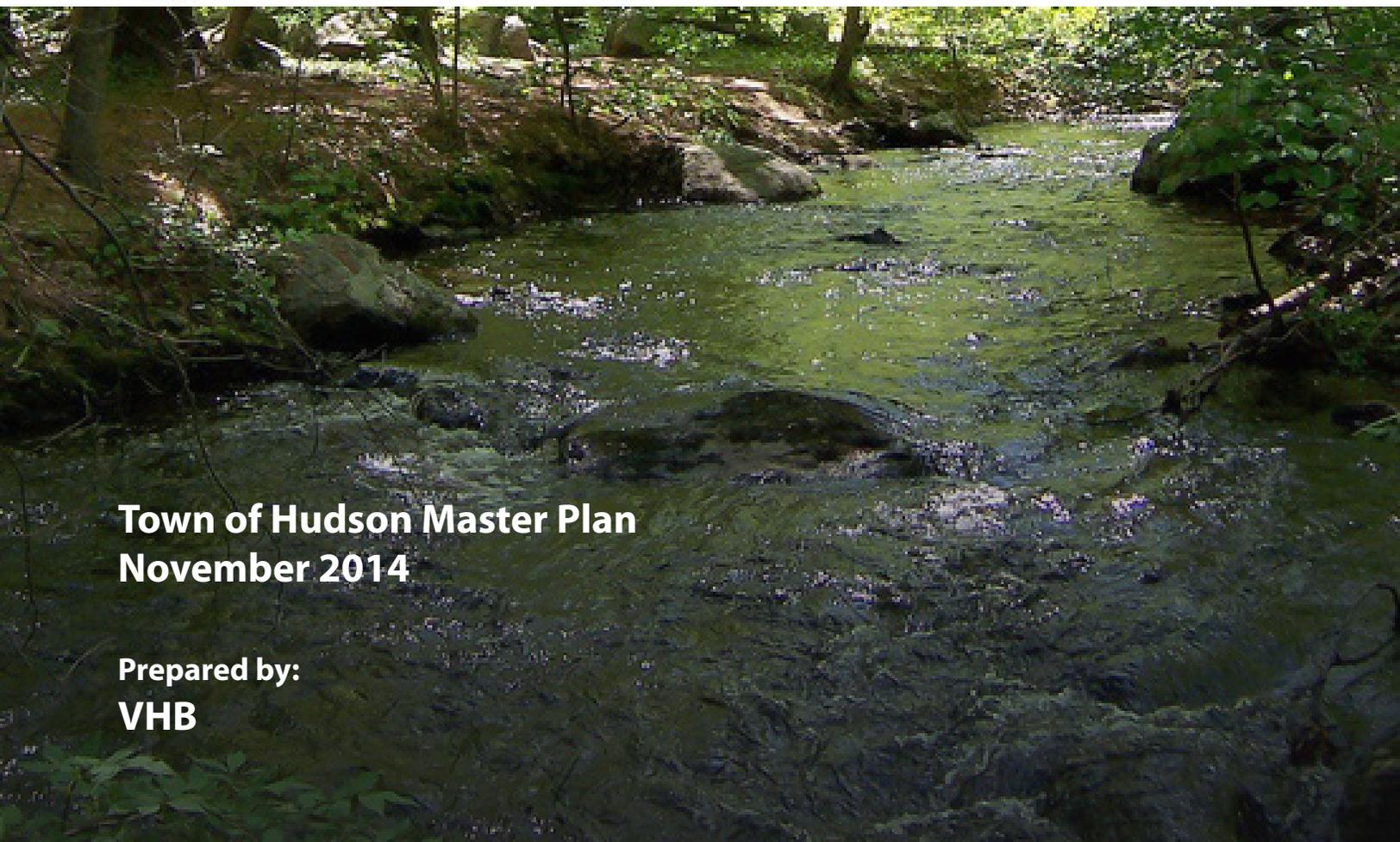




MASTER PLAN 2014

TOWN OF HUDSON, MASSACHUSETTS



**Town of Hudson Master Plan
November 2014**

**Prepared by:
VHB**

Hudson Master Plan

Hudson Massachusetts

Prepared for **Town of Hudson**
Hudson, Massachusetts

Prepared by  *Vanasse Hangen Brustlin, Inc.*
Watertown, Massachusetts

November 2014

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1

Introduction, Vision and Goals

Introduction and Vision Statement

Hudson has changed dramatically over the past several decades from a small, quiet, suburban community to an economically vibrant one. Partly due to its access within the MetroWest region of Massachusetts with prime access to major highways and direct connections to urban areas such as Worcester, Framingham and Boston, Hudson is an excellent

location for residential, commercial/industrial, and retail development. Hudson prides itself on having a true historic Downtown center with unique new restaurants and retail and supports small businesses that want to locate in Downtown.

With these changes, Hudson residents want to preserve conservation and recreation land to preserve its character and protect the Assabet River and the Town's many natural landscapes and resources. Residents also yearn for better housing choices particularly starter homes for young families, enhanced public infrastructure and services. They place great importance on a better quality of life, including more opportunities for biking, walking and exercising, and enhanced support of Hudson's youth and aged and disabled. The Town strives to be a regional leader in promoting a healthy community.



Community Engagement

As part of the development of the Master Plan, the Master Plan Steering Committee held a series of public input workshops on topic areas for the Master Plan as outlined below. The input gathered during these public events informed the preparation of the Master Plan.

On Monday, June 11, 2012, the Town of Hudson convened a public forum to discuss the 2014 Master Plan Update project. Approximately 60 people attended the forum. After a presentation on the planning process and Hudson land use and demographic data, a Strengths, Challenges, Opportunities and Threats (SCOT) analysis was conducted. Participants were asked to describe aspects of living, working, shopping and playing in Hudson that was both positive and negative.

Some of Hudson's strengths included:

- Transportation and accessibility (6 votes)
- Town light and electric operation (3 votes)
- Parks and Recreation services (2 votes)
- Public service and tree removal (2 votes)
- Arts organizations (2 votes)
- Downtown center and walking trail (2 votes)

Some of Hudson's challenges were:

- Downtown vacancies (16 votes)
- More parking downtown (11 votes)
- Transportation services – lack of options (11 votes)
- Road system in bad shape (8 votes)
- Shortage of vacant industrial zoned land (8 votes)
- Need for community center (6 votes)

Some of Hudson's opportunities were:

- Create incentives to draw businesses into town (10 votes)
- Route truck traffic around main street (9 votes)
- Bike taxi, trolley service as ways to get people Downtown (8 votes)
- Older buildings (5 votes)
- Walking trail along Assabet (2 votes)
- Parking garage (1 vote)

Some of Hudson's threats included:

- Loss of small town character if too much growth (11 votes)
- People in their 20's leaving Hudson (9 votes)

- Need sustainable development (6 votes)
- Inability to sustain small town commercial development (5 votes)
- Loss of Intel (5 votes)
- Zoning to guide growth (4 votes)

The sentiments expressed by residents during this first public meeting were echoed throughout the next series of four topic area public meetings with more detail. The Planning Team engaged the public in a series of interactive polling exercises to gauge support for a variety of different tools to address issues in the Town. The public largely favored mixed use development with residential and commercial uses in the same building. The participants supported conservation efforts but not with higher taxes. Most participants were satisfied with the amount of recreational facilities and playing fields.

Housing and Economic Development Forum

On December 10, 2012, the Planning Team held a focused public forum on housing and economic development issues facing the town. Participants discussed the key issues for housing in Hudson noted the following opportunities:

- More single detached unit housing
- More condensed multifamily units
- More jobs before we build more housing
- Green building development
- Rehabilitate old buildings (mill buildings) to commercial and residential mixed use units
- Assisted living facility

Participants noted that Hudson was attractive for economic development because of its location, good school system, Town programming, and small town feel. In general participants were enthusiastic about revising zoning to be more flexible to allow more mixed-use buildings, façade improvements, townhouse development, green buildings, and reuse of older buildings such as the older mill buildings near downtown.

For economic development, participants focused on the downtown noting that it needed additional parking, more niche retail, better connections to Assabet River, streetscape improvements, restaurants, a farmers market and other activities to attract residents downtown.

Residents were optimistic about the transformation of Route 85 but noted that buffers and transitions were needed to protect current residences.

Open Space, Recreation, and Historical Resources Forum

The Town of Hudson convened a public forum on Monday, January 14, 2013 to discuss the topics of open space, recreation, and historical resources. Many participants noted that they most often walked or hiked when using Hudson's recreational facilities or used the ballfields. Participants noted the three most important issues facing recreational facilities and open space were need for improved maintenance, better access to the Assabet River, and connectivity of open spaces and trails.

Participants were then asked to get into small groups to discuss a series of questions. When asked how Hudson can better educate residents about its recreational resources, participants noted that notices could be sent through schools, senior citizen newsletters, an interactive web-based map, information table at community events, and scavenger hunts.

Residents noted the need for a dedicated dog park, canoe access/kayak launch on the Assabet River, Moulton Field improvement, additional trails, and improved maintenance of current parks, ponds, and facilities.

For the preservation of Hudson's historical resources, participants noted that using tools such as demolition delay, a cultural district designation, historical districts, better signage of historical buildings, and architectural conservation districts were particularly important.

Energy and Transportation Forum

The Town of Hudson convened a public forum on March 4, 2013, to discuss the topics of energy and transportation. Engagement with residents revealed that majority of participants had not had an energy audit of their home, but had received rebates for purchasing energy-efficient appliances and installed energy conserving appliances in their homes. The top three things that participants noted the Town could do with regard to energy included:

1. Green building/energy efficient building codes
2. Efficiency in municipal buildings
3. Education and outreach to businesses/residents

In addition to these top priorities, residents found there were opportunities for solar energy facilities on conservation land and landfill, developing hybrid and electric car infrastructure, streetlight efficiency, smaller scale hydroelectric generation, green roofs, and rate structure changes to encourage conservation.

In discussing transportation, everyone noted that their primary mode of transportation was the car with walking being the secondary form of

transportation mainly for exercise purposes. Many felt that the Town should regularly allocate money to maintain and improve bicycle and pedestrian facilities. Participants used public transit infrequently but thought the Town should provide more transit service and provide more forms of alternative transportation infrastructure (such as sidewalk improvements, bicycle accommodations, transit services, electric vehicle infrastructure).

In addition to supporting alternative transportation, participants felt top priorities for focusing its resources included addressing downtown traffic congestion, parking structure, and better signage.

Social Services and Public Health Forum

On Tuesday April 23, 2013, the Town of Hudson sponsored a public forum at the Hudson Senior Center to discuss the topics of social services and public health, which was attended by approximately 30 people. While there was relatively broad support for the Town's efforts to provide social services, members of the audience noted that they would support funding for social services through grants rather than solely by municipal funds. Some suggested using grants such as state/federal government grants and a combination of public and private funds.

Participants understood the importance of providing public health services to residents and in particular thought that the following were the highest priorities to address:

- Hire a Community/Social Services Coordinator (social worker)
- Hazardous materials management
- Immunization
- Pre-rental housing inspection program
- Curbside household trash pickup

There was also some discussion about age-friendly actions that would be most important to achieve in Hudson:

- Assisted living facility
- Education to help seniors age in place
- Program helping seniors to retrofit homes to support aging in place
- Improve sidewalks in central areas
- Additional pedestrian paths for exercise

Social service programs to emphasize in Hudson included elderly services, youth programs, neighborhood and community outreach, disabilities and mobility, and veteran's affairs.

Community Services and Facilities Forum

On Monday June 10, 2013, the Town of Hudson organized an open house/discussion forum to discuss community services and facilities. The open house was set up to allow Town departments to describe the services that they offer and to discuss their facility needs, which in particular included the Department of Public Works need for a new office facility and the Police Department's latest plans for a new Police Station and Headquarters. In addition to information about building and restoration of Town Hall, the following departments participated in the open house:

- Department of Community Development
- Town Clerk
- Board of Health
- Building Inspections
- Recreation
- Senior Center
- Library
- Hudson Light and Power
- Police
- Department of Public Works (DPW)
- School Department

Residents expressed the top recreational need was more multi-purpose recreational fields and the biggest issue was maintenance.

According to participants, the highest priority for the library was to improve parking and access to the building. The majority of participants noted that it was very important to build a new police headquarters, and combining the police and DPW headquarters was a good idea. In prioritizing road repairs, many felt that a combination of safety, pavement condition, and high traffic areas should be considered. Many felt that creating additional space for document storage was key for the Town Hall.

Finally, the following comments were made during the general discussion after the presentation on community facilities, including the following highlights:

- Consider expanding solid waste management options to include curbside pickup
- Consider impacts to residential areas from a new transfer station
- Create more opportunities for performing arts in Hudson
- Create a Washington Street gateway
- Address issues related to downtown traffic and a parking garage

- Consider a community center for other recreational activities – hockey, performing arts, etc.
- Address vandalism at parks and recreation areas
- Move the Building Inspections Department into the new Police Station
- Digitize documents wherever possible to reduce need for storage of paper copies
- Master Plan Goals

In light of the public input from the community, the analysis of past and current economic, housing, natural resources, infrastructure and land use trends and needs, the Master Plan sets out the following goals by plan element.

Land Use and Community Design Goals

Over the past decade, the Town has made strategic decisions about where and how development should occur. The Land Use element of this Master Plan provides additional focus on the Town's overall land use goals including:

- Transform the Route 85 Corridor into a vibrant and thriving commercial area with smaller scale commercial, office, and light industrial uses along with selective mixed use developments.
- Facilitate the rehabilitation of abandoned and underutilized mill complexes for flexible use, whether for new light industrial or commercial or mixed use development including residential.
- Develop an identity and sense of place for the Downtown that focuses on balancing the needs of the residents of Hudson, the businesses, and the need for continued economic development at an appropriate scale.
- Encourage new upper-story residential and commercial development within the Downtown that is consistent with its historic character.
- Encourage the development of clustered single family and townhouse development in areas where there is existing available and residentially zoned land.
- Develop buffers and transitions from the more intensive uses in Hudson's Downtown, industrial and commercial areas to protect its single family neighborhoods.
- Steer new development away from areas that could compromise Hudson's water resources and critical habitat, or in areas that currently lack appropriate infrastructure such as sewer service.

Housing Goals

While the housing in Hudson is affordable to many, the cost of housing is growing as a major share of household income. One of the primary housing goals of this Plan is to provide choices for people and therefore, diversity in housing type and price. Hudson should strive to:

- Provide for a variety of housing types that suits the diversity of community members' needs and to develop a balanced housing market.
- Maintain control over the development of affordable housing in Hudson to encourage a well-designed housing stock.
- Encourage denser housing in existing buildings that are in need of rehabilitation or infill sites in areas already served by existing sewers.
- Leverage town resources to encourage the development of affordable housing by private entities.
- Provide incentives to owners and developers to rehabilitate existing vacant or underutilized buildings into residential properties, such as assistance with state grant and loan programs.
- Plan for the increased need for housing for seniors in Hudson using a variety of options, including an assisted living facility, affordable housing for seniors, and multi-generational housing.
- Attract more young families by providing more starter homes that are affordable to them.

Economic Development Goals

The 2004 Hudson Community Development Plan was guided by a series of “Principles for Smart Growth” that shape policy across a variety of topic areas. A number of these principles relate directly to the Town’s economic development policies as noted below.

- Concentrate development and support development that is compact, conserves land, integrates uses, and utilizes existing infrastructure for sewer and water.
- Protect the village character and “strong sense of place” of downtown Hudson with its locally-owned businesses, healthy economy, pedestrian environment, access to the Assabet River, built features and landmarks, historical resources, and role in community life.
- Redevelop first. Identify existing built resources that are unused or underutilized and give preference to their reuse. Promote redevelopment of

brownfields, preservation and reuse of historic structures, and rehabilitation of existing housing, industrial buildings, and schools.

- Increase job opportunities. Use rehabilitation and infill development to encourage the location of new business development near housing, infrastructure, water and transportation options. Support the growth of new and existing local businesses.
- Foster sustainable businesses. Strengthen sustainable natural resource-based businesses, primarily agricultural activities. Support economic development in industry clusters consistent with regional and local character. Maintain reliable and affordable energy sources to reduce dependence on imported fossil fuels.
- Encourage “green” buildings. Work with developers on new construction projects to reduce stormwater through “green” roofs, permeable parking surfaces and other options, and to reduce energy consumption of new construction and rehabilitation through active and passive energy saving building options.

The 2004 Community Development Plan included an Economic Development component that identified potential actions for the Town to take to help support existing businesses and facilitate the growth of new economic activity. The recommendations from the 2004 Plan encompassed five general themes including:

- Plan, design, and construct public infrastructure to enhance economic development.
- Initiate/strengthen/enforce town bylaws and regulations.
- Support business already located in Hudson.
- Support Hudson residents with employment skills and as employees.
- Enhance private sector ability to redevelop business real estate.

Natural, Historic and Cultural Resources Goals

Hudson is known for its water features, open spaces, farmland, and scenic vistas. The Assabet River in particular is the heart of the community, providing many scenic views, and opportunities for a variety of recreational activities. To enhance and protect these assets, Hudson should strive to:

- Preserve, protect and enhance Hudson's natural, cultural and historic resources.
- Improve water quality of streams, ponds, and the Assabet River.
- Protect Hudson's drinking water resources.
- Acquire, expand and enhance areas for open space and recreation.

- Support Town administration of natural resources and leverage funding opportunities to support conservation efforts.

Open Space and Recreation Goals

The Town of Hudson is active in and has made great strides towards accomplishing the community's goals and objectives related to its open space and recreational resources. The Town should continue to:

- Establish a healthy balance between development and open space.
- Provide a wide range of recreation opportunities for all residents of the community.
- Increase recreational opportunities and open space resources by encouraging multiple uses and by creating linkages between open space and recreational properties.
- Enhance administrative capacity to support the Town's open space and recreation resources and facilities.

Public Services and Facilities Goals

The Town of Hudson strives to maintain high quality public buildings and facilities and to maintain reliability and continuity in the level of services it provides its citizens. As part of the Annual Budget Process, each year the Executive Assistant prepares a 5-year Capital Plan with a 20-Year borrowing schedule and presents this at a public meeting of the Board of Selectmen. The following provides an overview of the public services and facilities goals:

- Improve the comprehensive planning process for short- and long-term capital improvements for all town facilities and services.
- Given the often conflicting demands, establish priorities for building and facility upgrades and replacement.
- Establish new or improved/upgraded facilities and increase staffing for public safety to meet demands resulting from anticipated growth.
- Provide for adequate and ongoing maintenance to address the needs resulting from new building facilities, parks, playgrounds, transportation amenities and other public spaces.
- Increase Hudson's municipal capacity to support better health outcomes for its residents.
- Place a greater municipal emphasis on energy efficiency, climate adaptation and disaster resilience.

- Lead by example in community facilities and operations by establishing sustainability principles and initiatives.
- Explore the provision of curbside trash pick-up and recycling.

Transportation Goals

Mobility is becoming increasingly more important to the residents within the community. Hudson is striving to create better access to a wide range of transportation options for all users within the community to improve safety and mobility. The following provides an overview of the transportation goals:

- Balance the need to facilitate traffic flow throughout the community as a whole with desires to make the roadways more walkable and bikeable; calm vehicle traffic speeds where appropriate;
- Seek opportunities to introduce public transportation at an appropriate scale and in an affordable manner to the community as a whole;
- Identify necessary transportation infrastructure needs and seek traditional and non-traditional funding sources to advance these projects;
- Ensure that paratransit service meets the expanding needs for elderly and disabled residents; and
- Address the perceived lack of parking availability throughout the community.

Energy Goals

Energy planning is relevant to the Town's operation of buildings, vehicles, lighting, and other infrastructure, as well as to residents and businesses living and operating within Hudson. To create a more efficient and cost-effective energy system, the Town should:

- Incorporate energy efficiency considerations into all short- and long-term planning for capital improvements, transportation, infrastructure, housing, and land use.
- Lead Hudson by example in the promotion of energy efficiency and clean energy throughout municipal operations.
- Utilize policy, financial, educational, and other mechanisms to promote energy efficiency and clean energy among Hudson residents and businesses.
- Maintain the benefits of Hudson Light & Power as a community asset by maintaining electricity reliability and low costs to customers.

Social Services and Public Health Goals

Overarching goals related to the Town of Hudson's social services and public health systems have come out of this master plan process. These include the following:

- Improve water quality in order to maintain safe and clean drinking water resources.
- Increase access to local and healthy foods.
- Improve pedestrian amenities to encourage walking, running, bicycling, and public transit.
- Develop additional programming and capacity related to public health and social services.



Aerial Photograph, Hudson, MA

2

Land Use and Community Design

Introduction

The Town of Hudson is a vibrant and growing community with many assets, including a historic Downtown, diverse recreational facilities, a multi-use trail running through the heart of the Town, scenic lakes and rivers, and available land that can be developed for new residential, commercial and industrial businesses. Over the past decade, the Town has made strategic decisions about where and how development should occur. The Land Use element of this Master Plan provides additional focus on the Town's overall land use policies. Land use refers to the development character within a municipality after consideration of the amount, type, and intensity of commercial, industrial, residential and institution development, as well as open space, and key natural resources features. This chapter provides an analysis of overall land use within the Town of Hudson as well as land use recommendations for three focus areas within the Town of Hudson: the Downtown, the Route 85 corridor, and the Old Mill complexes.

Land Use and Community Design Goals

- Transform the Route 85 Corridor into a vibrant and thriving commercial area with smaller scale commercial, office, and light industrial uses along with selective mixed use developments.
- Facilitate the rehabilitation of all abandoned and underutilized mill complexes for flexible use, whether for new light industrial or commercial or mixed use development including residential.

