curb cuts in number and width. Zoning regulations should set design standards: one curb cut per lot, driveways must meet the road perpendicularly, maximum driveway width of 22-24ft, maximum curb cut radius of 20 feet.
 - Complete the street tree canopy. Street trees visually narrow the roadway, intuitively causing drivers to slow. In addition they provide shade for pedestrians, and add character to

the street.

- Install pedestrian-scale lighting. While lighting is a potentially expensive project, it defines the town's pedestrian area, supporting night uses and increasing safety.
- Install attractive gateway signage at the entrance to the town center.
- Improve the sidewalks and streets to other town center streets behind Russell Street.

C. Discuss the Densification and Redevelopment of Aging Commercial Properties Along Route 9:

Hadley's commercially zoned properties along Route 9 are approaching build-out. To accommodate future commercial development and tax base expansion the options would appear to be either to increase the physical size of the district (meaning expand its depth further into the surrounding agricultural areas) or increase the developmental density of the existing parcels. The eastern end of Route 9 is home to five large format commercial plazas and many smaller strips and individual commercial uses. Many of these properties are new and successful, supplying large amounts of municipal tax revenue. However, in terms of assessed value per acre, they are not nearly as productive as denser parts of town. In the short term, allowing the successful properties to increase density will help make them more productive. Additional density also reduces pressure to develop greenfield sites, and reduces travel demand between plazas.

- **Consider revising zoning to allow additional density along Route 9:** Within the Business District, several zoning regulations result in sprawling low-density use of land and could be modified to increase density within a site:
 - Building coverage: maximum of 30% coverage. This could be raised to 50%.
 - Open space: minimum 20%. This could be reduced to 0%, in favor of landscaping requirements within parking lots, buffers along rights of way, or where lots adjoin other districts.
 - Parking regulations: twice the gross floor area of buildings and outdoor use areas (an approximate ratio of 6.67 spaces per 1,000sf GFA). This may be reduced by purchasing development rights, but only to 1.5 times the GFA (5 spaces per 1000sf). Studies based on actual usage rates of retail and big box strips in similar settings as Hadley² recommend a minimum requirement of 2-3 spaces per 1,000sf. Consider revising the regulation by lowering the overall ratio to 1.5:1 parking-to-GFA, with the ability to purchase development rights to lower to a 1:1 ratio, or even lower.

In the longer term, age, competition, and national retail trends may leave some of these large properties in a delicate position. Thinking about the future of these properties area should begin soon, since death and rebirth of large commercial plazas can be a long, complex, and challenging process. Helpfully, redevelopment of older commercial plazas is now a growing trend, so there are successful examples from around the country. Conversions of enclosed mall buildings to outward-facing big box retail spaces is perhaps most common, since expensive changes are few and owners are familiar with retail markets and leasing needs. Conversion of plazas to office and medical space is often seen where the retail market is over-saturated, though owner experience and building codes can make this a more project complex. Partial and total redevelopment as a mixed-use town center development is also a possibility, and these developments offer the most sustainable and productive use of the site. Hadley has the demographics and stable economy needed to support a new town center development, but these projects are complex and capital-intensive, and there are relatively

² <http://www.nwctplanning.org/library.html>

few experienced owners and developers.

- **Consider preparing concept plans for the transition of the most vulnerable large-format commercial properties to a more sustainable development model:** Understanding landowner, municipal, and public expectations for the long-term potential of eastern Route 9 will help shape a more successful place when redevelopment eventually occurs. Working with landowners, elected leadership, the public, and using consultant help as necessary, the Planning Department should create a vision for long-term transition of key commercial properties to a mixed-use, walkable center. Some questions to address:
 - What uses and designs work best to support sustainable and productive private investment?
 - How can redevelopment help meet other Town goals for housing, transportation, and community facilities?
 - How can these properties better integrate with surrounding uses?
 - How can zoning and subdivision regulations allow and enforce desired redevelopment?

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7 AGRICULTURAL, NATURAL and HISTORIC RESOURCES

Introduction

This section discusses the natural, agricultural and historic resources within Hadley as well as goals to protect, enhance, and promote their value to the town. Hadley has a unique collection of resources of statewide importance. These include a pastoral and historic landscape; rare and endangered species and their associated habitats; the distinctive profile of the Mt. Holyoke range; and the best agriculture soils in the Commonwealth.

Hadley's landscape is predominantly characterized by acres of contiguous farmland on the flood plain of the Connecticut River. The predominantly flat landscape is interrupted by only two upland and wooded areas, the Mount Holyoke Range and Mount Warner. The agricultural and historic qualities of the town's landscape are significant enough that the Massachusetts Department of Environmental Management classified 75% of the town as "distinctive" or "noteworthy" in 1983.



*Agriculture is an Integral Part of the Hadley's
History*

Keeping Hadley's rural character intact is residents' foremost concern according to the 2015 master plan survey, master plan public forum, and the 2014 Open Space and Recreation plan survey. To do this, Hadley's agricultural land; its historic structures and scenic landscapes; and its flora and fauna need to be taken into consideration when policies, plans, and investment decisions are put into place.

GOALS

Goal 1: Protect Hadley's agricultural character and economy.

Specific Objectives:

- Enhance Hadley's agricultural economy and reputation through marketing or other forms of promotion.
- Continue to use Agriculture Preservation Restrictions and other means to protect farmland while strengthening partnerships and other sources of funding.
- Protect continued use of Prime Farmland soils for agriculture by encouraging solar

development to take place elsewhere.

Agriculture

Hadley has made great strides since the 1990s in protecting agricultural land. Approximately 3,000 acres are protected under the state's Agricultural Preservation Program (APR), which is an increase of approximately 1,000 acres since the last master plan was released in 2005. Hadley now has more APR-protected farmland than any other community in the state. Other programs since adopted in town, such as the Transfer of Development Rights, have helped protect farmland as well.

Despite this progress, the protection of the agricultural land and Hadley's agricultural economy remains a top priority for Hadley residents – at least 81% of 2015 master plan survey respondents identified the protection of agricultural land, open space (farmland and forests), and local agricultural businesses as very or extremely important to them. A continuing challenge in protecting agricultural land is the patchwork nature of such protection – while one parcel may be protected, the one next to it may not be, and its development would reduce the value or viability of surrounding farmland. The 350-acre Great Meadow is particularly vulnerable to piecemeal development, as it is a collection of narrow and small parcels owned by many different people. In other areas of town, farmland with road frontage may continue to be parceled off for Approval-Not-Required (ANR) development, which is the pattern of most development in Hadley since 2000. ANR development can also reduce the viability of farming due to conflicts between residential and agricultural uses; runoff from development; and by reducing or fragmenting the scale of the agricultural economy in a community. Development and fragmentation of farmland also reduces Hadley's distinctive scenic and historic landscapes, which is a driver of tourism in the area, such as along the Connecticut River Scenic Byway (Route 47). In addition, agricultural lands also serve as habitat for grassland birds and some species of amphibians.

Adding to the challenges to protecting agriculture in Hadley is the continued strain on town budgets and decreased state and federal funding for land protection. For example, the 2014 Farm Bill passed by Congress contains less matching funding for the state APR program. Other challenges include the changing nature of agriculture, which increasingly requires more diversified approaches beyond wholesale (such as the sale of value-added products such as ice cream, etc., or experiences such as agri-tourism or weddings/events), and the competing economic attractiveness of using agricultural land for solar arrays. It is clear that the approach to protecting Hadley's agricultural land from development and supporting and promoting its agricultural economy will require continual innovation, strong partnerships, and adaptability to changing trends and economic forces.

Key Strategies:

- A. Discuss continuing pursuing APRs to protect more farmland, particularly large contiguous expanses (such as the Great Meadow)
- B. Discuss developing strong coordination with other agencies or organizations protecting farmland to ensure strategic conservation
- C. Discuss assisting landowners in finding alternative approaches to developing solar arrays on prime agricultural land

- D. Discuss involving the agricultural commission in town policy and bylaw development in order to incorporate interests and needs of the town's evolving agricultural economy

Goal 2: Protect soil and water quality.

Specific Objectives:

- Protect Hadley's public water supply.
- Promote and pursue soil and water conservation strategies.

Protecting the quality of Hadley's waterways and soils is important to the health of Hadley's residents, its economy, and its landscape. Protecting soil and water resources from degradation is also cost-effective, as preventing their fragmentation and degradation will reduce the need for additional investments in "gray" infrastructure to direct and treat water and erosion, and leave Hadley more resilient to climate change.

Soils

Soils in Hadley are some of the most fertile agricultural soils in the United States. Most areas north of Route 9 are prime agricultural soil and are often up to twelve feet deep. In particular, the Hadley-Winooski-Limerick soils, a deep, silty mixture found in Hadley Center, are prime agricultural soils due to their low acidic value and high water capacity. Although still considered prime agricultural lands, the Hinckley-Merrimac-Windsor soils found at locations along Route 47 are not quite as productive as the previous soil association. The predominant soil group in Hadley is the Amostown-Scitico-Boxford association, which stretches from the base of the Holyoke Range into North Hadley. The prime agricultural soils located throughout large areas of town are immensely valuable natural and historic resources, and are the foundation of Hadley's agricultural identity and heritage. The agricultural land protection measures discussed above address soil quality by preventing development.

Preventing the loss or contamination of topsoil through erosion and flooding is also important. Vegetation clearing and deforestation along waterways in the flood-zone areas not protected by levees increase the risk of erosion and scouring of valuable topsoil in large-scale flood events. Such events can greatly disrupt agricultural operations, as occurred in the Deerfield River watershed during Tropical Storm Irene in 2011. Additionally, it is important that the town identify the presence and locations of hazardous materials and debris that are most likely to be swept into flood waters in order to prevent soil contamination. Finally, continuing to promote and highlight sustainable agriculture practices – which are already prevalent among landowners in town – will help protect soil health and productivity as well, and is an appropriate role for the town's agricultural commission as well as other partners such as USDA's NRCS and the conservation district.

Drinking Water Resources

Groundwater resources in Hadley provide base flow for the streams and rivers in the town and potable water for the town's residences and businesses. The town water supply is drawn from two groundwater wells and wellhead protection areas. The town's sources of water are located at the base of Mount Warner, which has two gravel-developed wells, and the Callahan well field on Bay Road, which also has two wells. The Callahan wells are the town's main water supply as of 2016, with the Mt. Warner wells serving as backup. Most Hadley residents are on the town water

supply, although some farmers use private wells for irrigation and related purposes. The aquifer providing the groundwater is approximately 216 square miles and consists of nonporous sandstone.

The town is currently registered and permitted to withdraw .92 million gallons day according to the Water Management Act. This amount can meet projected demand through 2035, when demand is expected to rise from a current average day demand of .7 mgd to .77 mgd. The current maximum day demand is expected to rise from a current 1.55 mgd to 1.73 mgd. The unaccounted for water (UAW) level is currently above 10% (ranging from 11-17%), exceeding WMA requirements and also costing the town revenue. Detecting leaks and illicit water use is important to address this situation. The highest water users in Hadley a few farms, but is mostly comprised of retail stores, residential communities (such as assisted living), and hotels.

In recent years the Mt. Warner wells were taken offline. Mt Warner well #1 experienced high levels of iron and manganese, while Mt. Warner well #2 was contaminated with perchlorate when it went offline in 2005. Perchlorate is commonly found in fireworks and munitions, and can inhibit the uptake of iodide. Treatments for these contaminants are available but the town has opted to wait until standards are set. Another ongoing approach towards perchlorate reduction could be to limit fireworks displays (such as that by UMass during the Fourth of July) within the Zone II area of Hadley. In addition, stormwater runoff within the well recharge areas should be reduced or infiltrated whenever possible in order to limit contaminants that may enter the drinking water supply

The Mt. Warner wells are now only emergency supplies, but continued disuse will mean the town loses the wells' registered withdrawal volume under the WMA. The 2015 Hadley Water Master Plan recommends building a treatment facility for the Mt. Warner wells to treat manganese and iron. In the meantime, the town is relying on the Callahan wells to provide the town's water, and a new water treatment plant was built for them in 2008. Manganese, which can damage water infrastructure and appliances and presents a potential public health problem, is removed using an ultra-filtration membrane system.

In 2014 a water main was extended to the Sunderland town line on the northernmost portion of Shattuck Road. The main will serve existing homes and new housing lots due to shallow well water levels in this area. The main was also connected to the Sunderland water supply system to provide an emergency interconnection.

Existing Protection for Drinking Water Resources

Several federal, state and local environmental regulations protect freshwater resources against filling, inappropriate development, and other forms of alteration. Hadley's Aquifer Protection District is divided into two zones: Zone I and Zone II. Zone I is the protective 400-foot radius around public groundwater wells, and by state law, must remain in public control and undeveloped. Zone II is the primary groundwater recharge area for the public wells, and includes areas that contribute water to the public wells under the most severe pumping conditions.

The town enforces a water restriction policy in the summer months where residents alternate watering on odd and even days. As climate change may drive more unprecedented droughts (as experienced in much of Massachusetts in 2016), ongoing conservation efforts will always be necessary to ensure the water supply demand is kept at prudent levels. Promoting groundwater recharge through discouraging pervious paving wherever possible, and promoting green infrastructure through design guidelines or requirements, will assist in recharging Hadley's aquifer water supply. Promoting conservation among the largest water users (particularly efficient

irrigation techniques and systems) and residents will also reduce the need for additional WMA withdrawal permits in the future, which may become more difficult to obtain under the new Sustainable Water Management Initiative (SWMI) framework.

Key Strategies:

- A. Discuss proactively protecting land in water supply protection districts, particularly along the Fort River
- B. Discuss updating design guidelines and/or requirements and site plan review criteria to promote installation of green infrastructure
- C. Discuss promoting efficient irrigation systems and techniques to agricultural and large landowners, and general water conservation throughout town
- D. Discuss developing a hazardous materials response plan to prepare for flooding events that may contaminate soils

Goal 3: Protect the town's ecosystems, wildlife habitat, and biodiversity.

Specific Objectives:

- Protect areas in Hadley that provide ecological services such as flood storage, pollutant filtration, wildlife habitat and breeding areas, and climate change resilience
- Integrate protection of Hadley's ecological systems with other town goals such as maintaining rural character, preserving the agricultural economy, and providing recreational and open space opportunities

Hadley's residents strongly value their natural environment. "Preserve air and water quality" and "Protect the natural environment" were options ranked highly in both the survey and the visioning session (79% and 66% of survey respondents ranked these as "extremely important," respectively). Hadley is an old town, and over the centuries wetlands and other natural areas have been altered to make way for agriculture or other uses. This makes the remaining natural areas and ecosystems all the more important: protecting them from further fragmentation and degradation will reduce the need for additional investments in "gray" infrastructure (such as to direct and treat stormwater runoff), maintain the town's quality of life (through recreational and open space opportunities), and leave Hadley more resilient to the effects of climate change.

Fragmentation of habitats and natural areas by development is the greatest threat to the quality of Hadley's natural environment, but protection of these areas involves more than simply protecting land. Polluted runoff, encroachment of invasive species, and loss of biodiversity can degrade protected lands due to the influence of surrounding development, so strategies to protect natural areas must include altering stewardship of developed lands as well.

Rivers, Ponds and Watersheds

Hadley lies in the Connecticut River (a Federal American Heritage River, and the first and only designated National Blueway) watershed and has nearly fifteen miles of river frontage. The Mill and Fort Rivers are two major tributaries of the Connecticut within the town. The Fort River lies to the southwest and is fed by numerous streams with headwaters in the Holyoke Range. Fort River provides important floodwater storage (nearly the entire length lies within the Flood Overlay district), and helps protect water quality, as it is within the recharge area for the town's main well field. The Fort River is also identified as a critical area for the protection of biodiversity in the town and state (see Rare and Endangered Species section, below). Russellville Brook, a lesser tributary of the Connecticut River, has been identified by the Department of Environmental Protection as the largest and most significant natural community found in Hadley along the Connecticut River. This area is under significant development pressure.

Lake Warner and the Hadley Reservoir are Hadley's major bodies of water. Lake Warner was created centuries ago by damming the Mill River for agricultural purposes, and today is considered one of the Commonwealth's "Great Ponds." Over the past decade the town wrestled with the question of whether to remove the deteriorating dam or restore it in order to maintain the lake. Ultimately the town decided to take on the expense of repairing the dam and keep Lake Warner. Currently ownership of the dam to Lake Warner is being transferred from Kestrel Land Trust to the Friends of Lake Warner. The existence of Lake Warner is still under threat, however, as invasive species and eutrophication are gradually transforming the lake into a wet meadow. Green algae often coat the water surface, creating difficulties for boaters and marring scenic vistas of the water from afar. Suspected causes are phosphorous and sediment loading from stormwater and agricultural runoff, as well as historic sewer discharges from the Town of Amherst, into the Mill River and its tributaries. Addressing these issues will help protect not only the health of the lake but the town's investment in the new dam as well.

Elsewhere in Hadley public access to waterways is very limited. Some areas along rivers owned by public entities often must be accessed by first crossing private property. Though counterintuitive, a lack of formal access can lead to greater ecological damage in certain areas, as people may cause damage to riverbank vegetation/habitat, leave litter, or cause erosion or soil compaction when areas and facilities are not clearly delineated for recreational purposes. There are various areas along the Connecticut River where this is an issue. Opportunities to create greater formal access to the town's waterways should be pursued by the town.

Non-Point Source Pollution

As in many towns, perhaps the most threat to water quality in Hadley is from stormwater. Runoff from paved and otherwise impervious surfaces can carry nutrients, salt, and bacteria into waterways and wetlands, and raise their temperature, all of which alter the biological composition of the associated habitats. Development along Route 9, where the soils are incapable of absorbing the increased stormwater runoff, significantly degrades the water quality of the local water resources, specifically the wetlands behind the Stop & Shop shopping center and the Mill River beyond. High levels of phosphorous and sediment due to surface runoff from roads and agricultural uses are suspected of causing algal blooms and sedimentation in Lake Warner.

Agricultural runoff also impacts waterways. In 2010 water quality sampling along the Mill and Fort Rivers and their tributaries indicated high levels of E. coli contamination in dry weather sampling. Suspected causes were livestock operations, and septic systems along Bay Road.

Landowner outreach to develop voluntary best management practices on other agricultural operations is needed to reduce contaminated runoff into the town's waterways.

Hadley is newly regulated under the Environmental Protection Agency's MS4 permit finalized in April 2016. The regulated areas mainly fall along Route 9, where MassDOT owns the stormwater system. While this situation raises some question regarding legal responsibility for stormwater reduction, the town should pursue stormwater mitigation and reduction practices regardless whenever possible to avoid degradation of its waterways.

Wetlands

Hadley has a range of wetland resources, including floodplain forests, forested swamp and wet meadows. Much of the wetlands lie in heavily forested areas along the Connecticut River and its tributaries. Wet Meadows are more common along the Fort River near Hockanum Flat and Hadley Cove. In the northeast section of town, the Great Swamp is approximately 30 acres of protected tupelo/pin oak/swamp white oak swamp, the northernmost range of this relatively unusual plant association.

As mentioned previously, many wetlands and wooded swamps in Hadley were drained for agricultural use, specifically around Lake Warner, Fort River and Mill River, along the Connecticut River riparian corridor, and behind Stop and Shop. The remaining wetlands are a critical element in the habitat, floodwater, and stormwater management systems of the town, and serve a vital role in maintaining biodiversity. Wetland areas in the Great Swamp, which is in the northeast of town, and along the Fort River, are the most susceptible to degradation due to impacts from nearby or potential development. Agricultural practices exempt from the Clean Water Act – such as the digging of irrigation ditches, or manure pits – can also have negative impacts on wetlands and waterways. One strategy is to develop greater cooperation with agricultural landowners to ensure that these allowable practices are done in ways that minimize contamination or habitat alteration.

Vernal pools are ephemeral wetlands important to the life cycles of amphibious, insect, and other species. Potential vernal pools are identified through aerial photography, but certification can only occur through field visits by NHESP. There are only two certified vernal pools in Hadley; certifying more vernal pools, particularly those that are located in clusters, will provide greater protection to these wetland resources. The value of vernal pools to Hadley's ecosystem health and landscape is important to continue to communicate to residents and landowners.

Rare and Endangered Species and Habitats

The Massachusetts Natural Heritage and Endangered Species Program (NHESP) provides an inventory of rare and endangered species and their habitats throughout the Commonwealth. This program seeks to identify the habitat of plant and wildlife species that are becoming increasingly rare and are in danger of extinction. NHESP designated a number of Hadley areas as core habitat and critical natural landscape, including a 400-1,000 wide foot corridor along the Connecticut River; the Mill River Corridor; the area behind Stop & Shop; and Hadley Cove, Hockanum Flat, and the Great Swamp. In general the Connecticut River and the Holyoke Range are the primary areas supporting the most biodiversity in Hadley. The Fort River is also an area with a large variety of habitat. The area is designated NHESP BioMap Core and Living Waters Core Habitat, and supports rare dragonflies, grassland bird species, endangered mussels, and a fish species of special concern. The Fort River also offers connectivity to

recreational areas such as the Connecticut River Greenway, Norwottuck Rail Trail, and Mt. Holyoke Range.

Many of the existing natural resources are challenged or under threat from various sources. For example, the sixty-eight acre Lake Warner is a significant wetland habitat, however, it is gradually being taken over by non-native species and eutrophication as a result of increasing water temperatures and pollution. In addition, wetlands behind the Stop and Shop on Route 9 are contaminated from stormwater runoff from Route 9 and other paved surfaces. Habitats and wetlands along the Fort River are particularly threatened by development and coordinated land protection is needed in this area to prevent habitat fragmentation. Any conservation restrictions (CR) purchased in this area should identify not only the threatened species to be protected but the ecosystem services/habitat enhancement that the parcel provides to the town in order to ensure the longevity of the CR's purpose.

As in 2005, a comprehensive prioritization of existing open space, based on sound ecological principles, agricultural sustainability, and the values and priorities of the people should be a high and ongoing strategy. The Fort River in particular should be an area of focus as it is likely will be under the most development pressure in coming years, and offers the best potential for coordination with other agencies (through the Fort River Initiative) and for large landscape protection.

Key Strategies:

- A. Discuss creating an open space prioritization plan that is updated regularly based on changing conditions and opportunities
- B. Discuss acquiring conservation land and restrictions, particularly in the Fort River area
- C. Discuss conducting outreach efforts and develop partnerships with agricultural landowners to reduce agricultural impacts on wetlands and waterways
- D. Discuss conducting outreach to landowners of important habitat areas about the value of conservation
- E. Discuss investigating feasibility of a stormwater utility to fund MS4 compliance and stormwater best management practices throughout town

Goal 4: Preserve historic and architecturally significant structures and landscapes.

Specific Objectives:

- Inventory all historic buildings, neighborhoods, and landscapes within Hadley.
- Pursue Historic Register designations for critical areas.
- Preserve and protect the town's historic public resources such as cemeteries,

commons, museums, and scenic roads and vistas

Visitors and residents in Hadley cannot escape the historic nature of the town, even as Route 9 has become one of the region's main commercial thoroughfares in recent decades. Church steeples, grand Colonial homes, and narrow lines of green common and agricultural fields indicate Hadley's role in New England's early history. Though the town has made laudable efforts over the past several decades to bring recognition and some protection to its historic resources, much remains vulnerable to loss by development or loss of historic details and context. Hadley residents strongly support historic preservation in town. Seventy-one percent of survey respondents rank historic sites and buildings as "extremely" or "very" important aspects of living in Hadley.

Settled in 1659 by religious dissenters from Hartford, Wethersfield and Windsor Connecticut, the Town of Hadley was incorporated in 1661. Hadley was the third town to be incorporated in Western Massachusetts, after Springfield and Northampton. Hatfield, Granby, South Hadley and Amherst all broke from Hadley in the mid-1700s to form separate towns. The original town layout remained intact for seventy years; this layout was a system of houses lining both sides of a mile long street with commonly held agricultural land and open space beyond the home lots.¹

The Hadley Center Historic District was first listed in National Register of Historic Places in 1977 and is bounded by Town Farm Lane, Spruce Hill Road, Fort River and the Connecticut River. The district was expanded in 1994 to include the Hadley Common and the Great Meadow. The Common is maintained by the Board of Selectmen, abutting owners, the Hadley Historic Commission, and the Hadley Highway Department. This is the largest historic district in Hadley and contains a majority of the historically significant places in town.

The Great Meadow along the Connecticut River is perhaps one of the most unique landscape features in Hadley – and the United States – for its intact pattern of slender agricultural plots, a medieval field archetype carried over from England but today not commonly found even there. Though the town attempted to form an historic district around West Street, they could not reach agreement among the homeowners and the plan failed. However, extensive efforts have been made to preserve the West Street Common and the Great Meadow. Currently 165 of the 350 acres of the Great Meadow are outside of the town's floodplain district and therefore attractive for development. Development of any one of the parcels would greatly disrupt the Great Meadow's historic, scenic, habitat, and agricultural values. The Great Meadow Project is a collaboration among landowners, state agencies, and local land trusts (led by Kestrel Land Trust) to protect 40 parcels in the Great Meadow. The initiative began in 2004 and continues today.

Three other National Historic Districts were created in 1993. The Hockanum Rural Historic District contains 47 properties. It consists of the area surrounding Hockanum Road from the cemetery to the northeast corner of Skinner State Park in southwestern Hadley. The North Hadley Historic District includes over 200 properties along River Drive from Stockwell Road to Stockbridge Street along the Connecticut River. Two properties at 147 Hockanum Road comprise the Hockanum School Historic District.

¹ From University of Massachusetts, Amherst *Hadley West Street Common and Great Meadow: A Cultural Landscape Study*, June 22, 2004, p. 7.

While National Register Districts provide high-profile recognition, they do not actually protect against alterations, demolitions, or new construction that may have impacts on buildings and the district as a whole. As energy efficiency becomes increasingly imperative, renovations of older homes may result in exterior changes that detract from Hadley's historic character. Tools and strategies such as educating homeowners about the loss of historic details and integrity associated with vinyl siding and replacement windows (and alternatives to them); demolition delay bylaws; and the creation of local historic districts are ways to provide greater protection to the town's existing National Register districts. Local historic districts in particular can offer the best and most tailored protection, but must be achieved through community consensus.

In 1974, Hadley created its Historic Commission under MGL Ch. 40, S. 8d to ensure the preservation, protection and development of the historical or archeological assets the town. Their first role was to inventory all the historic buildings in town. Today, the Commission serves as design review for the Planning Board whether a site is historic or not. The town should harness this support to create a comprehensive strategy for protecting the remaining historic resources within the community. Further, the town should strengthen the regulatory protections and should continue to inventory noteworthy buildings and landscapes, nominating them to the State Historic Register to ensure their preservation.

A town-wide preservation plan would guide the town as efforts to expand and alter National Registry and other historic areas occur over time. For example, the Charles Porter Phelps Farm, located across the road from Porter Phelps-Huntington House, could be a candidate for National Registry listing and create a historic farming node of rare cohesion. A 2013 study commissioned by Building Committee recommended the sale of Russell School, Town Hall, and North Hadley Village Hall, all located in a National Register district. The sale of North Hadley Village Hall is currently in process, with uses such as apartments currently proposed. Before transitions such as these, preservation plan would serve to prioritize projects, align zoning with preservation needs, create a timeline, identify funding, and integrate historic preservation into other municipal processes.

Hadley's landscape is as integral to its history as its buildings. Historic landscapes include farms, stone walls, historic streets, viewsheds, and archeological sites. Its landscape is also integral to its economy, helping to attract tourists to visit its local farms, state and local parks, and travel along the only National Scenic Byway in Massachusetts (Route 47). Approval Not Required Development is the greatest threat to the town's scenic landscapes, as is the loss of economically viable farming operations. For that reason, land protection measures discussed in other sections of this master plan should be pursued (particularly to protect landscapes visible from Route 47). But Hadley's agricultural landscapes also often feature historical markers such as distinctive outbuildings and barns. Land conservation and historic preservation could be integrated in these instances by integrating outbuildings/barns in historic inventories, and then comparing them with parcels in or potentially in the Agricultural Preservation Restriction program. Historic Preservation Restrictions for those farm buildings should then be considered to protect the historic integrity of the entire farm landscape.

Key Strategies:

- A. Discuss updating the historic resources inventory, including landscapes and distinctive agricultural outbuildings

- B. Discuss preparing an Historic Preservation Plan, with a focus on keeping historic and scenic landscapes intact
- C. Discuss nominating structures and places to the State and Federal Historic Register
- D. Discuss creating local historic districts to existing National Register districts to provide additional protection
- E. Discuss pursuing Historic Preservation Restrictions for outbuildings on APR-protected lands, or in conjunction with APRs

8 OPEN SPACE AND RECREATION

Introduction

Hadley's landscape is one of the most distinctive in Massachusetts. Large expanses of farmland are punctuated by the Mount Holyoke Range and the town is boldly lined on the west by the course of the Connecticut River. The rural character and agricultural heritage of the town is identified as one of the most important aspects of living in Hadley by residents in the 2015 master plan survey (92% of respondents find it "extremely important" or "very important"). Similarly, 86% of survey respondents ranked "Preserve open space (farmland, forests)" as an "extremely important" or "very important" goal for the town.

This chapter addresses Hadley's open space resources, including forest, natural areas, and wetland areas, and recreational resources, which includes natural areas accessible for outdoor recreation (such as walking trails). Agricultural preservation is addressed in Chapter 4 (Land Use) and Chapter 5 (Natural and Cultural Resources).

Open Space and Recreation in Hadley

Protection and Development of Open Space

Hadley's unique and scenic landscape is comprised of expansive fields, blocks of forest, and natural areas such as wetlands. The majority of this landscape is of rural character, through the character of the Route 9 corridor and town center are commercial and village center, respectively. The town of Hadley has worked diligently with a multitude of partners over the past 20 years to protect farmland and forest areas, most notably areas of the Mount Holyoke Range and numerous tracts of farmland throughout town.

There are varying statistics on the amount of open space in Hadley, but all provide a similar picture. According to the town assessor, as of 2015, approximately 15% of the town's 3,067 parcels in town were categorized as farm or forest land (see Chapter X: Land Use, for more detail on land uses in Hadley). According to MassGIS, in the decades between 1971 and 1999, Hadley lost 666 acres of crop land (a 9.4% decrease) and 104 acres (a 2.3% decrease) of forest land. Orthographic image data later collected through by MassGIS in 2005 showed that 7,532 of Hadley's 15,793 acres were classified as forest, open land, recreation, water/wetlands, or open space, representing 48% of the town's acreage (see Table 6-1 below). Data from 2005 cannot be compared with data collected in 1971-1999 due to different methodologies and land use classifications.

Table 6-1: Acreages for Different Land Uses, Hadley (2005)

| Land Use Type | Acres in Town | Percentage of Town |
|-------------------------------|----------------------|---------------------------|
| Agriculture | 6,207 | 39% |
| Commercial | 343 | 2% |
| Forest | 5,023 | 32% |
| Industrial & Transportation | 172 | 1% |
| Other Open Space & Recreation | 890 | 6% |
| Residential | 1,539 | 10% |
| Water & Wetlands | 1,619 | 10% |
| Total | 15,793 | 100% |

Source: MassGIS 2005 Land Use Data

Orthographic data collected by Mass Audubon in 2013, but using a different methodology than MassGIS, classifies 6,012 acres as forest, wetland, and water areas in Hadley (Mass Audubon *Losing Ground* Report, 2015). Mass Audubon also tracked changes in land uses from 2005-2013, and found that approximately 8 acres of forest, wetland, and water areas were converted to development during that time, while 118 acres of “open land,” such as agricultural land and areas with low vegetation, were also converted to development. Conversely, between 2005 and 2013, 1,239 acres of land were protected in Hadley (Mass Audubon *Losing Ground* Report, 2015).

According to the 2014 Open Space and Recreation Plan (OSRP), the Town of Hadley has protected approximately 592 acres (including 400 acres managed by the Water Department for supply protection) of purchase or donated land. Approximately 1,858 acres are protected by state and federal agencies, much of that including the 1,132 acres of Skinner State Park/Mount Holyoke Range. Additionally, approximately 347 acres of private land is protected through conservation restrictions.

In general, the greatest conversions to development over the past several decades in Hadley have occurred on agricultural land. Nowhere is this more visibly evident than on Route 9, which used to be lined with agricultural fields but is now one of the region’s main (and most vibrant and vital) commercial corridors. But there has also been a significant amount of land protection throughout town during this time, both of agricultural land and forest areas. Development pressure remains most acute on agricultural land due to the simple fact that it is easier to develop, but significant attention should be focused on ensuring that other land types such as forest do not become fragmented by development as well.

Recreation Resources

The most prominent open space resources in Hadley are Mount Warner, Lake Warner, the Mount Holyoke Range, the Great Meadows, and of course the Connecticut River. There are many trails among the Mount Holyoke Range and Mount Warner for residents and visitors to enjoy. On Lake Warner, there is public boat access, though the long-term recreational utility of Lake Warner is being threatened by sedimentation and eutrophication. Access to the Connecticut River, however, is mainly limited to private marinas, and there are generally informal existing trail networks associated with the river. One notable exception is the Alexandra Dawson Conservation Area, which provides walking access to the dike at North Lane.



Kayaking Hadley's Waterways

Hadley has a limited range of “active” recreational facilities such as ball fields, located on school properties, and only one public park (Zatyрка Park, 4 acres of ball field but not currently used). Based on OSRP input, residents are more concerned with expanding walking/hiking trails and other passive recreation facilities



Zatyрка Park

than increasing more formal facilities at this time. In recent years a community ice skating rink has been installed on the North Hadley baseball field, and ball fields behind the elementary school have been upgraded. As of 2016, a citizens group is also working to find ways to restore Zatyрка Park, which at one time had a ball field and tennis court but is now in disrepair. The Park and Recreation Department runs numerous programs such as youth and adult basketball, yoga classes, and sewing classes, among others. One potential opportunity to increase access to recreational facilities include developing cooperative arrangements with UMass for resident use.

In the master plan survey and stakeholder interview comments, respondents also noted that Hadley lacked non-commercial gathering spaces to get to know one another and build a sense of community, particularly as it becomes more of a commuter town. In these comments the Town Common was identified as an underutilized opportunity to enable more interaction among residents, either through events or mixing more small businesses along it. Another suggestion is the construction of a community center.

Open Space and Recreation Plan

The town's OSRP was most recently updated in 2014 and serves as the guiding document for efforts and investments to expand and maintain open space areas and recreation facilities in Hadley. The document

comprehensively identifies all permanently protected, semi-protected, and unprotected open space and recreational resources, as well as environmentally sensitive habitats and endangered species. Input was solicited from residents and town officials to develop a set of goals and detailed seven-year action plan. The 2014 OSRP goals are as follows:

1. Protect Hadley's Agricultural Lands
2. Protect Hadley's Public Water Supply
3. Preserve and Protect Historic and Scenic Landscapes
4. Protect Wetlands, Wildlife Habitat, and Biodiversity
5. Improve/Expand Recreational Opportunities to Hadley Residents
6. Develop Improved Administrative Practices

A more detailed list of the goals and their accompanying objectives and strategies can be found in section 9 of the 2014 OSRP. The central theme identified in the OSRP is the need for expanded protection of lands critical to Hadley's rural character, ecosystems, water supply, and recreational network. Protection of agricultural lands and the economy that relies upon them is also emphasized. Much of this work depends on prioritization of the most important land and identifying the funds and partnerships available to protect them. The plan identifies the areas along the Connecticut River, Fort River, Great Meadows, Mill River, Harts Brook, and Russellville Brook as the most important general areas to focus protection efforts.



One of the largest hurdles to all of these efforts is, of course, funding. The OSRP recognizes the need for additional staffing to coordinate open space protection efforts and enhancement of existing recreational resources. While identifying and allocating resources in this regard is not easy, if accomplished it would advance efforts that town residents have repeatedly indicated they highly value for their town (open space protection, agricultural land preservation, etc.).

An OSRP is effective for seven years, though strategies can continue to be pursued beyond this timeframe. Meanwhile, all of the goals and strategies developed in the OSRP should be considered in support of the town's master plan. For the purposes of this master plan, long-range goals and strategies for open space and recreation that either overlap or support the execution of those found in the OSRP are listed below.

Goal 1: Prioritize Open Space Protection Opportunities

Recognizing that the town cannot purchase and protect all the land it may wish, an assessment of the town's natural resources and the potential availability of parcels will assist in prioritization. Factors such as development pressures, location, conservation or recreational value, potential cost, and aquireability (such as lands enrolled in the Chapter 61 program) should be considered in the prioritization process.

Specific Objectives:

- Assess the town's natural resources and the potential availability of parcels
- Prioritize potential parcels

Key Strategies:

- A. Discuss Creating a Comprehensive Prioritization Plan of Open Space Protection:** Identify key areas for protection based on ecological integrity, scenic views, recreation potential, linkages between green space, water supply protection, and climate resiliency/hazard mitigation; what types of protections are most suited for various properties (purchase, conservation restrictions, etc.) in order to plan for needed funding; potential funding programs or sources that correspond with the types of protections needed for each parcel
- B. Discuss Coordinating With Other Partners and Agencies on Protection and Potential Protection of Open Space:** Develop an open space inventory with key land protection partners that both the town and local land protection organizations and state/federal agencies can refer and add to as land is protected (a land protection organization may be willing to maintain the list). Review inventory on a regular basis (e.g. annual or bi-annual) in context of available funding opportunities and acquisition potential to prioritize
- C. Discuss Educating Targeted Audiences About Conservation Options:** Develop easily accessible information with key contacts about conservation options (conservation restrictions, APRs, etc.) in Hadley for landowners interested in land protection. Ensure this information is distributed to landowners in targeted areas where land protection supports ecological integrity, scenic views, etc. Outreach might be done in partnership with a land conservation organization, or perhaps through "ambassadors" – fellow landowners and neighbors that have protected land (an approach being considered by Friends of Lake Warner for agricultural runoff BMPs).

Goal 2: Integrate Open Space and Recreation Concerns into Other Town Plans and Practices

By considering open space as a critical piece of the town's infrastructure, other plans and practices can be utilized to reinforce and advance open space and recreation goals beyond purchasing land or easements. Efforts related to water supply protection, flood damage prevention, transportation planning/projects, historic preservation, and public health are just some of the areas where coordination could result in open space and recreational benefits.

Specific Objectives:

- Other town plans and practices should be utilized to reinforce and advance open space and recreation goals beyond purchasing land or easements.

Key Strategies:

- A. Discuss Revising Zoning, Site Plan Review, and Other Development Policies to Lessen or Divert Development Pressure on Open Space Areas:** Zoning regulations can be refined to ensure that development that does occur near or within open space areas has a lessened impact on landscape/habitat fragmentation. Increase commercial Route 9 and increase lot sizes in agricultural-residential zones to direct development towards already-developed areas and away from open space resources.

Open space protection is made more difficult and expensive when the pressure to develop on such properties is high. By making it easier and more economical to develop in existing developed areas, such as along Route 9, development pressure may be lessened on outlying areas of town. In fact, a large portion of the town's land protection successes can be connected to the development that has taken place along Route 9; for example, In addition, zoning regulations can be refined to ensure that development that does occur near or within open space areas has a lessened impact on landscape/habitat fragmentation.

As recommended in Chapter 5 (Economic Health), revise zoning to create a village center zoning district; add additional density on Route 9; and increase lot sizes in agricultural-residential zones to direct development towards already-developed areas and away from open space resources

- B. Discuss Integrating Open Space Protection With Stormwater Treatment, Drinking Water Quality Protection, and Hazard Mitigation:** Open space provides functions beyond recreational, scenic, or habitat purposes. As part of a town's green infrastructure, undeveloped open spaces such as wetlands, fields, and forests can help filter pollutants and nutrients out of runoff and allow for groundwater recharge. In large storm events open space provides capacity to absorb floodwaters, reducing risk to properties located near flood zones. Open space around drinking water intake wells also protects supplies from contamination (and expensive treatment). Considering the utility of open space in these ways also opens up additional potential sources of funding (such as Drinking Water Supply Protection grants and FEMA's Pre-Disaster Mitigation and Hazard Mitigation funds¹) for open space protection.

Integrate into any stormwater management plan that is developed in response to the 2016 EPA MS4 requirements. Coordinate with MassDOT to meet MS4 permit requirements along Route 9. Encourage FEMA to update the 1978 FIRM maps to reveal potential contemporary risk areas and provide justification for further limiting development within floodplains.

Encourage and work with FEMA to update the 1978 FIRM maps. Revised FIRM maps could reveal contemporary risk areas and provide justification for further limiting development within floodplains (such as along the Fort River, which is also critical habitat area).

¹See: U.S. EPA, *Fund Low Impact Development/Green Infrastructure Projects with FEMA Grants for Flood Mitigation* and FEMA, *Green Infrastructure Methods*. Available at: https://www.fema.gov/media-library-data/1449244221588-e054671affe09301e3b819d213a64ce7/GI_FactSheet_Sept2015_Dec508.pdf

Goal 3: Improve Access to Existing Recreational Resources

By enhancing access to existing natural resources, open space areas, and recreational facilities, the Town of Hadley could improve its recreational opportunities at a lesser expense than if new facilities or areas were purchased or developed. Respondents to the master plan survey and stakeholder interviews consistently said that outdoor activity could be encouraged by promoting existing recreational areas, including the Town Common.

Specific Objectives:

- Enhance access to existing natural resources, open space areas, and recreational facilities to promote and increase usage of existing recreational opportunities.

Key Strategies:

- A. Discuss Pursuing Opportunities to Connect Green Spaces and Recreational Resources Where Possible:** Prioritize areas around the Fort River, Mill River, and Connecticut River for habitat protection and wildlife corridors and identify areas where scenic and cultural resources can be better connected to natural resources. Prioritize areas for sidewalk installation that enhance bicycle/pedestrian routes to recreational and open space features, including the rail trail and Town Common
- Identify areas where scenic and cultural resources can be better connected to natural resources, either through signage/mapping or physical connections (such as by connecting the Connecticut River Scenic Byway to trail heads or Connecticut River access; or connecting the rail trail through signage or maps to nearby natural/recreational/cultural resources; etc.)
 - Identify the best physical opportunities to increase formalized public access to the Connecticut River (canoe put-ins, picnic areas, etc.) and identify funding/strategy for implementation
- B. Discuss Rehabilitating and Promoting Existing Park Spaces, Recreational Facilities/Programs, and Public Gathering Areas:** Support citizen efforts to rehabilitate Zatykra Park, cultivate and support “friends” groups for other programs or recreational areas to build support and capacity for investment and pursue cooperative agreement with UMass to allow resident use of recreational facilities, such as ball fields. Pursue grant funding to enhance existing recreational facilities and increase awareness about existing recreational programs such as yoga, basketball, and after-school activities

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9 TRANSPORTATION

Transportation Network

Transportation is simply the movement of goods and people. This section discusses the network that facilitates transportation in Hadley by its three main components: vehicular, transit, bicycle, and pedestrian.

An important note about transportation: Though it is often treated as such, transportation is never a stand-alone concern. Instead, transportation interacts symbiotically with the land uses it serves. The usage patterns found on a transportation network are a reflection the network itself and the land uses around it. This makes transportation planning what social scientists call a “wicked” problem: an issue involving many stakeholders with competing interests; no single right answer; competing versions of value; and zero-sum outcomes. The competition over values is what directs investment and change into the transportation network. A municipal Master Plan must be to recognize this competition and put forth solutions that reflect the values of the municipality sponsoring it.

Vehicles

Hadley’s transportation network largely serves vehicular travel, using 84.5 miles of paved and unpaved roads and their related signage, signals, drainage, and other components. Responsibility for these is divided between the Town (Dept. of Public Works, Highway Division) and the Massachusetts Dept. of Transportation, with a few specialty roads controlled by the University of Massachusetts, Skinner State Park. In addition, there are a few miles of unaccepted roads open to the public.

Jurisdictional Classification of Hadley Roads

| Controlling Agency | Location | Mileage |
|--------------------------------------|------------------------------|-------------|
| Town of Hadley | Throughout town | 67.0 |
| Massachusetts Highway Department | Route 9; Route 116; Route 47 | 9.4 |
| State Park or Forest | Skinner State Park | 1.2 |
| Unaccepted but open to public travel | Throughout town | 3.4 |
| State College or University | University of Massachusetts | 3.5 |
| Total Roadway Mileage | | 84.5 |

Source: MassHighway Road Inventory File.

MassDOT classifies Route 9 as a Principal Arterial and Route 116 and the southern half of Route 47 as Rural Minor Arterials. The northern half of Route 47 and several other major roads in town are classified as Major Collectors. These form the principal means of traveling through Hadley and connecting to towns and the transportation system beyond. As such, MassDOT typically intends to service high volumes of traffic and support regional-scale development with these roads. Not surprisingly, vehicle crashes in Hadley cluster on these roads. Three locations make the statewide top 200 locations, as shown on the HSIP Cluster map below. Two of these locations (Route 9 at Route 47 and Route 9 at North Maple) have had roadway safety audits completed in recent years, which included recommended safety improvements. These and other issues concerning the Route 9 corridor are discussed in more detail below.

Top Crash Locations, HSIP Cluster 2011-2013



Source: MassDOT

Transit

Pioneer Valley Transit Authority (PVTA) serves Hadley with three routes:

- B43 – Northampton to Amherst, Route 9 local (4 stops in Hadley), 20 minutes peak headways.
- M40 – Northampton to Amherst, Route 9 express (1 stop in Hadley), 30 minute peak headways.
- 39 – Northampton to Hampshire/Mt Holyoke College, Bay Rd, 30 minute peak headways.

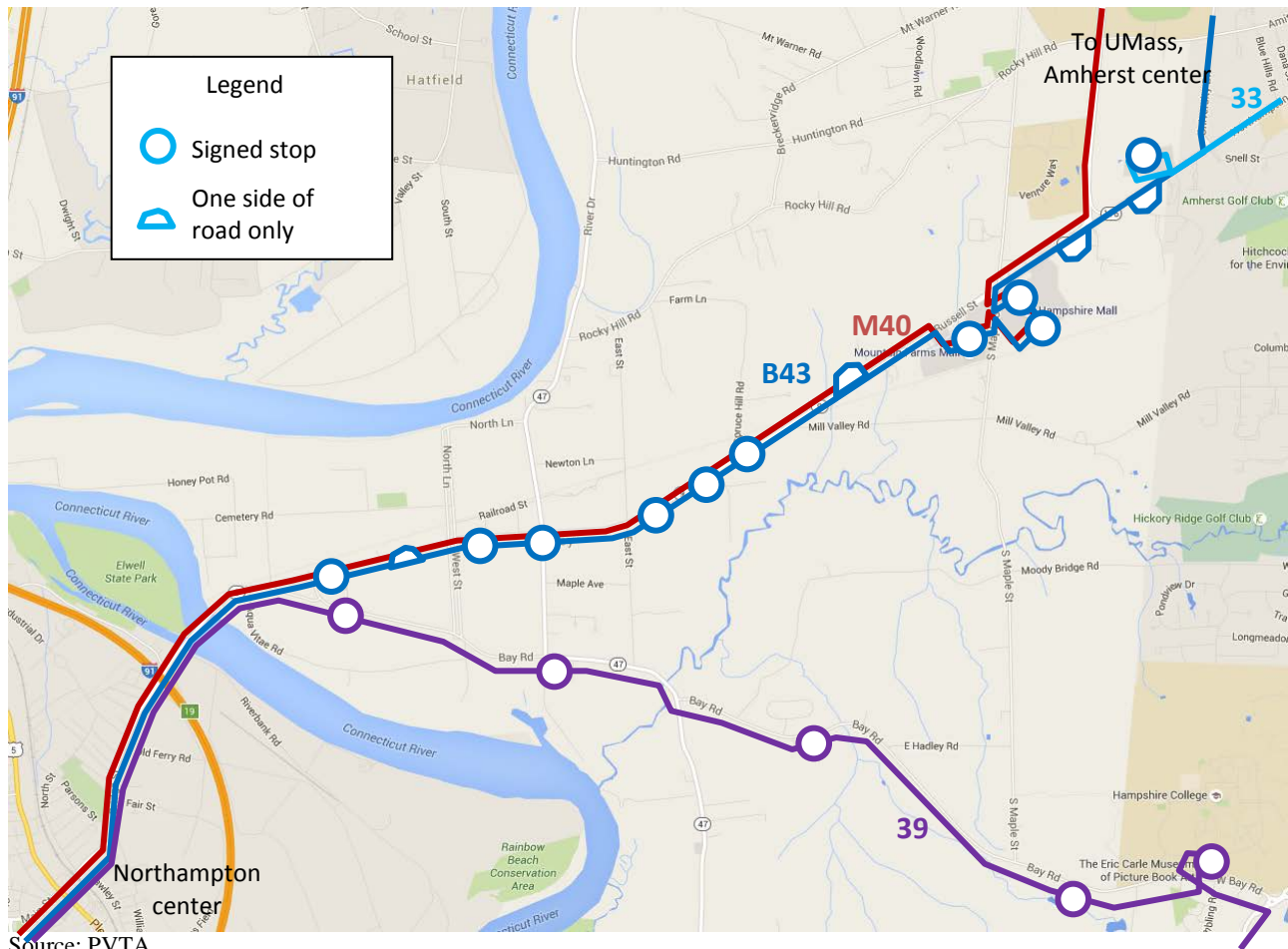
Transit stops are marked with standard PVTA signage, though there appear to be several informal unsigned stops on Route 9, such as in front of the Holiday Inn entrance, as seen in the Google Streetview image at right.

In addition, MegaBus offers intercity bus lines to Burlington, Montpelier, Hartford, and New York City from a stop at the Hampshire Mall. Travel to Boston must be done via Peter Pan from Springfield.



Waiting to Flag a Bus.