- Develop an identity and sense of place for the Downtown that focuses on balancing the needs of the residents of Hudson, the businesses, and the need for continued economic development at an appropriate scale.
- Encourage new upper-story residential and commercial development within the Downtown that is consistent with its historic character.
- Encourage the development of clustered single family and townhouse development in areas where there is existing available and residentially zoned land.
- Develop buffers and transitions from the more intensive uses in Hudson's Downtown, industrial and commercial areas to protect its single family neighborhoods.
- Steer new development away from areas that could compromise Hudson's water resources and critical habitat, or in areas that currently lack appropriate infrastructure.

Hudson

Land Use and Community Design Issues and Opportunities

Hudson's residents pride themselves for their community spirit and neighborliness. This sentiment is echoed in the community's attention and strong support for the Town's schools and parks as well as its well-kept and close-knit residential neighborhoods. However, there are still opportunities that Hudson can capitalize on which can further support maintaining this sense of community. This includes developing strategies to revitalize its historic Downtown, encouraging well-designed commercial and industrial development along the southern section of Route 85 that adds to instead of takes away from the existing community character, and revitalizing the older underutilized mill complexes to encourage the creation of new businesses and create more housing choices for residents. These focus areas are further explored below in greater detail.

Downtown

Hudson's Downtown comprises about 50 acres within the heart of Hudson. The Downtown area lies mainly to the west of the intersection of several streets (a rotary) located at the intersection of River Street, Central Street, Washington Street (Route 85), and Main Street. The frontage along Main Street, from the rotary to Broad Street, is the heart of Downtown and also extends to the south along South Street and the Assabet River. Main Street is primarily composed of two to three-story historic buildings, which house a mix of restaurants, boutiques, and offices. Over the last several years, new restaurants as well as new retail and offices have opened along South Street, one block south of Main Street. Around the rotary and to the south of Main Street, another small area of Downtown includes auto services and eating establishments including an old-fashioned diner.



Hudson is fortunate to have a Downtown with “good bones.” Stately three-story brick buildings front Main Street and the historic Town Hall includes an attractively landscaped lawn creating an appealing overall vision of a quintessential New England town. The rotary also helps to serve a visual “gateway” to the Downtown for travelers arriving via Washington Street (Route 85), River Street, and Central Street.

The Downtown does have some challenges, however, some of which were expressed by residents during the Master Planning outreach process:

- **Parking.** While the Downtown has on-street parking, there is a public perception that it is inadequate to serve those wishing to frequent the Downtown’s shops and restaurants. Additionally, there are parking lots located along South Street just south of Main Street, which include a mix of public and private parking lots.

- **Inconsistent signage.** The signs displayed on many of the Downtown’s businesses and restaurants are inconsistent in style and create a disjointed appearance to the otherwise architecturally consistent Downtown.
- **Building façade maintenance.** While some of the historic buildings have been recently renovated, some of the buildings are badly maintained.
- **Sidewalk maintenance.** Many of the Downtown’s sidewalks are cracked, and in need of repair.

Some strategies that Hudson can consider for the Downtown include:

- **Develop Downtown Wayfinding signage program.** A wayfinding program can be as simple or extensive as the Town desires. Hudson has many assets and a simple wayfinding signage program can help to highlight many of these features. Signs indicating the direction of public



parking, restaurants, the Assabet Rail Trail, the Historic District, and other key historic landmarks will help visitors to Hudson negotiate its streets and encourage patronage at Hudson’s restaurants and stores. South Street has many new businesses and restaurants that may go unnoticed by visitors because of the “tucked away” aspect to South Street.

- **Provide streetscape improvements and pedestrian amenities.** To improve the quality of the sidewalks for residents of all ages and abilities and to encourage pedestrian traffic Downtown, the Town can consider funding streetscape improvements. The Town can develop consistent walk and common paving treatment in Downtown from the rotary to the edge of the Downtown area at Grove Street. This could be further enhanced with pedestrian scaled lighting near the ground.
- **Create Downtown design guidelines for major building renovations, new construction, and new signage.** The Town can explore the development of design guidelines for the Historic Downtown to create consistent signage for new signs and to ensure that major renovations and additions to the Downtown are consistent with its historic character.
- **Redesign the Rotary.** The rotary is attractively landscaped with an old-fashioned lantern. The Town can further embellish the rotary with clear signage or stone monument marking the entrance to the Hudson’s Historic Downtown.

- **Conduct a study of downtown parking.** Since this issue has been raised by members of the public and businesses in the past, it should be addressed by conducting a comprehensive study and the implementation of a parking management system to address any identified problems. The Town has already allocated some money to fund a parking management study for the downtown area. The business sector has committed to supplementing that funding from the private sector to ensure that it moves forward. The study could explore augmenting parking where the supply of spaces is tight or look for ways to increase access to available parking.
- **Improve pedestrian connections from Downtown to other key features** such as Cherry Street fields and the Assabet River Rail Trail. This strategy is further detailed in the Transportation and Open Space chapters.
- **Farmers market.** The Town can explore ways to host a regularly occurring farmers market in the Downtown area. One potential location for a farmer’s market could be located at one of the private parking lots along South Street, which are not generally used outside of business hours Monday through Friday.
- **Encourage residential development in the Downtown.** In addition to some of the Downtown’s design challenges, many residents have voiced a preference for encouraging more mixed use development in the Downtown area by converting the upper stories of Downtown buildings into mixed use where appropriate. Encouraging residential uses Downtown can help enliven the area at night since more people living Downtown will want to frequent the area’s shops and restaurants in the evening hours. Changes to C-1 zoning should be explored.



Route 85 Corridor (Washington Street)

Route 85 is a major North-South route through Hudson connecting Marlborough, Bolton, Stow and Maynard. Route 85 also intersects with other key regional routes, such as I-495, Route 20, Route 62, and Route 117. Berlin and Bolton currently have limited commercial or retail centers and this corridor serves as a shopping destination for neighboring communities. Route 85 (Washington Street in Hudson) is a primary artery feeding Hudson's other main retail area, Main Street (Route 62). Hudson has recently completed the Route 85 corridor construction to improve a 1.5 mile segment from the Town line with Marlborough to the Washington Street Bridge. This project includes widening Route 85 to include two travel lanes for each side, 4-foot bike shoulders, 5.5-foot wide ADA compliant sidewalks, and short turn lanes where needed. The reconstruction of Route 85 represents a great opportunity for Hudson to adopt land use policies that ensure new development in the area is compatible with surrounding land uses and reflects the desires and needs of the community.

The area in the vicinity of the corridor has seen ample development in the past decade. Over 80 building permits have been issued to commercial and residential developments within proximity to this segment of the Route 85 corridor since 2001.

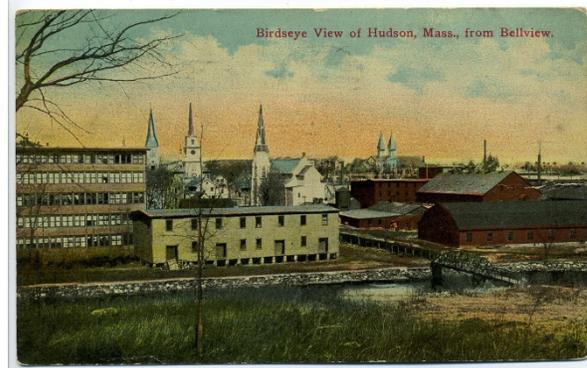
The Route 85 corridor at the entrance to Hudson from Marlborough currently has low density residential, forestland and wetlands to the west of the corridor and commercial development to the east. Commercial development continues in discrete segments along Route 85 to Houghton Street.

The construction of a two-way, four lane roadway will considerably improve traffic conditions along this heavily used corridor. The new road, sidewalks, and bike lanes will also help to create a cohesive look. The entrance to Route 85 from Marlborough is zoned primarily single family residential (SA-8 and SA-7) to the west and manufacturing (M-6) to the east of the roadway. Between Technology Drive and the Washington Street Bridge, the corridor at either side is zoned Commercial (C-11, C-5, C-6, and C-2), and single-family residential (SB and SA-8). Residents have expressed the desire to retain some residential uses within the Route 85 corridor alongside small-scale commercial. Some land use recommendations for the Route 85 Corridor include:

- Reassess zoning along the Route 85 corridor to establish mixed use standards where appropriate.
- Develop a master corridor plan for the Route 85 that would address uses within the corridor block by block to ensure there is adequate transition between the single family residential and the commercial areas. In addition, some blocks within the corridor may be appropriate for mixed use development, perhaps as a transition zone between the purely residential and commercial zones.

Old Mill Reuse

Two areas totaling approximately 25 acres have former industrial mill buildings that are the remnants of Hudson's historic past as a mill town. Hudson can learn from the success that many communities in Massachusetts have had converting former mill



buildings to a variety of uses, including repurposing the buildings to house light industrial and high tech businesses and the conversion of these buildings into condo loft apartments and artists' studios. Based on the recommendation of the *Hudson Community Development Plan* in 2004, Hudson amended its zoning bylaw to include an Adaptive Reuse Overlay District (AROD) for the two large mill complexes. This zoning allows upper stories of the existing former buildings to be converted to residential units and new construction of residential units by right meeting certain criteria. The zoning also allows first floor uses of retail, restaurant, offices, bank, health club, music, art or craft studio in addition to uses customarily allowed in multi-family residential zoning districts.

As the zoning changes occurred just before the Economic Recession of 2008/2009, little development activity has been spurred on by the changes in zoning to support mixed re-use of the mill building. However, with the improving New England economy, the Town is poised to receive new development proposals in these underutilized areas.

Both AROD areas have the underlying zoning for Manufacturing uses (M-2 and M-3), which allows for manufacturing and agricultural uses in addition to all the uses allowed in commercial and light industrial districts. To further spur and support commercial and residential development in the AROD areas, the Town could consider the following:

- Design pedestrian linkages between the mill buildings and the Assabet Rail Trail, the Assabet River, and Downtown.
- Create and maintain a comprehensive inventory of buildings, occupancy status, tax title status, and other pertinent information within the AROD.
- Explore innovative techniques to encourage smart energy including green technologies.

- Identify all the infrastructure improvements that may be required to revitalize the district and attempt to fund through existing state level grant programs.
- Consider expanding AROD zoning to other commercial buildings.
- Encourage the use of financial tools to spur new development in old mill buildings, such as tax abatements, Tax Increment Financing (TIF) or District Improvement Financing (DIF) Districts, long-term leases, Historic Tax Credits, Abandoned Building Tax Credits, and grants. Both DIF and TIF are tools that Massachusetts municipalities can use to fund district improvements or grant property tax exemptions to landowners respectively. Both tools are based on the tax increment, as calculated by the local Assessor, which is the difference in property tax between the unimproved property and the improved property (including the value of any new construction, rehabilitation or new equipment or machinery). “Using DIF, municipalities can pledge all or a portion of tax increments to fund district improvements over time. With TIF, municipalities may grant property tax exemptions to landowners of up to 100% of the tax increment for a fixed period.”¹

The reuse of former mill buildings can help reclaim underused industrial space and locate new growth in areas where basic infrastructure is already available. Through careful site design, the reuse of these former mill buildings will increase pedestrian traffic through the nearby Downtown. The re-use of these buildings for high-density residential also has the potential to help augment Hudson’s stock of high-density affordable housing that could be included in the Subsidized Housing Inventory (SHI) to help meet the Town’s 40B requirements, as discussed in more *detail* in the Housing chapter of this Plan.

¹ State of Massachusetts Smart Growth/Smart Energy Toolkit. http://www.mass.gov/envir/smart_growth_toolkit/pages/mod-diftif.html. Accessed December 2012.

Land Use Patterns

Historic Land Use

Hudson began as a home to Native American communities until the middle 1600s when European settlers were granted land in the area now known as Hudson. Early Hudson was destroyed but rebuilt after 1675 when Hudson was firmly in the control of the immigrants. The earliest homes that remain

today were associated with farming activities from that period. Some of the homes and the farming activities still exist in Hudson. However, a fire in 1894 destroyed many of the buildings downtown. The reconstruction of the entire downtown shortly after the 1894 fire has resulted in a downtown that is architecturally from one period. Recognition of this historical uniformity led the town to designate much of its downtown as a State Registered Historic District known as the Silas Felton Historic District which the town passed unanimously at its November 1988 Town Meeting. Significant renovations and building alterations within the historic district require design review by the Silas Felton Historic District Commission. This has assisted the Downtown in preserving its architectural integrity.²



The Town of Hudson, like many other communities in the area, was founded around the water power provided by the Assabet River and Tannery Brook. There are two dams and mill ponds in the community, and numerous mill buildings that developed because of the economic opportunity the water provided. Since the downtown arose to serve mill employees and owners, the older mill buildings are at the periphery of the downtown area. Much of the housing in Hudson is also clustered around the downtown and the mills and originally housed mill workers and managers. Once Hudson distinguished itself as a population and employment center, other economic facilities were located in different areas of Town not necessarily adjacent to the river.³

² Hudson Community Development Plan, June 2004.
³ Hudson Community Development Plan, June 2004.

Hudson's Downtown today still maintains much of its historic character and boasts specialty boutiques, eating establishments, and smaller retail establishments.

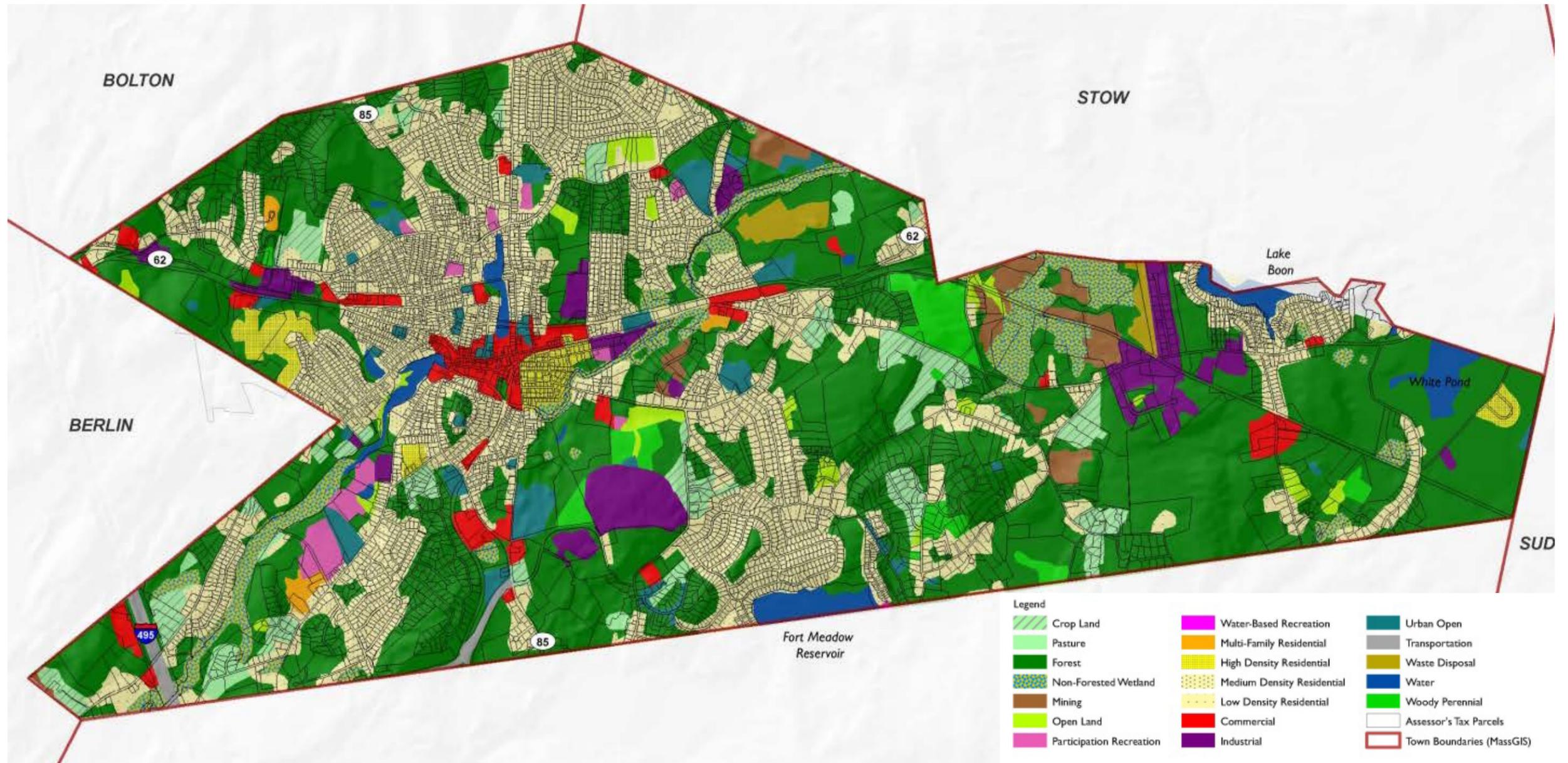
Like many cities and towns, the development character of the Hudson in the twentieth century has been shaped by the construction of major highway projects. The construction of Interstate-495 in the 1960s, changed development patterns in Hudson by spurring on significant commercial, residential, industrial and retail development. The relative affordability of land, and more modest homes, coupled with the ideal highway access, retail and commercial facilities, encouraged new residential development. Further supporting this, almost half of Hudson's housing stock was built between 1960 and 1989 according to U.S. Census data.

Figure 1.1 shows land uses within Hudson in 1985. According to data from MassGIS, between 1971 and 1985, Hudson lost about 176 acres of agricultural land (Table 2.1). This loss continued from 1985 to 1999, when Hudson lost an additional 155 acres of farmland representing a total decline of 66 percent in agricultural land between 1971 and 1999 (see Table 2.2). In contrast, the acreage of industrial/transportation/mining uses between 1971 and 1999 has increased by almost 65 percent and commercial acreage by 32 percent. In total, 53 acres of land was converted to commercial and almost 200 acres of land was converted to industrial land between 1971 and 1999, likely from the conversion of former farmland and forestland to these uses.

In terms of housing, residential development has occurred across the board but mostly concentrated in high and low density residential development. Higher density residential (housing with lots smaller than $\frac{1}{4}$ acre) from 1971 and 1985 almost doubled by 70 acres. The pace of high-density housing development slowed somewhat between 1985 and 1999, when 24 acres converted to high-density development (a 19 percent increase). Low density residential development (lots larger than $\frac{1}{2}$ acre) also showed an increase with the largest increase occurring between 1985 and 1999 when approximately 350 acres of low density residential development occurred, a 64 percent increase.

In terms of natural resources, forestland and wooded perennial land have shown the sharpest decrease between 1971 and 1999; approximately 900 acres of forestland was lost during this time period, about a 25 percent decrease over this time period.

Figure 2-1 1985 Land Use



Source: MassGIS, 1985.

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Table 2-1 Historic Land Use in Hudson

Land Use	Land Use: 1971, 1985, 1999					
	1971		1985		1999	
	Size (acres)	Percent of Total	Size (acres)	Percent of Total	Size (acres)	Percent of Total
Agriculture	503.7	6.6%	327.2	4.3%	172.5	2.3%
Open Space	271.5	3.6%	275.9	3.6%	482.6	6.4%
Commercial	166.7	2.2%	210.0	2.8%	219.3	2.9%
Industrial/Transportation/Mining	304.0	4.0%	416.0	5.5%	501.4	6.6%
Higher Density Residential*	65.1	0.9%	132.3	1.7%	156.8	2.1%
Medium Density Residential	1,584.4	20.9%	1,674.9	22.1%	1,804.3	23.8%
Low Density Residential	451.5	5.9%	558.2	7.3%	912.8	12.0%
Recreation	63.4	0.8%	63.4	0.8%	68.8	0.9%
Forest/Wooded Perennial	3,648.0	48.0%	3,406.1	44.8%	2,748.0	36.2%
Waste Disposal	53.4	0.7%	54.4	0.7%	54.4	0.7%
Non-forested Wetland	327.6	4.3%	320.9	4.2%	318.4	4.2%
Water	155.7	2.1%	155.7	2.1%	155.7	2.1%
Total	7,594.9	100%	7,594.9	100%	7,594.9	100%

Source: MassGIS

Note: Higher Density Residential includes multi-family housing and housing with lots smaller than 1/4 acre. Medium Density is 1/4 to 1/2 acre lots. Low Density is lots larger than 1/2 acre.

Table 2-2 Land Use Changes in Hudson

Land Use	Land Use Changes: 1971, 1985, 1999		
	1971-1985	1985-1999	Percent Change 1971-1999
Agriculture	-35.0%	-47.3%	-65.8%
Open Undeveloped Land	1.6%	74.9%	77.7%
Commercial	25.9%	4.4%	31.5%
Industrial/Transportation/Mining	36.8%	20.5%	64.9%
Higher Density Residential	103.2%	18.6%	140.9%
Medium Density Residential	5.7%	7.7%	13.9%
Low Density Residential	23.6%	63.5%	102.2%
Recreation/Urban Open	0.0%	8.5%	8.5%
Forest/Wooded Perennial	-6.6%	-19.3%	-24.7%
Waste Disposal	1.8%	0.0%	1.8%
Wetland	-2.0%	-0.8%	-2.8%
Water	0.0%	0.0%	0.0%

Source: MassGIS

Note: Higher Density Residential includes multi-family housing and housing with lots smaller than 1/4 acre. Medium Density is 1/4 to 1/2 acre lots. Low Density is lots larger than 1/2 acre.