Hadley Transit Service Map

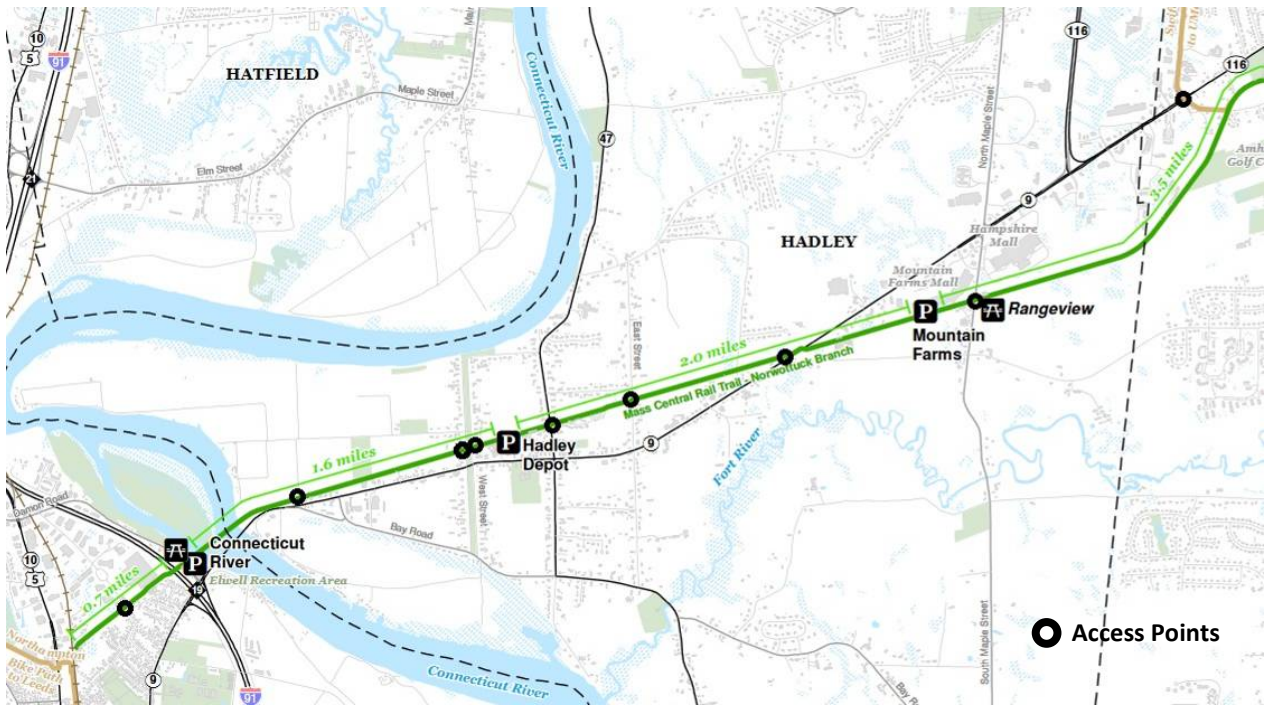


Source: PVTA

Bicycles

The Norwottuck Trail is the region's most popular off-road bicycle trail, and connects Hadley with Northampton, Amherst, and Belchertown, and beyond. Being a former railway, much of the trail is limited access. However, within Hadley at-grade connections exist with Cross Path Road, West Street, Middle Street, East Street, and S. Maple Street. An informal access exists with Route 9 just west of the trail's tunnel, and a path connects the Trail to Mountain Farms Mall. There is limited access from the Trail to commercial, employment, and residential developments along Route 9 east of the town center. In addition, there are no on-street bicycle paths or lanes in Hadley. This situation tends to steer use of the Trail towards recreation and commuting to Northampton and Amherst instead of use for local travel. Another issue is that use of the Trail is limited to three seasons as it is not plowed.

Hadley Bicycle Network



Source: Mass DCR

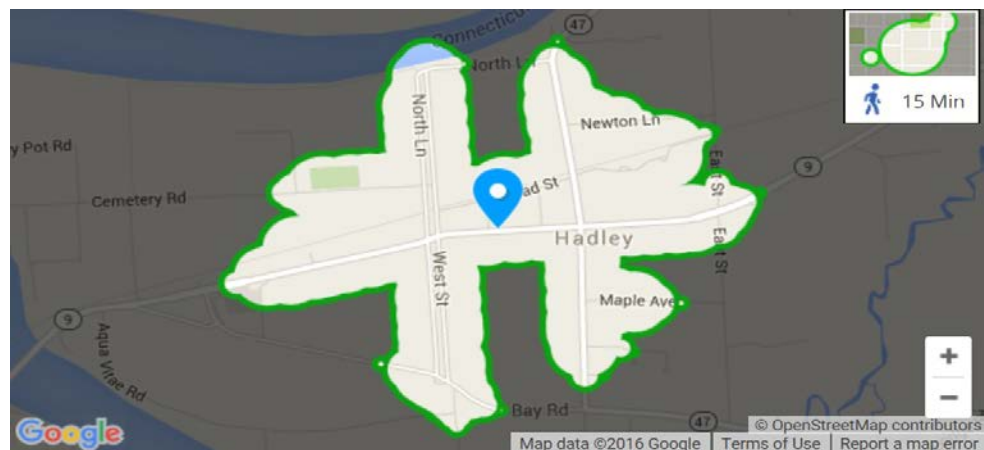
Pedestrians

Pedestrian travel is limited in Hadley, due to low-density development throughout town. Pedestrian activity is best supported in the traditional town center, where a variety of lands uses exist in close proximity – this area has a Walk Score of 50/100, or “Somewhat Walkable.”¹ Other areas of town are described as “Car Dependent.”

However, the town center and other potentially-walkable locations (i.e. within or between the large shopping plazas), often lack critical pedestrian facilities, including sidewalks, formal road crossings, lighting, street trees, and other amenities. MassDOT has several projects programmed to build pedestrian infrastructure along Route 9 (detailed below), which will provide a minimum of connectivity along the road.

Hadley Town Center 15-Minute Walkshed

Source: WalkScore.com

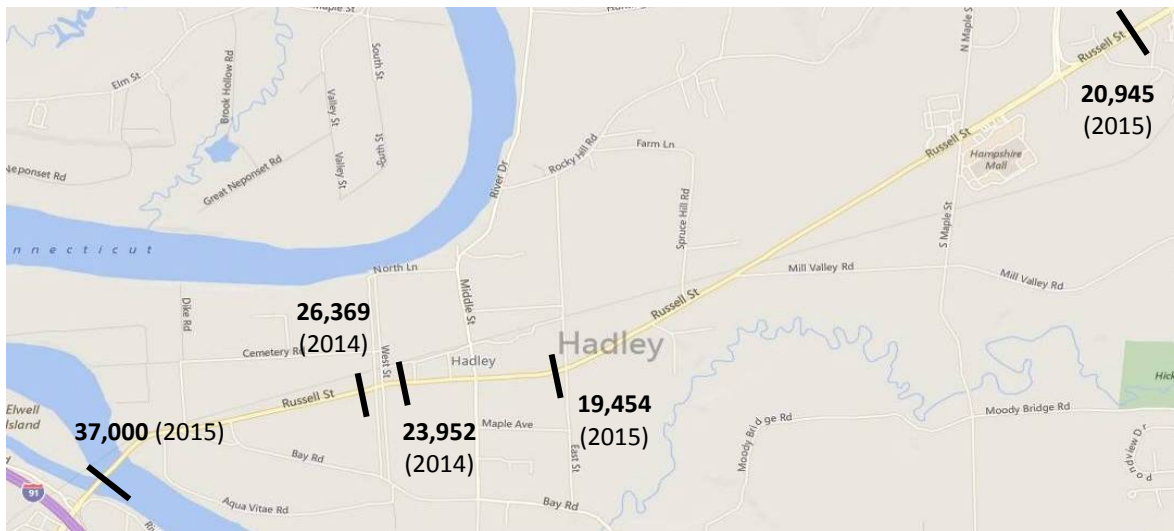


¹ <https://www.walkscore.com/score/120-russell-st-hadley-ma-01035>

Transportation Issues: Route 9 (Russell Street)

Route 9 provides the principal connection between Hadley, Amherst, Northampton, and Interstate 91, and is easily the most heavily used road in Hadley. (Counts do not exist for roads off of Route 9, however PVPC can conduct these counts at the Town's request.) Vehicle numbers decrease towards Amherst and increase towards the Coolidge Bridge (the only means of crossing the Connecticut River for miles in either direction). Backups occur regularly, especially where the road necks down to two lanes east of East Street, but also at the numerous traffic signals servicing side roads and shopping plazas.

Route 9 Traffic Counts



Source: MassDOT, Bing Maps.

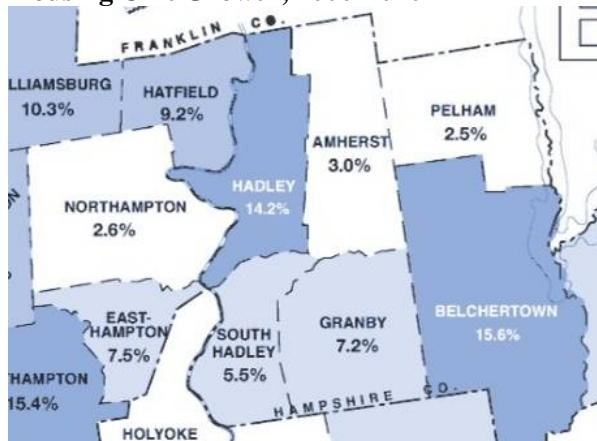
Because of the pressure on this route, MassDot conducted a Connecticut River Crossing Transportation Study in 2004 that examined the potential for an additional bridge crossing. The study ultimately advised against a new bridge, and instead recommended a series of short-term traffic improvements and a more holistic [Route 9 Corridor Improvement Project](#). This project is currently underway, having held its first Public Information Meeting in Hadley on September 29, 2015. Alternatives analysis and design work for this study are expected to take at least 5 years to complete.

In the meantime, MassDOT has completed or is actively designing several projects on Route 9:

- Widening to four lanes (11.5' – 12' wide each, plus 2.5' shoulders) between Aqua Vitae Rd and Whalley Street, along with intersections changes at Bay Rd and a new sidewalk on the north side – completed in 2007.
- Widening between Middle Street and Lowe's (1.35 miles) and between Lowes to North Maple Street (.75 miles). Sidewalks are to be included in these designs, but whether the roadway will be a 3-lane or a 4-lane cross-section is unknown at this point.
- New signals and changes at the intersection with Middle Street (Route 47), including widening to accommodate shoulders, including crosswalks and pedestrian signals. Under construction. Town officials have expressed concern about impacts to the historic Town Hall, which lies close to the road.
- Pedestrian crossing signals at the two West Street intersections.
- Construction of sidewalks and crosswalks on one or both sides of Route 9 between South Maple Street and Amherst Town Line. In design.

In the near term, these projects will alleviate some of the bottlenecks drivers face when going through Hadley. This will have the added benefit of reducing instances of “shortcuts” where drivers use local roads to go around congestion. However, these fixes will likely be inadequate in the long term. As background trends, Amherst, Hadley, and Belchertown are adding thousands of new residents and Hadley’s regional-scale commercial uses are attracting increasing numbers of drivers from beyond the town and generating more trips within town.

Housing Unit Growth, 2000-2010



Source: PVPC Valley Vision 4, US Census Bureau

Resident Growth, 2000-2010

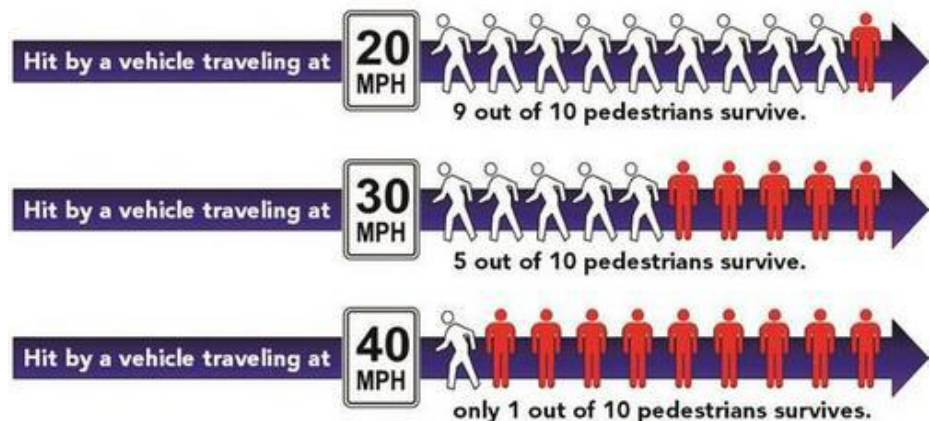


Source: PVPC Valley Vision 4, US Census Bureau

Furthermore, improving Route 9 for high-speed thru-traffic may in *itself* increase the number of trips taken on the road, in a phenomenon called *induced demand*. As the supply (capacity) of a road increases, the cost (time, aggravation) initially goes down. That lowered cost causes more drivers to use the road more often, increasing traffic. Eventually any original benefits may be lost.

Land use impacts from widening will likely add to this feedback:

- The demand for residential development in outlying parts of Hadley, Amherst, and other towns will likely increase because of Route 9 improvements, adding more drivers than would have otherwise occurred.
- Wide roads and high-speed traffic will likely negatively affect residential uses along Route 9, encouraging their redevelopment into convenience commercial uses and generating vehicle travel.
- Wide roads and high-speed traffic negatively affect the pedestrian experience within Hadley’s traditional town center, dis-incentivising walking or bicycling and incentivizing new vehicle travel.
- Beyond transportation concerns, maintaining Route 9 as a high-speed thru-traffic route harms the unique and historic character of Hadley. It is especially harmful in the historic town center, where high speeds and wide roads are anathema to Economic Development goals encouraging walkable mixed-use development.



By beginning the holistic [Route 9 Corridor Improvement Project](#), MassDOT officials seem to recognize the long-term futility of trying to build the way out of Route 9 congestion with increased capacity. Instead of focusing on moving as many vehicles as fast as possible, the Project will explore ways to move as many people as possible, facilitating multi-modal use of use of the corridor, including Bus Rapid Transit-style improvements, bicycle, and pedestrian improvements. However, the effectiveness of these travel modes is highly contingent on nearby land use patterns. Bicycles have a smaller geography of use than autos, transit wants to move between compact nodes, and walking wants to occur within compact nodes. Coordination of land use and economic development goals with these improvements is therefore critical.

Helpfully, in recent years MassDOT has begun to promote Complete Streets concepts (i.e. that roads should accommodate all users, not just vehicles), including a funding program for complete streets technical assistance and construction. To be eligible funding, a municipality must meet three primary requirements:

- Attendance of a municipal employee at Complete Streets training.
- Passage of a Complete Streets Policy that scores 80 or above out of a possible 100 points (Tier 1).
- Development of a Complete Streets Prioritization Plan (Tier 2).

MassDOT offers technical assistance to conduct a needs assessment, network gap analysis, and/or safety audit to determine a targeted investment strategy for Complete Streets infrastructure. Further information about the program:

<http://www.massdot.state.ma.us/highway/DoingBusinessWithUs/LocalAidPrograms/CompleteStreets.aspx>

GOALS

Goal 1: Grow a Diverse and Sustainable Transportation System That Supports Land Use and Economic Development Goals.

Specific Objectives:

- Increase transportation options and lessen Hadley's residents and businesses reliance on vehicular transportation.
- Work to coordinate road improvements with other goals, and begin to diversify the transportation network so as to serve growth without increasing congestion.

Because of the town's development patterns, and limited opportunities, Hadley's residents and businesses are reliant on vehicle transportation. This works well for the most part, but stresses on the network's most vital component, Route 9, are evident. In the next Master Plan, the Town should work to coordinate road improvements with other goals, and begin to diversify the transportation network so as to serve growth without increasing congestion.

Route 9 is forced to serve two incompatible functions: a high-speed arterial thru-route ("Route 9") and a local commercial Main Street ("Russell Street"). Functionally, it serves neither very well – the many large intersections, curb cuts, and growing volume make moving large numbers of vehicles at high speed

impossible, yet the speeds and traffic volumes remain high enough to favor less-productive sprawl and convenience uses.

MassDOT's [Route 9 Corridor Improvement Project](#) is a once-in-a-lifetime opportunity to take a holistic look at the corridor and build long-term solutions. However, MassDOT's perspective on Route 9 is not necessarily the same as Hadley's. The state's objective is to move vehicles and people as efficiently as possible, while Hadley officials should focus on using the road to support land use and economic development goals, particularly in the traditional town center and near the large shopping plazas. Because of this, a one-size-fits-all approach to Route 9's physical design will not work. Instead, Route 9 can be thought of two types of functional areas:

- 1) Development nodes in the town center and (longer term) at the large shopping plazas; and
- 2) Through-movement and convenience uses outside these nodes.

This aerial photo shows these two functional areas:



Key Strategies:

- A. **Discuss Coordinating Road Improvements and Land Use Goals:** Work with MassDOT to create place-centric improvements for Route 9 development nodes and create movement-centric improvements for Route 9 between and beyond development nodes. Curtail cut-through traffic and short-cuts.

Traffic counts show that 19-24,000 vehicles currently travel through the town center node, with slightly less through the Retail plaza node. While this may seem like a high number, there are many successful town and village centers with similar conditions – see the next page for photos of examples. What is important is that vehicle movement is slow and other travel modes are supported with equal weight. This will increase pedestrian safety, and create an environment necessary to meet town center land use goals. Design improvements could be implemented for the Traditional Center immediately. For the Retail Plaza node, improvements could be timed with future redevelopment efforts.

Some examples of town centers with similar traffic volumes and right-of-way widths:

US 202/CT 10 in Simsbury, CT (16,000 vehicles adt)

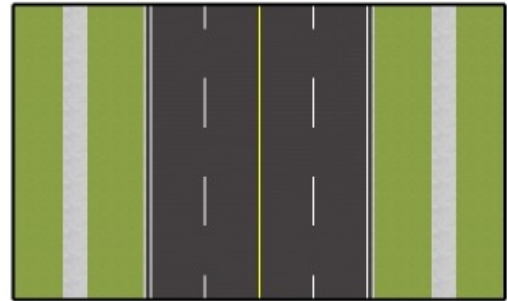


Source: Google Streetview, CDOT

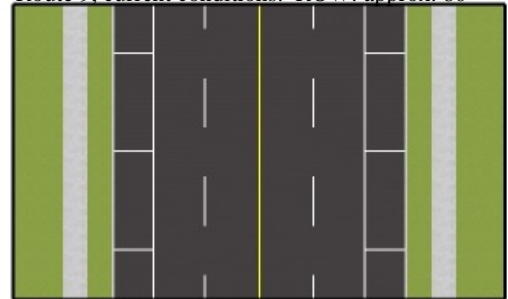
US 7 in Great Barrington, MA (20,000 vehicles adt)



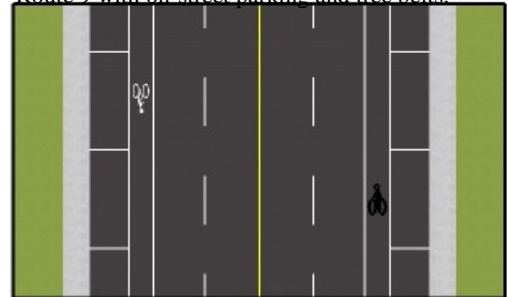
Source: Google Streetview, MassDOT



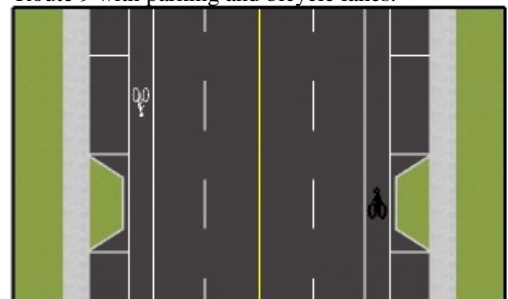
Route 9, current conditions. ROW: approx. 80'



Route 9 with on-street parking and tree belts.



Route 9 with parking and bicycle lanes.



Route 9 as above, with periodic tree pits. A 3D view of this design is shown on the next page.

More examples of town centers with similar traffic volumes and right-of-way widths as Hadley's center:

MA 4 in Lexington, MA (20,000 vehicles adt)



Source: Google Streetview, MassDOT

US 1 in Fairfield, CT (20-24,000 vehicles adt)



Source: Google Streetview, CDOT

Route 9's right-of-way is approximately 80ft wide in the traditional town center – wide enough to accommodate a “complete streets” re-design without expensive land acquisition. Shown below is the intersection with Middle Street (Rt 47) at Town Hall, with four vehicle lanes as currently exists, dedicated bus pull-off areas, on-street parking, separated bicycle lanes, and sidewalks. The parking lanes also support street trees that shade and visually narrow the street, helping to keep drivers to appropriate speeds.



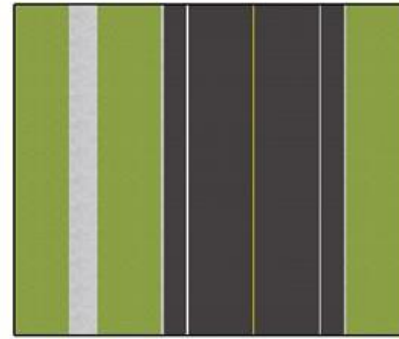
Outside of the nodes described above, Route 9 should primarily support through-movements, with appropriate provision for entering and exiting the lower-density businesses along the corridor. Unfortunately the right-of-way width is not even through the corridor, but varies from as low as 50 feet in some locations to 90 feet or more.

Unfortunately, the traffic situation on Route 9 creates an incentive to “shortcut” around congestion using local roads. This often brings fast driving through residential areas or where dangerous road conditions exist. Design modifications on these roads will help tame this thru-traffic. These modifications could also prove useful in taming traffic on Route 47 in North Hadley, where drivers regularly speed, despite a 25mph posted speed limit in this long-settled area. Popular routes used to circumvent Route 9 congestion include Cross Path Road, Cemetery Road, and Rocky Hill Road. Suggested improvements:

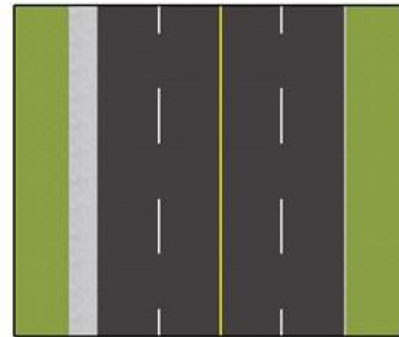
- Develop a traffic calming policy to address various types of traffic conditions such as speeding, cut-through traffic, and truck intrusion on local roads.
- Improvements that might help include speed bumps or speed tables through denser residential conditions, “Slow Children” in-roadway markers in residential areas, flashing warning signs at 90-degree turns (e.g. Cemetery & Cross Path Roads), narrowing lane widths, and planting street trees.

B. Discuss supporting transit service improvements: Work with MassDOT and PVTA to create an effective bus service from and through Hadley.

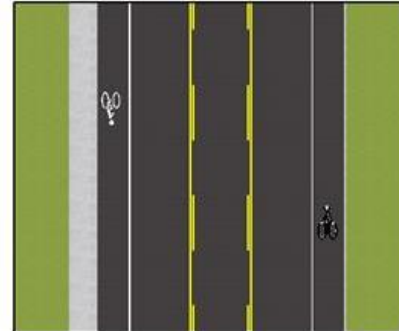
As part of its Route 9 Corridor Improvement Project, MassDOT will be working with PVTA to plan improvements to transit service in order to absorb some of the projected traffic growth. Happily, the Amherst-to-Northampton corridor has a very transit-friendly geography: it’s a direct route that follows a single road, with endpoints in dense, walkable town centers. In between the endpoints, there are opportunities for fostering walkable nodes in Hadley’s village center and at the large retail complexes.



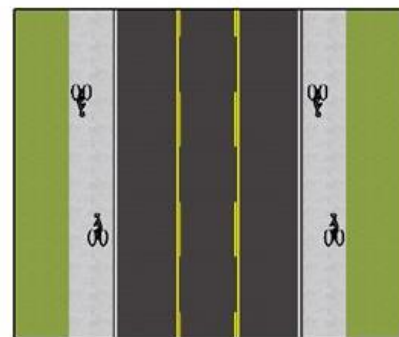
Route 9, 50ft right-of-way, current conditions in some places.



50ft ROW, 4-lane configuration. No room for turn, transit, or bike lanes.



50ft ROW, 3-lane configuration. Center turn lane, bicycle lanes.



50ft ROW, 3-lane configuration. Center turn lane, combined bike/ped paths on each side. Right turn lanes, and transit pull-offs could be added at stops.

Bus Rapid Transit is essentially bus service that acts like rail service, with dedicated road space, preferential signalization, limited stops at full service stations, and pre-boarding ticket sales.

At first blush, the Route 9 corridor might be an ideal host for BRT service, but the width of the right-of-way, construction costs, and competing vehicular needs will likely limit the ability to create a full-service BRT. A “BRT-lite” service for the corridor could be implemented, incorporating some BRT elements without a dedicated transit lane.



*Transit Riders Without Seating or Shelter
Rt 9. at Spruce Hill Road.*

From Google Streetview.



*While this Bench on Rt. 9 at Rt. 47 is a nice thought,
some people might think sitting 4' from traffic
traveling at 40mph is not Pleasant.*

For bus service, BRT or not, to compete with private vehicles, it must provide fast and frequent service on a legible and direct route between walkable nodes, with appropriate station infrastructure to serve riders. Existing PVTA service is already popular and efficient, but perhaps there are ways to improve it further as a BRT service is implemented.



Potential consolidation of transit stops serving the shopping plaza area of Route 9. Stops are aligned with existing cross-routes, 800-1100 feet apart. Pedestrian connections are mostly 620 feet or shorter (comparable to a single E-W block in Manhattan). The illustration below shows how paint and dividers might be used to create inexpensive pedestrian routes through parking lots and along overly-wide driveways. A narrowed driveway has the added benefit of slowing vehicles as they enter the parking areas.



- C. **Discuss Improving Hadley's Bicycle Network:** Bicycle ridership is higher in Hadley than many other communities because of the presence of the Norwottuck Trail. Improving this facility and growing the network beyond the Trail will generate additional bicycle use, which fosters healthier lifestyles, supports local businesses, grows residential real estate values, and removes vehicular trips from congested roads.
- Discuss Improving Norwottuck Trail crossings to increase safety. At-grade trail crossings with local roads can create conflict points. These occur at Cross Path Road, West Street, Middle Street, East Street, and South Maple Street. On-trail stop signs, painted stop bars, and gates serve to warn bicyclists of the approaching crossing, but the only warnings for drivers are small and faded trail markers. Recently, flashing yellow signals were added at the South Mape crossing. Painted road markings and larger and brighter crossing signage will help alert motorists to other crossings.
 - Discuss improving connections between the Norwottuck Trail and Hadley destinations with DCR. The Norwottuck Trail is missing some key connections to important local roads, businesses, employment centers, and residential developments. Recommended connections to public roads include:
 - **Spruce Hill Road.** Ramps between the path and the road at this grade-separated crossing could provide bicycle access to the nearby residences and businesses along this portion of Route 9 such as Sam's, Wildwood BBQ, and the Hadley Health Center.
 - **Route 9 crossing.** Access exists on the north side of Route 9, but a full-width gate forces cyclists onto grass.
 - **Mountain Farms Mall.** The Trail connects directly to the Mountain Farms Mall via a small paved access path. Several other private developments would benefit from similar connections:
 - **Hampshire Mall.** An informal walking path leads from the rear of the cinema to a dirt road which parallels the bicycle trail. Formalizing this path and connecting through the hedgerow adjacent to the trail would create a much-needed connection.
 - **Greenleaves Drive apartment complexes.** This dense residential development straddles the Amherst border, with two drives adjacent or nearly adjacent to the Trail, yet no connections exist. The western cul-de-sac of Greenleaves Drive lies in Hadley, less than 300 feet to the bike path.
 - **Westgate Center Drive.** Office, hotel, and retail uses are built on this cul-de-sac, with the parking area of the US Fish and Wildlife Services offices positioned closest to the bicycle trail. This is a longer distance than the other connections mentioned here, but a connection building off of a path to Greensleaves Drive could be made. This would have the added benefit of connecting the residential cul-de-sac with nearby employment and retail uses.
 - Additionally, the Town should require any new development occurring proximate to the bicycle trail to include formal connections and bicycle parking as a condition of planning review.

- Discuss expanding the on-street bicycle network: The Norwottuck Trail helpfully serves Hadley's town center and the Route 9 corridor, but the rest of town remains off-line from formal bicycle infrastructure. Main roads with existing paved shoulders, such as portions of Route 47, provide opportunities to expand the bicycle network with simple and inexpensive stencils, signage, and plastic dividers. Where paved shoulders do not exist or are too narrow, consider narrowing travel lane widths, expanding paving, or adding "sharrow" stencils and "share the road" signage. Recommendations of the recently completed Scenic Byway Plan should be followed.



Inexpensive paint was used to create separated bicycle lanes on Route 5 in Holyoke, a useful prototype for Routes 9, 47, and 116 in Hadley. The lane markings have the added benefit of encouraging drivers to drive closer to posted speed limits. Images from Google Streetview.

- D. Discuss improving and expanding pedestrian facilities where walking is most viable: Because of its rural and suburban nature, most of Hadley is simply not conducive to pedestrian use. Pedestrian improvements, which can be expensive, should be targeted in areas where existing pedestrian activity is underserved or where the Town wishes to encourage more pedestrian activity.
- Expand pedestrian facilities in the town center. As discussed under Strategy A above, sidewalks, street trees, lighting, and crosswalks are essential for creating a walking-friendly town center environment. Much of Route 9 through the town center area includes sidewalks, though these vary in condition, and are frequently interrupted by overly-wide driveways and curb cuts. Away from Route 9, sidewalks exist on West Street and Middle Street, but are missing on smaller streets such as Railroad, Whalley, and Goffe.
 - Consider completing an inventory of the existing sidewalk and pedestrian network to understand how future improvements can enhance pedestrian safety.
 - Within the town center area, zoning regulations could be amended to require sidewalks, street trees, and pedestrian lighting, and minimize curb cut occurrences and widths when a property is developed or redeveloped.
 - Given the low traffic volumes and speeds on Railroad, Whalley, and Goffe, encouraging a shared-street environment (where pedestrians, bicycles, and vehicles use the same roadway), may be more cost effective at this time than providing separated sidewalks and bicycle lanes. Signage and beautification efforts such as trees and plantings would be a near-term, low-cost improvement for these streets.
 - Create pedestrian connections within shopping centers and to transit stops along Route 9. This is explained in more detail under Strategy B. above, but the essential goal is to support pedestrian movement between shopping plazas and facilitate an improved transit corridor along Route 9.

10 PUBLIC FACILITIES AND SERVICES

This chapter addresses the public services, facilities, and infrastructure needed to maintain existing and future development in the Town. Hadley's emergency services, schools, and water and sewer infrastructure are key public assets that need maintenance and strategic investments to provide the high level of service that residents expect. Much of this chapter is based on information from town officials and existing reports – the purpose is not to undertake a thorough analysis of the town's facilities and services, but to integrate this information into the overall master planning process so that the town's public investment decisions are consistent with the community's overall vision for the future.

Emergency Services

Hadley's Police and Fire Departments are the primary first responders for emergencies. They share a main facility at 15 East Street, built in 1998.

Police Department

In addition to the Police Chief, the Department has 13 full time officers (including three sergeants), 4 part time officers, 5 special officers, 3 full time dispatchers and 7 part time dispatchers. The Police Department currently owns 8 patrol use cruisers, 1 detective car, 2 K9 cars and 1 Expedition used as a patrol cruiser/animal control car.



Hadley Public Safety Complex

As the town's population increases, the town must continue to ensure that its public safety departments keep pace with such growth and that sufficient resources are devoted to this effort. Because of this, staffing is the most immediate concern, according to the Police Chief. Hiring three additional full-time officers has been discussed for several years as a way to increase patrols and decrease overtime.

As for facilities, the Police Department has worked with the Fire Department and Building Committee to understand departmental needs and ways to address them. As a less expensive alternative to a new facility, a significant expansion of the existing facility has been identified as the most effective solution. Most important for the Police Department are include areas for records and evidence storage (to meet records retention policies), expended locker room areas, and a larger sally port.

Fire Department

The Fire Department portion of 15 East Street, or Center Station, consists of five bays housing a 2000 Seagraves Quint (Ladder/Engine1), 2006 Seagraves-Engine 3, recently acquired 2017-Pierce Engine/Rescue 4, 2010 5 Ton Tanker Truck; 2010-Kubota UTV with Skid Unit/Brush 2, 2006 Ribcraft Fire/Rescue Boat, 1987 Grumman Step Van Rescue 1 and 1962 Manifold-Mini Pumper-Engine 5. The department also has two Ford Expeditions Car1 and Car 2 and a 1994 Ford F350 Pick-up-Utility 1 The fire department also has a fifty-year old two-bay facility in North Hadley, North Station, which houses its 1987 Pierce Engine 2 and 1951 Dodge

M37 Brush 1. The Department has been working hard to provide the Capital Planning Committee with recommended replacement dates well ahead of their expected retirement dates. The Town voted in 2016 to construct a new North Hadley Fire Sub-Station in the ball field next to the existing station which is currently in design and should be completed sometime in early 2018

In 2016 the Fire Department responded to 1163 calls for service which is a 9% increase from 2015. The growth of the Town with its thriving commercial base, 5 College Community and major State Highway running through its center brings with it an increase in calls for service and the need for additional staffing. The Fire Department currently employs two full time staff including the Fire Chief, Fire Prevention Firefighter/ Lieutenant and 22 paid/call force members which carry department pagers to alert them of fire and medical related emergencies at which time they report to one of two stations in town (Center and North Stations) if they are available to do so. Call force and volunteer



Firefighters Battling 206 Russell St. Blaze-2013

departments are struggling with recruitment and retention throughout the Commonwealth but are needed to respond to an ever increasing variety and volume of calls with increased hazards and extensive training requirements. Over the past 10-15 years the number of call force members available to respond in town or who worked in the local farming industry or trades has declined. The ability to leave their jobs in order to respond to emergencies has become more difficult in the current economic climate and reduced staffing in these commercial businesses. Many call force members have jobs outside of Town and are unavailable during the weekdays and many evenings allowing for only weekend response. Currently the department has two members that work for the Department of Public Works which allows for response during the daytime if they are not assigned to a major project. As a result the Fire Chief has presented the Select Board a Five Year Phased approach to services and it is his recommendation that the Town support his plan for hiring 4 additional full time staff to improve response times and to respond with an appropriate crew to initiate a fire attack. The increased staffing will also allow for additional life safety inspections, equipment maintenance and additional fire and life safety education and training for our youth and senior populations. The Chief requested this program expansion for FY18.

The Hadley Fire Department is also an active member of the Hampshire County Fire Defense Association and Tri State Fire Association and is committed to the Mutual Aid agreements established with its neighbors and the region. Hadley is frequently called to its immediate neighbors of Amherst, Northampton, Sunderland and South Hadley but will answer the call to larger incidents as part of a State Fire Task Force. Hadley also frequently requests mutual aid from its neighbors and in 2013 Hadley requested a task force activation to fight the 206 Russell Street Fire (pictured below) which brought in 25 Mutual Aid Departments from as far away as Worcester County.

Expansion needs – additional equipment bay; living quarters for future 24-hour service at the Center Station. There is no additional space for equipment in the Center Station and two vehicles remain parked outside.

In addition to town funds, the Department applies for State and federal grants and also conducts local fundraising through the Hadley Volunteer Fireman's Association to support the purchase of new equipment.

The current fundraising effort will fund a new Air pack and associated equipment which will cost over \$7,000.00. Recent grant funding has been used to purchase new bunker gear, to upgrade the radio system, and purchase thermal imaging equipment. According to the Fire Chief, immediate needs include additional full time staffing during the daytime hours as 70% of the departments calls occur between the hours of 6am and 6pm.

School Facilities

Hadley has two public school facilities: Hadley Elementary offers pre-kindergarten through grade 6 and the Hopkins Academy hosts junior- and senior high school grades 7 through 12. Other schools in Hadley include the private Hartsbrook School, offering pre-kindergarten through grade 12. In 2015-16, 606 students were enrolled in the two public schools – this is down 6% from the 645 students recorded in the 2005 Master Plan.

Hadley Public School Enrollment, 2015-16

(Source: Massachusetts Department of Elementary and Secondary Education)

| Enrollment by Grade (2015-16) | | | | | | | | | | | | | | | | |
|-------------------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|----------|------------|
| | PK | K | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | SP | Total |
| Hadley Elementary | 39 | 38 | 31 | 42 | 44 | 54 | 43 | 45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 336 |
| Hopkins Academy | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 48 | 42 | 47 | 35 | 45 | 53 | 0 | 270 |
| District Total | 39 | 38 | 31 | 42 | 44 | 54 | 43 | 45 | 48 | 42 | 47 | 35 | 45 | 53 | 0 | 606 |

UMass’ Donahue Institute projects that Hadley’s school-age population will increase modestly over the next decade before slightly decreasing or leveling. The School Department projections maintain an average grade size at both schools of forty-four students.

The current Hadley Elementary building was built on River Drive in 1996. Although relatively new and in good condition, Hadley Elementary School is already nearing capacity. According to the Superintendent there is “not a lot of wiggle room” and, if elementary grade sizes increase, the administration will need to think about expanding capacity. Given the current situation, anticipated future population growth during the upcoming decade will almost certainly require the town to take measures to address this issue.



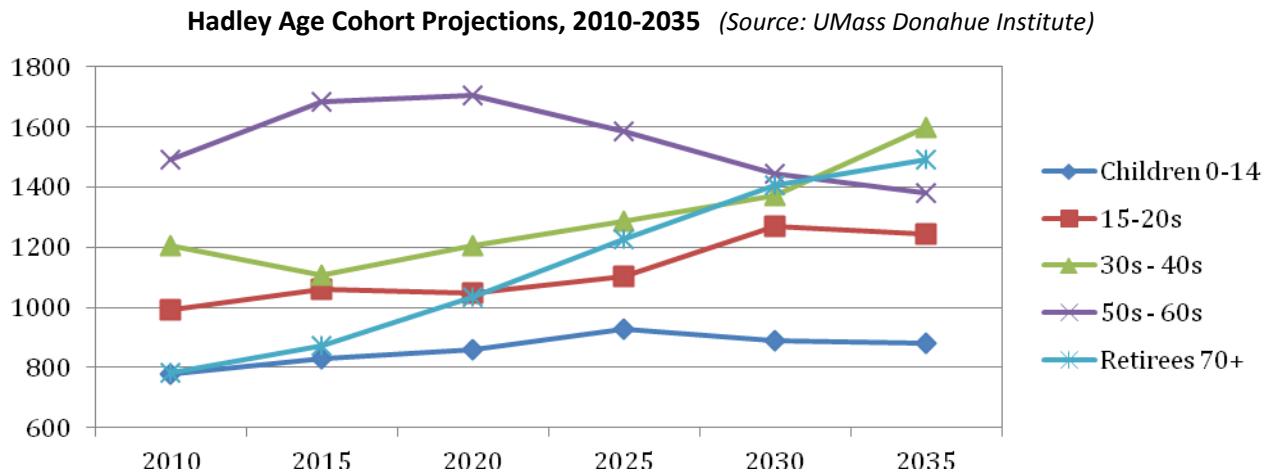
Hadley Elementary School

Hopkins Academy was once a private school, founded in 1664 with an endowment from Edward Hopkins, a wealthy merchant. Hopkins Academy’s last addition was over fifty years ago and its last substantial renovation was over thirty years ago. The town has determined that a substantial renovation and possible expansion of the school may be necessary.



Hopkins Academy

The town needs to plan well in advance of these capacity issues and must focus on a coordinated and comprehensive district-wide solution to its future school capacity needs.



The schools are served by 118 total employees including 30 elementary teachers and specialists and 26 secondary teachers and specialists.

As Hadley’s population ages, it might explore further possibilities for adult education. A few years ago the School Department partnered with the Council on Aging to provide access to a classroom and a teacher to introduce local seniors on the computer. The school offers little other outside programming, but it does allow a number of local organizations such as Girl Scouts, the Parks and Recreation Department and a parent-run after school program to use their facilities.

Public Works

Public Water Supply

Existing Capacity and Demand

The 1988 Water Management Act (WMA) required municipalities to register their current water withdrawals and obtain permits for any withdrawals above that baseline amount. The town’s registered water withdrawal rate is 0.79 million gallons/day (mgd). The town received an additional permitted withdrawal of 0.13 mgd in 2010. The total authorized withdrawal is an average of 0.92 mgd, or 335.8 million gallons per year. Data from 2006 to 2013 indicates that residential users are the largest consumers of water in town, using about 44% of the town’s water supply. Commercial users consumed 36% during this same timeframe.

In 2007, the WMA was renewed with requirements that public water suppliers meet a performance standard of 65 residential gallons per capita/day (RGPCD) and have no more than 10% unaccounted water (UAW) loss by the end of 2017. Unaccounted water loss is “finished” water that is unbilled or unaccounted for due to leaks, illicit consumption, metering issues, or other reasons. The town has consistently met the RGPCD goal since 2006, but has ranged between 11-17% UAW during the same time period. The town hired contractors in 2015 to identify potential leaks in the system, and adopted tighter controls over the metering system, but

the problem persists. Reducing the UAW amount will be necessary in order to recoup the cost of treating unbilled water, and to be in compliance with the WMA permit, especially when it is renewed in 2017.

Projected demand for water (maximum day demand) under normal and dry conditions in 2035 is 1.73 mgd and 2.04 mgd, respectively. Existing supplies, even with the largest source offline, exceed this projected demand – as long as Mt. Warner well #1 remains functional. A revitalized pumping station and new water treatment facility to address iron and manganese are needed to keep this well operating long-term. These projections suggest that Hadley's water supplies are likely sufficient to meet demand until 2035; however, increased periods of severe or extreme drought, such as experienced in 2016, and renewed WMA permit requirements (anticipated in 2017) may necessitate the need for continued town-led water conservation efforts. In short-term emergency situations, Hadley has intermunicipal connections and agreements in place with the towns of Amherst and Sunderland.

Facilities and Equipment

The town's water infrastructure includes 67 miles of pipe, four wells and associated pumping facilities in two locations, and three storage tanks. Some of the pipes were installed in 1905 and are still in use today. The water system serves approximately 2,204 customers and is supplied by groundwater sources from four town-operated wells: Mount Warner Wells No. 1 and No. 2, and Callahan Wells No. 3 and No. 4 at Bay Road.

The Callahan wells are the main source of Hadley's public drinking water, a reversal from the previous 2005 master plan when the Mt. Warner wells were the main source. In 2008, the Callahan water treatment facility was completed, allowing for the removal of iron and manganese. At this time, the Mt. Warner well #2 went offline due to contamination by iron, manganese, and perchlorate. Mt. Warner well #1 was also taken offline and now serves in an emergency capacity with additional chlorination to supplement the Callahan wells when needed. In addition, one of the storage tanks at Mt. Warner also was placed offline in response to total coliform contamination in 2008. A solar water mixer was installed in the Mt. Warner tank in 2014, as was an electric tank mixer for the Mt. Holyoke Range tank.

The 2015 Hadley Water System Master Plan Update recommends constructing a new water treatment facility at the Mt. Warner wells, particularly to treat iron and manganese contamination for the Mt. Warner well #1. It also recommends conducting a prolonged pump test at Mt. Warner well #2 to determine if the removal of percholate, iron, and manganese is necessary. In 2016, the town is taking the opportunity to replace old water lines along Route 9 as major road work there takes place. In total, the water master plan update identifies \$7,285,000 to \$11,770,000 in necessary capital improvement projects for the water system in the next 10 years.

Wastewater System

The wastewater system has 969 connections serving Route 9, Route 47 and the side streets surrounding drinking water wells. The average daily flow to the treatment plant at 230 South Middle Street in 2015 was 367,000 gallons/day; this represents 68% of the plant's 540,000 gallons/day capacity, leaving comfortable room for additional inflows into the future. In 2017, bids will be solicited for the upgrade of the wastewater treatment plant's clarifiers.

There are 21 miles of gravity and force main sewer lines, and 9 sewage pumping stations. No lines have been added since 1988, and there are no plans to add additional lines in the near future. The age of sewer pipes continues to be a concern in Hadley. Inappropriate inflows (such as from sump pumps) and seepage from groundwater can lead to leaks and emergency repairs. Because the underground condition of the system's pipes is unknown, in 2017 the town is proactively investing in smoke and camera investigations to identify leaks or potential leaks in order to develop a prioritized list of replacement or re-lining needs. In the meantime, sewer pipes are generally replaced as leaks or other problems surface.

Sewer rates were last raised in 2008, and are reviewed on an ongoing basis to ensure costs are covered for operations and maintenance. There are no concrete plans as of 2016 to raise sewer rates. In 2008 the town also adopted a sewer impact fee for new hook-ups to the system. The fees are specifically dedicated to infrastructure replacement and upgrades, and used to offset infrastructure investments current users have paid to maintain the system in good repair. In the master planning process, some developers in Hadley noted that the sewer impact fee is quite high compared to other municipalities and can set a high barrier to entry for smaller businesses. Survey respondents also identified the “sewer treatment cap and operation” as a top issue of concern, but this likely refers to the lack of sewer line expansion. Expanding sewer lines has both benefits and drawbacks, most notably that the expansion of sewer lines in undeveloped areas can attract a greater amount of development than without such an expansion, and impact the town’s rural character.

Hadley accepts septage and in 2015 the town received \$104,591 for this treatment. On average, the town receives approximately \$101,000 annually for this service. This income supplements revenue incurred from usage billing.

Roads

There are approximately 67 miles of roadway in Hadley. Ongoing maintenance by the Department of Public Works is assisted by good substrate of sandy-gravelly soils, keeping Hadley’s roads in an overall state of good repair. A particular focus of Hadley highway department is Route 47, which is the main north-south thoroughfare in Hadley and also a nationally designated scenic byway. Bridges in town are also generally in good repair and have been well maintained.

Commercial development along Route 9, and commuters traveling through Hadley, has increased traffic congestion along Hadley’s main thoroughfare, which is owned and maintained by MassDOT. The road is narrow at points and offers little in the way of shoulders or pedestrian accommodations in relation to its current volume. In 2016, MassDOT began construction on widening Route 9 between Whalley Street and the Farm Museum, laying a new substrate and providing more travel width and sidewalks. In future years widening is also planned for Middle Street to East Street in 2020, and a rotary is planned for the Northampton side of the Coolidge Bridge. MassDOT is also currently working on a temporary repair for the bridge it owns on Bay Road. The closure of this bridge in 2016 resulted in significant traffic delays and diversion to other routes as Bay Road is a main east-west thoroughfare. It is unclear whether this bridge will need full replacement in the next decade, but communication with MassDOT about this prospect will help the town prepare residents and commuters to develop alternative routes for the replacement process.

Respondents to the master plan survey noted that pedestrian and bicycle safety (88%), traffic safety (88%), and making it easier to live/commute without a car (88%) are top issues needing attention. Improving the quality of town roads (75%) and extending/connecting sidewalks, especially in commercial areas (73%), were among the top supported solutions. Pursuing opportunities to build a sidewalk network in conjunction with planned roadwork is one potential approach to addressing these concerns, but should be done as part of a larger sidewalk plan to prevent the construction of “stranded” sidewalks.

Department of Public Works Building

Currently, the Hadley Department of Public Works operates out of two construction trailers that have been in use for 20 years. One of the trailers is currently in need of stabilization or replacement. Much construction equipment is also parked outside, leaving it vulnerable to deterioration by the elements. The construction of a DPW building, including space for administration and a wash bay, would protect the town’s investment in equipment and also allow for more organized administrative processes.

Broadband Access

Just as access to streets, water, and electricity were critical to participation in the economy and civic life in the twentieth century, access to high-speed internet is critical for economic development and participation in this century. Most of Hadley's residents have access to high-speed internet through commercial cable and telephone providers (Charter Communications and Verizon, respectively). There is also fiber-optic network that runs along Route 9 from Northampton into Amherst. Some areas of Hadley - Honey Pot Lane, Mountain Road, and East Amherst Road – are without access to broadband internet, however. These areas are listed with the Massachusetts Broadband Institute as areas where public-private partnerships may be needed to extend broadband access. In the meantime, the town could explore the feasibility of municipal broadband if the need were identified by residents, but there are no such current plans in place.

GOALS:

Goal 1: Maintain Hadley's Commitment to Superior Fire, Police, School, and Utility Services

Though the physical equipment of Hadley's emergency response team is in good condition, personnel shortages can have a significant impact on the breadth of service the departments provide. For example, the all part-time Fire Department responds to all calls, but has little remaining time to catch up with administrative duties including paperwork, permits and continuing education. In the past year, the Police Department has seen an increase in calls needing police response; thus the Department could benefit from additional staff. Furthermore, both Departments have to increasingly be aware of new training and technology, specifically the activities of the National Office of Homeland Security.

Continued growth adds significant pressure to the emergency services staff; without an appropriate increase in funding for new development, the administration of safe and responsive emergency services is at risk. The town needs to explore new ways to keep the emergency services operating at pace with development in Hadley. Hadley's Fire Department is already part of a regional system with neighboring towns. In fact, the town's equipment is more capable of handling large fires than some of its neighbors and thus very often responds to other towns' emergencies.