Current Land Use

Hudson covers approximately 7,600 acres and is located within the Boston Metropolitan Planning Area region. Most residents find the location of Hudson ideal for its accessibility to urban centers, such as Boston and Worcester, while still retaining a small town feel. Hudson is bordered by the Towns of Berlin to the west, Bolton and Stow to the north, Sudbury to the east, and Marlborough to the south. Hudson has two entrances to Interstate 495, one of which also connects directly to I-290 providing a direct route to Worcester. The proximity to 495 allows residents and workers to have easy access to East-West routes (I-90 and Route 2), both within a ten minute drive. Hudson is also in very close proximity to Routes 20 and 117.

The Town's historic downtown is located within a block to two block radius of Main Street. The other primary commercial area is located along the southern portion of the Route 85 corridor, which connects to I-290. The corridor has been developed to include major shopping centers, strip retail development, big-box stores, office parks, large residential developments, and multinational corporations. The Route 62 access to I-495 has been intensely developed, having attracted some larger housing developments and Highland Commons.

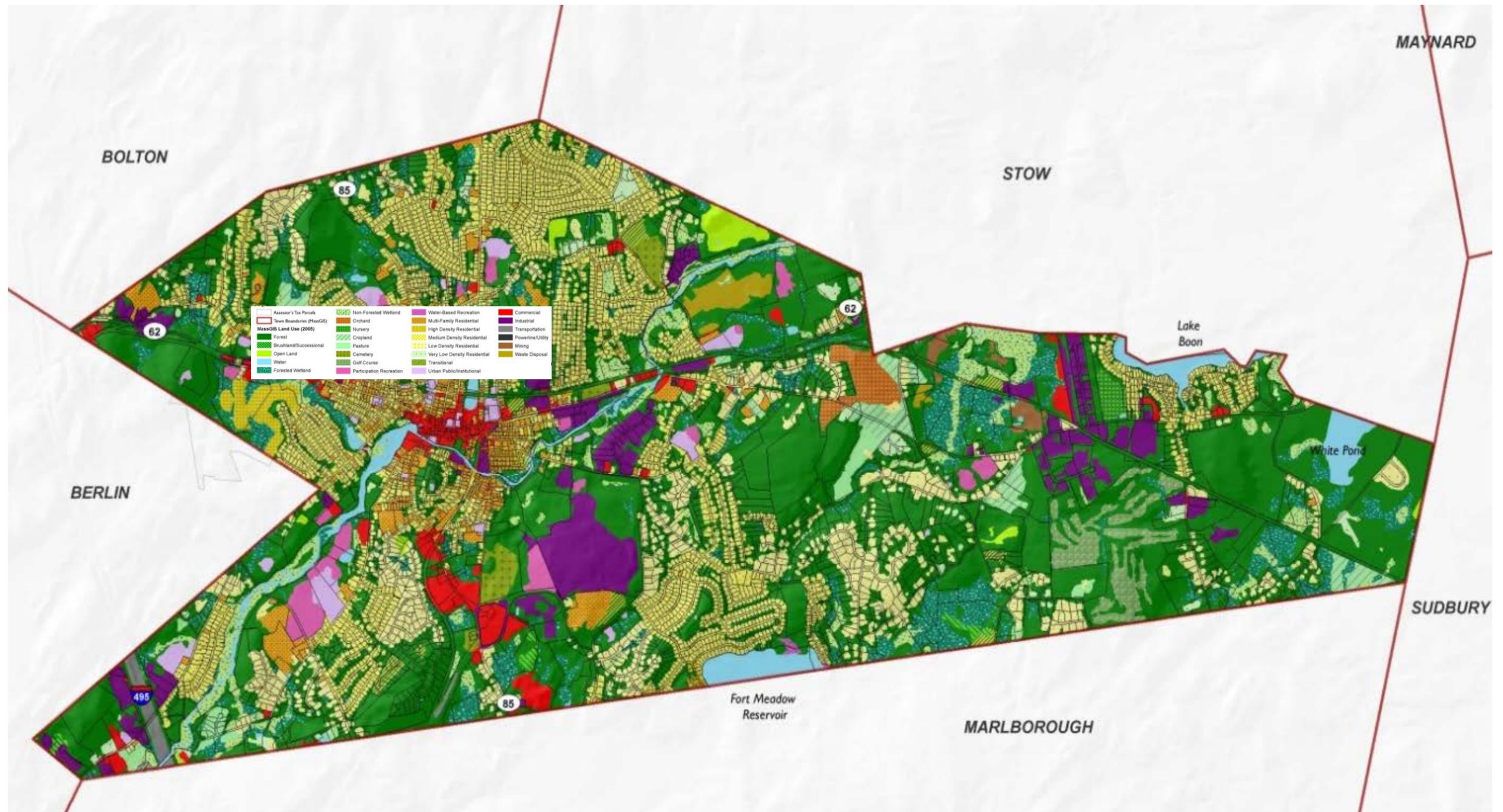
While the regional transportation network has made an impact on land uses, the rivers, lakes and ponds of Hudson have also impacted the development character of Hudson. The Assabet River runs through the center of the Town and along major features. Because of the presence of the many water bodies (the Assabet River for example), many of the town's roads have bridges, which has proved to be a constraint to some industrial development because of the adequacy of bridges for heavier truck loads.

The Town's lack of sewer capacity currently limits residential development in the western area of town particularly in the vicinity of Lake Boon. There is currently no sewer service for the houses that circle Lake Boon. Many of the homes on the lake were former seasonal vacation homes that have been converted to year-round use in addition to newer large homes.

One of the major new developments in Town is now under construction. Highland Commons is a large shopping center on the south side of Route 62 in close proximity to the 495 entrance. The shopping center has a large grocery store, a chain big box home repair store, as well as several large retail stores. Working closely with the developer, the Town ensured that the site was carefully designed with landscaping and sidewalks linking the development to Route 62.

Over the last two decades, a series of factors have been affecting the quantity and character of residential land development. As noted earlier, the majority of Hudson's housing was built between the 1960's and the 1990s and was relatively modest, consisting of smaller, ranch and cape style homes. Because of the availability of affordable land with the ideal highway access, retail and commercial facilities, the early 2000s saw residential development of a range of housing types including more expensive single family homes, large senior "over-55" housing developments, and affordable apartment developments.

Figure 2-2 Existing Land Use



Source: MassGIS, 200

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Hudson now has less developable land, although it is considered to be somewhat more affordable than its neighbors. Some constraints with regard to infrastructure capacity (sewer, road and bridge capacity) will be key considerations the kind of development that should occur and in what location.

Table 2-3 Current Land Use in Hudson

Land Use Description	Acreage	Percent of Total
Agriculture	181.8	2%
Open Space	105.2	1%
Commercial	228.6	3%
Industrial/Transportation/Mining	419.3	6%
Higher Density Residential*	316.5	4%
Medium Density Residential	1,295.9	17%
Low Density Residential	678.0	9%
Recreation	186.4	2%
Forest/Wooded Perennial	3,544.5	47%
Waste Disposal	39.0	1%
Non-forested Wetland	268.5	4%
Water	194.4	3%
Powerline/utility	0.3	0%
Transitional	47.7	1%
Public Institutional	86.5	1%
Total	7,592.6	100

Because of some of the changes in the how MassGIS land use data is defined between 1999 and 2005, it is difficult to make comparisons between 2005 and prior years.

Build-out Analysis

As part of the land use analyses, a detailed build-out analysis for the Town of Hudson was prepared. This build out is a more detailed, and updated version of the build-out analysis that was completed in 2004.

The build-out study is a means by which planners can approximate the extent of future development. Different scenarios and assumptions are applied that yield data allowing one to compare the results and assess the effects of the current land use regulations and available land capacity in Hudson:

- The base build-out shows the maximum growth that is likely to occur pursuant to current zoning. This scenario estimates the total level of development (the number of residential dwelling units and the amount of nonresidential square footage) that could occur over time if the zoning remains

the same over time. It is important to understand that this is not a prediction of what will happen, but what the **maximum** build-out potential could be in the future. Economics, market factors, and infrastructure capacity will likely influence the intensity and location of future development.

- The base build-out took into account several assumptions regarding the future development of two study areas within the Town including the reuse of former mill buildings, within the Adaptive Reuse Overlay District and reuse/redevelopment of buildings within the Downtown (C-1 District).
 - The build-out of the Adaptive Reuse Overlay District, consisting of nine different parcels and five property owners was based on a redevelopment of 80 percent of the lot area and a 4-story building.
 - The build-out of the Downtown was based on maximum build-out of up to three stories, and 50/50 split of residential and commercial development.
- The base build-out considered a number of development constraints including Massachusetts-designated, wetlands, existing conservation land or Town-owned property, and slopes of greater than 12 percent within the Watershed Protection District.

In summary, the build-out showed the following results as shown in Table 2.4. It is important to understand that these numbers are for illustrative purposes only. There are a number of other factors to be taken into account when attempting to assess build-out primarily that the extent of development is market-driven and the timing and ultimate level of build-out cannot be predicted with certainty.

Table 2-4 Future Build-out of Hudson

	New Residential Units	New Commercial/Industrial Square Footage
Residential Build-out	1,497	n/a
Commercial/Industrial	n/a	33,364,630
Adaptive Reuse Overlay District	236	1,701,062
Downtown	1,303	663,159
Total	3,036	35,728,851

Land Development Regulations

This section discusses the important role zoning plays in guiding future land use decisions and thereby shaping the community. It analyzes the Town’s Zoning Bylaws, providing descriptions of each of the districts in Hudson.

Overview of the Hudson Zoning Districts

The Town of Hudson Zoning Bylaws were first adopted in 1957. Numerous additions and amendments have been made over the years, with the latest revisions having occurred at the 2010 Annual Town Meeting. In 2007, the Town undertook major additions to the Zoning Bylaws including a new Accessory Dwelling Unit bylaw, an Adaptive Re-Use Overlay District, an Open Space Residential District, and the Bed and Breakfast zoning bylaw.

The Zoning Bylaws establish nine districts and three overlay districts. See Figure 3.3 for a map of the zoning districts. Table 2.5 provides each zoning designation with the land use intensity and sizes for each district. District boundaries have not been changed since November 2010.

Residential

The residential zoning districts in Hudson consist of SA-5, SA-7, SA-8, SB, SB-1, SB-2 uses. These are identified on Table 1 – Intensity Schedule. However, Hudson's current zoning map contains more residential zoning districts than are referenced in the current zoning bylaw. For example, SB-3 (Multi-family) and SB-4 (Mobile Home) is not specifically referenced in the zoning bylaw although it is referenced on the zoning map. SB-3 does not appear to have intensity or dimensional requirements. An overview by district is provided below.

Table 2-5 Hudson Current Zoning and Acreages

Zoning Designation	Minimum Lot Sizes	Acres	Percent of Total
Single Residential (SA-5)	60,000 square feet	1,060.0	14%
Single Family Residential (SA-7)	30,000 square feet	660.2	9%
Single Family Residential (SA-8)	40,000 square feet	2,505.7	33%
General Residence/Single Family (SB and SB-1)	15,000 square feet	1,252.7	17%
Multi-family (SB-3)	none stated	2.5	<1%
Mobile Home District (SB-2 and SB-4)	5,000 square feet	69.2	1%
Commercial (C-1) Downtown	Allows conversion of upper floors to residential = 500 square feet of floor area per unit	47.7	1%
Commercial II (C-2 through C-13)	15,000 square feet	169.0	2%
Limited Commercial and Light Industrial District (LCI)	30,000 square feet	105.8	1%
Industrial (M-1 through M-5, and M-7)	30,000 to 60,000 square feet	1,611.3	22%
Total	n/a	7,484.0	100%

Single Residential (SA-5, SA-7, and SA-8)

Most land in Hudson lies within this residential zoning district, which allows single-family dwellings. The main difference between these single family residential district (SA-5, SA-7, and SA-8) is how densely developed the properties can be. Specifically, the minimum lot sizes which range from almost 1 and ½ acres (60,000 square feet) for SA-5 to just under an acre (40,000 square feet) for SA-8, and ¾ of an acre for SA-7 (30,000 square feet). These districts also allow municipal buildings, farm, poultry, or nurseries, offices and home occupations, and small family daycares caring for fewer than 7 children. In addition, bed and breakfasts and accessory dwelling units are allowed by special permit.

General Residence (SB)

This large district allows single family housing on very small lots (a minimum of 15,000 square-foot lots) within three primary areas of Hudson, including a large area in the center of Town, a small area near southwest corner of Town, and a small area near the northeastern corner of Town.

General Residence (SB-1)

This district allows apartment style housing up to four stories tall by special permit in the SB-1, a small area within the southwest corner of Town. Specifically, the minimum lot size in this district is 15,000 square feet with a minimum of 6,000 feet for each dwelling unit.

Mobile Home District (SB-2 and SB-4)

This district allows mobile homes by special permit on lots a minimum of 5,000 square feet in size, the smallest size allowed for any zoning district within the Town. Only a few properties are zoned this district near the western border with Berlin (SB-2 and SB-4).

Accessory Dwelling Units (ADU)

In 2007, the Town revised its zoning bylaw to allow for attached accessory units by special permit within or attached to single family homes so long as the additional unit maintains the appearance of a single family house. The units must have complete kitchen and baths in addition to meeting other dimensional

What is zoning?

Modern zoning began in the early 1900's in response to the location of potentially incompatible and noxious land uses next to commercial and residential areas. The zoning bylaw has evolved over the years as a means to limit the types of land uses that could locate in a particular area of the municipality, resulting in a separation of uses. Ideally, the Master Plan is the blueprint for the Town and the zoning bylaw is the regulation that implements the plan. Typically, a zoning bylaw regulates land use by:

- Specifying and distinguishing different land use types;
- Creating development standards for the size and shape of lots and the buildings erected on those lots;
- Addressing lots, buildings and uses that pre-dated the adoption of the zoning bylaw (non-conformities);
- Establishing criteria for the evaluation of permit applications for new buildings;
- Establishing procedures for permitting uses not specifically allowed by right;
- Defining terms that have specific meanings under the bylaw; and,
- Creating a map that displays the geographic extent of each zoning district.

and access requirements. The permits are administered and enforced by the Town's Building Commissioner as Zoning Enforcement Officer.

Retirement Community Overlay District

In 1997, the Town adopted an overlay district specifically for residential communities for seniors 55 and over. These planned communities, allowed by special permit only, have amenities specifically geared for seniors within close proximity to shopping and services. They must be at least 30 acres in size, at least 5,000 square feet of land per unit, and no more than one and a half stories tall.

Bed and Breakfast

The Town adopted a new bylaw in 2010 to allow bed and breakfasts by special permit within single family homes to encourage tourism and the preservation of the historic character of the Town's large and more significant properties.

Open Space Residential Development (OSRD)

In 2007, the Town adopted an Open Space Residential Development bylaw intended to preserve open space, encourage flexibility in the design of residential developments, promote less sprawl and help maintain Hudson's traditional New England character. It requires a minimum of 50 percent of a parcel be provided as open space. The district reverts to the underlying zoning in terms of density. However, a limited number of additional units are allowed when the subdivision preserves additional open space beyond the minimum of what is required, or for the preservation of historic structures, and/or affordable housing units.

Commercial/Industrial

Hudson uses a zoning system often referred to as "pyramid zoning," where the less intensive use can happen in a more intensive commercial district. An example of this is when single family residential lots can be developed in commercial areas and retail can be developed in industrial areas. However, manufacturing could not occur in residential zones nor in light commercial districts.

Commercial (C-1)

This district allows a variety of commercial uses and allows the conversion of upper floors for residential use where the first floor is devoted to commercial uses. The C-1 district does not permit certain uses that are not compatible with the existing Downtown, such as commercial garages, junk yards, and drive-ins. The C-1 district includes the Downtown area along Main Street and near the rotary. Multi-family housing is not allowed in the C-1 district. The C-1 district allows additional floors to be added to a structure provided that the design is compatible with the character of the area, and that it is no higher than the lowest abutting building.

Commercial II (C-2 through C-13)

This district is nearly identical to the C-1 District, with the exception of allowing a commercial garages, junkyards and drive-ins. Only a few areas in Town are zoned this district and are scattered primarily within the central area of Town. The C-2 through C-10, and C-13 commercial districts allow for multi-family housing.

Limited Commercial and Light Industrial District (LCI)

Located along Route 62 and Coolidge Street, this district allows for a variety of uses from retail sales, commercial garages, warehouses, hotels, and limited manufacturing. Adult entertainment is also allowed by special permit only.

Industrial (M-1 through M-5, and M-7)

This district allows for manufacturing and agricultural uses, with the only difference between the districts being minimum lot size. The M-1 through M-5 districts have a 30,000 minimum lot size while the M-7 district has a 60,000 minimum lot size. The M-6 district includes the Intel manufacturing plant and offices as well as other industrial uses.

Sign By-law

Within the Zoning By-laws, Hudson also has a section which outlines requirements, restrictions, and opportunities for signage in connection with commercial activities. The bylaw address where signs are prohibited and allowed, what types of signs are acceptable and in what size configurations.

Adaptive Reuse Overlay District (AROD)

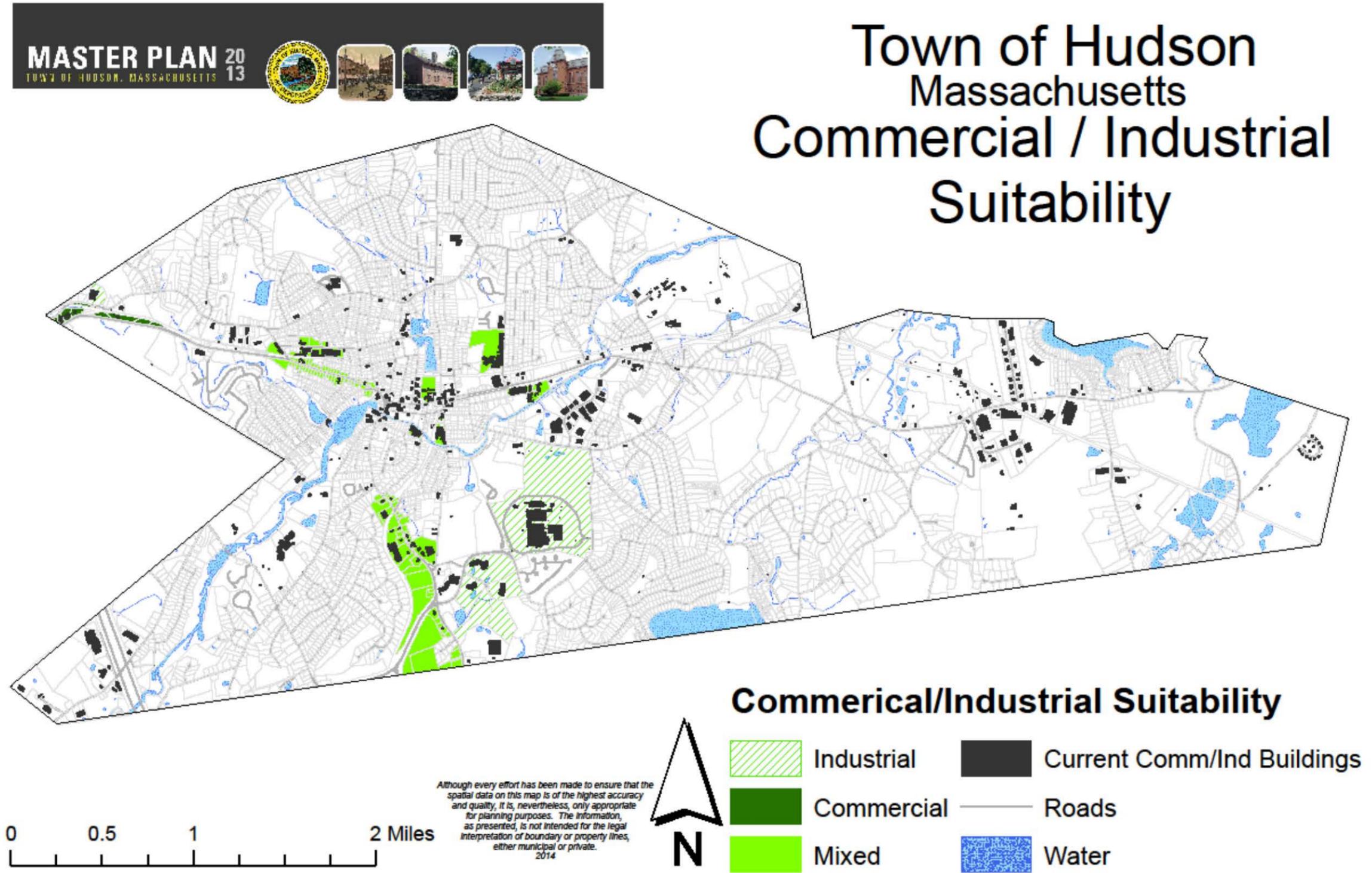
Adopted in 2007, the overlay district applies to two clusters totaling about 53 acres within the center of Town to allow for mixed-use new development or mill redevelopment for residential and commercial uses. The bylaw includes site design standards that incorporate parking in the rear or side streets, low-maintenance landscaping, and pedestrian access. The first area includes five properties located near the intersection of School Street and Houghton Street along the Assabet River. The second area includes four properties with access from Tower Street.

Wireless Communication Overlay (WC)

This is an overlay district that regulates where and how wireless communication facilities can be installed. In general these facilities are allowed in the Limited Commercial and Industrial (LCI) and Industrial District (M-1--M-7) districts, as well as a limited number of Town-owned properties such as water towers.

Figure 2-3 depicts Hudson's commercial and industrial suitability. This map displays parcels that are ideal for future development/redevelopment for commercial, industrial or mixed-use purposes.

Figure 2.3 Commercial and Industrial Suitability



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Recommendations

As land use and zoning are intimately tied to a community's growth and development, many land use recommendations have been made throughout this Master Plan. See the Housing, Economic Development, and Transportation chapters for additional detailed recommendations.