Specific Objectives:

- Maintain Hadley's safety through effective police, fire, and emergency medical services

Key Strategies:

- Address Personnel Shortages:** Increases in responses to calls can have a significant impact on the breadth of service the departments provide resulting in a lack of time to undertake other required duties.
- Obtain Training and Technology:** Especially relative to the activities of the National Office of Homeland Security.
- Keep the Emergency Services Operating at Pace With the Rate of Development.** Explore new ways to keep the emergency services operating and develop a long term public safety plan

addressing issues as if and when the town may need a full-time fire department or more police officers, etc.

D. Increase Department Funding: The town needs to explore ways to:

- expand regional opportunities
- pass costs of increased services on to commercial developers where appropriate
- as a town, develop a long term public safety plan addressing issues such as if and when the town may need a full-time fire department or more police officers, etc.

Goal 2: Maintain Hadley's Commitment to Provide Superior Education Opportunities for its Residents.

The development of a School Building Master Plan/Long Range Capital Plan allows the town to attempt to forecast into the future and anticipate needs before reaching a crisis situation. The Elementary School is relatively new and already reaching capacity; Hopkins Academy needs to be updated. In preparing the School Building Master Plan/Long Range Capital Plan, the town can attempt to prepare to upgrade aging or out-of-date facilities and replace retiring staff. However, the town has difficulty predicting the number of children attending Hadley schools. With new residential development comes new school children; the town needs to study the true capacities of the school and develop a solution for accommodating additional school children if growth continues at this pace.

Adult education programs are limited to computer training offered by the Council on Aging with the assistance of the schools. Hadley residents have resources available for continuing education at the University of Massachusetts, but those resources are not often utilized. The town might pursue additional local options available for the adult population, including programs ranging from adult basic education to basic technology training to more recreational classes and programs that could be administered by the Park and Recreation Department. Grants are available for some of these programs, as is other private funding, and should be explored.

Specific Objectives:

- Maintain Hadley's commitment to provide superior education opportunities for its residents

Key Strategies:

- A. **Development a School Building Master Plan/Long Range Capital Plan:** This assists the town in forecasting anticipated needs before reaching a crisis situation. In preparing a School Building Master Plan/Long Range Capital Plan the town can prepare to upgrade aging or out-of-date facilities.
- B. **Expand Adult Education Opportunities:** The town should pursue additional local options available for the adult population, including programs ranging from adult basic education to basic technology training to more recreational classes and programs that could be administered by the Park and Recreation Department.

- C. **Continuously Improve and Support Existing Schools:** Upgrade school labs, bring new technology into schools.

Goal 3: Maintain Hadley's Physical Infrastructure Through Strategic Investment.

A municipality's drinking water supply is one of its most vital assets. Economic growth, quality of life, and public health are all dependent on clean water. After the last master plan, the construction of the Callahan wells treatment facility in 2008 addressed the presence of iron and manganese in the town's water supply, and the town obtained a permit for additional withdrawals to meet future demand. Hadley's public drinking water supply and facilities are generally in good repair, but there is a long list of needed investments to keep it that way. Rehabilitation of the Mt. Warner well pumps and the construction of a new treatment facility are listed as top priorities in the town's 2015 water supply master plan.

The age of Hadley's water and sewer system also necessitates replacing water mains when the opportunity arises, such as during road repairs. The town should plan to make annual, proactive investments in the water supply and sewer infrastructure on an ongoing basis to prevent larger, reactive costs down the road.

The town's roads and bridges are generally in good repair. Respondents to master plan survey questions and stakeholder interviews expressed a desire for more options to walk or commute by means other than car. Opportunities to install sidewalks in an organized manner should be pursued in conjunction with road projects, when possible.

Most of Hadley's infrastructural assets are in a state of good repair, and the town has worked hard over the past decade to resolve issues identified in the past master plan, such as increasing drinking water withdrawal limits and generating much needed revenue for sewer infrastructure maintenance. However successful these efforts were, ongoing communication about their impact on the everyday lives of residents and articulating needs in other areas is important to maintain dialogue and support decision making about existing and new infrastructure investments. For example, the master plan survey and stakeholder interviews revealed frustration about the cost of the sewer impact fees, including that they represent a high barrier to entry for smaller businesses. But the impact fees have also allowed the town to proactively upgrade some sewer infrastructure before their failure created more expensive problems down the road. These are important trade-offs that the town and its residents need to continually discuss and consider as the economy and condition of infrastructure evolves. There was also confusion among the development community about whether the wastewater treatment plant was nearing capacity (it is not) and how that would impact economic development. Such misunderstandings could be addressed through targeted outreach to developers. In addition, while Hadley has increased the amount of drinking water it is permitted to withdraw, new WMA/Source Water Management Initiative permitting rules and the extreme drought of 2016 (and the likelihood that the frequency of droughts will increase due to climate change) indicate the ongoing importance of communicating and promoting water conservation.

Specific Objectives:

- Maintain Hadley's physical infrastructure through strategic investment

- Enhance communication about Hadley's infrastructure to residents and development community

Key Strategies:

- A. **Invest in Priorities Identified in Hadley Water System Master Plan:** Rehabilitation of the Mt. Warner well pumps and the construction of a new treatment facility are listed as top priorities in the town's 2015 water supply master plan. Replacing water mains when the opportunity arises, such as during road repairs. The town should plan to make annual, proactive investments in the water supply infrastructure on an ongoing basis to prevent larger, reactive costs down the road
- B. **Invest in Sewer Line Replacement/Repair Priorities Identified as Part Of 2017 Sewer Smoke/Leak Testing:** Replacing sewer lines when the opportunity arises, such as during road repairs. The town should plan to make annual, proactive investments in the sewer infrastructure on an ongoing basis to prevent larger, reactive costs down the road.
- C. **Develop Sidewalk Plan, or Identify Top Streets/Roads for Sidewalk Implementation During Road Projects:** Respondents to the master plan survey questions and stakeholder interviews expressed a desire for more options to walk or commute by means other than car. Opportunities to install sidewalks in an organized manner should be pursued in conjunction with road projects, when possible.
- D. **Seek Funding to Construct Permanent DPW Building.**
- E. **Explore Feasibility of Municipal Broadband, if Such a Need is Identified.**
- F. **Conduct Targeted Outreach to or Create Informational Materials for Developers About the Current State/Capacity of Hadley's Infrastructure in Key Areas:** There is confusion among the development community about whether the wastewater treatment plant was nearing capacity (it is not) and how that would impact economic development. Such misunderstandings could be addressed through targeted outreach to developers.
- G. **Provide Updates in Additional Communication Outlets About Investments in Hadley's Infrastructure, and Identify Important Needs to Resolve as Well:** The master plan survey and stakeholder interviews revealed frustration about the cost of the sewer impact fees, including that they represent a high barrier to entry for smaller businesses. But the impact fees have also allowed the town to proactively upgrade some sewer infrastructure before their failure created more expensive problems down the road. These are important trade-offs that the town and its residents need to continually discuss and consider as the economy and condition of infrastructure evolves. Ongoing communication about the impact of infrastructure improvements on the everyday lives of residents and articulating needs in other areas is important to maintain dialogue and support decision making about existing and new infrastructure investments
- H. **Promote the Importance of Water Conservation to Municipal Water Users:** WMA/Source Water Management Initiative permitting rules and the extreme drought of 2016 indicate the ongoing importance of communicating and promoting water conservation.

11 IMPLEMENTATION PLAN

The Implementation Plan is a step-by-step guide for Hadley to follow over the coming years to ensure that the Master Plan recommendations are put into action. Implementing the Master Plan will require a concerted and ongoing effort on the part of the town's elected and appointed officials, volunteers and dedicated citizens. The actions that the town takes now will create a lasting legacy for future generations. Implementing the Master Plan is the best way to ensure that Hadley will continue to be a desirable community in which to live, work and play five, ten, twenty and even fifty years into the future. Implementation is a critical step in the Master Plan process. Failure to implement this plan would have serious impacts on planning and growth in Hadley and all efforts should be made to advance the implementation of the Plan's strategies.

We exist in an ever changing world with ever expanding and increasing social and technological advances requiring that planning must be an iterative process whereby a community should continually evaluate and respond to new external and internal circumstances and challenges as well as changes in the goals and desires of its residents. This Master Plan has a planning horizon of approximately 15 years: that is, planning needs are evaluated and recommendations are made based on their projected benefit over the same timeline. However, the Implementation Plan only has a much shorter timeframe in the sense that most of the Master Plan strategies are targeted to be commenced within the next three-six years. The Planning Board should periodically revisit the Master Plan to determine whether its goals and general strategies are still appropriate to the town. A full re-write of the Master Plan will not be necessary at this time, but the town should facilitate a public review of the document, modify the goals and strategies as necessary, and prepare a new Implementation Plan for the subsequent six years. The town should consider preparing a new Master Plan around 2030, at which time conditions in the town will probably have changed substantially and a new plan will be needed to address the challenges that these conditions present.

Implementation Action Plan

The Implementation Action Plan summarizes all of the Master Plan strategies in a matrix format that identifies the approximate timeline and the group(s) responsible for implementing each one. The strategies are divided according to the element in the master plan that is addressed. Most of the actions will cost little or no money to implement because they can be brought about by Town Meeting vote or other action to change local policies. In some cases, the town may need to devote staff resources or hire a consultant to assist with this process (e.g., to help prepare zoning changes). If the town is able to hire a professional planner, this staff person may take the place of a consultant in many of these recommendations. Some of the actions that involve facility or infrastructure improvements will require the expenditure of funds, which may come from the town, the state, and/or other sources.

In the "Priority" column of the Action Plan matrices, actions are classified as either "High" (indicating action within 12 months), "Medium" (indicating action within 12-36 months), and "Low" (indicating action within 3-6 years). Many of these strategies are ongoing, indicating action that should be continually repeated and expanded as necessary. All items and strategies within this Master Plan are important however, and the priority designation is simply a means to prioritize generally among all the actions contained within the plan. A number of actions will require state involvement and/or major capital expenditures may require more than six years to implement. Many strategies are linked to one another, requiring much effort in the early phases to lay the groundwork for future progress. The feasibility of implementing certain strategies will be dependent on the town's ability to set the foundation with a number of the shorter-term strategies and allow the longer-term strategies build from those efforts.

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| IMPLEMENTATION SCHEDULE | | | | |
|---|----------------|-----------------------------------|----------|------|
| LAND USE | | | | |
| STRATEGIES | PRIMARY | OTHERS | PRIORITY | YEAR |
| <i>Goal 1: Maintain Hadley's Rural Appearance and Small Town Feel.</i> | | | | |
| A. Discuss Strengthening the Town's Site Plan Review Bylaw and Process. | Planning Board | Building Insp., ZBA | High | 2018 |
| B. Discuss Strengthening Floodplain Regulations. | Planning Board | Building Insp., Cons. Comm. | Med | 2021 |
| C. Discuss Creative Development to Control ANR (Approval Not Required) Residential Sprawl. | Planning Board | Building Insp. | Med | 2021 |
| D. Discuss Controlling Commercial Sprawl along Route 9. | Planning Board | Building Insp., ZBA | High | 2018 |
| E. Discuss Minimizing Commercial Sprawl along Route 47. | Planning Board | Building Insp., ZBA | Med | 2021 |
| F. Discuss Billboard Removal and Sign Control. | Planning Board | Building Insp. | Low | 2025 |
| G. Discuss Protection of Hadley's Scenic Vistas. | Planning Board | Cons. Comm. Ag. Comm. | Med | 2019 |
| <i>Goal 2: Enhance the Town Center as a Livable, Workable, and Walkable Community Center.</i> | | | | |
| A. Discuss promoting mixed use village center development. | Planning Board | Select Board, Building Insp., ZBA | High | 2018 |
| B. Discuss promoting development supporting Norwottuck Rail Trail. | Planning Board | Park & Rec. | Med | 2021 |
| C. Discuss promoting Traditional Neighborhood Development. | Planning Board | Select Board, Building Insp. | Med | 2021 |
| <i>Goal 3: Ensure New Development is in Keeping With Character of Hadley's Landscape and Architecture.</i> | | | | |
| A. Discuss creating a walkable, attractive new village center or downtown style development. | Planning Board | Select Board, Building Insp., ZBA | High | 2018 |
| B. Discuss adopting green development performance standards. | Planning Board | Building Insp. | Med | 2021 |
| C. Discuss adaptive re-use and infill development. | Planning Board | Building Insp., ZBA | Med | 2021 |
| D. Discuss promoting home occupations and cottage industries. | Planning Board | Building Insp., ZBA | Med | 2021 |
| <i>Goal 4: Protect, Enhance and Strengthen Agricultural Lands.</i> | | | | |
| A. Discuss strengthening the Transfer of Development Rights Bylaw. | Planning Board | Ag. Comm., Cons. Comm. | High | 2018 |
| B. Discuss farmland impacts in review of subdivision plans. | Planning Board | Ag. Comm., Cons. Comm. | High | 2018 |
| C. Discuss leasing town-owned land to farmers. | Cons. Comm. | Select Board | Med | 2021 |
| D. Discuss Agricultural Preservation Funding. | Cons. Comm. | Ag. Comm. | Med. | 2021 |
| <i>Goal 5: Work With Route 9 Businesses to Enhance Their Business Experience</i> | | | | |
| A. Discuss the Planning Board conducting periodic "Listening Sessions". | Planning Board | | High | 2018 |

| | | | | |
|--|----------------|---|-----------------|-------------|
| B. Discuss reviewing the town's sign regulations. | Planning Board | Building insp. | High | 2018 |
| C. Discuss working with the utilities. | Select Board | | High | 2018 |
| Goal 6: Work With UMASS and Other Area Colleges to Ensure That Their Plans are Consistent With the Hadley Master Plan and Hadley Interests and Address Off-Campus Issues. | | | | |
| A. Improve Town-Gown interaction. | Planning Board | Select Board | High | 2018 |
| Goal 7: Assess and Address the Town's Short-Term and Long-Term Planning Administrative Needs | | | | |
| A. Discuss creating a full-time professional town planner position. | Planning Board | Select Board, Building Insp., ZBA | High | 2018 |
| B. Discuss appropriating IT funds for the Planning Board. | Planning Board | Select Board | High | 2018 |
| | | | | |
| HOUSING | | | | |
| STRATEGIES | PRIMARY | OTHERS | PRIORITY | YEAR |
| Goal 1: Maintain the Housing Stock | | | | |
| A. Discuss expanding the types of housing permitted in Hadley. | Planning Board | Building Insp., COA | Med | 2021 |
| B. Discuss maintaining 10% of housing stock as affordable housing. | Planning Board | Hsng. Auth., ZBA | Med | 2021 |
| C. Discuss creating an Affordable Housing Trust Fund. | Planning Board | Select Board Hsng. Auth. | High | 2018 |
| | | | | |
| ECONOMIC DEVELOPMENT | | | | |
| STRATEGIES | PRIMARY | OTHERS | PRIORITY | YEAR |
| GOAL 1: Deepen the Property Tax Base | | | | |
| A. Discuss ensuring that agriculture remains a viable economic activity. | Planning Board | Ag. Comm., Cons. Comm. | High | 2018 |
| B. Discuss the traditional town center. | Planning Board | Select Board, Building Insp., ZBA | High | 2018 |
| C. Discuss plans for densification and redevelopment of aging commercial properties on Route 9. | Planning Board | Select Board, Building Insp., ZBA | High | 2018 |
| | | | | |
| NATURAL AND CULTURAL RESOURCES | | | | |
| STRATEGIES | PRIMARY | OTHERS | PRIORITY | YEAR |
| Goal 1: Protect Hadley's Agricultural Character and Economy. | | | | |
| A. Discuss continuing pursuing APRs to protect more farmland, particularly large contiguous expanses. | Cons. Comm. | Planning Board, Ag. Comm. | High | 2018 |
| B. Discuss developing strong coordination with other agencies or organizations protecting farmland to ensure strategic conservation. | Cons. Comm. | Planning Board, Ag. Comm. CPA Comm. | High | 2018 |
| C. Discuss assisting landowners in finding alternative approaches to developing solar arrays on prime agricultural land. | Ag. Comm. | Planning Board, Cons. Comm. | High | 2018 |
| D. Discuss involving the agricultural commission in town policy development in order to incorporate interests of the town's agricultural economy. | Ag. Comm. | Planning Board, Select Board, Cons. Comm. | High | 2018 |

| | | | | |
|--|----------------|---|-----------------|-------------|
| Goal 2: Protect Soil and Water Quality. | | | | |
| A. Discuss proactively protecting land in water supply protection districts, particularly along the Fort River. | DPW | Cons. Comm., Select Board | High | 2018 |
| B. Discuss updating design guidelines and/or requirements and site plan review criteria to promote installation of green infrastructure. | Planning Board | Building Insp. | Med | 2021 |
| C. Discuss promoting efficient irrigation systems and techniques to agricultural and large landowners, and general water conservation throughout town. | DPW | Ag. Comm. Select Board | High | 2018 |
| D. Discuss developing a hazardous materials response plan to prepare for flooding events that may contaminate soils. | Fire Dept. | DPW, Police Dept., Select Board | Med | 2021 |
| Goal 3: Protect the Town's Ecosystems, Wildlife Habitat, and Biodiversity. | | | | |
| A. Discuss Creating an open space prioritization plan that is updated regularly based on changing conditions and opportunities. | Cons. Comm. | CPA Comm. | High | 2018 |
| B. Discuss acquiring conservation land and restrictions, particularly in the Fort River area. | Cons. Comm. | CPA Comm. | Med | 2021 |
| C. Discuss conducting outreach and develop partnerships with agricultural landowners to reduce agricultural impacts on wetlands and waterways. | Cons. Comm. | Ag. Comm., DPW | High | 2018 |
| D. Discuss conducting outreach to landowners of important habitat areas about the value of conservation | Cons. Comm. | | Med | 2021 |
| E. Discuss investigating the feasibility of a stormwater utility to fund MS4 compliance and stormwater best management practices throughout town. | DPW | Select Board, Capital Plng. Comm., Finance Comm. | Med | 2021 |
| Goal 4: Preserve Historic and Architecturally Significant Structures and Landscapes. | | | | |
| A. Discuss updating the historic resources inventory, including landscapes and distinctive agricultural outbuildings. | Hist. Comm. | | High | 2018 |
| B. Discuss preparing an Historic Preservation Plan, with a focus on keeping historic and scenic landscapes intact. | Hist. Comm. | | Med | 2021 |
| C. Discuss nominating structures and places to the State and Federal Historic Register. | Hist. Comm. | | Med | 2021 |
| D. Discuss considering creating local historic districts to existing National Register districts to provide additional protection. | Hist. Comm. | | Med | 2021 |
| E. Discuss pursuing Historic Preservation Restrictions for outbuildings on APR-protected lands, or in conjunction with APRs. | Hist. Comm. | CPA Comm. | Med | 2021 |
| | | | | |
| OPEN SPACE & RECREATION | | | | |
| STRATEGIES | PRIMARY | OTHERS | PRIORITY | YEAR |
| Goal 1: Prioritize Open Space Protection Opportunities | | | | |
| A. Discuss creating a comprehensive prioritization plan of open space protection. | Cons. Comm. | CPA Comm., Ag. Comm. | High | 2018 |
| B. Discuss coordinating with other partners and agencies on protection and potential protection of open space. | Cons. Comm. | CPA Comm., Planning Board | High | 2018 |

| | | | | |
|--|-----------------------------|---------------------------------|-----------------|-------------|
| C. Discuss educating targeted audiences about conservation options. | Cons. Comm. | Ag. Comm. | Med | 2021 |
| Goal 2: Integrate Open Space and Recreation Concerns into Other Town Plans and Practices | | | | |
| A. Discuss revising zoning, site plan review, and other development policies to lessen or divert development pressure on open space areas. | Planning Board | Cons. Comm. | High | 2018 |
| B. Discuss integrating open space protection with stormwater treatment, drinking water quality protection, and hazard mitigation. | Cons.. Comm. | DPW Selectboard | Med | 2021 |
| Goal 3: Improve Access to Existing Recreational Resources | | | | |
| A. Discuss pursuing opportunities to connect green spaces and recreational resources where possible. | Cons. Comm., Park & Rec | DPW Selectboard | Med | 2021 |
| B. Discuss rehabilitating and promoting existing park spaces, recreational facilities/programs, and public gathering areas. | Park & Rec | Selectboard DPW | High | 2018 |
| | | | | |
| TRANSPORTATION | | | | |
| STRATEGIES | PRIMARY | OTHERS | PRIORITY | YEAR |
| Goal 1: Grow a Diverse and Sustainable Transportation System That Supports Land Use and Economic Development Goals. | | | | |
| A. Discuss coordinating road improvements and land use goals. | DPW, Select Board | Planning Board MassDOT | High | 2018 |
| B. Discuss supporting transit service improvements. | Select Board | PVTA, MassDOT | High | 2018 |
| C. Discuss improving Hadley's bicycle network. | Park & Rec | Select Board, DPW | Med | 2021 |
| D. Discuss improving and expanding pedestrian facilities where walking is most viable. | DPW | Select Board, Planning Board | High | 2018 |
| | | | | |
| PUBLIC FACILITIES & SERVICES | | | | |
| STRATEGIES | PRIMARY | OTHERS | PRIORITY | YEAR |
| Goal 1: Maintain Hadley's Commitment to Superior Fire, Police and Emergency Services | | | | |
| A. Address personnel shortages. | Fire Chief, Police Chief | Select Board, Finance Comm. | High | 2018 |
| B. Obtain training and technology. | Fire Chief, Police Chief | Select Board, Finance Comm. | High | 2018 |
| C. Keep the emergency services operating at pace with the rate of development. | Fire Chief, Police Chief | Select Board, Finance Comm. | High | 2018 |
| D. Increase Department Funding. | Fire Chief, Police Chief | Select Board, Finance Comm. | High | 2018 |
| Goal 2: Maintain Hadley's Commitment to School Services | | | | |
| A. Development a School Building Master Plan. | Super. of Schools | School Comm. Select Board | High | 2018 |
| B. Expand adult education opportunities. | Super. of Schools | School Comm. | High | 2018 |
| C. Continuously improve and support existing schools. | Super. of Schools | School Comm. | High | 2018 |

| Goal 3: Maintain Hadley's Commitment to Superior Utility Services | | | | |
|--|-----|---|------|------|
| A. Invest in priorities identified in Hadley Water System Master Plan. | DPW | Select Board, Finance Comm. Capital Png. Comm. | High | 2018 |
| B. Invest in sewer line replacement/repair priorities identified as part of 2017 sewer smoke/leak testing | DPW | Select Board, Finance Comm. Capital Png. Comm. | High | 2018 |
| C. Develop sidewalk plan, or identify top streets/roads for sidewalk implementation during road projects. | DPW | Select Board, Finance Comm. Capital Png. Comm. | High | 2018 |
| D. Seek funding to construct permanent DPW building. | DPW | Select Board, Finance Comm. Capital Png. Comm. | High | 2018 |
| E. Explore feasibility of municipal broadband, if such a need is identified. | DPW | Select Board, Finance Comm. Capital Png. Comm. | High | 2018 |
| F. Conduct targeted outreach to or create informational materials for developers about the current state/capacity of Hadley's infrastructure in key areas. | DPW | Select Board, Building Insp., Planning Board | Med | 2021 |
| G. Provide updates in additional communication outlets about investments in Hadley's infrastructure, and identify important needs to resolve as well. | DPW | Select Board, Finance Comm. Capital Png. Comm. | High | 2018 |
| H. Promote the importance of water conservation to municipal water users. | DPW | | High | 2018 |
| | | | | |