Land Use Recommendations

- LU 1. Inventory all underutilized properties⁴ of 2 acres or more and assess how the property can be developed or redeveloped to maximize its potential land use particularly for commercial, industrial, and mixed-uses.
- LU 2. Consider establishing zoning incentives to encourage reinvestment and redevelopment of existing properties. Such incentives could include density bonuses.

What are underutilized lands?

Underutilized lands are those lands that are utilized less than fully or below the potential use.

The characteristics of underutilized project lands are:

- Development of only a small amount of total land;
- Development behind schedule;
- Failure to meet annual management objectives
- Low or declining public use; and
- Unused recreation facilities.

General Zoning Recommendations

- LU 3. Create one comprehensive table of uses to replace some of the existing narrative listing of uses allowed by right or special permit in each zoning district. This would make the zoning bylaw easier to read for residents and prospective developers.
- LU 4. Consolidate all of the definitions in the bylaw into one section, *Chapter 2, Definitions*. Currently, definitions are included in several different sections of the bylaw.
- LU 5. Review Table 1 – Intensity Schedule and the Town's Zoning Map to ensure the zoning districts are consistent.
- LU 6. Update the parking standards and include both minimum and maximum parking standards to avoid areas that are over-parked and to establish a mechanism for reducing impervious coverage for new development. Consider allowing shared parking in certain areas such as Downtown Hudson.

⁴ <http://definitions.uslegal.com/u/underutilized-lands/>

Residential District Recommendations

- LU 7. Review the SB district and its purpose, and consider allowing duplexes in this district by special permit if they meet certain design standards.

Commercial District Recommendations:

- LU 8. To encourage redevelopment and reuse of buildings within the Downtown C-1 District, consider allowing buildings to add stories up to a maximum of three stories as of right, instead of only to the highest of the lowest abutting building.
- LU 9. Consider allowing small multi-family residential dwellings of 8 units or less whereby residential units on the first floor level are regulated by special permit and residential units above the first floor level are permitted by right within the C-1 District to encourage multi-family housing development in the Downtown. This would be an additional supplement to the bylaw's current provisions allowing residential on the upper stories within the C-1 District provided that the first floor is a commercial use.
- LU 10. Consider combining the C-2 through C-13 districts since these districts are virtually the same in terms of allowed uses and dimensional requirements. If this change is made, the Zoning Map would also need to be updated.

Manufacturing District Recommendations

- LU 11. Consider combining M-1 through M-5, and M-7, since these districts are virtually the same in terms of allowed uses and dimensional requirements. If this change is made, the Zoning Map would also need to be updated.

Downtown Recommendations

- LU 12. Develop a Downtown Wayfinding signage program.
- LU 13. Create Downtown design guidelines for major building renovations, new construction, and new signage.
- LU 14. Explore additional public parking and update parking regulations throughout the district to be more comprehensive and understandable; to manage demand; and to increase ease of parking.
- LU 15. Renovate Downtown sidewalks and streetscape improvements.
- LU 16. Improve pedestrian connections from Downtown to other key features such as Cherry Street Field and the Assabet River Rail Trail.
- LU 17. Host a regularly occurring farmers market in the Downtown area.

- LU 18. Encourage streetscape improvements that create gateways to Hudson along Route 62 near the rotary and Downtown.
- LU 19. Consider increasing overnight parking stock to encourage residential development.

Route 85 Recommendations

- LU 20. Develop a master plan for the Route 85 corridor that would address uses within the corridor to ensure there is adequate transition between the single family residential and the commercial areas, and that appropriate, possibly mixed use development is allowed.
- LU 21. Reassess zoning along the Route 85 corridor to establish mixed use standards where appropriate.

Adaptive Reuse of Former Mills

- LU 22. Design pedestrian linkages between the mill buildings and the Assabet River Rail Trail, the Assabet River, Downtown, and the future Wayside Trail.
- LU 23. Create and maintain a comprehensive inventory of buildings, occupancy status, tax title status, and other pertinent information within the AROD.
- LU 24. Explore innovative techniques to encourage smart energy including green technologies.
- LU 25. Consider adding additional buildings within the AROD.
- LU 26. Consider revision of AROD zoning to allow for increased residential density within the AROD.
- LU 27. Encourage the use of financial tools to spur new development in old mill buildings, such as tax abatements, Tax increment financing (TIF) or District Improvement Districts (DIF) Districts, long-term leases, and grants.

Procedural Recommendations

- LU 28. Consider incorporating public health goals and bike/pedestrian mobility into any new site-plan review.

Farmland Preservation

- LU 29. Educate agricultural landowners about the state's voluntary Agriculture Preservation Restriction Program, which provides an alternative to selling or developing their land. The program pays farmland owners the difference between the fair market value and agricultural value of their land, and in return, a deed restriction is placed on the land that prohibits uses that would negatively impact the property's agricultural viability.⁵
- LU 30. Encourage local agriculture through the development of farmers' markets. The state Department of Agricultural Resources provides technical assistance to people interested in starting farmers' markets.⁶ The Town should also consider establishing additional community gardens on town-owned land. This could be done on a seasonal basis.
- LU 31. Encourage preservation through conservation easements of Hudson's actively used farmland.
- LU 32. Continue to support Hudson's community garden program and explore additional areas for gardens, such as educational gardens at public schools.



Victor's 50s Diner, Hudson, MA

⁵ Massachusetts Department of Agricultural Resources, Agriculture Preservation Restriction Program, <http://www.mass.gov/agr/landuse/APR/index.htm>

⁶ Massachusetts Department of Agricultural Resources, Farmers' Markets, <http://www.mass.gov/agr/markets/farmersmarkets/index.htm>

3

Housing

Introduction

Hudson is primarily a community made up of residential neighborhoods; housing is the most prevalent land use in Hudson. The cost and availability of housing deeply affects the quality of life of Hudson's residents, and it is a critical component that defines Hudson's character. While the housing in Hudson is affordable to many, the cost of housing is growing as a major share of household income. One of the primary housing goals of this Plan is to provide choices for people and therefore, diversity in housing type and price.



The first section of this chapter provides an overview of the population and household changes that have been occurring in Hudson. It also looks at how the Town's demographics compare to those of the region, which includes comparable Massachusetts cities and towns.

The following sections discuss the type of housing that is available in Hudson as well as key housing issues that have been identified by members of the community. Additionally, this chapter will include the housing needs assessment analysis and implementation strategies required for Housing Production Plans pursuant to 760 CMR 56.03(4).

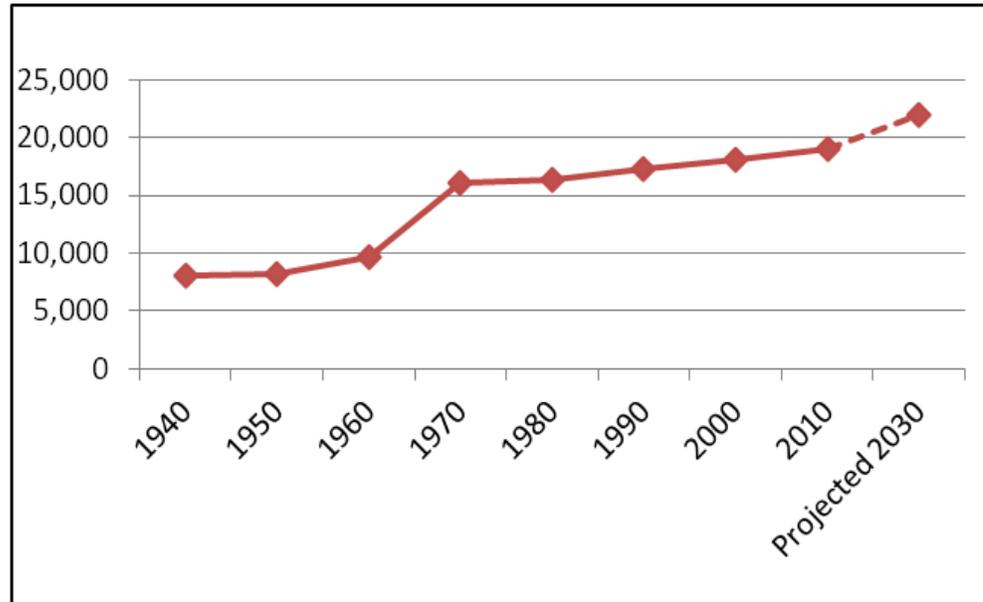
Housing Goals

- Provide for a variety of housing types that suits the diversity of community members' needs and to develop a balanced housing market
- Maintain control over the development of affordable housing in Hudson to encourage a well-designed housing stock
- Encourage denser housing in existing buildings that are in need of rehabilitation or infill sites in areas already served by existing sewers
- Leverage town resources to encourage the development of affordable housing by private entities
- Provide incentives to owners and developers to rehabilitate existing vacant or underutilized buildings into residential properties, such as assistance with state grant and loan programs
- Plan for the increased need for housing for seniors in Hudson using a variety of options, including an assisted living facility, affordable housing for seniors, and multi-generational housing
- Attract more young families by providing more starter homes that are affordable to them

Population and Demographic Profile

Hudson's population has steadily grown over the last six decades and is expected to continue growing through 2030, as shown in Figure 3-1. The population has more than doubled between 1940 and 1990 with the largest jump occurring between 1960 and 1970 (a 66 percent increase). The average rate of increase between 1990 and 2010 has been consistent and stable with a 5 percent increase in population each decade. Hudson's population is expected to continue with moderate sustained growth adding about 3,000 people between 2010 and 2030 (15 percent increase).

Figure 3-1 Hudson Population Over Time



Density is important to a community because it measures how crowded or dense the Town’s population is. This in turn helps in making community decisions such as those related to infrastructure, public transit and sidewalks. With a total land mass of 11.9 square miles, Hudson’s current population density is 1,601 people per square mile. This is an increase in density of about 5 percent since 2000 when the population density was 1,522 people per square mile. The eastern portion of Hudson contains the lowest density (or people per square mile) as this is the most rural area of Town. The center of Hudson, or Downtown, contains the highest density.

Hudson’s growth in recent years may be attributed in part to the construction of new housing units. The Town’s schools and accessibility to major highways for commuting purposes and relatively affordable housing also make the Town an attractive community.

Between 1970 and 2010, Hudson grew at a faster pace than Middlesex County as a whole as shown in Table 3-1. Over the past decade, between 2000 and 2010, Hudson’s growth rate (5.2 percent), which was faster than both Middlesex County (2.6 percent) and the state (3.9 percent).

Table 3-1 Population Comparisons by Region

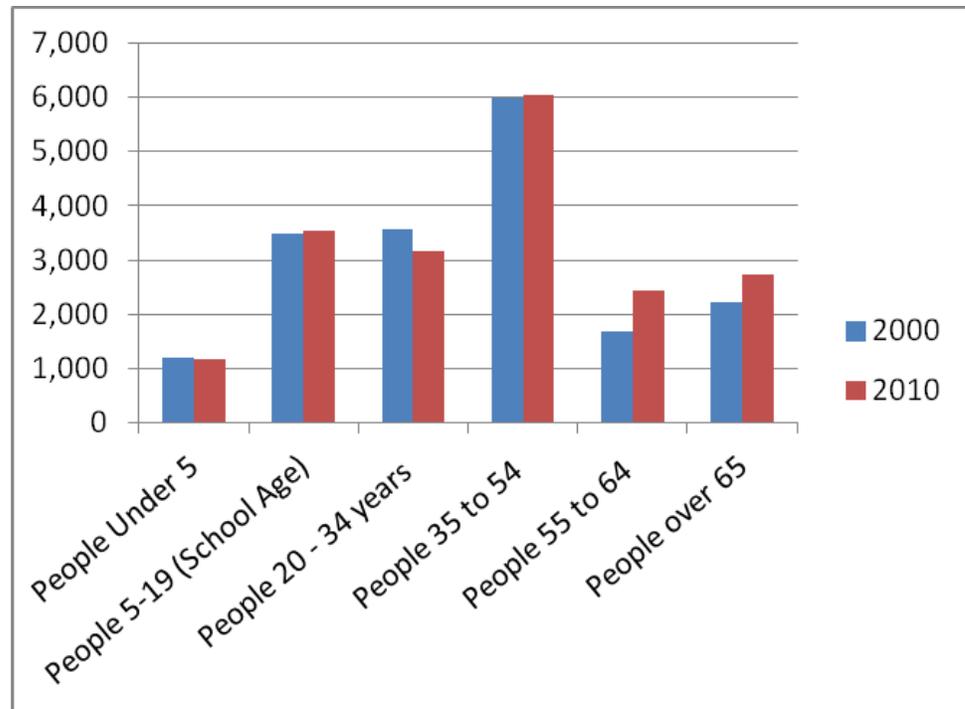
Region	1970	1980	1990	2000	2010
Hudson	16,084	16,408 (2.0%)	17,233 (5.0%)	18,113 (5.1%)	19,063 (5.2%)*
Middlesex County	1,398,397	1,367,034 (-2.2%)	1,398,468 (2.3%)	1,465,396 (4.8%)	1,503,085 (2.6%)
Massachusetts	5,689,000	5,737,000 (0.8%)	6,016,425 (4.9%)	6,349,097 (5.5%)	6,593,587 (3.9%)

Source: U.S. Census 1970, 1980, 1990, 2000, 2010

* The Town of Hudson keeps their own record of local population numbers. According to the Town Clerk, as of October 2013 Hudson contained a population of 18,769 people, 294 less than what was recorded by the Census in 2010.

Figure 3-2 shows the age breakdown of Hudson from 2000 to 2010. The Town’s older populations – people 55 to 64 years old and 65 and up – are the fastest growing segments of the population, having increased 45 percent and 23 percent respectively since 2000 alone. This information suggests that Hudson’s population is getting older, which is consistent with national trends that clearly demonstrate the “graying” of America. With the baby boomers reaching the age of 65, this trend will continue for at least the next generation. Moreover, this has significant planning implications in terms of housing, economic development, municipal and social services, and transportation options as the Town looks for ways to meet the needs of its aging population. The Town also may be attracting seniors through the new developments of 55 and over housing communities.

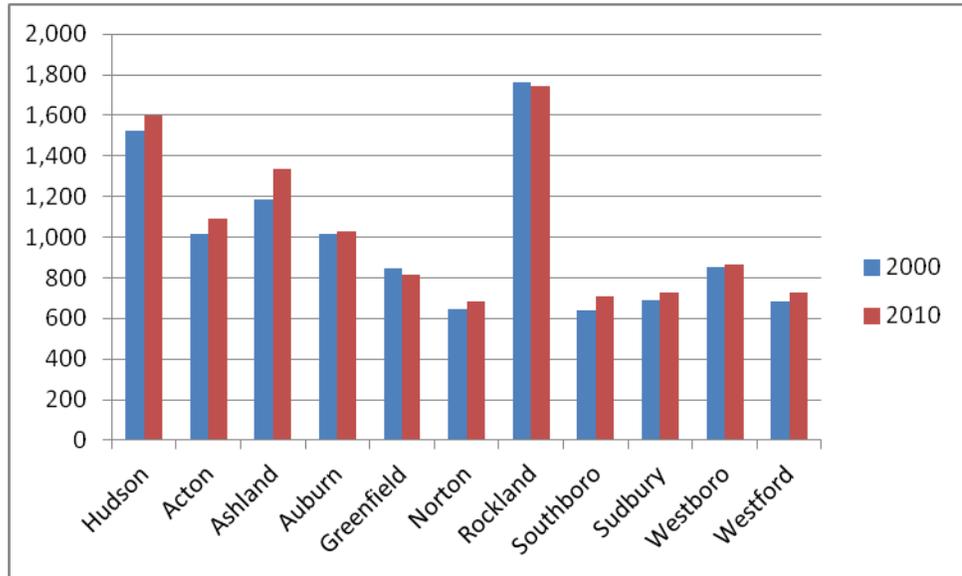
Figure 3-2 Distribution of Population by Age



While the population of very young people (children under 5 and school aged children) and adults in their mid-thirties to mid-fifties stayed fairly stable from 2000 to 2010, the younger adult population in Hudson has been declining as shown in Figure 3-2. The 20 to 34 age cohort declined in the 2000s by 10 percent. Young adults appear to be leaving the town once they graduate from high school, which may indicate that people in their twenties and early thirties are not able to afford to buy a first home or rent in Hudson.

Among comparable towns (towns of a similar size and demographics), Hudson has second highest population density. Figure 3-3 shows that Hudson experienced one of the largest increases in population density (5 percent) between 2000 and 2010, second only to Ashland (12 percent).⁷

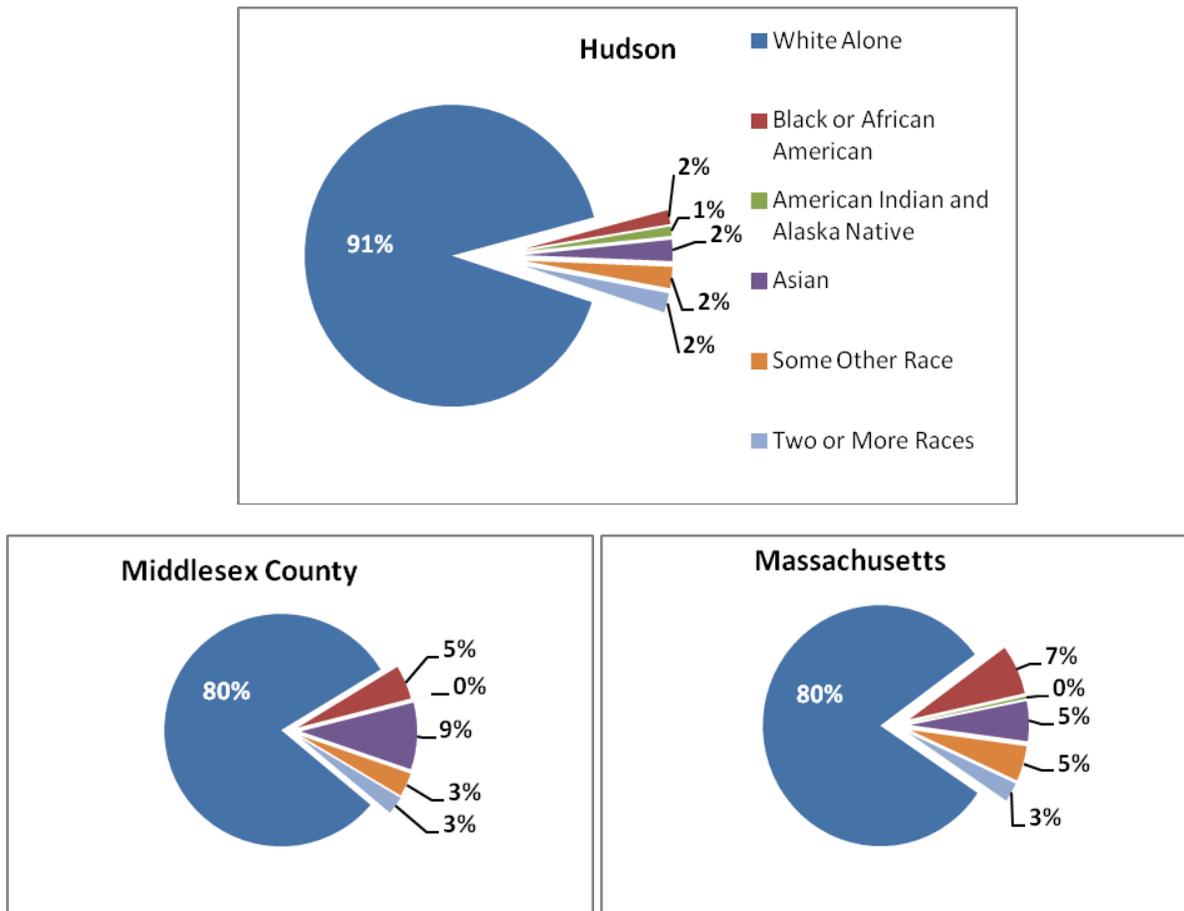
Figure 3-3 Population Density (people per square mile)



⁷ Ashland is considered a more affordable community (when compared to Hudson) supplied with a larger number of condominiums in its housing stock and a commuter rail located within the Town.

In terms of gender, Hudson’s population is evenly distributed between men (49 percent) and women (51 percent). The Town is largely homogeneous, with approximately 91 percent of the population identifying as White alone (see Figure 3-4). Approximately 1 percent of the population is American Indian or Alaska native, 2 percent is Black or African American, 2 percent is Asian, with the remaining 4 percent being other or two or more races. In comparison, the region (Middlesex County) and the state are somewhat more racially diverse. In particular, 20 percent of the regional and the statewide population are not White.

Figure 3-4 Population Comparison by Race



Source: 2010 US Census

Households

In 2010, Hudson had 7,528 households, an 8 percent increase from 2000 (Table 3-2). However, the size of households has slightly decreased in Hudson from an average household size of 2.57 in 2000 to 2.53 in 2010. Again this reflects national trends that indicate that households are getting smaller and long-range projections indicate that household size will continue to decline. This will have an impact upon policies designed to meet such housing needs. In fact, the U.S. Census Bureau projects that by 2025, the number of single person households will equal the number of family households.

Compared to its neighbors, Hudson's household rate of growth was in the middle of the pack: higher than two neighboring communities (Sudbury and Marlborough) and lower than two smaller, but fast-growing communities (Berlin and Bolton). Hudson's rate of household growth contrasts with its slower rate of population growth (5.2 percent) over the same period.

Table 3-2 **Number of Households**

Year	Hudson	Berlin	Bolton	Sudbury	Marlborough
2000	6,990	872	1,424	5,504	14,501
2010	7,528	1,125	1,670	5,771	15,395
% Change	8%	29%	17%	5%	6%

Source: 2000, 2010 US Census

The household size decrease in Hudson is reflected in the changing makeup of households. Non-family households are defined by the U.S. Census as consisting only of single or non-related persons, excluding single parents or grandparents with children. As shown in Table 3-3, family households have generally increased at a slower rate from 2000 to 2010 (6 percent) than non-family households (12 percent). In Hudson, family households with children only increased by 1 percent between 2000 and 2010, while the number of single-person households increased by 11 percent. However, the increase in single-person households was similar or lower than many neighboring communities as shown in Table 3-4. Notably, households with older family members (65 years and older) increased by the highest percentage of all types (22 percent). However, the increase in households with seniors was lower than surrounding municipalities, which ranged from increases of up to 77 percent in Bolton (Table 3-3). Overall, this indicates a growing regional trend of families that are now caring for older parents and/or grandparents.

In addition to the increase in households with seniors, 40 percent of the single-person households are individuals older than 65 years living alone. This is reflected in the growing senior population in Hudson noted in Figure 3-2. Interestingly, Hudson demonstrated a slower growth between 2000 and 2010 of seniors living alone (a 17 percent increase as shown in Table 3-4) while neighboring communities showed much sharper increases (a 86 percent increase in Bolton alone). It is possible that the opening of new senior living facilities in these communities could account for the sharp increases regionally.

Table 3-3 Households Regional Comparison

	Family Household			Married couple family			Family Households with Children (under 18)			Households with Individuals over 64		
	2000	2010	Percent change	2000	2010	Percent change	2000	2010	Percent change	2000	2010	Percent change
Hudson	4,845	5,131	6%	3,965	4,070	3%	2,237	2,263	1%	1,653	2,021	22%
Berlin	666	1,125	69%	565	696	23%	301	319	6%	215	369	72%
Bolton	1,202	1,391	16%	1,097	1,241	13%	636	729	15%	185	327	77%
Sudbury	4,751	4,946	4%	4,319	4,425	2%	2,814	2,866	2%	1,023	1,363	33%
Marlborough	9,285	9,672	4%	7,473	7,460	0%	4,402	4,466	1%	2,887	3,384	17%

Source: U.S. Census 2000 and 2010

Table 3-4 Non-Family Households Regional Comparison

	Non-family households			One-person households			One-person Households Age 65+		
	2000	2010	Percent change	2000	2010	Percent change	2000	2010	Percent change
Hudson	2,145	2,397	12%	1,761	1,946	11%	663	777	17%
Berlin	206	314	52%	163	245	50%	71	111	56%
Bolton	222	279	26%	159	202	27%	44	82	86%
Sudbury	753	825	10%	608	684	13%	301	393	31%
Marlborough	5,216	5,723	10%	4,125	4,411	7%	1,197	1,448	21%

Source: U.S. Census 2000 and 2010

The majority of the owner-occupied units are owned by those in their mid-thirties to mid-fifties as shown in Figure 3-5, which indicates that the majority of homes in Hudson are owned by people that are mid-career and those households with children still living at home. While renters tend to range on the younger side, there is still a solid majority of renters that are also in their mid-forties and mid-fifties, and at a similar stage in life. The second-largest segment of renters are in their mid-twenties to mid-thirties indicating that rental housing in Hudson is still needed and desired by those starting out in their careers and first establishing families.

Figure 3-5 Age of Householder: Owner Occupied Housing Units (2011)

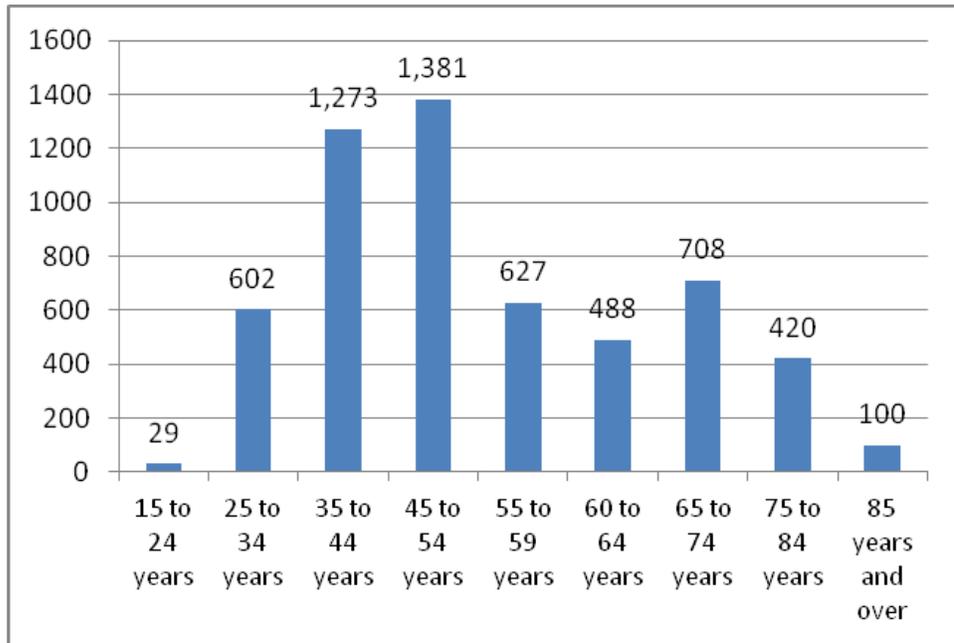
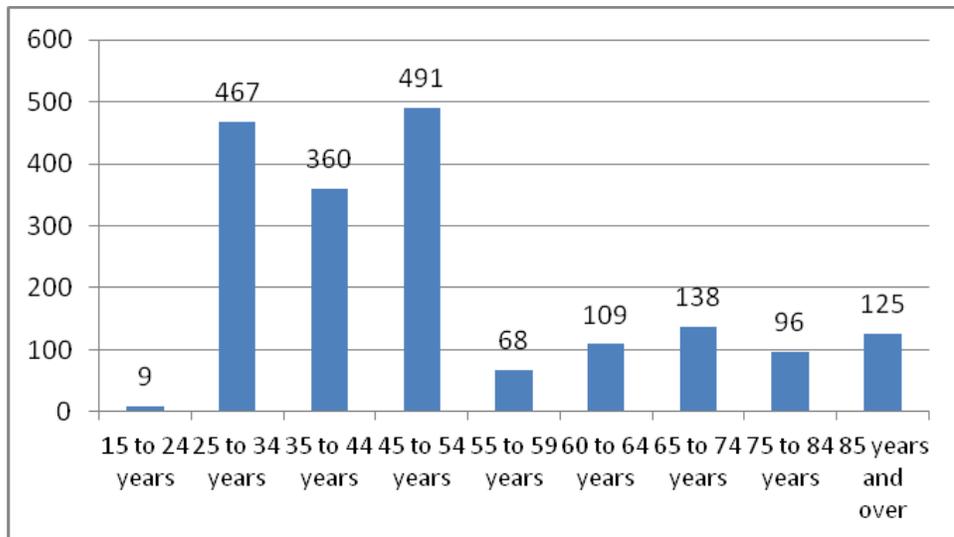


Figure 3-6 Age of Householder: Renter Occupied Housing Units (2011)

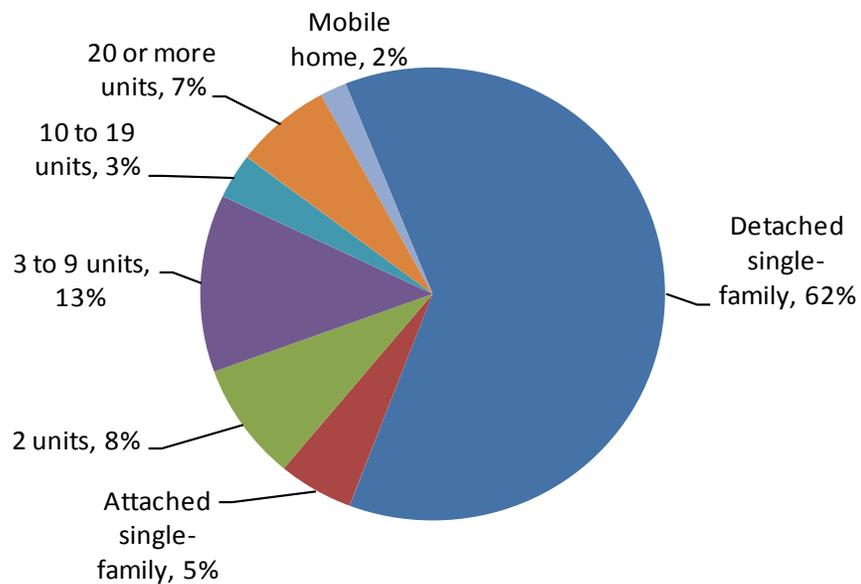


Source: 2011 American Community Survey.

Housing Conditions

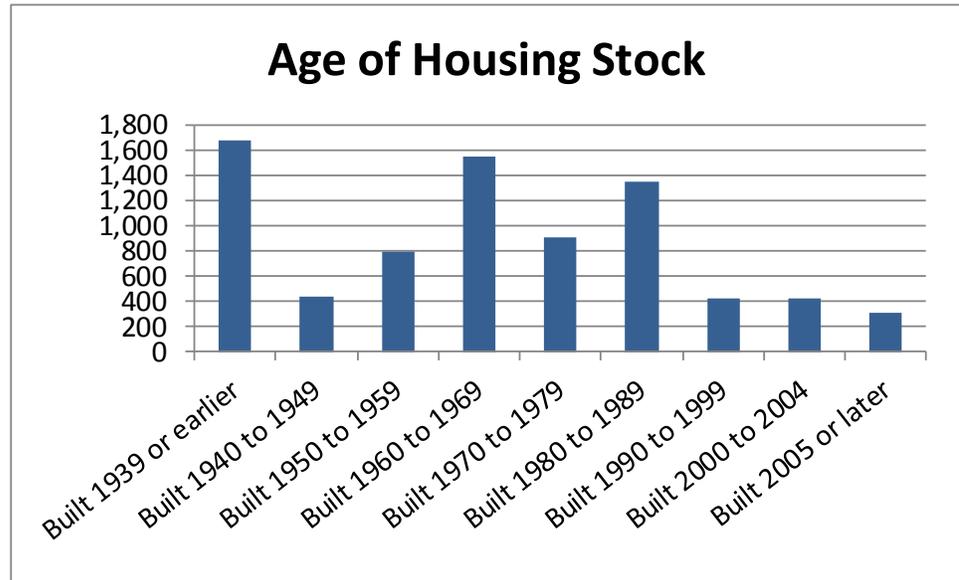
The housing stock in Hudson is largely comprised of older, modest single-family homes on small lots, a significant portion of which was built before 1940, which is reflected in the historic character of many of its residential neighborhoods. Figure 3-7 provides a breakdown of the type of housing in Hudson by the number of units. The majority of housing in Hudson is single-family detached with smaller percentages of multi-family housing. However, of multi-family housing, the majority is between 3 and 9 units (13 percent of the total housing stock).

Figure 3-7 Distribution of Housing Stock by Type



Hudson experienced moderate housing construction particularly in the years between 1940 and 1959. There was significant activity during the 1960s and 1980s before slowing down after 1990. This is in line with the significant jump in population (30 percent increase) that occurred in the 1960s, as shown in Figure 3-8.

Figure 3-8 Age of Housing Stock



As the number of occupied households in Hudson increased between 2000 and 2010 (8 percent), the number of total housing units increased at a slightly faster rate (12 percent). As shown in Table 3-5, there were 7,998 housing units in Hudson in 2010, with 94 percent (7,528) being occupied. The number of vacant homes during this time increased by 164 percent.

Table 3-5 Housing (Change in Housing Units 2000-2010)

	2000	2010	# Change	% Change
Occupied	6,990	7,528	538	8%
Vacant	178	470	292	164%
Total	7,168	7,998	830	12%

The rental vacancy rate has increased sharply between 2000 and 2010, from 3.1 percent to a 10 percent vacancy rate while the owner vacancy rate has stayed very low (see Table 3-6). The rental vacancy rate may be a combination of new apartment complexes that have not yet been filled and the lingering effects of the 2008/2009 Economic Recession. This vacancy rate is expected to decrease as the local real estate market recovers, especially since the demand for rentals appears to be relatively high post-recession.

Table 3-6 Housing Vacancy

	2000	2010	# Change
Vacant Units	178	470	292
Total Housing Units	7,168	7,998	830
Owner Vacancy Rate	0.4	1.4	1
Rental Vacancy Rate	3.1	10	6.9

Source: US Census 2000 and 2010

Of the 7,528 occupied housing units in Hudson, approximately 72 percent were owner-occupied in 2010 (Table 3-7). This equals 5,454 units, which is a 10 percent increase from 2000, as shown in Table 3-7. The number of renter-occupied units increased at a much slower rate (2 percent) during the same 10-year period.

Table 3-7 Housing (Change in Owner/Renter Occupied Housing Units)

	2000	2010	Change	% Change
Occupied Housing units	6,990	7,528	538	8%
Owner Occupied	4,964	5,454	490	10%
Renter Occupied	2,026	2,074	48	2%

Source: US Census 2000 and 2010

Hudson has a significant stock of public and subsidized units primarily in apartment-type complexes. The majority of larger rental developments were constructed in town during the 1980s. New single family homes built over the past decade have been generally placed on larger lots and are more expensive homes than were constructed in the past.

Housing Market

The number of home sales in Hudson has declined since the early 2000s. As shown in Table 3-8, the number of home sales in the last decade peaked in 2003 (440 sales) and has steadily decreased particularly in the years after 2007.

Table 3-8 **Number of home sales in Hudson**

Year	Single-family	Condominium	All
2012	137	64	228
2011	127	59	217
2010	130	73	243
2009	117	66	206
2008	113	87	229
2007	121	160	334
2006	143	168	349
2005	184	159	428
2004	221	104	427
2003	230	141	440
2002	178	118	358
2001	198	84	355
2000	193	60	302

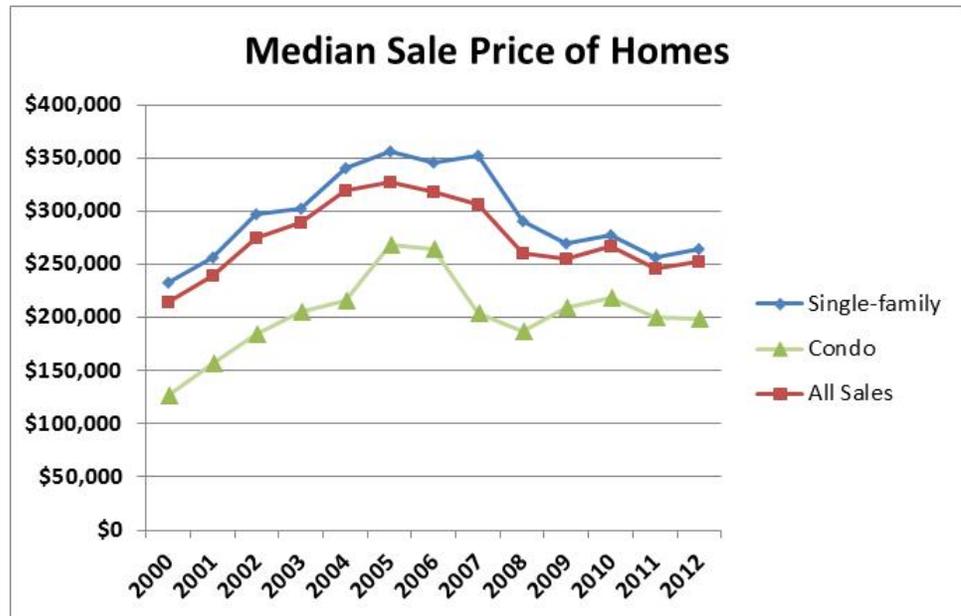
Source: The Warren Group

This drop in home sales is nearly mirrored by the decline in median sales prices. Figure 3-9 shows the median sales prices of single-family homes and condos since 2000. The sale prices for single-family homes peaked in 2005 at \$356,000 before dropping by almost a third to \$256,000 in 2012. Condos also peaked in 2005 at \$267,900, dropping to \$198,000 last year (2012).

While sale prices have dropped dramatically over the past several years mostly due to the 2008/2009 Economic Recession and subsequent depression in the local real estate market, sale prices are expected to rise as the market recovers. There are signs that there is a shortage of houses for sale in the Boston metro area compared to the demand. Prospective home buyers may begin searching for housing opportunities to farther-out suburbs, such as Hudson, as this demand intensifies.⁸ Governor Deval Patrick announced in December 2012, goals of producing 10,000 multi-family units of housing each year in order to increase affordable housing opportunities for Massachusetts residents. This encouragement of housing is important for Hudson in determining housing production plans for the future.

⁸ The Boston Globe. *Home buyers outpace sellers in Boston*. Jenifer McKim. August 11, 2012. <http://www.bostonglobe.com/business/2012/08/10/number-homes-for-sale-boston-drops-prices-rise-fueling-market-optimism/cDRFjbsRtHzBp7dByGak/story.html>.

Figure 3-9 Median Sales Price of Homes in Hudson



Despite the fluctuation in home prices over the last decade, Hudson has largely remained one of the more affordable places to buy a single-family home compared to its neighbors and Middlesex County as a whole. As shown in Table 3-9, the Town had the second lowest median sales price in 2012 (Marlborough was the lowest by approximately \$15,000).

Table 3-9 2012 Median Sales Prices in the Region

	Single-family	All
Hudson	\$265,000	\$252,250
Berlin	\$408,500	\$295,450
Bolton	\$443,375	\$450,000
Sudbury	\$610,500	\$608,000
Marlborough	\$250,750	\$238,000
Middlesex County	\$393,000	\$372,930

Source: The Warren Group

While sales prices have increased somewhat over the past decade in Hudson, rental costs have increased almost two-fold. According to U.S. Census data, the Hudson median rental costs increased at a faster rate than that of Middlesex County. Between 2010 and 2011, median rent increased by \$470 from \$632 in 2000 to \$1,104 in 2011, an almost 75 percent increase, while median rent in the County increased by \$400 (50 percent) from 2000 to 2011. Although Hudson rents are still slightly below the County median rent, it indicates that rentals are not as affordable as they once were which is probably due to the recent development of higher end rental housing.

Table 3-10 Median Gross Rental Costs in Hudson and Middlesex County

Year	Hudson Median Gross Rental	Middlesex County Median Gross Rental
1990	\$521	\$598
2000	\$632	\$835
2011	\$1,104	\$1,243

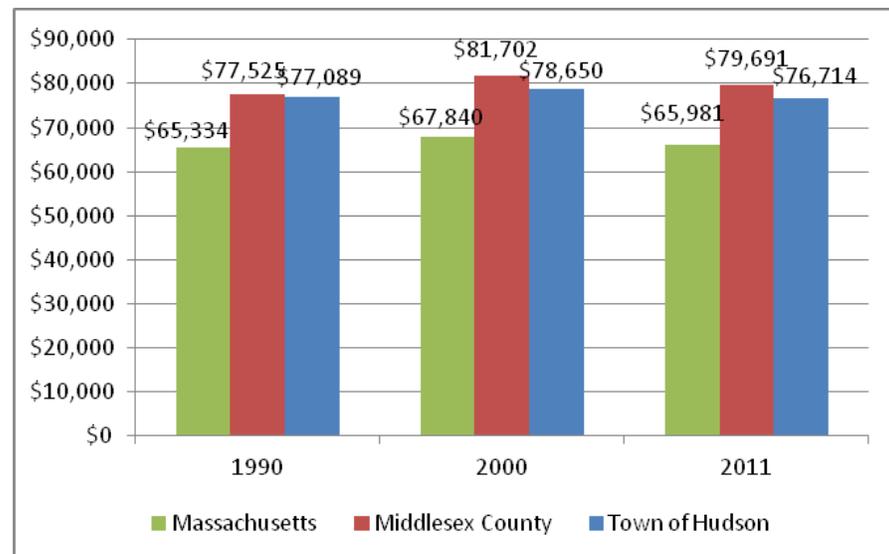
Source: US Census 1990, 2000, and ACS 2007-11.

Housing Affordability

A housing affordability assessment examines the overall demographic profile of Hudson, along with the household income of the population and housing costs to determine how the Town can best meet its needs for providing a diverse and affordable housing stock for its citizens.

Hudson median household income for 2011 was \$76,714. This is slightly lower than Middlesex County (\$79,691) but higher than the state as a whole (\$65,981). Figure 3-10 presents the median household income for Hudson, Middlesex County, and Massachusetts adjusting to 2011 dollars to account for inflation using the Consumer Price Index (CPI-U) published by the Bureau of Labor Statistics. When accounting for standard consumer price inflation on goods such as food, housing, and transportation, real household income has dropped slightly from \$77,089 in 1990 to \$76,714 in 2011.

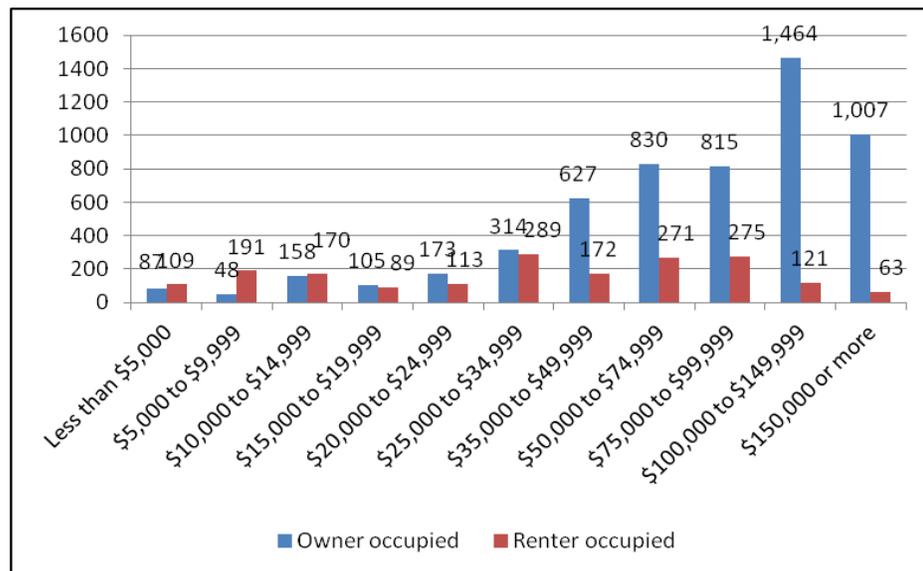
Figure 3-10 Median Household Income in Hudson, Middlesex County, Massachusetts (adjusted to 2011 dollars)



Source: US Census 1990, 2000, 2011.