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Appendices

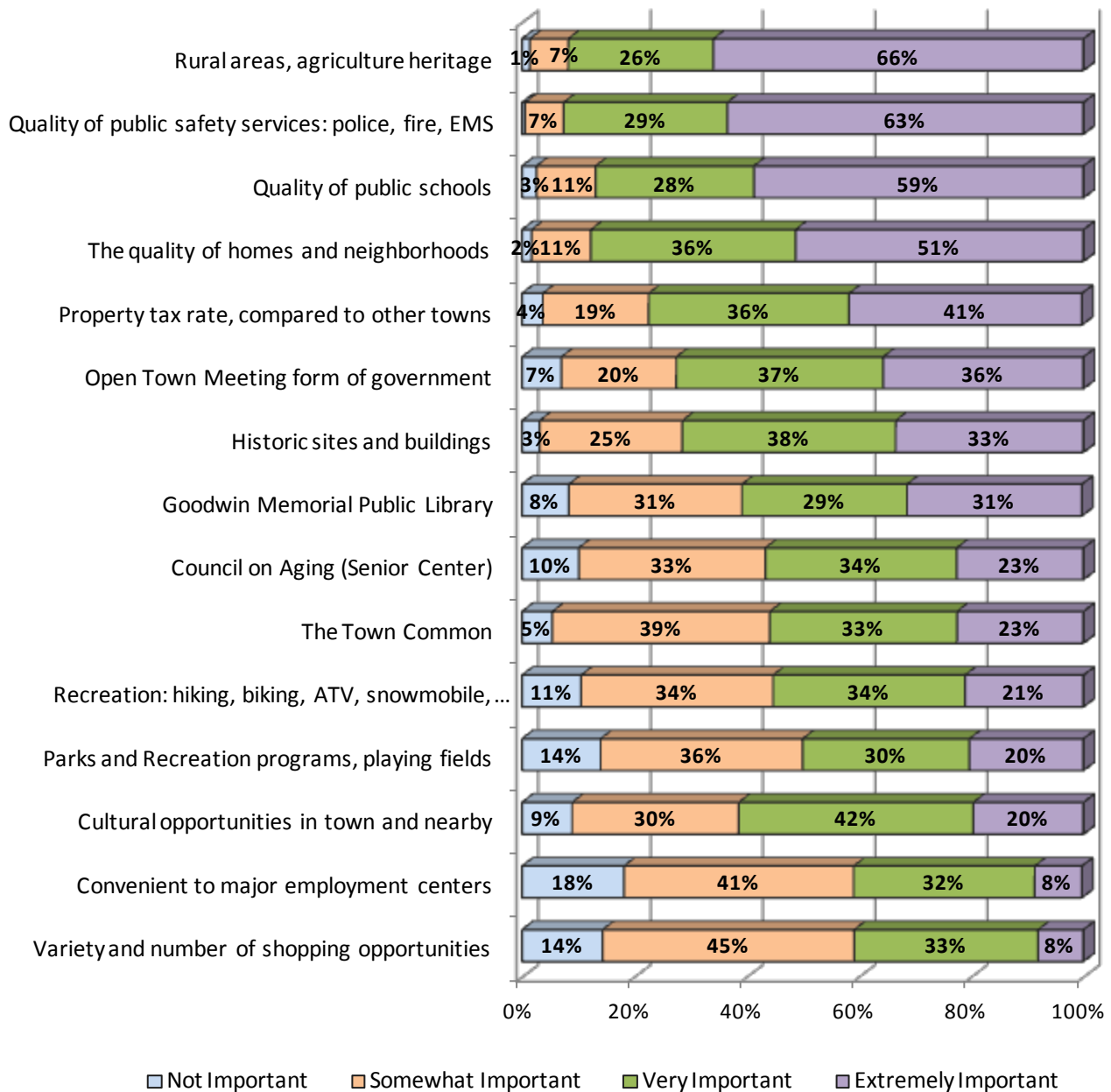
- Community Survey
- Maps
 - Land Use
 - Environmental Constraints
 - Habitat & Ecosystems
 - Changes in Agricultural Lands
 - Protected & Recreational Lands
 - Water Resources
 - Scenic Resources
 - Zoning
 - Land Use Guide

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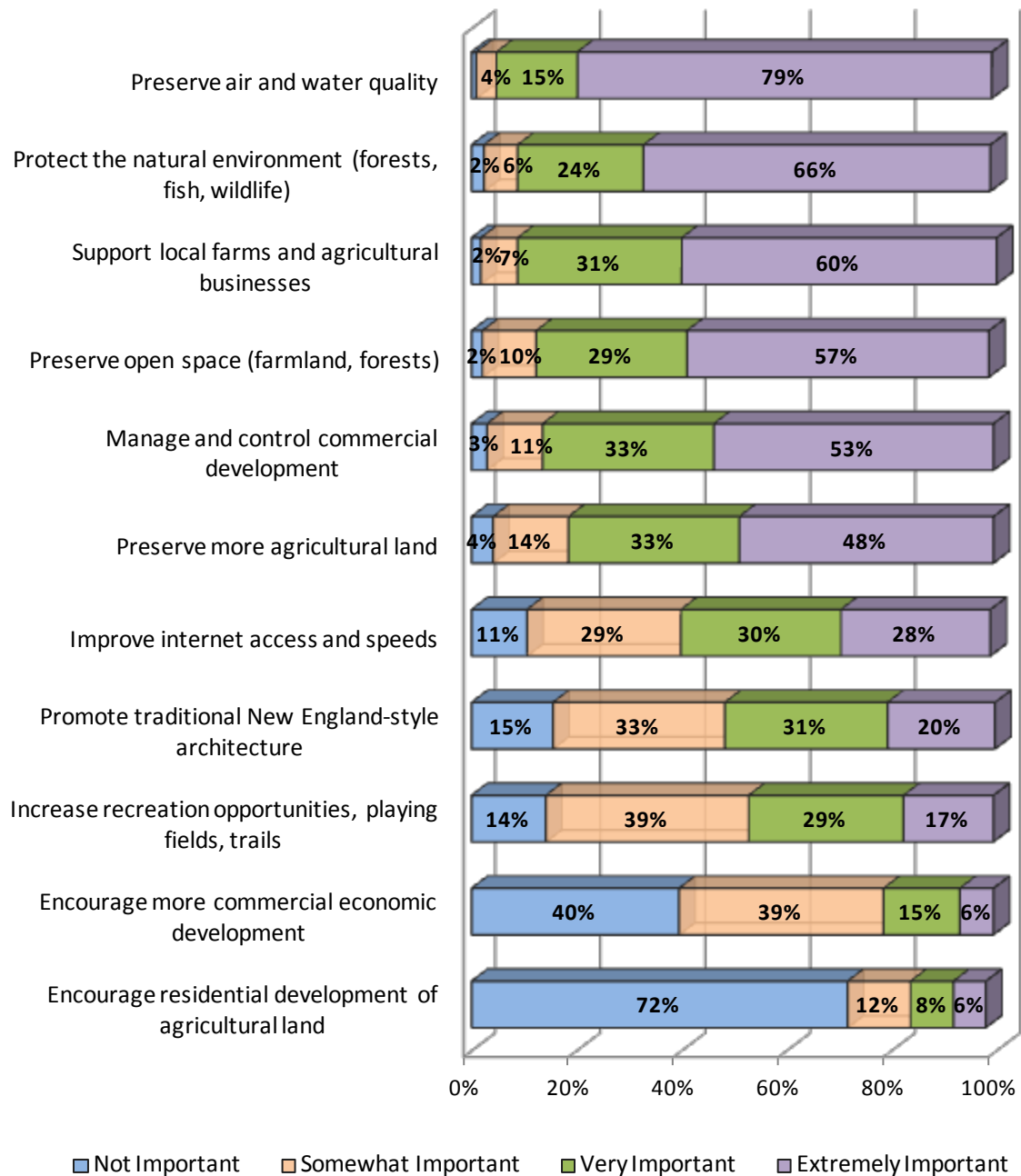
2015 Town of Hadley Community Survey for Master Plan Update Results

A total 354 surveys were returned and tabulated. Results for each question are reported as percentages of the total number of responses received for each question. "Don't Know" responses are included where greater than 2% for a subcategory of a question.

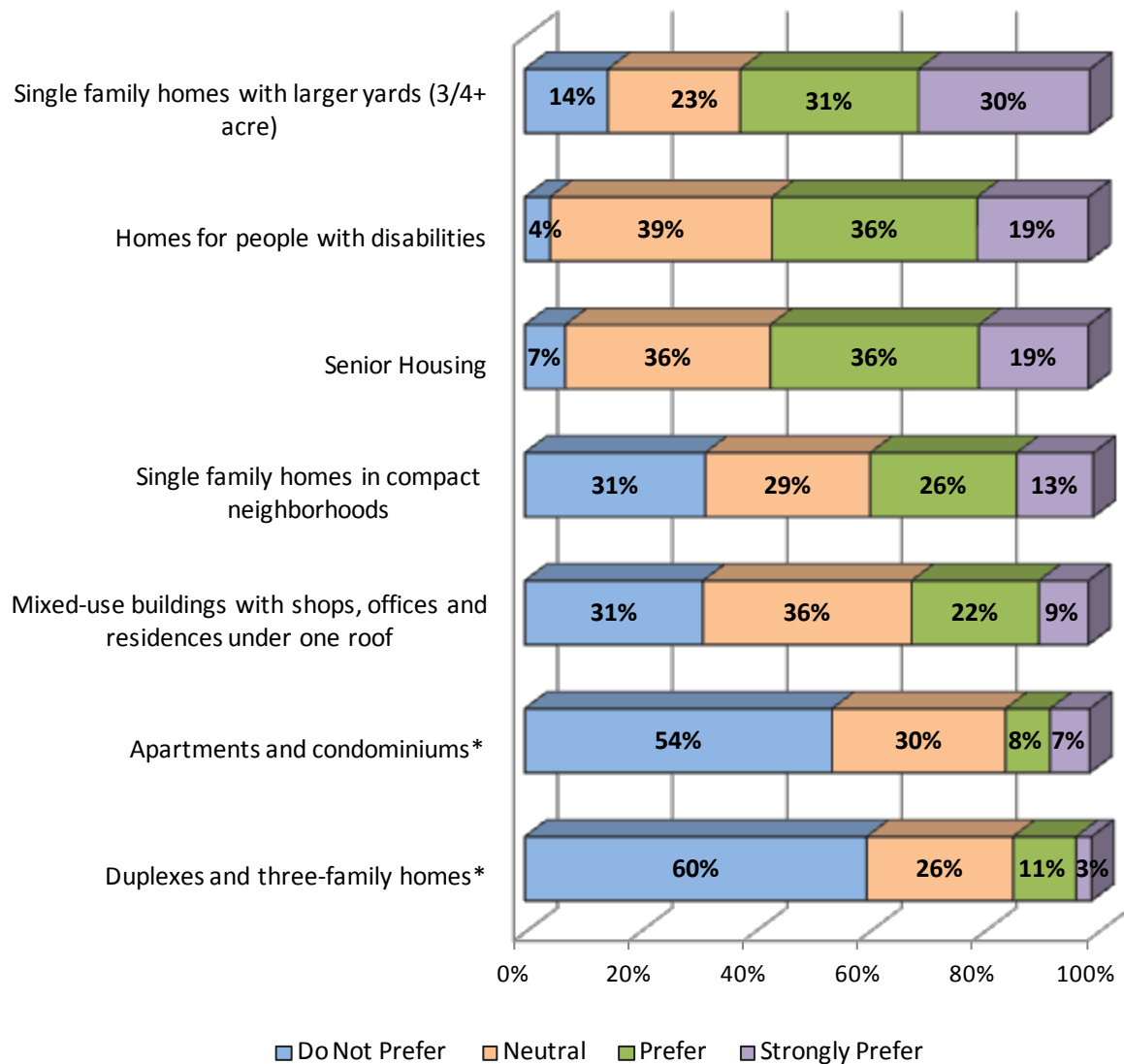
1. How important are the following aspects of living in Hadley to you?



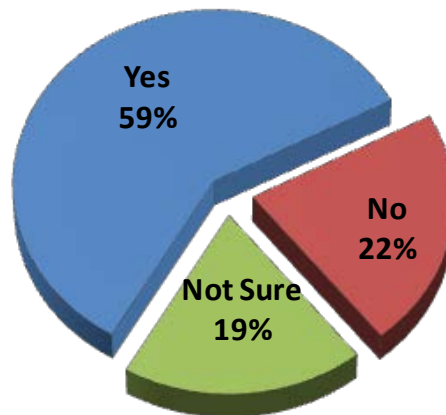
2. How important are the following general development goals for Hadley's future?



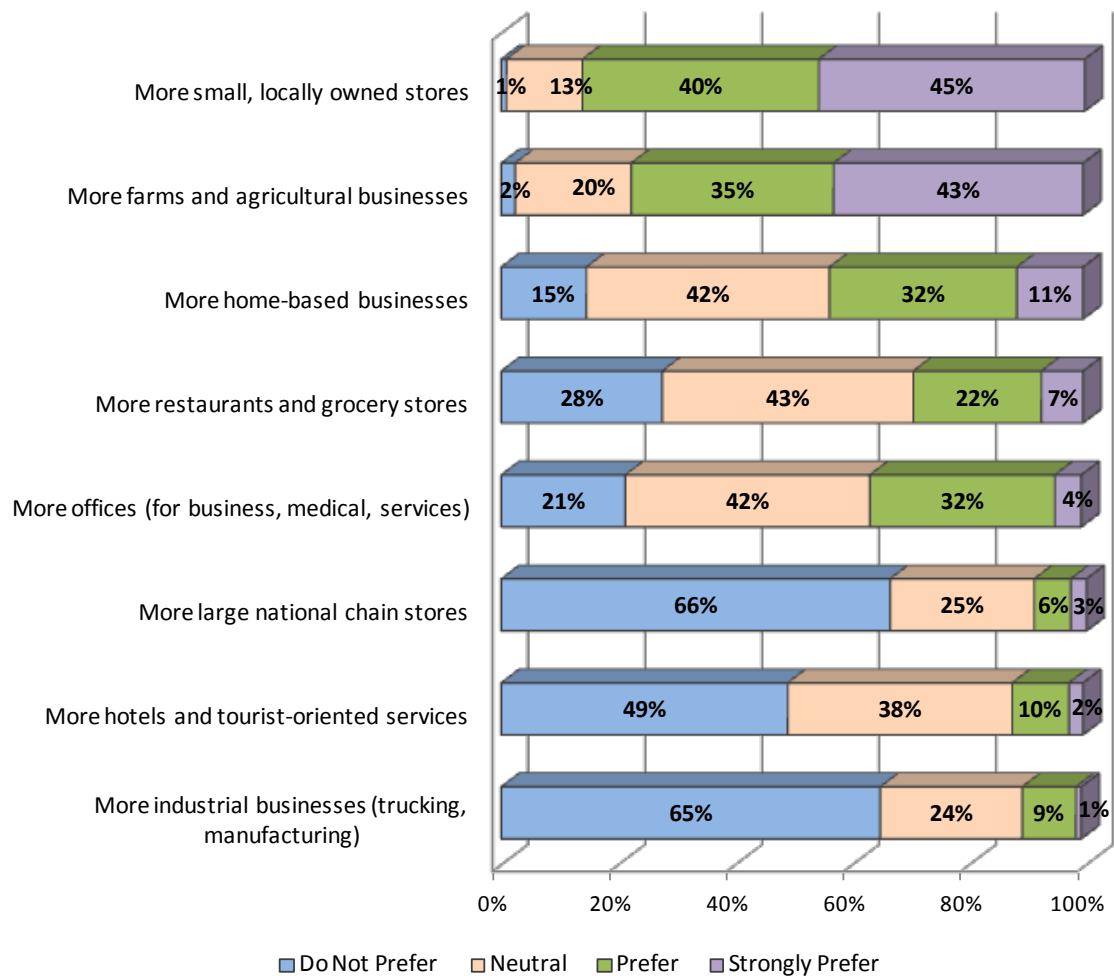
3. What types of residential growth would you prefer for Hadley in the future?



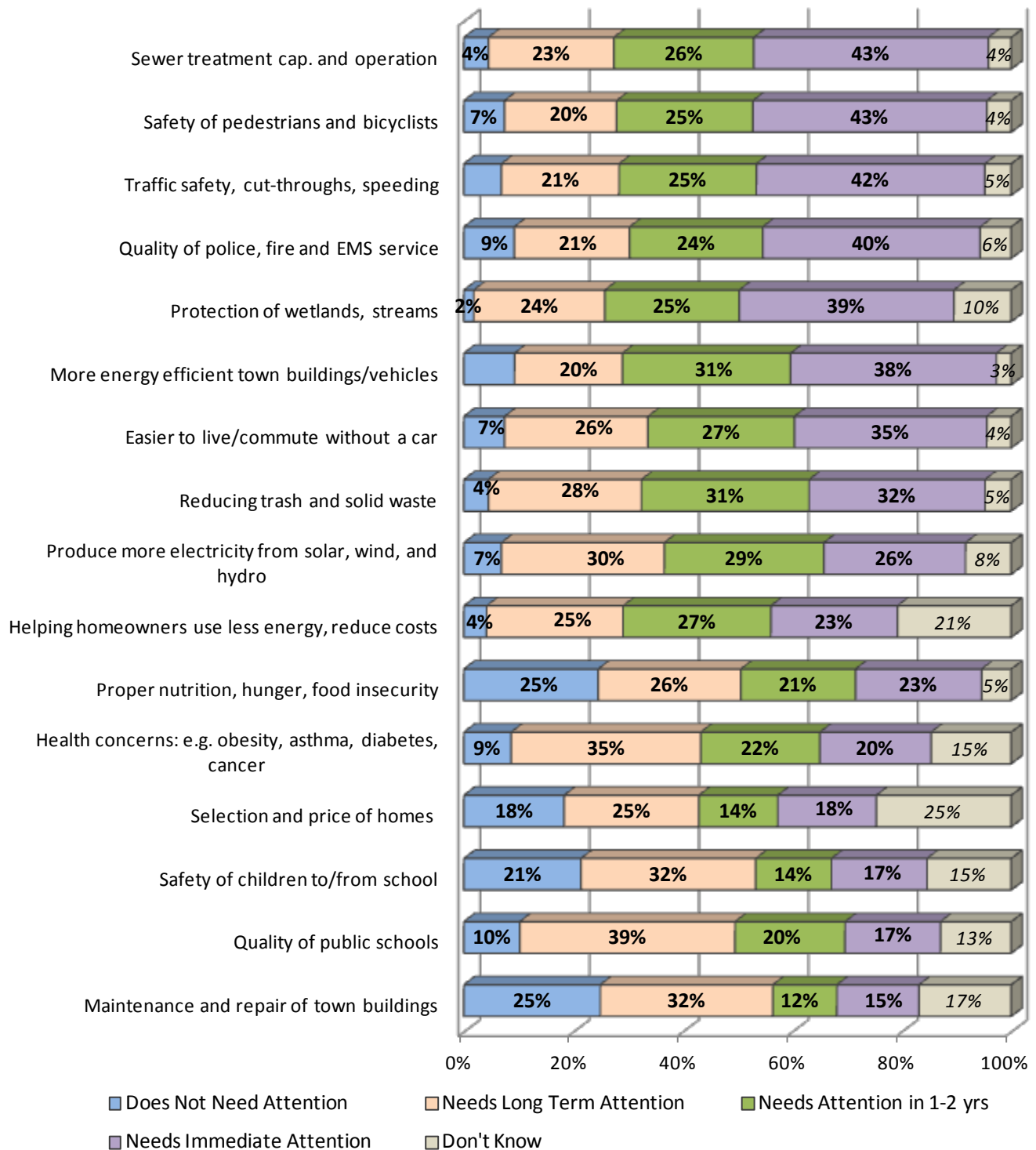
4. Hypothetically, could you afford to buy or rent the home in which you currently live at its current market value?



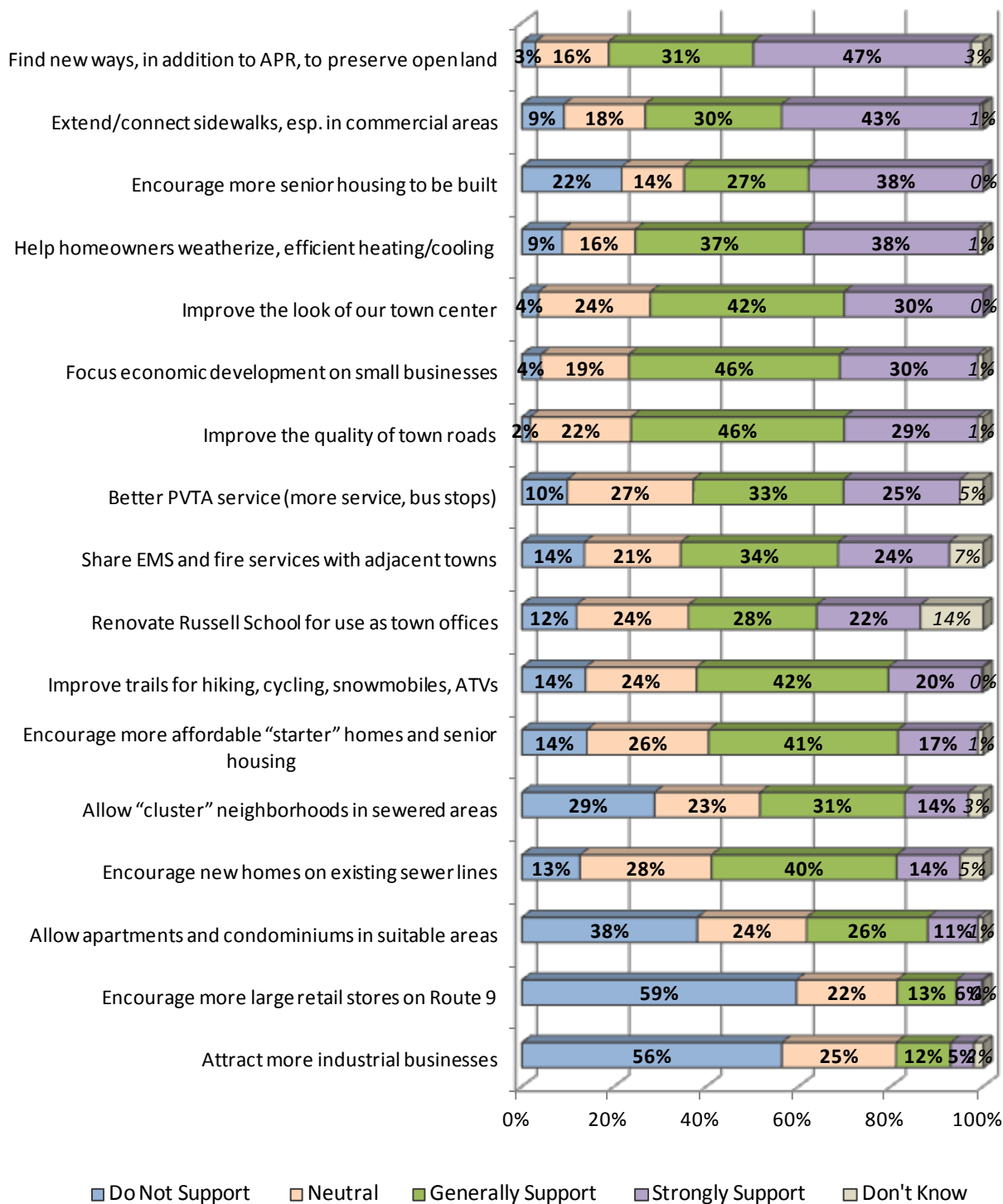
5. What kind of commercial growth would you prefer for Hadley in the future?



6. What issues need our attention?



7. What solutions would you support?

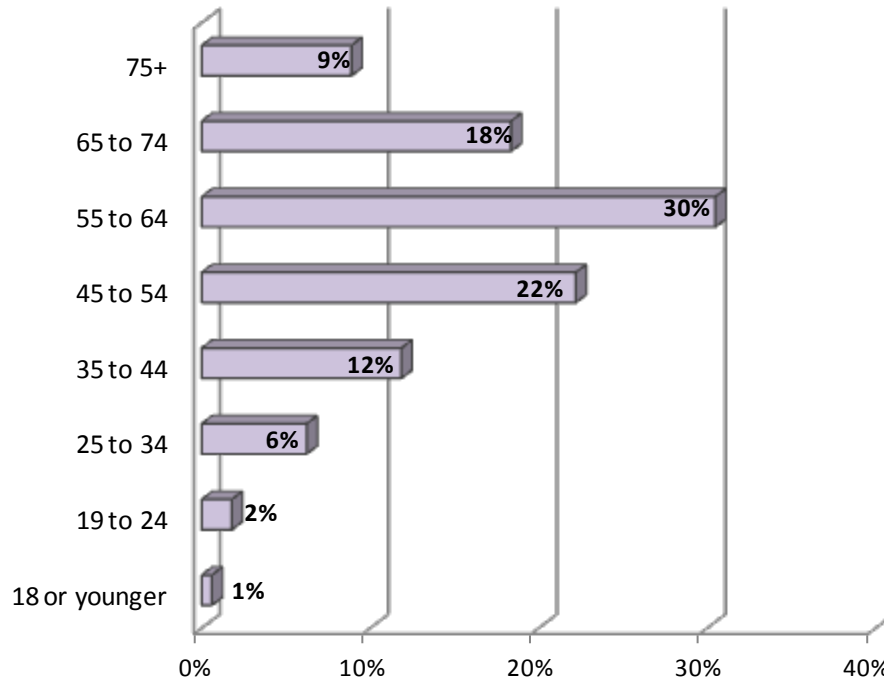


8. What is the most important thing that you think Hadley should do to improve the quality of life in our town?

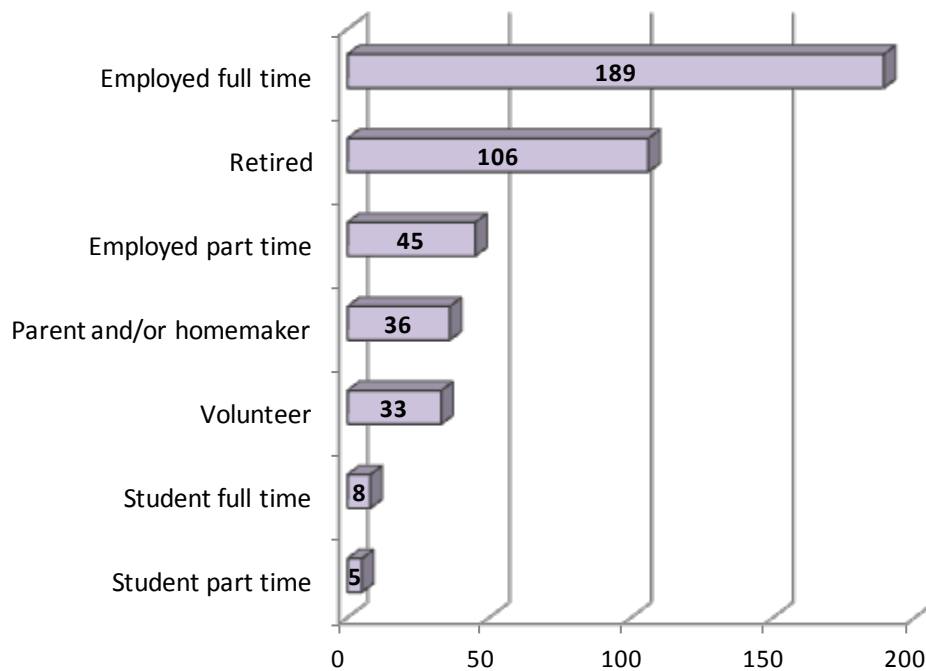
Answers that represent most frequently mentioned themes:

- “Stop with the big box cluster which causes traffic, pollution and is unsightly. Preserve farms and open space. Wetlands? Mostly destroyed, with one area left for sale on Route 9.”
- “Maintain our agricultural character (i.e. constrain conversion of ag land to new housing as much as possible, limit the pace of new housing. Encourage young farmers starting out, etc.)”
- “Encouraging, Promoting and Preserving Agricultural Heritage and Find Ways to Make Housing Affordable so that those of us who grew up in Hadley can stay in Hadley.
- “Encourage more outdoor activity by promoting use of existing Town Common and recreation areas.”
- “Increase Fire and Ambulance Service. Build new Public safety complex. Have a true dept. to oversee building maintenance.”
- “A town hall/space for these gatherings, social activities, place to meet people, athletic events, cultural events.”