Figure 3-11 illustrates the distribution of median household income for renter and owner occupied housing in Hudson. The largest number of home owners had incomes of over \$100,000 indicating a relatively wealthy segment of owner households with higher incomes than the overall median household income of the Town (\$76,714). While there are fewer renter households in Hudson than owner households overall, the largest number of renter households had significantly lower incomes of between \$25,000 and \$35,000. There are various possible reasons for the income disparity between renter and owner household incomes. Some reasons include that renter households are more likely to be younger (less advanced in their careers) and their household sizes are smaller on average than owner households. For example, in 2010, the average renter household size was 2.13 compared to owner household size of 2.68.⁹

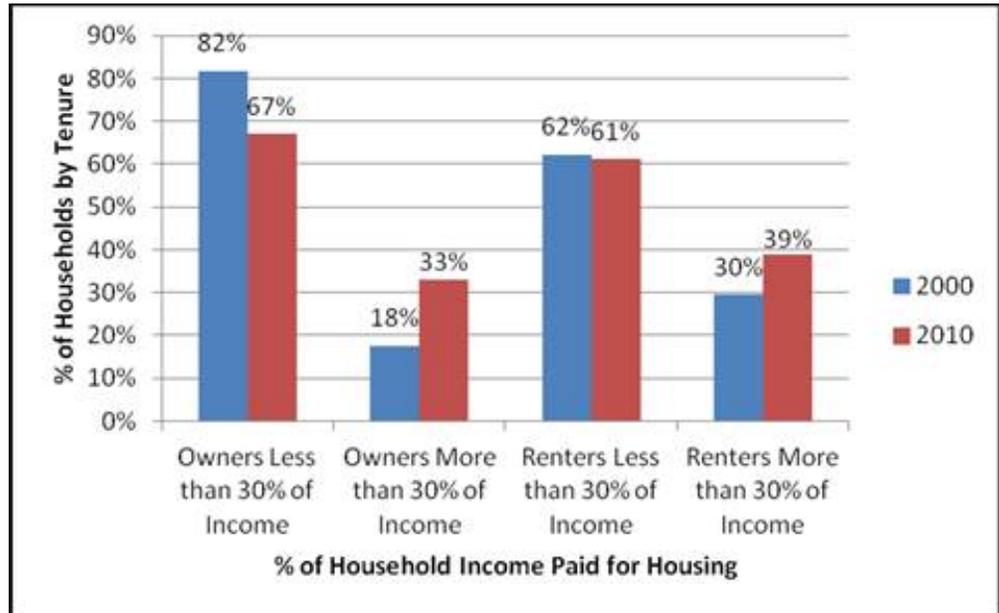
Figure 3-11 Household Income Distribution for Renter and Owner Occupied Housing (2011)



Households are considered cost burdened if they pay more than 30 percent of their gross income for housing costs, which include rent, utilities and fuel costs for renters. They include mortgage or purchase contract payments, utilities, fuel costs, taxes and insurance for homeowners. Figure 3-12 shows the cost-burdened households in 2000 and 2010 for both renter and owner households in Hudson. As may be expected, a higher percentage of renter households than owner households are cost-burdened, in part due to the rise of higher end rental housing in the marketplace. However, over the past decade both renters and owners have become increasing cost-burdened with the largest increase occurring for homeowners. Only 18 percent of homeowners were cost burdened in 2000, growing to about 33 percent or one-third of all Hudson homeowners in 2010. This dramatic increase in cost-burdened homeowners could be attributable to the 2008/2009 economic recession with similar circumstances occurring in other communities.

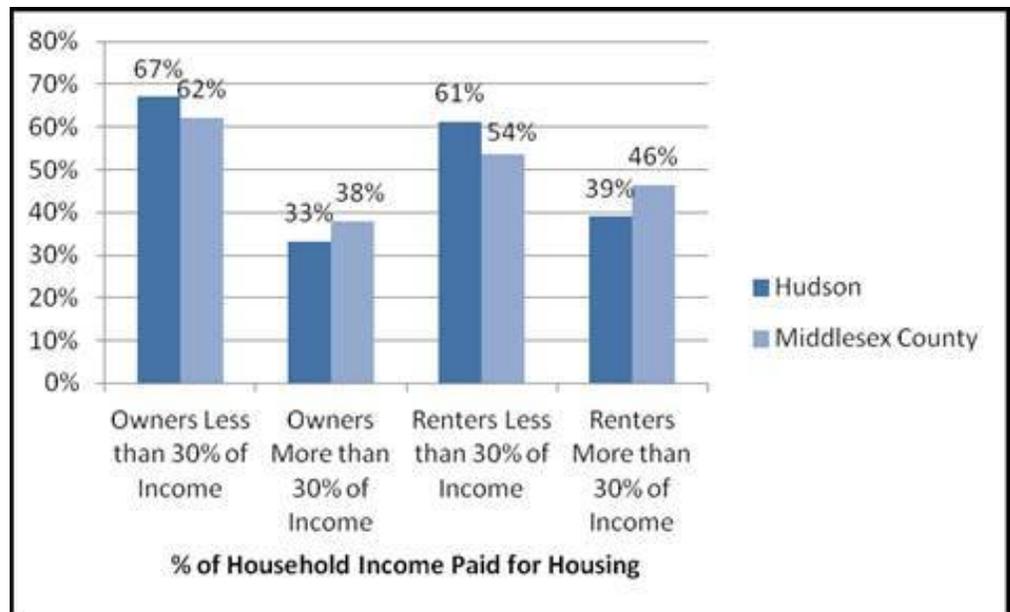
⁹ U.S. Census, 2010.

Figure 3-12 Hudson Cost Burdens by Tenure, 2000 and 2010



To place Hudson in the context of the region, Figure 3-13 shows Hudson in comparison to Middlesex County in 2010. Middlesex County owners and renters were more likely to be cost-burdened than those of Hudson demonstrating that Hudson is still slightly more affordable to the larger region, particularly for renters.

Figure 3-13 Hudson Cost Burdens by Tenure Compared to Middlesex County, 2010



Issues and Key Findings

With the increase of the over 55 population shown in Figure 3-2 and Table 3-3, there will be an increasing need for senior housing in Hudson. While Hudson has met some of this need for senior housing through zoning changes and the subsequent development of over-55 communities, there are currently no housing options for assisted living or nursing homes that exist, are planned, or are under construction in Hudson to allow residents to stay in the community as they age. The need for assisted living was specifically noted as a need by residents during the master planning outreach process. Community members also suggested that encouraging the development of housing downtown could attract both seniors and young people, and may be an opportunity for the Town to develop additional affordable housing. Moreover, it can have a positive economic effect on the downtown micro-retail/dining market. In addition to providing more housing options for the over 55 population, Hudson should also provide more housing options for young families and those in the 20 to 30 age bracket. By balancing housing options for various age groups, the community can possess a more resilient housing market and steer away from becoming a stagnant Town serving the needs of only one demographic.

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

- The state goal for affordable housing under Chapter 40B requires 10 percent of a community's year-round housing stock to be affordable. According to the Massachusetts Department of Housing and Community Development (DHCD) Subsidized Housing Inventory (SHI), as of May 2012, Hudson had 7,962 year-round housing units, therefore creating a goal of 796 affordable units.¹⁰ According to the

What is Chapter 40B?

In 1969, the Massachusetts legislature passed a law to address the economic and fair housing consequences of zoning, which excluded affordable housing options in the suburbs, also called exclusionary zoning. When less than ten percent of a community's housing units are affordable to and occupied by low- and moderate-income households, M.G.L. c.40B, § 20-23 ("Chapter 40B") assists developers obtaining a comprehensive permit if at least twenty-five percent of their proposed housing units comply with state affordability requirements. A comprehensive permit consolidates all local permits into one process administered by the Zoning Board of Appeals (ZBA). It allows certain eligible developments with rental housing or with affordable ownership units to override a municipality's adopted zoning and other local regulations that could impede the construction of affordable housing. For communities that do not meet the ten percent statutory minimum, a developer can appeal a denied or conditionally approved permit to the state Housing Appeals Committee (HAC).

¹⁰ Massachusetts Department of Housing and Community Development, Subsidized Housing Inventory. <http://www.mass.gov/hed/community/40b-plan/subsidized-housing-inventory-shi.html>. Accessed February 2013.

DHCD, Hudson had 730 affordable units (9.2 percent), leaving a gap of 66 units. This gap is projected to increase at the next Census count, when, based on estimates of population and building, the number of year-round housing units will increase, and therefore the affordability needs and goals will also increase. With the Cabot Ridge Apartments project in the process of obtaining necessary building permits to proceed, Hudson will be able to meet its Chapter 40B requirements in the near future, as 176 new affordable units would be developed as a result of this project.

- According to the latest U. S. Department of Housing and Urban Development (HUD) estimates, the fair market rent¹¹ for a household in Hudson is \$1,444 for a two-bedroom and \$1,798 for a three-bedroom.¹²
- The median sales price for a single-family home in Hudson hovers around \$265,000.
- Demographically, Hudson is a small but growing community. As is true for many Commonwealth communities, the increase is more heavily weighted towards the older population segments. Hudson is also a community of predominantly family households, and Hudson's housing stock is predominantly single-family dwellings.
- Hudson has infrastructure issues that present a challenge to denser development (sewer and water), but also has areas of town where both town sewer and water are available.
- Currently, transit options are limited as Hudson is not served by either the Massachusetts Bay Transit Authority or a Regional Transit Authority (see Chapter 8 on Transportation and Mobility).

¹¹ Fair market rent refers to the rent, including utility allowances, determined by the U. S. Department of Housing and Urban Development for purposes of administering the Section 8 Existing Housing Program for individuals with low income.

¹² U.S. HUD. FY 2013 Fair Market Rent Documentation System.
http://www.huduser.org/portal/datasets/fmr/fmrs/FY2013_code/2013summary.odn.

Housing Policy and Zoning

In 2007, Hudson voted to adopt the Community Preservation Act (CPA). At least 10 percent of all revenue generated annually by the CPA must be earmarked for open space, affordable housing and historic preservation and up to 5 percent annually may be spent on administrative costs. Through the CPA, Hudson has been able to support a number of affordable housing initiatives, such as:

- Habitat for Humanity affordable housing (\$50,000 in 2009)
- Transfer of funds to the Municipal Affordable Trust Fund (\$188,535 in 2009; \$29,172 in 2010; \$45,918 in 2011; \$48,511 and \$150,000 in 2012)

The CPA Town goals for 2013 include:

- Ensure that all housing projects have permanent affordability protection with deed restrictions and resale provisions;
- Provide multiple affordable housing units;
- Preserve community housing that promotes age and income diversity;
- Provide community housing opportunities that give priority to local residents, Town and school employees, and employees of local businesses;
- Reuse existing buildings for affordable housing; and
- Maximize local control over the development of affordable housing by establishing locally directed initiatives.

Hudson's Affordable Housing Trust (AHT) currently has almost \$550,000. Hudson has hired a regional housing consultant to help with yearly monitoring duties, universal deed riders, managing wait lists, and managing the program's details. In addition, the consultant will be tasked with helping Hudson develop program guidelines for a down-payment assistance and/or housing buy-down program, a program (or programs) to be funded through the AHT. Funds from the AHT will be used to pay for the consultant services.

What is the Community Preservation Act?

It is statewide enabling legislation allowing cities and towns in the Commonwealth of Massachusetts to adopt a property tax surcharge, with revenues from this surcharge (plus state matching funds) to be used for open space preservation, the creation of affordable housing, preservation of historic buildings and landscape and the creation of recreation opportunities. For more information on the CPA statute visit the Community Preservation Coalition website at www.communitypreservation.org.

The Town uses the AHT balance of funds for other affordable unit-creation and preservation projects as they come up, or are brought before the Trust by Town Departments and private non-profits. Additionally, as deed-restricted units come up for sale, the AHT funds are used to pay listing fees in MLS, as well as buyer's brokerage commissions. Otherwise, the only listing is on the Citizens' Housing and Planning Association (CHAPA) website.

Over the past decade, a great deal of residential planning and building activity in Hudson, particularly using the new "Retirement Community" overlay district, which was added to the Hudson Zoning Bylaws in 1999. In addition, several projects have gained or are seeking approval under MGL Chapter 40B. As a result of the recent zoning change and the use of Chapter 40B, affordable developments and senior housing are being added to the housing inventory. Additional zoning changes were instituted by the Town to provide additional housing units, and at the same time accomplish other public goals, including:

- New accessory dwelling unit bylaw amendment in 2007. Accessory dwelling units are often considered a good option for the potential creation of affordable housing, especially for senior citizens, even if the units do not qualify to be added to the SHI.
- Adaptive Overlay Reuse District in 2007. The underutilized mill buildings may be appropriate for multi-family development to further increase housing choices in Hudson.
- Open Space Residential Development (OSRD) bylaw in 2007. This bylaw has a combined purpose of conserving contiguous open space while encouraging a less sprawled form of residential development.

The Town of Hudson's Zoning Bylaw contains basic elements of residential zoning that can accommodate more housing choices, as well as housing that is affordable through development by right. Most of the town (56 percent) is zoned for single-family residential on 30,000-60,000 square foot lots. Two districts are zoned for multi-family residential development on 15,000 square foot lots totaling 0.6 percent of the total land area. Mobile homes are allowed in Hudson, and these Mobile Home Districts comprise 0.9 percent of the total land area. Residential uses are permitted in most of the commercial districts, either by-right as allowed in the residential districts, or by special permit where the commercial and residential uses do not conflict. Mixed-use buildings are allowed by special permit with commercial on the first floor and residential on the upper floors in the C-1 district only. However, the zoning bylaw special permit allowance for mixed use is restrictive to where and how it can be implemented. For instance, currently the zoning does not allow for new construction of multifamily housing in C-1 and such activity can only occur in existing buildings where upper floors are already in existence today.

Some residential areas or zoning districts in Hudson are located directly adjacent to commercial or industrial districts, such as the Washington Street and Central Street areas. Residents who live on the edges of such districts can be negatively impacted

by noise, sights, traffic, and other characteristics associated with commercial and industrial development. In addition, houses on the edges of these districts have been known to fall to despair since they do not sell well as residential and are not zoned for commercial uses. Every community encounters such scenarios and a potential way to minimize the negative interactions of the different uses is to develop a Transitional Overlay Zoning District at the district edges. Such an overlay district would assist the transition between a quiet residential area and a noisier, bustling commercial retail corridor. The Overlay District could contain such requirements as:

- Only allowing two story retail buildings;
- Restrictions on drive-thru uses;
- Prohibiting certain overhead lighting;
- Encouraging businesses to rebuild/renovate existing structures as opposed to developing new; and,
- Restricting business size or encouraging more small businesses.

Concern has also been expressed through this planning process that there is not sufficient affordable family housing opportunities. Public participants have discussed a desire to explore zoning options that would encourage the development of more affordable single family homes on smaller lots, the consideration of duplexes and townhouse developments, and the development of multi-family housing in mixed use developments.

While Hudson does have some diversity in zoning districts and provisions for a variety of housing options, it has not undertaken many of the newer, more comprehensive efforts to diversify zoning options for housing development. One option for Hudson to consider is allowing the conversion of existing single-family homes to up to four multi-family units by special permit and site plan review from the Planning Board. With the appropriate checks in place, multi-family condo conversions can provide smaller, more affordable units without changing the neighborhood character.

Because the Town of Hudson, unlike many municipalities in Massachusetts, often hovers around the 10 percent affordability goal established by Chapter 40B, it may be prudent to consider the adoption of an inclusionary housing bylaw that mandates a certain number of housing units be affordable in a major subdivision or multi-family building. This has the potential to ensure that Hudson remains above the 10 percent goal thereby maintaining municipal control over the development of affordable housing that is context-sensitive in terms of location and density.

Subsidized Affordable Housing

Table 3-11 lists all of the subsidized housing stock within the Town of Hudson. The Massachusetts Department of Housing and Community Development (DHCD)

maintains the Chapter 40B Subsidized Housing Inventory, or the official roster of affordable units throughout the state.

Table 3-11 Subsidized Housing Inventory in Hudson

Developments Counting for 40B	Subsidizing Agency	Units	Duration of Affordability
Norma Oliver Village, 4 Glen Road	HUD	92 rental	Permanent
Cabot Ridge	DHCD	176 rental	Permanent
Brigham Circle	DHCD	126 rental	Permanent
Fox Run, Old North Road	DHCD	7 ownership	Permanent
49 Washington St.	DHCD	8 rental	Permanent
Lincoln Street	DHCD	20 rental	2021
8 Irving St.	HHA, state	8	Permanent
Littlebrook of Hudson, 100 Tower Street	DHCD	96 rental	Permanent
Machado House, 11 Lake Street	MassHousing	96 rental	Permanent
Washington Street, 71 Washington St.	DHCD	14 rental	2020
DDS Group Homes	DDS	9 rental	N/A
DMH Group Homes	DMH	16 rental	N/A
Simrah Gardens, 307 Central Street	FHLBB	158 rental	Permanent
The Esplanade, Main Street	MassHousing	35 ownership	Permanent
Coolidge Green, Gerry Street	FHLBB	8 ownership	Permanent
Knotts Clearing	MassHousing	8 ownership	Permanent
Hudson HOR Program, Walnut Street	DHCD	1 ownership	04/2054
Hudson HOR Program, Harriman Road	DHCD	1 ownership	04/2054
Hudson HOR Program, Washington St	DHCD	1 ownership	04/2057
Hudson HOR Program, Gates Avenue	DHCD	1 rental	06/2046
Hudson HOR Program, Cherry St.	DHCD	2 mix	06/2047
Hudson HOR Program, Priest St.	DHCD	1 ownership	06/2054
Hudson HOR Program, Apsley St.	DHCD	3 mix	07/2045
Hudson HOR Program, Main St.	DHCD	2 rental	07/2047
Hudson HOR Program, Eaton Dr.	DHCD	1 ownership	08/2054
Hudson HOR Program, Murphy Rd.	DHCD	1 ownership	08/2054
Hudson HOR Program, Causeway St.	DHCD	1 ownership	09/2046
Hudson HOR Program, Lincoln St.	DHCD	2 mix	10/2013
Hudson HOR Program, Broad St.	DHCD	1 ownership	10/2045
Hudson HOR Program, Teresa Dr.	DHCD	1 ownership	10/2053
Hudson HOR Program, Houghton Ct.	DHCD	1 ownership	2054
Hudson HOR Program, Forest Ave.	DHCD	1 ownership	11/2012
Hudson HOR Program, Eaton Dr.	DHCD	1 ownership	11/2051
Hudson HOR Program, Fort Meadow	DHCD	1 ownership	11/2051
Hudson HOR Program, Glasson St.	DHCD	1 ownership	11/2053
Hudson HOR Program, Stowe Ct.	DHCD	1 ownership	11/2044
Hudson HOR Program, Manning St.	DHCD	1 ownership	12/2051
Hudson HOR Program, Marlboro St.	DHCD	1 ownership	04/2013
Hudson HOR Program, River St.	DHCD	1 ownership	07/2013
Habitat for Humanity, Old Bolton Rod	DHCD	1 ownership	Permanent
Total		730	

Source: DHCD Subsidized Housing Inventory, Town of Hudson.

Notes: The Cabot Ridge Apartments development, which is currently in the process of obtaining building permits in order to proceed, will bring 176 new affordable units to the Town which will be counted towards the SHI.

Units with expiring uses or that will expire in 2013 are noted in **bold**.

If a rental housing project contains at least 25% of affordable units, the entire development is counted towards the SHI.

These units are credited toward the 10 percent affordable housing requirement detailed in M.G.L. Chapter 40B. As noted in Table 3-11, five units counting towards Hudson's SHI are set to expire or have already expired (these are noted in bold). The Housing Production Plan provided in this Master Plan analyzes these specific developments and the possible effect of their expiration on Hudson's future SHI.

Hudson Housing Authority

Founded in 1962, the Hudson Housing Authority manages and administers low-rent housing programs, which are funded by the DHCD and HUD. The Hudson Housing Authority manages affordable housing units including building development and maintenance, screening tenants and keeping waiting lists, to provide affordable housing to low and moderate income residents. The Hudson Housing Authority manages 218 units in two major developments, Norma Oliver Village and the Brigham Circle for elderly and handicapped persons (Table 3-10). These complexes consist entirely of one bedroom apartments.