9. What is your age range?



10. What best describes what you do? (multiple responses allowed; totals >354)





LAND USE

2017 Master Plan

HADLEY, MA

DATA SOURCES:
MassGIS, Pioneer Valley Planning Commission.
This map is based on the best available data.
All information is subject to field verification.

Land Use

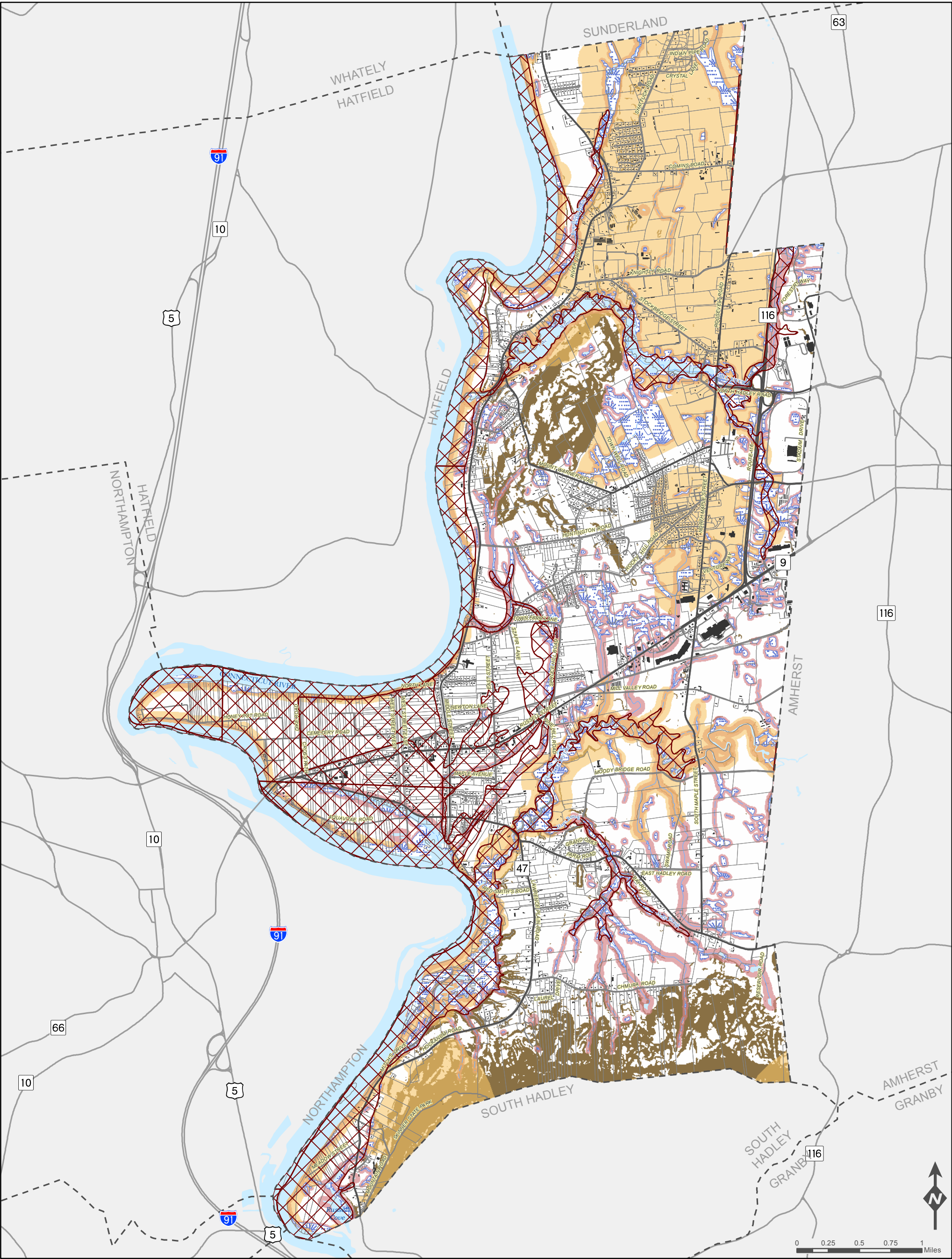
- High Density Residential
- Medium Density Residential
- Low Density Residential
- Very Low Density Residential
- Multi-Family Residential
- Commercial
- Industrial

- Mining
- Junkyard
- Transitional
- Cropland
- Orchard
- Nursery
- Pasture
- Open Land

- Brushland/Successional
- Forest
- Forested Wetland
- Non-Forested Wetland
- Spectator Recreation
- Participation Recreation
- Golf Course
- Cemetery

- Urban Public/Institutional
- Transportation
- Powerline/Utility
- Waste Disposal
- Water
- Marina
- Water-Based Recreation

- Open Water
- Stream
- Intermittent Stream
- Town Boundaries
- Tax Parcel Boundaries
- Building Footprints
- Major Roads
- Local Roads



ENVIRONMENTAL CONSTRAINTS TO DEVELOPMENT

2017 Master Plan

HADLEY, MA

DATA SOURCES:
MassGIS, Pioneer Valley Planning Commission.
This map is based on the best available data.
All information is subject to field verification.

- Wetlands
- Wetlands 100ft & Open Water 200ft Buffer (Overlay)
- NHESP Priority Habitat of Rare Species & Estimated Habitat of Rare Wildlife (Overlay)
- Areas of Steep Slope (15% or Greater)
- FEMA 100-Year Flood Zone

- Open Water
- Stream
- Intermittent Stream
- Town Boundaries
- Tax Parcel Boundaries
- Building Footprints
- Major Roads
- Local Roads



HABITAT & ECOSYSTEMS

2017 Master Plan

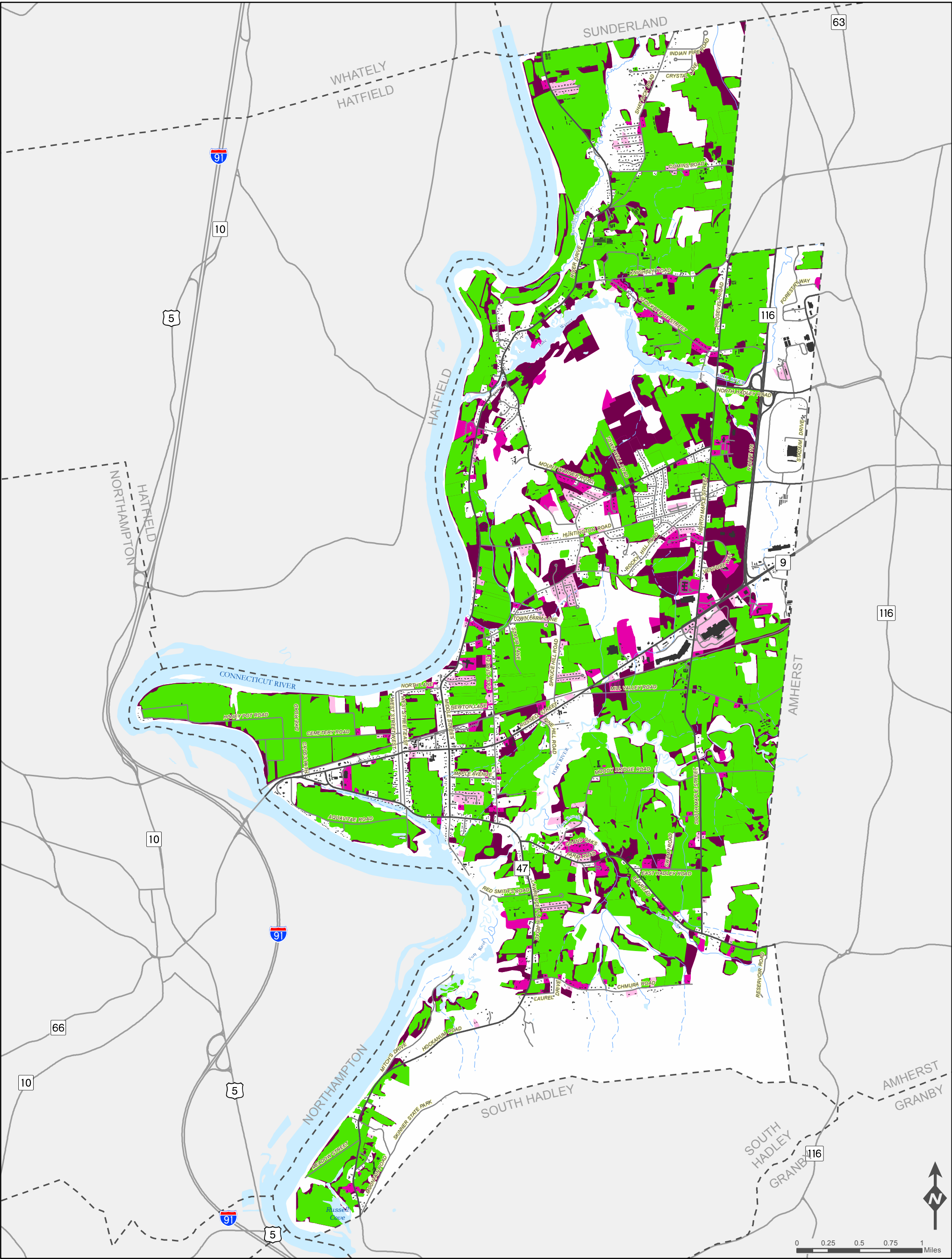
HADLEY, MA

DATA SOURCES:
MassGIS, Pioneer Valley Planning Commission.
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- MADEP Certified Vernal Pool
- Potential Vernal Pool
- Forested Wetlands
- Non-Forested Wetlands

- NHESP/TNC BioMap2**
- BioMap2 Core Habitat
 - NHESP Priority Habitat of Rare Species & Estimated Habitat of Rare Wildlife
 - BioMap2 Critical Natural Landscape

- Open Water
- Stream
- Intermittent Stream
- Town Boundaries
- Building Footprints
- Major Roads
- Local Roads



CHANGES IN AGRICULTURAL LAND (1971-2005)

2017 Master Plan

HADLEY, MA

DATA SOURCES:
MassGIS, Pioneer Valley Planning Commission.
This map is based on the best available data.
All information is subject to field verification.

Changes In Agricultural Land*

- 1971 - 1985
- 1985 - 1999
- 1999 - 2005
- Remaining Agricultural Land 2005

*Agricultural land includes cropland, pasture, orchard and nursery.

Open Water

Stream

Intermittent Stream

Town Boundaries

Tax Parcel Boundaries

Building Footprints

Major Roads

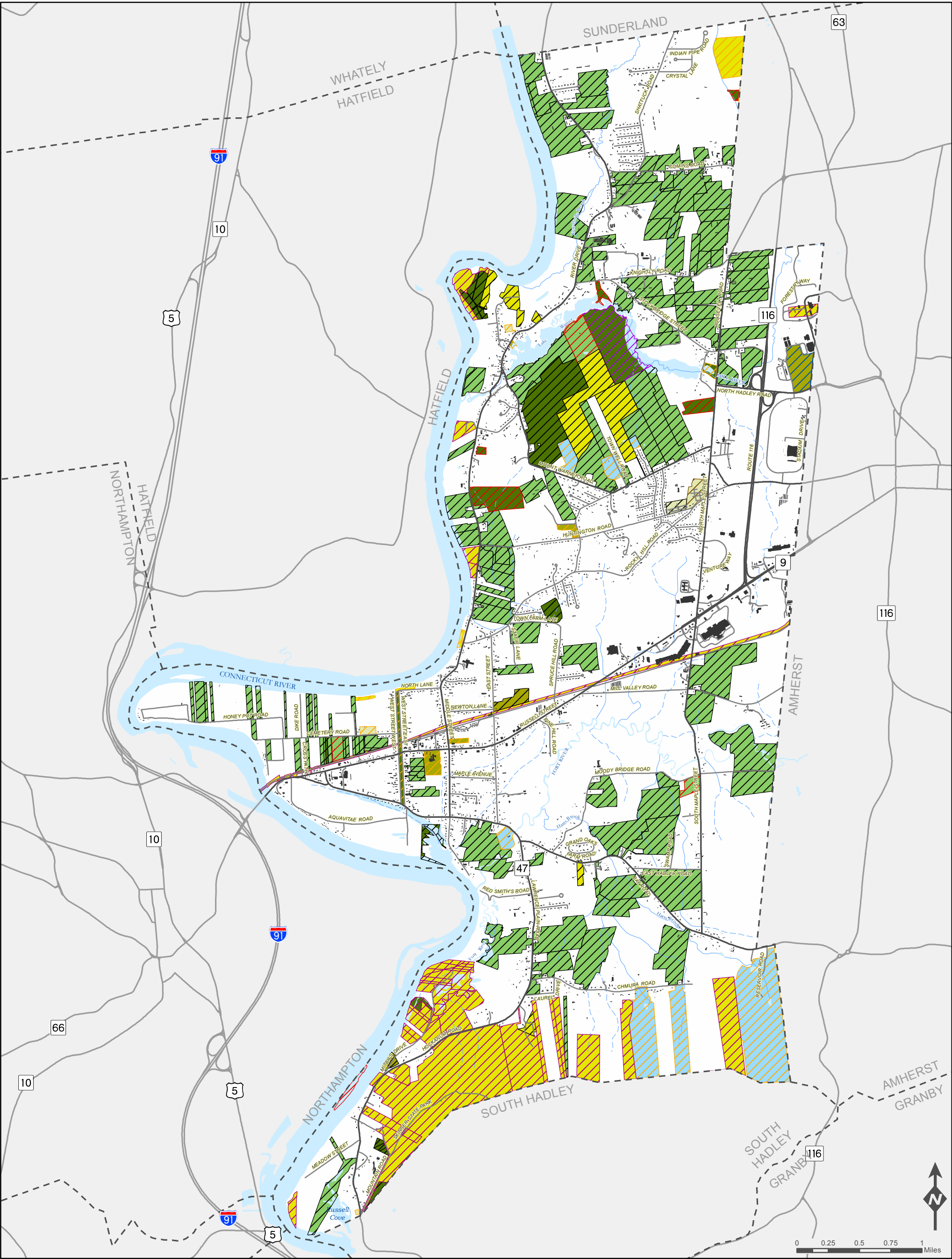
Local Roads

0 0.25 0.5 0.75 1 Miles

North Arrow

MASSGIS Office of Geographic Information
A Statewide Resource for Geospatial Technology and Data

pvpc
Pioneer Valley Planning Commission
60 Corporate Court - Floor 1 - Springfield, MA 01104-3409
417.781-6040 • www.pvpc.org



PROTECTED & RECREATIONAL LANDS

2017 Master Plan

HADLEY, MA

DATA SOURCES:
MassGIS, Pioneer Valley Planning Commission.
This map is based on the best available data.
All information is subject to field verification.

Fee Owner

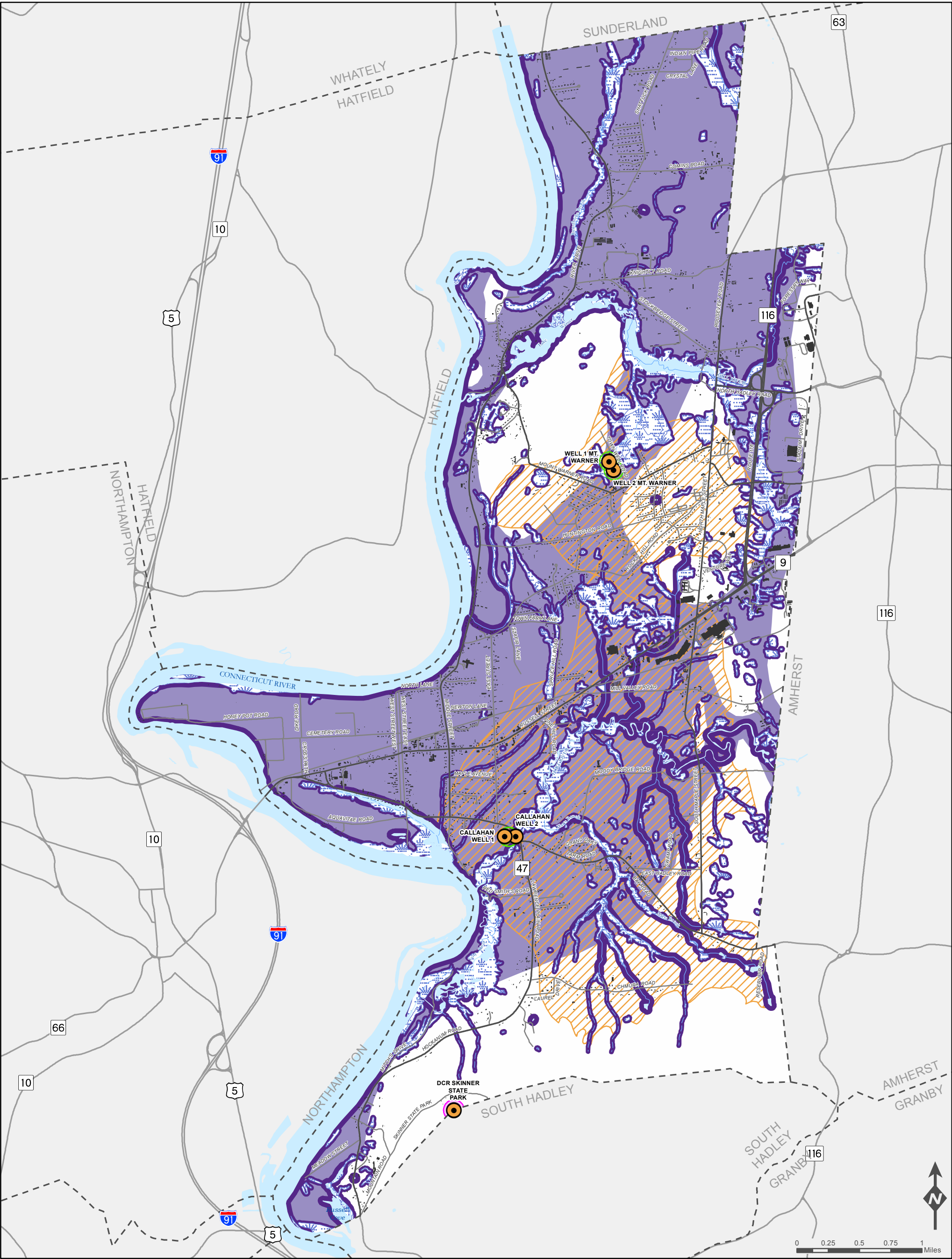
- Commonwealth of Massachusetts
- DCRS/DFG
- Department of Fish & Game
- Land Trust
- Municipal
- Non-Profit
- Public Non-Profit

Primary Purpose

- Conservation
- Recreation
- Recreation and Conservation
- Agriculture
- Habitat
- Historical/Cultural
- Scenic (Official Designation Only)
- Water Supply
- Flood Control

- Open Water
- Stream
- Intermittent Stream
- Town Boundaries
- Building Footprints
- Major Roads
- Local Roads





WATER RESOURCES

2017 Master Plan

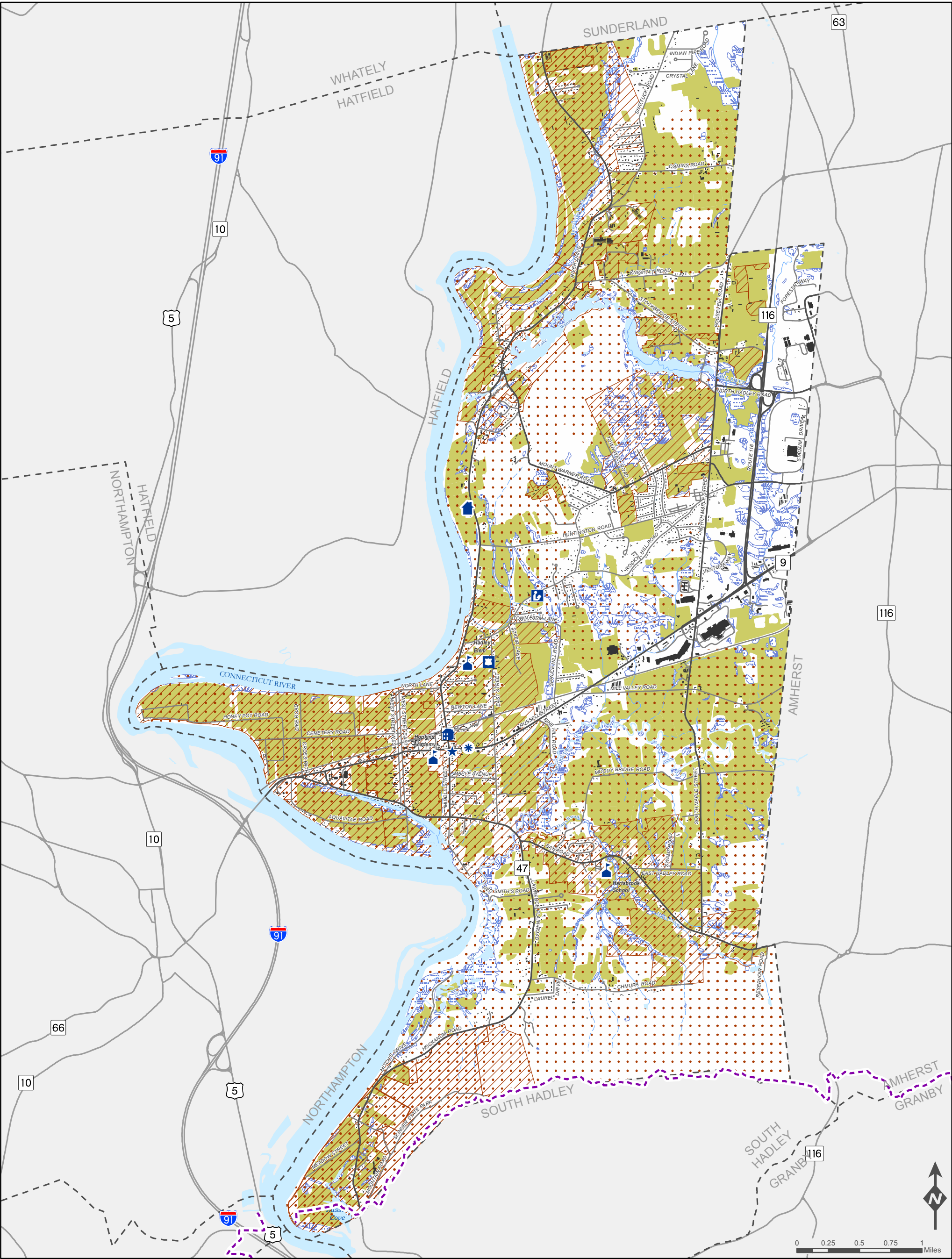
HADLEY, MA

DATA SOURCES:
MassGIS, Pioneer Valley Planning Commission.
This map is based on the best available data.
All information is subject to field verification.