One of the issues for the Authority-controlled housing developments at Norma Oliver Village and the Brigham Circle is that the demand far outpaces the supply in these developments. Currently, there are over 100 individuals on the waiting list for each of these housing complexes. Norma Oliver Village contains 12 handicap-accessible units and Brigham Circle has 8 handicap-accessible units although demand for handicap-accessible units has not been as high as for the elderly units.¹³ Also, the Brigham's Circle elderly housing complex, built in the 1960s, needs renovation to better accommodate its senior residents. The federally aided Norma Oliver Village saw a successful upgrade through site improvements and roof repairs, along with new boilers and air units funded by HUD.¹⁴

The Hudson Housing Authority administers 69 federal Section 8 Vouchers and 24 Massachusetts Rental Vouchers. These programs provide participant property owners with a direct payment on behalf of the family. Family participants contribute no more than 40 percent of their gross monthly income toward the rent, with the Housing Authority contributing the difference.¹⁵ However, the waiting list for Section 8 vouchers is extensive, and according to the Housing Authority, it would take 10 years to satisfy the current demand.¹⁶ This indicates there is a need in Hudson for more affordable housing for families.

¹³ Telephone conversation with Julie Torres, Housing Authority Director, May 2, 2013.

¹⁴ 2012 Annual Report, Hudson Housing Authority.

¹⁵ 2012 Annual Report, Hudson Housing Authority.

¹⁶ *Ibid.*

Housing Recommendations

- H 1. Consider adopting new options for mixed-use development in downtown Hudson, building off recent state law allowing tax agreements for residential development and for downtown redevelopment.
- H 2. Update the Special Permit section of C-1 considering possible removal of Special Permit requirement and/or a more expanded number of situations where the Special Permit can be used to build mixed use housing in C-1. This could include removing prohibition of building housing over restaurants and allowing new floors to be constructed over existing buildings.
- H 3. Pursue working with property owners in downtown Hudson to undertake residential rehabilitation projects using the Community Development Block Grant funds, Community Preservation Act (CPA) funding, or other State, Federal, and private resources.
- H 4. Consider the creation of down payment assistance or affordable mortgage programs for income-eligible first-time homebuyers. This could be accomplished through CPA funding, the Municipal Affordable Housing Trust Fund, or in conjunction with private lenders.
- H 5. Consider using municipal funds, such as from the Municipal Affordable Housing Trust Fund, to provide incentives to encourage the redevelopment of former mill properties in the Adaptive Reuse Overlay District and in the Downtown into additional affordable housing units.
- H 6. Identify expiring use properties where the subsidized housing units are at risk of being removed from the affordable housing inventory. As mentioned above, several units will or soon will have expiring use restrictions. Several approaches can be taken to preserve the affordability of these units such as negotiating with the property owner to extend the affordability restrictions and working with MassHousing, DHCD, or non-profit housing organizations to leverage the resources (including political) needed to maintain the restrictions.
- H 7. Be more proactive by seeking opportunities (such as grants) to redevelop underutilized properties and buildings for affordable housing.
- H 8. Consider the adoption of an inclusionary bylaw to encourage development of new housing that is affordable to low and moderate-income households. The bylaw can mandate that ten percent of the units in a residential subdivision or multi-family unit development subject should be established as affordable housing units.
- H 9. Encourage the development of an assisted living facility for seniors. The Town does not currently include assisted living as an allowed use in the

Zoning Bylaw, so it should be added to the use regulations and definitions. Additionally, the Town could consider a new section with standards for developing such facilities.

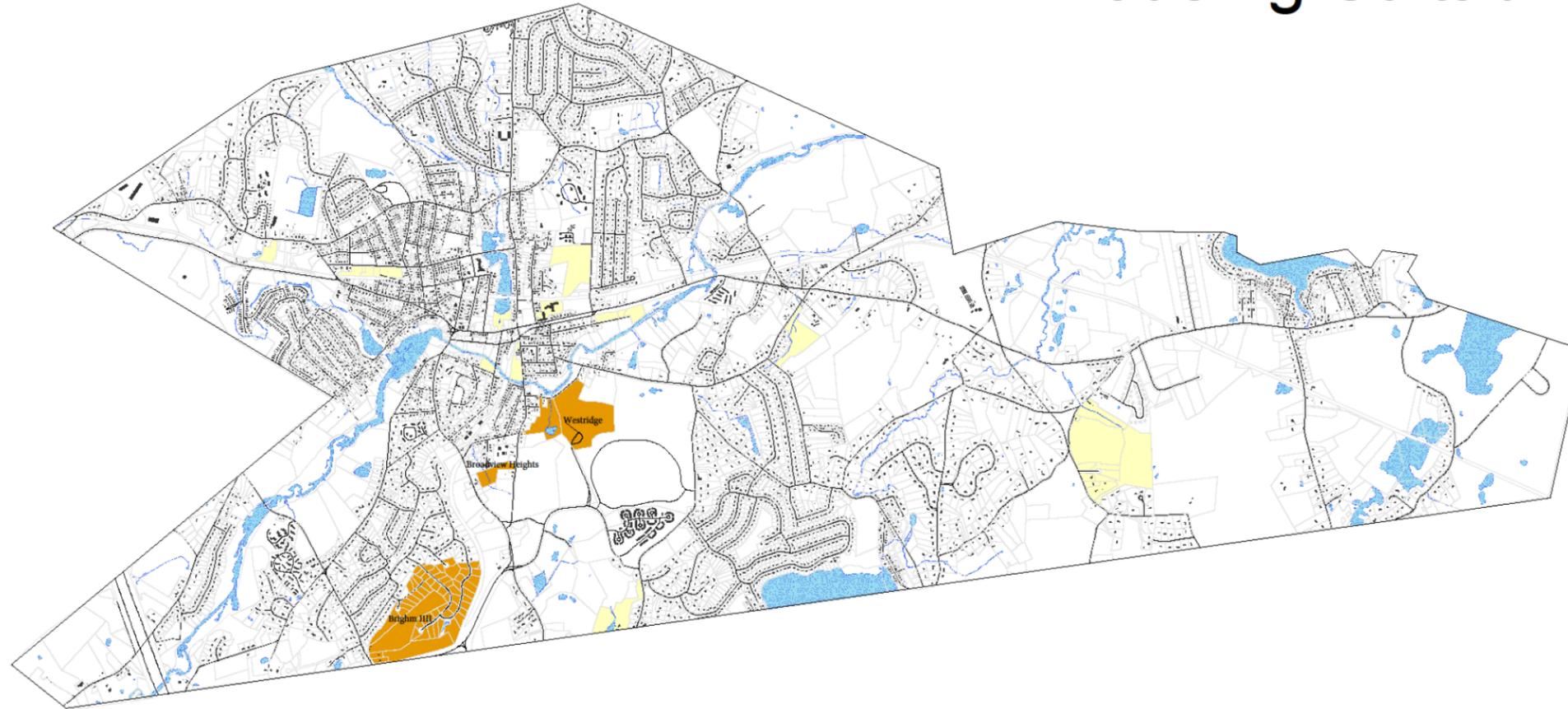
- H 10. Create more senior subsidized housing or very low income housing for Hudson's growing senior population.
- H 11. Create more affordable housing (such as starter homes) targeted towards young families and the 20 to 30 year old age bracket in order to create a more balanced housing market in the community and avoid stagnation.
- H 12. Revisit zoning bylaws related to housing development, such as the OSRD. Market these bylaws better to developers especially the OSRD, as it was adopted in 2007 but not many developments have since been designated as an OSRD. The Town should consider allowing OSRD by right rather than by special permit as a way to induce more applications for OSRD projects.
- H 13. Implement a Transitional Overlay Zoning District between commercial/industrial and residential zones in order to minimize the impacts between the uses and districts.
- H 14. Expand expedited and coordinated permitting processes to other developments, similar to the way that Chapter 40B developments are reviewed.
- H 15. Develop educational programs and outreach to developers and home owners pertaining to zoning mechanisms that create additional housing options, such as accessory unit bylaws.

Figure 3-14 depicts Hudson's current and future housing suitability. Parcels that are currently under development are classified in orange. The parcels classified in yellow have been identified as areas that would be suitable for residential development or redevelopment in the future.

Figure 3-13 Housing Suitability



Town of Hudson Massachusetts Housing Suitability



*Although every effort has been made to ensure that the spatial data on this map is of the highest accuracy and quality, it is, nevertheless, only appropriate for planning purposes. The information, as presented, is not intended for the legal interpretation of boundary or property lines, either municipal or private.
2014*



Housing Suitability

- Future Suitability
- Under Development
- Existing Residential Buildings
- Water
- Roads

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Housing Resources

For more information on various housing topics, the following resources are suggested:

Town Resources

Hudson Housing Authority. Meetings first Thursday every month. 8 Brigham Circle.
http://www.townofhudson.org/Public_Documents/HudsonMA_BComm/housing

Hudson Community Preservation Plan. Updated 2013.
http://www.townofhudson.org/Public_Documents/HudsonMA_BComm/Community%20Preservation%20updated%20January%202013.pdf.

State and Other Resources

Citizens Housing and Planning Association, *Taking the Initiative – A Guidebook on Creating Affordable Housing Strategies*. <https://www.chapa.org/>

Massachusetts Housing Programs. Information on home buyer assistance programs to help low and moderate-income residents buy and repair homes.
<http://www.massresources.org/homebuyer-programs.html>

MassHousing. Self-supporting not-for-profit public agency, MassHousing has provided more than \$13 billion in financing for homebuyers and homeowners, and for developers and owners of affordable rental housing.
<https://www.masshousing.com/portal/server.pt/community/home/217>

Executive Office of Energy and Environmental Affairs. ***Inclusionary Zoning Bylaw***. http://www.mass.gov/envir/smart_growth_toolkit/bylaws/IZ-Bylaw.pdf.

Community Preservation Coalition. <http://www.communitypreservation.org/>.

Department of Housing and Community Development. ***Chapter 40B Planning***.
<http://www.mass.gov/hed/community/40b-plan>



Ordway House (top), Rice-DuFault House (bottom), Hudson, MA

4

Economic Development

Introduction

Over the years, Hudson's economy has been shaped by its historical development pattern, its regional location within the Boston I-495 circuit, and global competitive business pressures. For example, like many other New England communities, Hudson's early industries developed in mill buildings that capitalized on access to water power. Facing increased pressure from lower-priced markets in the South and abroad, textiles and associated industries eventually declined and the local economic profile changed. The development of interstate highways and Hudson's relative proximity to the concentration of institutions of higher education and technology innovators in the Boston region has also resulted in profound changes in the nature of the local economy. One result is that the 495/MetroWest Region has a heavy concentration of employment in technology-based industry clusters including IT and advanced manufacturing. This cluster is represented locally within Hudson, which is home to several technology firms.

The following chapter presents baseline information regarding the current state of the local economy, identifies the community's economic development goals as expressed through other planning documents and the planning process that was undertaken for this Master Plan Update, and suggests potential implementation strategies that could be undertaken by the Town to help advance its economic development goals.

Goals/Policies/Direction

The 495/MetroWest Development Compact Plan was published In March 2012. The Compact Plan provided regional-scale planning that: established community-based priorities and strategies along the I-495 corridor; integrated those priorities into regional development and preservation strategies; and, provided a blueprint for public investments. The Plan characterizes Hudson as one of the region's developing

suburbs – a place that has experienced high levels of growth over the past decade, has undeveloped land, and fairly low-density development. In order to provide direction for the expected continued growth in this area, the Plan identifies specific areas for preservation and development to ensure that new commercial and residential growth occurs in a manner that respects open space resources, transportation networks, and water resources in the region. These development and preservation priorities help to place Hudson’s economic development activities within the larger regional context.

Policy directions have also been expressed at the local level. The 2004 Hudson Community Development Plan was guided by a series of “Principles for Smart Growth” that shape policy across a variety of topic areas. A number of these principles relate directly to the Town’s economic development policies and are reiterated below.

- Concentrate development and support development that is compact, conserves land, integrates uses, and utilizes existing infrastructure for sewer and water. Avoid excessive new road and other public infrastructure, or residential properties spread out on existing roads. Enhance walkable districts mixing commercial, civic, cultural, educational and recreational activities.
- Protect the village character and “strong sense of place” of downtown Hudson with its locally-owned businesses, healthy economy, pedestrian environment, access to the Assabet River, built features and landmarks, historical resources, and role in community life. Consideration of the interaction of all these positive qualities on downtown Hudson should be factored into consideration of development proposals, and to proposed changes in by-laws and regulations.
- Redevelop first. Identify existing built resources that are unused or underutilized and give preference to their reuse. Promote redevelopment of brownfields, preservation and reuse of historic structures, and rehabilitation of existing housing, industrial buildings, and schools.
- Increase job opportunities. Use rehabilitation and infill development to encourage the location of new business development near housing, infrastructure, water and transportation options. Support the growth of new and existing local businesses.
- Foster sustainable businesses. Strengthen sustainable natural resource-based businesses, primarily agricultural activities. Support economic development in industry clusters consistent with regional and local character. Maintain reliable and affordable energy sources to reduce dependence on imported fossil fuels.
- Encourage “green” buildings. Work with developers on new construction projects to reduce stormwater through “green” roofs, permeable parking surfaces and other options, and to reduce energy consumption of new construction and rehabilitation through active and passive energy saving building options.

These principles remain relevant for the town and should be maintained to inform decision-making regarding development proposals or other economic development activities.

The 2004 Community Development Plan included an Economic Development component that identified potential actions for the Town to take to help support existing businesses and facilitate the growth of new economic activity. The recommendations from the 2004 Plan encompassed five general themes including:

- **Plan, Design, and Construct Public Infrastructure to Enhance Economic Development:** The action items related to infrastructure included roadway improvements along Route 85 to alleviate congestion (which is currently underway) and parking and parkland/recreational development in the downtown to fulfill the concepts from the Urban River Visions plan.
- **Initiate/Strengthen/Enforce Town Bylaws and Regulations :** Zoning related recommendations included: limiting the use of commercial or industrially zoned properties for non-commercial development; considering commercial/industrial designations on land accessible to I-495; adjusting zoning to facilitate mixed-use buildings with residential usage of upper floors; further detailing the code's treatment of home occupations to facilitate this type of business; considering changes to the C-1 District's parking, use and height restrictions in the downtown; and creating of a Mill Overlay District.
- **Support Business Already Located in Hudson:** Business support recommendations included: providing support to Intel to help address its water and wastewater needs; facilitating the use of Small Business Administration or other resources to support small businesses; considering use of tax increment financing or other programs to facilitate downtown investment; and providing the business cluster on east end of Main Street with communication and regulatory support as necessary.
- **Support Hudson Residents with Employment Skills and as Employees:** The workforce skill development recommendation was using support of local businesses to generate mentoring and intern opportunities and connections between Hudson businesses and its schools.
- **Enhance Private Sector Ability to Redevelop Business Real Estate:** Recommendations to enhance redevelopment potential included a façade improvement program for downtown properties and working collaboratively with owners of industrial properties surrounding the downtown to encourage their productive reuse. Potential vehicles to facilitate reuse could include zoning changes, facilitation of use of available public financing programs, or locating public or community facilities within the buildings.

Economic Profile

The following economic profile inventories key indicators related to the performance of the local economy, including demographic measures, labor force characteristics, and information related to business establishments and sales activity within Hudson. While these measures can enhance understanding of the economic situation, there are other less tangible elements such as quality of life and business climate perceptions that can also influence local conditions.

Commercial and Industrial Assets

The Town's economic activity and commercial base is generally located within the C-1 to C-13 commercial districts, the LCI limited commercial and light industrial district, and the M-1 through M-5 and M-7 industrial districts. These businesses provide employment opportunities as well as services and goods for local residents and make a substantial contribution to the Town's tax base and fiscal health.

Commercial retail and office development is concentrated in two areas: the downtown and along the Route 85 corridor. The traditional downtown is centered around Main Street and includes a mix of smaller retail, restaurants and offices in the historic two and three story buildings along Main Street as well as more recently developed buildings to the rear along South Street. Shopping centers and big-box stores hosting larger chain and national retailers are located along the Route 85 corridor, which is in the process of being upgraded, and which serves as a regional shopping destination. Older strip commercial and auto-related uses are also prevalent along the corridor. In addition to retail, the Route 85 corridor is also home to an office park (Cabot Road). Additional retail space (Highland Commons) has recently been developed along Coolidge Street in proximity to an I-495 interchange near the municipal border with Berlin.

The largest industrial facility in Town is the large Intel complex located on Reed Road.¹⁷ Other significant concentrations of industrial activity occur in the Brent Drive and Kane Industrial Drive area towards the east end of Main Street and along Bonazzoli Avenue just southeast of the downtown. There are additional smaller clusters of industrial or heavy commercial activity along River Road in the southwest, Central Street, Apsley Street, Cherry Street, and along Route 62 (Coolidge Street).

¹⁷ As of the writing of this Master Plan, Intel has recently announced it would be shutting down its manufacturing facility in Hudson by the end of 2014. As the Intel site is suitable for industrial manufacturing uses, future prospective buyers would most likely utilize the site in a similar way as Intel.

Labor Force Characteristics

This section examines various demographic and economic characteristics related to the Hudson residential population and labor force.

Income

From the perspective of local residents, the key measures of economic functioning relate to the ability to find a job and to generate income to sustain their families. In comparison to the State as a whole, the regional economy performs relatively well in providing employment and income for residents of Hudson. The Town has higher median household income, family income and per capita income than the State overall. However, incomes for residents of Hudson tend to be somewhat lower than for Middlesex County. Between 2000 and 2010, resident income growth within Hudson kept pace with the rate of growth for the County and the State. Hudson also has a smaller proportion of its population living in poverty than the State and County as a whole. However, its poverty rate increased substantially during the first decade of the 2000's, likely reflecting the national economic recession.

Table 4-1 Income and Poverty Characteristics

	2000			2010		
	Hudson	Middlesex County	State	Hudson	Middlesex County	State
Median HH Income	58,549	60,821	50,502	74,983	77,377	64,509
Median Family Income	70,145	74,194	61,664	90,719	97,382	81,165
Per Capita Income	26,679	31,199	25,952	34,516	40,139	33,966
% Population in Poverty	4.5%	6.5%	9.3%	7.1%	7.6%	10.5%

Source: 2006-2010 American Community Survey 5-Year Estimates

Employment Rate

Hudson residents have a lower unemployment rate than the State and the nation as a whole. As of April 2013, the Hudson unemployment rate stood at 5.5% compared to 6.3% for Massachusetts and 7.5% for the nation. The Middlesex County rate was somewhat lower at 5.0%.

The number of Hudson residents within the labor force increased modestly over the first decade of the 2000s. This growth (4.3%) was slightly less than the rate of overall population growth during that period (5.2%).

Table 4-2 Labor Force Characteristics

Labor Supply	2000	2010
Labor Force	10,380	10,825
Employed Population over 16	10,048	10,182

Source: 2006-2010 American Community Survey 5-Year Estimates

The number of dual working families is important to consider as this can influence a number of factors in a community. For example, if there is a large number of dual working families in a community day-care and after school programs should be expanded, stores and businesses would benefit from extending hours past a typical work day (to appeal to those families who work until 5 PM or later), and public participation may be lacking as dual working families would be less likely to attend such events during the week. Approximately 62 percent of Hudson families with children under the age of six years old, have all parents in the family in the labor force (dual working family), while 86 percent of families with children ages six to 17 years old have all parents in the family in the labor force.¹⁸ This demonstrates that a majority of families with children have all parents working which can lead to implications for community factors mentioned earlier.

Type of Employment

In 2010, the education and health services industry sector employed the largest number of Hudson residents. The next two largest sectors in terms of employment were professional services and manufacturing. By comparison, in 2000, manufacturing still represented the largest employment source for residents. However, like many other communities across the Northeast, Hudson has experienced a decline in the number of its residents working in manufacturing (approximately 29% decline). This lost employment has been replaced with increased employment in the education and health services and professional and management services sectors. Currently, the share of residents employed in manufacturing and professional service sectors is about even.

¹⁸ United States Census Bureau. Selected Economic Characteristics. 2007-2011 American Community Survey 5-Year Estimates. Accessed October 2013.

Table 4-3 Employment Share by Industry Sector

Employment by Industry	2000		2010	
Agriculture, Forestry, Mining, etc.	5	0%	73	1%
Construction	555	6%	606	6%
Manufacturing	2,510	25%	1,789	18%
Wholesale Trade	309	3%	190	2%
Retail Trade	1,180	12%	1,152	11%
Transportation and warehousing and utilities	246	2%	213	2%
Information	344	3%	350	3%
Finance, insurance, real estate	690	7%	590	6%
Professional, scientific and management and administrative services	1,215	12%	1,812	18%
Education services and health care and social assistance	1,562	16%	2,287	22%
Arts, entertainment, recreation, accommodation	525	5%	396	4%
Other services	573	6%	418	4%
Public administration	334	3%	306	3%

Source: 2006-2010 American Community Survey 5-Year Estimates

Note: Due to the recent announcement of the Intel closure as of writing this Master Plan, approximately 700 manufacturing jobs will be lost as a result which would bring the amount of manufacturing employment numbers down in the near future unless the Intel property is to be sold to a similar use and business.

Most working Hudson residents are engaged in management, business, science or arts occupations. This share has continued to grow since 2000, and now accounts for 44% of total employment. The next largest category of employment is sales and office occupations. The number of residents engaged in these occupations has declined somewhat over the decade, while service occupations have grown by a relatively proportionate amount.

Table 4-4 Employment Share by Occupation

Employment by Occupation	2000		2010	
Management, business, science and arts	4,060	40%	4,459	44%
Service	1,135	11%	1,399	14%
Sales and office	2,486	25%	2,256	22%
Natural resources, construction and maintenance	872	9%	843	8%
Production, transport, material moving	1,495	15%	1,225	12%

Source: 2006-2010 American Community Survey 5-Year Estimates

Education

Hudson is a relatively highly educated community, with over 36% of its population holding a bachelor's degree or higher. Nationally, this figure is closer to 30%. However, Massachusetts is a high education state and Hudson lags the state average somewhat. It is also noted that Hudson is within a region that is particularly highly educated. For the communities within Middlesex County, nearly 50% of residents have a bachelor's degree. The discrepancy in higher education rates between

Hudson and the larger state and region is particularly pronounced in the graduate or professional degree category.