- Water Supplies Serving >25 Persons
- IWPAs (Interim Wellhead Protection Areas)
- DEP Approved Zone IIs (Wellhead Protection Areas)
- DEP Approved Zone I - Wellhead Protection Areas
- Aquifers
 - High Yield (None Present)
 - Medium Yield

- Open Water
- Stream
- Intermittent Stream
- Wetlands
- Wetlands 100ft & Open Water 200ft Buffer

- Town Boundaries
- Building Footprints
- Major Roads
- Local Roads



SENIC RESOURCES & UNIQUE ENVIRONMENTS

2017 Master Plan

HADLEY, MA

DATA SOURCES:
MassGIS, Pioneer Valley Planning Commission.
This map is based on the best available data.
All information is subject to field verification.

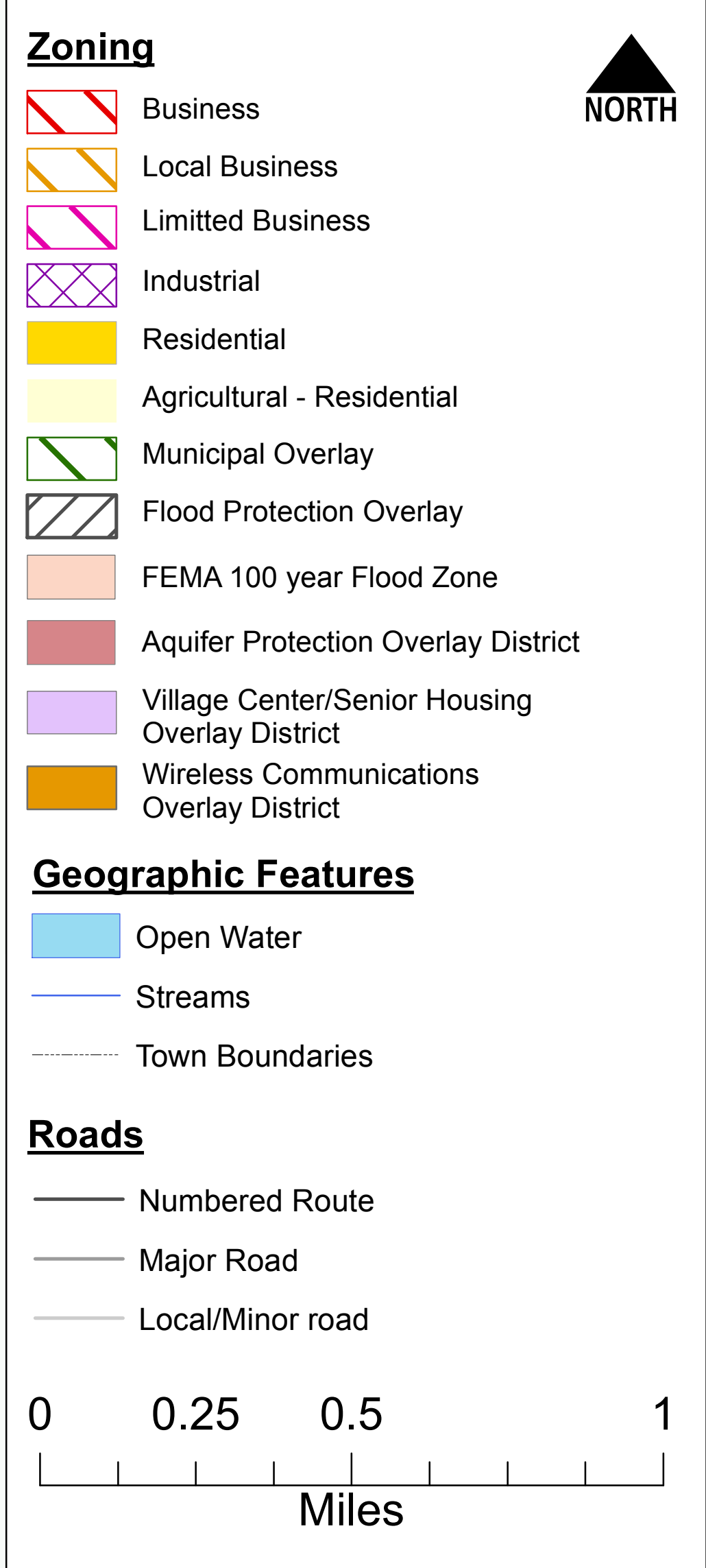
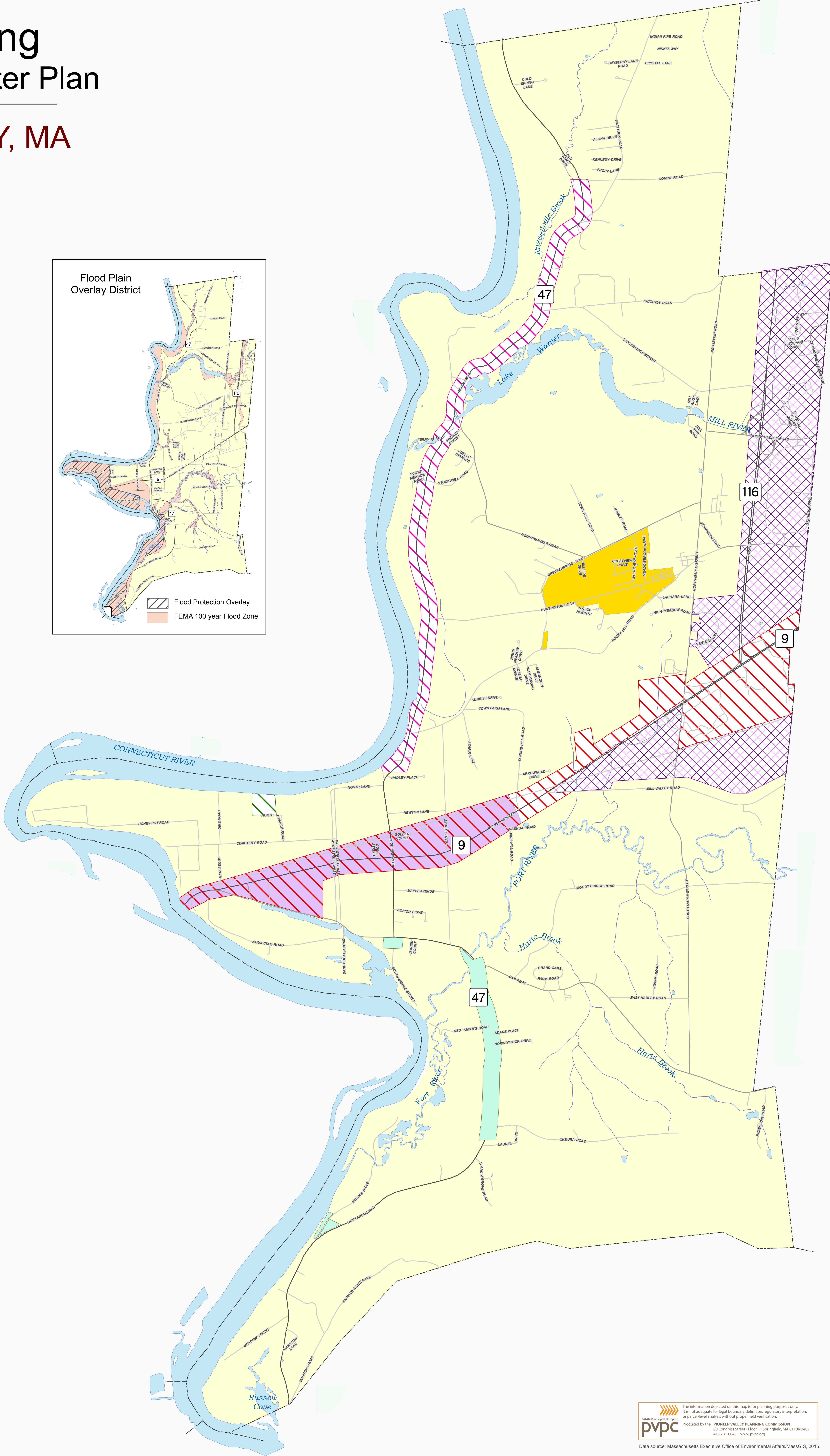
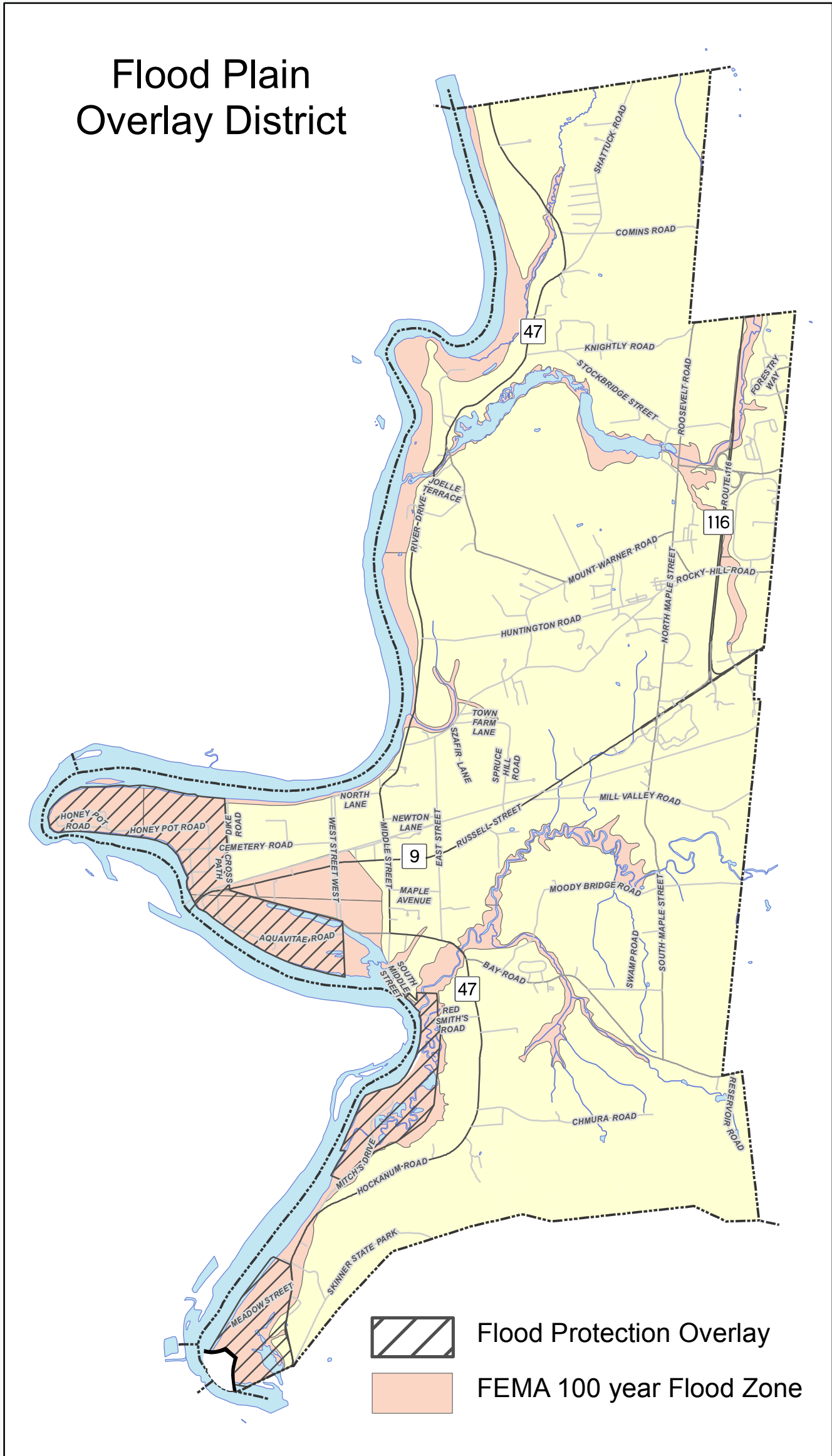
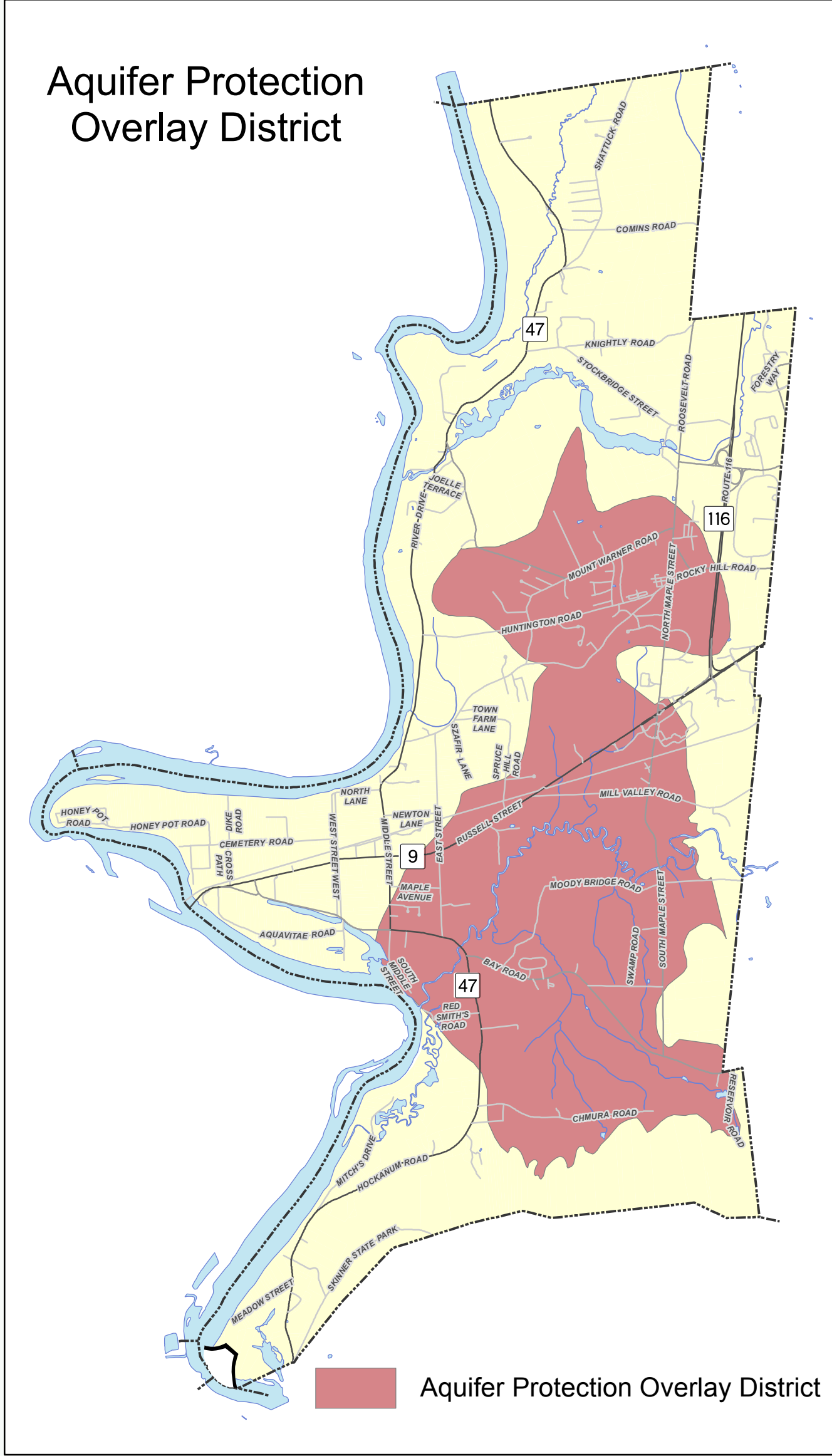
- National Registry of Historic Places
- National Registry of Historic Districts
- Scenic Landscapes
- Agricultural Land
- Wetlands
- New England National Scenic Trail
- Town Hall
- Public Safety Building
- Senior Center
- Library
- Schools

- Open Water
- Stream
- Intermittent Stream
- Town Boundaries
- Tax Parcel Boundaries
- Building Footprints
- Major Roads
- Local Roads

Zoning

2017 Master Plan

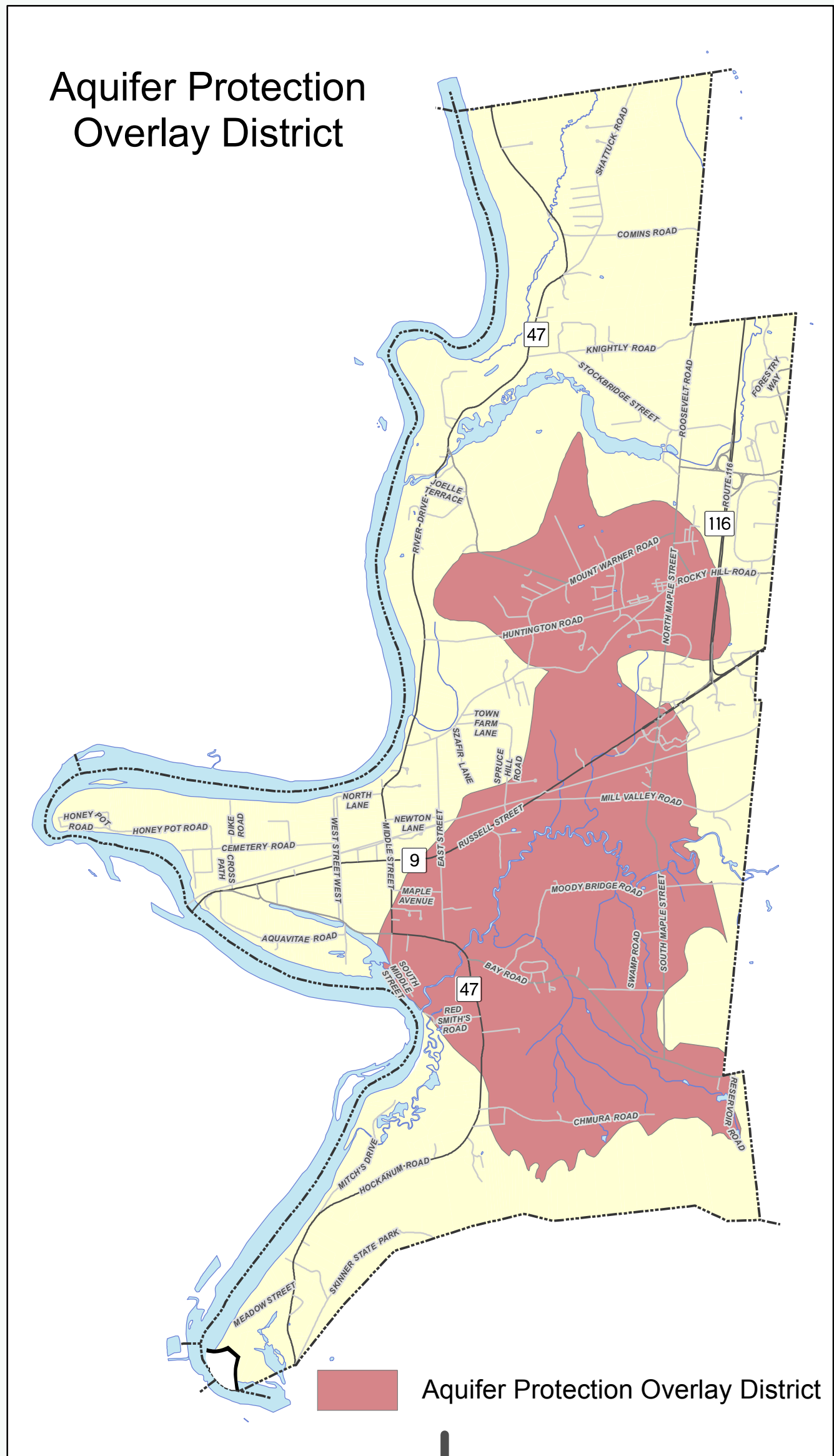
HADLEY, MA



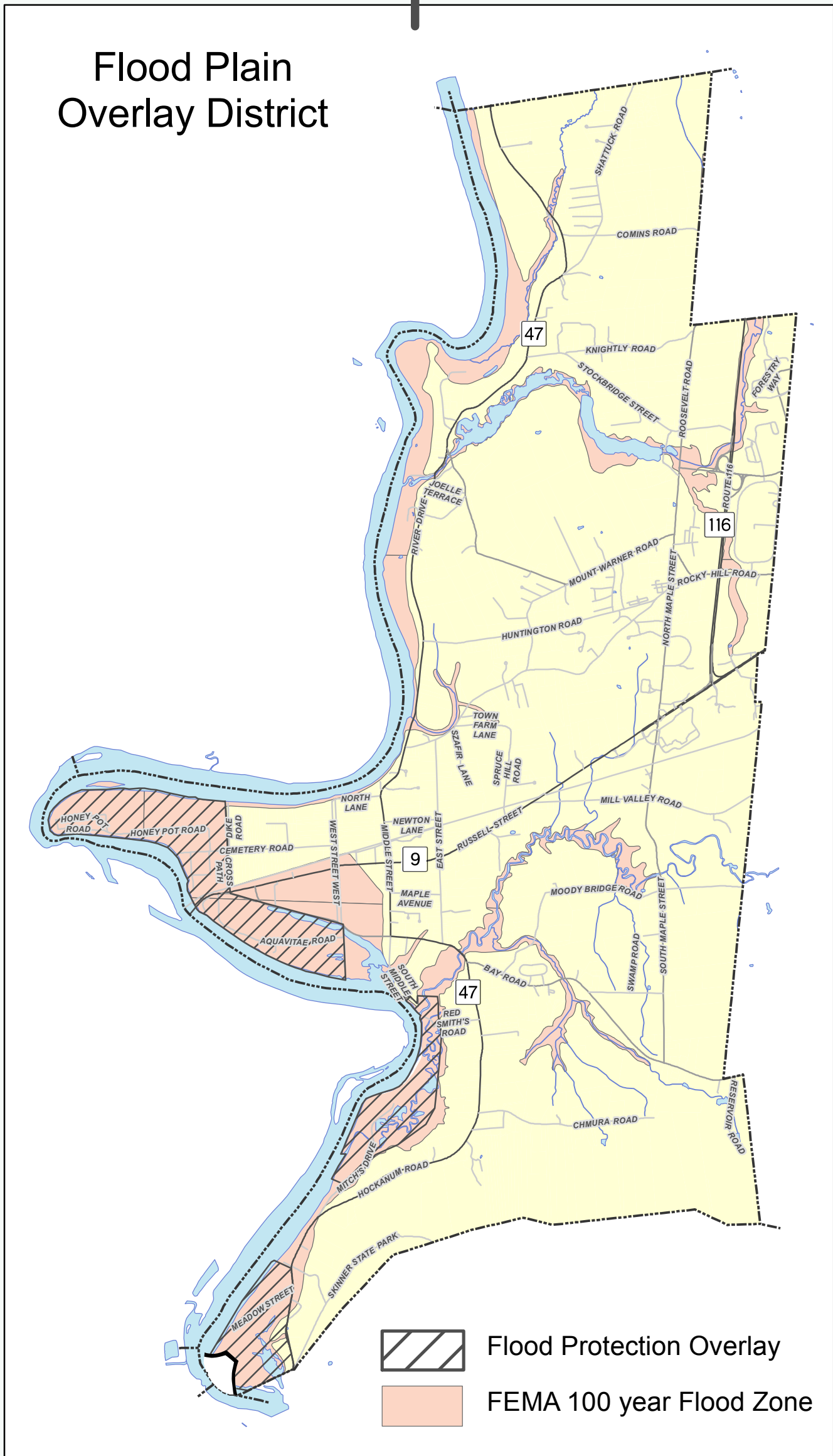
Land Use Guide

2017 Master Plan

HADLEY, MA



Protect land in aquifer protection district by updating design guidelines and site plan review criteria to promote installation of green infrastructure as well as efficient irrigation systems and techniques to agricultural and large landowners, and general water conservation throughout town.



Develop a Historic Village Center District which is walkable, provides parking with multiple restaurants, small business, a campus of civic buildings, community center, public event space, a farmers market and more safe pedestrian crossings of Route 9.

Promote development supporting the Norwottuck Rail Trail by creating zoning incentives for recreation-based (bike shops, rentals) and dining businesses.

As a primary entryway to Hadley, promote development that presents a positive image of the community.

Reduce incremental ANR large-lot development along Route 47 and other town roads. Adopt a Creative Development Bylaw that provides strong incentives for off-road clustered development, and disincentives for on-road large lot development. Creative development preserves open space along town roads and permits.

Develop a new bylaw to permit the development of home occupations and cottage industries within existing residential structures, with adequate protections for neighborhoods.

Ensure that agriculture remains a viable economic activity by strengthening the TD Bylaw with additional incentives for landowner participation.

Consider adopting an Agriculture Preservation Residential District to promote farmland preservation within new residential development and require agricultural buffers or no-build areas when a development is proposed adjacent to actively farmed land.

Consider farmland impacts in review of subdivision and development plans.

Promote Traditional Neighborhood Development (TND). Consider expanding the types of housing permitted in Hadley.

Control and limit commercial sprawl along Route 47.

Control and limit commercial sprawl along Route 47.

Increase densities and building heights and tie to the TDR program. Promote the re-use of existing underutilized buildings and infill development within larger commercially zoned properties and encourage walkable layouts of development.