Table 4-5 Educational Attainment

Educational Attainment (Population 25+)	Hudson	Middlesex	State
High School Graduate	29.4%	22.6%	26.7%
Associate's Degree	6.4%	6.1%	7.6%
Some College, No Degree	16.6%	13.6%	16.0%
Bachelor's Degree	23.2%	25.6%	21.9%
Graduate or Professional Degree	12.9%	23.7%	16.4%
High School Grad or Higher	88.5%	91.6%	88.7%
Bachelor's Degree or Higher	36.1%	49.3%	38.3%

Source: 2006-2010 American Community Survey 5-Year Estimates

Place of Work

Hudson residents tend to work relatively closer to home, with nearly three-quarters working within the County. As a result, Hudson residents enjoy a shorter commute than the state and regional average. However, not as many Hudson residents work in their home community as compared to the State, which could reflect the gap in local jobs versus the local labor force.

Table 4-6 Commuting Characteristics

Commuting Characteristics	Hudson	Middlesex	State
Work within County	74.4%	69.5%	65.6%
Work outside County	24.4%	28.7%	30.6%
Work outside State	1.2%	1.8%	3.9%
Mean Travel Time to Work (minutes)	24.5	27.7	27.3
Work within Place of Residence (CDP)*	15.3%	19.3%	24.3%

Source: 2006-2010 American Community Survey 5-Year Estimates

* CDP=Census Designated Place. Statistic relates only to those workers living in a census designated place, not all workers. Approximately 78% of Hudson's population of workers lives in a defined place. Statewide approximately 70% live in a place. The Middlesex ratio is 74%.

Business Establishments

Hudson is home to a diverse range of businesses that employ nearly 10,000 people in total. Businesses range from high-technology manufacturing to professional, educational and health service providers, to retail and hospitality businesses. As indicated in the table below, the largest sector in terms of employment is manufacturing. The large Intel facility in Hudson accounts for a substantial share of

this total.¹⁹ It is noteworthy that the manufacturing sector is the highest paying sector, with an average wage nearly double that of the next most lucrative sector. This figure is also likely dominated by Intel-related compensation. The next largest industry cluster in terms of local employment is the trade, transportation and utilities sector, which tends to produce relatively lower wages.

Table 4-7 Hudson Employment and Wages by Sector

Sector	Number of Establishments	Average Monthly Employment	Percent Of Total Employment	Average Weekly Wages
Total	614	9,697	100%	\$1,388
Construction	93	679	7%	\$1,279
Manufacturing	78	3,463	36%	\$2,492
Trade, Transportation and Utilities	122	1,807	19%	\$660
Information	4	64	1%	\$927
Financial Activities	31	277	3%	\$1,202
Professional and Business Services	111	1,377	14%	\$790
Education and Health Services	27	786	8%	\$829
Leisure and Hospitality	54	698	7%	\$339
Other Services	89	365	4%	\$659

Source: Massachusetts Executive Office of Labor and Workforce Development

Most of the establishments (84%) within Hudson could be classified as small businesses with fewer than 20 employees. More than half of the businesses in town have less than five employees. The number of firms with 100 or more employees is relatively limited.

Table 4-8 Hudson Business Size

Size of Establishments (# of Employees)	# of Firms	Percent
1-4	276	53%
5-9	81	16%
10-19	75	15%
20-49	58	11%
50-99	14	3%
100-249	11	2%
250-499	1	0%
500-999	1	0%
1000+	0*	0%
Total	517	100%

Source: US Census, Zip Code 2010 Business Patterns

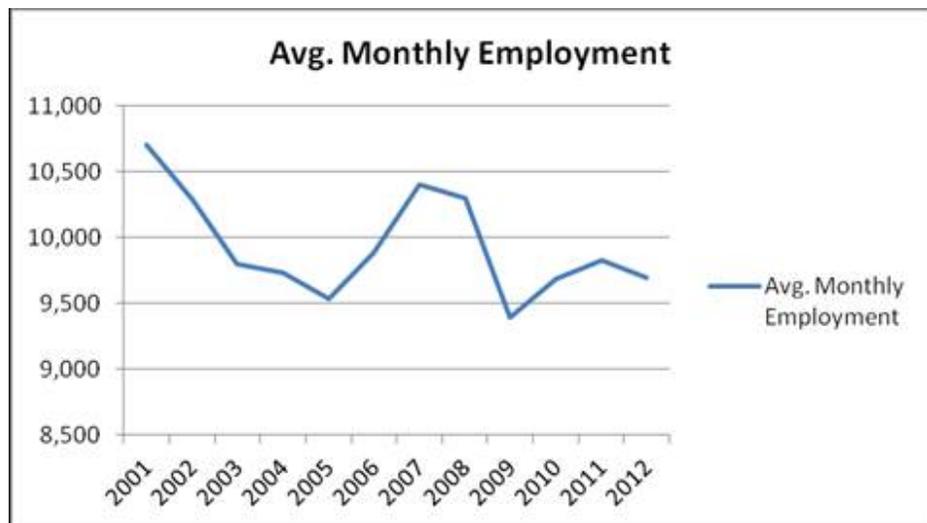
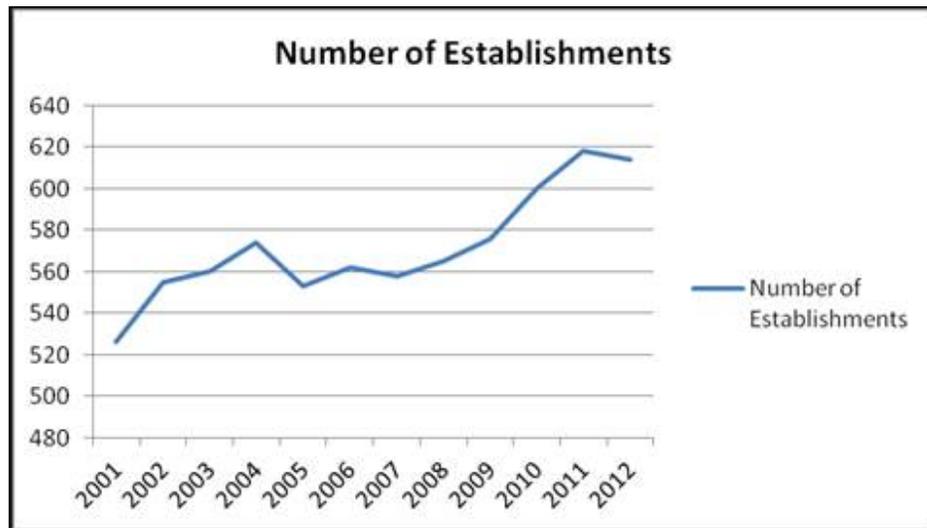
* The Intel facility does not appear to be reported correctly by the zip code business patterns data. The facility employs several thousand workers.

From the period 2001 to 2012, Hudson experienced an overall increase in the number of business establishments located within the town. The largest period of growth

¹⁹ As of the writing of this Master Plan, Intel has recently announced it would be shutting down its manufacturing facility in Hudson by the end of 2014. As the Intel site is suitable for industrial manufacturing uses, future prospective buyers would most likely utilize the site in a similar way as Intel.

occurred during the period from 2007 to 2011. However, the total amount of employment has decreased since 2001. The Town experienced job losses in the early part of the decade, followed by a period of job growth during 2005-2007. Employment declined sharply again through 2009 during the nationwide recession. A limited recovery in the number of jobs has occurred over the past several years, however employment in the Town is still off approximately 9% from its 2001 total. The growth in the number of business establishments, but with a corresponding decline in the number of jobs, may reflect workers who started independent businesses in response to downsizing during the recession.

Figures 4-1 and 4-2 Number of Establishments and Average Monthly Employment



Source: Massachusetts Executive Office of Labor and Workforce Development

The value of sales or business done is another way to view the local economic mix. As indicated below, manufacturing is responsible for the largest share of business

activity by a large margin. Retail and wholesale trade represent the next largest sources of sales volume.

Table 4-9 Employer Value of Sales, Shipments, Receipts, Revenue or Business Done

Industry Sector	Value (\$1,000)	% of Total	Massachusetts Proportion
Manufacturing	924,866	62%	16%
Wholesale Trade	134,991	9%	27%
Retail Trade	264,960	18%	16%
Information	NA	NA	NA
Real estate	30,414	2%	3%
Professional, scientific and tech services	44,641	3%	10%
Administrative and support and waste management	37,217	2%	0%
Educational services	Withheld	Withheld	Withheld
Health care and social assistance	12,219	1%	10%
Arts, entertainment, and recreation	4,668	0%	1%
Accommodation and food services	25,996	2%	3%
Other	16,120	1%	2%
Total	1,496,092	100%	*

Source: 2007 Economic Census

* Does not sum to 100% because the State has other sectors that are not represented locally.

Tax Base

An important determinant of a municipality's health and ability to provide suitable services to its population is its tax base. Over the years, residential property has generally accounted for about four-fifths of the Town's valuation for tax purposes. Commercial, industrial, and personal property classes are responsible for the remainder. The distribution of the assessed valuation between these classes has remained generally stable. However, the Town levies a different tax rate on the different classes of property. The residential tax rate in 2013 is \$16.38 per \$1000 of assessed value, while commercial, industrial and personal property is taxed at a rate of \$32.90 per \$1000 of assessed value. As a result, while residential property accounts for approximately 81% of the Town's valuation, the residential tax levy is only approximately 69% of the total. These tax burden proportions have remained relatively stable over recent years. As reported by the Massachusetts Department of Revenue, the average single-family tax bill was approximately \$4,700 in 2013, which is roughly comparable to the reported statewide average of \$4,846.

Table 4-10 Assessed Value Trends

Year	Residential	Commercial	Industrial	Personal Property	Total	Residential Percentage	Other Percentage
2004	\$1,646,648,130	\$142,076,670	\$221,078,400	\$28,859,900	\$2,038,663,100	81%	19%
2006	\$1,994,695,151	\$146,154,849	\$212,386,400	\$30,826,800	\$2,384,063,200	84%	16%
2008	\$2,143,939,530	\$170,733,170	\$234,642,800	\$29,658,000	\$2,578,973,500	83%	17%
2010	\$1,891,583,075	\$175,006,525	\$226,035,400	\$38,348,000	\$2,330,973,000	81%	19%
2012	\$1,739,879,730	\$176,090,170	\$187,484,000	\$45,927,300	\$2,149,381,200	81%	19%

Source: Massachusetts Department of Revenue

Table 4-11 Tax Levy Trends

Year	Residential Levy	Commercial Levy	Industrial Levy	Personal Property Levy	Total Levy	Residential Proportion	Commercial / Industrial / Personal Property Proportion
2009	23,463,506	3,869,240	5,399,842	884,113	33,616,701	69.8	30.2
2010	24,628,412	4,427,665	5,718,696	970,204	35,744,977	68.9	31.1
2011	25,325,321	4,853,668	5,663,907	1,182,903	37,025,799	68.4	31.6
2012	26,985,535	5,203,465	5,540,152	1,357,152	39,086,304	69.04	30.96
2013	28,327,591	5,564,171	5,847,034	1,368,209	41,107,005	68.91	31.09

Source: Massachusetts Department of Revenue

Focus Areas/Strategic Opportunity Areas

A number of areas within Hudson have been identified by the State, the MetroWest Region and the Town as strategic areas for targeted development, redevelopment or investment. The related planning programs or processes that identified these sites are discussed below.

43D Priority Development Areas

In August 2006, Chapter 43D was enacted into State law, establishing an expedited permitting program to promote targeted economic and housing development. The Chapter 43D program establishes an inventory of Priority Development Sites where municipalities offer a maximum of 180-day local permitting. In order to be eligible as a Chapter 43D Priority Development Area, a site must:

- Be zoned for commercial, industrial or mixed-use development
- Be eligible for the development or redevelopment of a building of at least 50,000 square feet of gross floor area (may include existing structures and contiguous buildings)
- Be approved by the local governing authority
- Be approved by the state Interagency Permitting Board

Cities and towns that opt into Chapter 43D are able to target specific areas for economic development. These areas also receive priority consideration for state financial assistance such as the MassWorks Infrastructure Program grants, brownfields remediation assistance, and other financing through quasi-public organizations. Hudson received Interagency Permitting Board Approval in 2008 for three 43D Priority Development Areas. These include:

- 185-205 and 173 Washington Street (Bonnazoli)
- Two parcels on Cabot Road
- 75 Reed Road (Intel)

As indicated in the following section, all of these sites have been identified as regional priority development areas as part of the MetroWest Development Compact Plan, as well. The Bonnazoli site is a brownfield within a Town designated Blight Target Area that is in the process of being cleaned up to facilitate redevelopment.

Given that Intel has announced that it is ceasing their manufacturing operations in 2014, this designation plays a more significant role in the future marketing and redevelopment of the property. The 43D process with the promise of expedited permitting will be a valuable tool for the Town to use in marketing the property. Additionally, the Town has undertaken efforts to address water and wastewater needs in order to ensure sufficient capacity to meet the needs of future commercial and industrial developments. However, additional funding is needed to address the aging infrastructure that provides water and wastewater services to these areas.

It is noted that a proposal for multifamily housing development at the Cabot Road site is currently being processed in accordance with Chapter 40B provisions for projects that include at least twenty-five percent affordable units. If the project is approved and constructed, this would foreclose the use of that 43D site, which is one of the larger available sites in the western portion of town near the regional highway network, for commercial or industrial economic development activity. While the Cabot Road option appears to be closed, the Intel site also offers a much larger site in the same general location with access to the highway network.

MetroWest Development Compact Priority Development Areas

At the heart of the MetroWest Development Compact Plan is the identification of priority areas for development and preservation. The priority development areas (PDAs) are defined as “areas within a city or town that have been identified as capable of supporting additional development or as candidates for redevelopment. These areas are generally characterized by good roadway and/or transit access, available infrastructure (primarily water and sewer), and an absence of environmental constraints.” During the development of the plan, the 495 MetroWest Partnership solicited locally identified PDAs. Seventeen locations were identified in

Hudson. The Plan then undertook a screening process to identify those locations that had regional significance. Seven locations in Hudson were classified as regionally significant PDAs:

- Brigham Estate
- Route 85 Corridor
- Bonnazoli
- Cabot Road
- Intel
- Brigham Three
- Tower Street Mill

As indicated above, three of these PDAs (Bonnazoli, Cabot Road, and Intel) are also eligible for expedited permitting procedures as Chapter 43D sites. The Brigham Estate, Bonnazoli, and Brigham Three sites are all generally located on or near the Route 85 corridor. The Tower Street Mill complex is located just north of the downtown core along Main Street.

The Brigham Estate is zoned residential in the midst of a commercial retail corridor. The parcel is large and semi-vacant with potential for redevelopment in the future. It is currently owned by a local developer and given its proximity to Marlborough, it is thought to have potential for a commercial use such as a hotel. The Town should evaluate opportunities for this property such as rezoning the parcel as commercial since this residentially zoned pocket is inconsistent with surrounding uses on Route 85.

The Town is in the midst of a substantial multi-year improvement project for the Route 85/Washington Street corridor, which is to be completed in 2014. The improvements involve reconstruction, resurfacing, widening, intersection geometry modifications, installation of traffic lights, and a roundabout. The project will also improve the pedestrian, bicycle and aesthetic environment along the corridor. In addition to relieving traffic congestion and improving the functionality and attractiveness of the Route 85 commercial corridor, the improvements should also ease travel between the regional highway network and Hudson's downtown. These transportation improvements are intended to support and facilitate additional investment in the commercial areas along the corridor as well as in the downtown.

Blight Target Areas

A Blight Target Area (BTA) is a subsection of a community that has been certified by the Massachusetts Department of Housing and Community Development (DHCD) as meeting the federal Housing and Urban Development (HUD) guidelines for being blighted. Any such area, so-certified, must first be reviewed by the community, and designated by the Chief Elected Officials of the community as meeting the definition of blighted and substandard. A minimum of 25 percent of all buildings and public infrastructure within the designated BTA must be deficient and identified as being in

fair to poor condition. By being located in a BTA, buildings, vacant parcels and public infrastructure that are deemed in fair to poor condition or have elements that are in fair to poor condition, then become eligible for certain federal grant funds, such as the Community Development Block Grant (CDBG) or the Economic Development Fund grant (EDF).

Past Community Development Block Grant applications made eligible because of BTA certification have provided funding for such projects as Downtown Façade improvements, the Cellucci Splash Park and the reconstruction of the South Street Parking Lot. Certification is valid for ten years. The Washington Street area was certified in 2009. The current Downtown BTA certification expired in June of 2013, and the Town is in the process of updating the survey.

Current efforts in the Downtown and Washington Street/Route 85 locations are focused on upgrading infrastructure and the visual quality to support redevelopment and enhance the appeal of these areas as lively destinations. The cleanup of the contaminated Bonazzoli property and the Route 85 improvements are examples of the types of physical enhancements and collaborative approach used to improve conditions within Blight Target Areas.

Mill Redevelopment

Like other communities in New England, Hudson has a number of mill buildings as a legacy from its historic past as a mill town. While some continue to serve as large manufacturing facilities (e.g., Hudson Lock), or have been reactivated with a mix of smaller tenants such as the Hudson Mill Business Center at 43 Broad Street, other substantial mill buildings remain significantly underutilized.

In the mid-2000s, the Town created an Adaptive Reuse Overlay District that applied to several mills surrounding the downtown, including the Tower Street, 43 Broad Street, 15 Broad Street, and the Houghton Street mill complexes. The overlay allows for the ground floors to be reused for commercial uses such as retail, restaurant, offices, health clubs, and studios, and the upper floors to be converted to residential use. However, there has been limited use of these provisions to date. The Broad Street Mill building and Tower Street Mill building include a number of active uses. The Houghton Street Mill is currently used as a self-storage facility and the mill building at 15 Broad Street is occupied by a painting and plating business. None of these facilities has yet taken advantage of the provisions of the Adaptive Reuse Overlay that allow for residential reuse. These complexes are in close proximity to the downtown and the Assabet River Rail Trail and offer the potential to accommodate substantial development that could help support downtown businesses and benefit from the recreational, civic, and commercial amenities available in the downtown.

There are several other mill buildings that are further removed from the downtown that are not covered within the Adaptive Reuse Overlay District, such as the Apsley Street mill building where Hudson Lock, LLC is located.

Resources

The Town has an active Economic Development Commission that works with business owners to retain, grow and attract new business activity to Hudson in order to support economic development. The Commission can help business navigate the various state and federal programs that may be available to them, sponsors periodic educational programs and public information sessions, and coordinates with the Town to advocate for business interests.

The Town's Community Development Department also serves as a resource for the local business community. In addition to the planning and implementation of physical improvements to support economic development as described above, the Department coordinates programs to stimulate development at targeted sites and can help direct businesses to the wide variety of financial and technical resources and programs that are available through the State, federal government, and other organizations. A summary of these programs is available on the Town's website²⁰ and in the appendix of this document.

Recommendations

Local economies are shaped by a complex interaction of factors that can include historic development patterns, infrastructure capacity, natural resources, access to markets, access to labor, financing availability and, in an increasingly interconnected world, global competitive pressures. However, local government also has a role in supporting and facilitating economic activity. This can involve activities such as provision of infrastructure, assembly of land, adjusting land use regulations, investment in local businesses, or facilitating partnerships with institutional or private entities. In a most basic sense, local government's economic development initiatives should be aimed at reducing the costs to businesses of development or operation.

As detailed in Section 4.2, the 2004 Community Development Plan included a number of recommended actions for the Town to take within five general themes to help support existing businesses and facilitate the growth of new economic activity. The Town has taken action on a number of these recommendations, including the Route 85 improvements that are currently under construction, the recently completed new park space to support the downtown, and the creation of an Adaptive Reuse Overlay District to encourage mill redevelopment. All of these activities are occurring in the three general areas (downtown, Route 85 and the mill buildings) that

²⁰ http://www.townofhudson.org/Public_Documents/F00013F0E/EDC/resources/Econ%20Devel%20Resources.pdf

have been targeted as focal points for economic development initiatives during this Master Plan Update process as well as by the regional and state planning efforts identified above. Most of the other general recommendations related to supporting existing businesses, working cooperatively with landowners and potential redevelopers, and supporting educational quality remain important and relevant.

While many of the 2004 recommendations still hold, the Town's progress on key action items, economic changes over the past decade including a bruising recession and technological changes, and the analysis of the changes in the local business and labor force characteristics, suggest that some supplemental recommendations may be appropriate. For example, the Town has seen a growing number of smaller businesses with fewer employees. Nurturing these small businesses may provide a long-term means to support local job growth and diversify the local economy so that it becomes more resilient to potential shocks related to business cycles or changes in particular industries. The data also suggest that Hudson is located in a particularly highly educated region, however its residents tend to have received less education on average. In a region that is known for its high technology clusters, this may suggest that workforce skill development may be important for ensuring that residents can take full advantage of regional employment opportunities.

The rapid improvement in communication technology has also changed the economic landscape. With an increased ability to coordinate teams or transact business remotely, the importance of some traditional business location criteria for certain types of firms may be reduced. Coupled with shifting generational preferences in where they want to live (e.g., younger generations are starting families later in life, tend to have smaller families, and are expressing a desire for smaller homes, but in more active and enriching communities), this suggests that quality of life and quality of community may become increasingly important determinants in business siting decisions. The following section identifies potential supplemental economic development recommendations, generally targeted to three key geographic focus areas, to build upon the 2004 action items based upon discussions from the public forum and the changing local and regional economic conditions.

Downtown

During the public forum convened to consider economic development issues, survey results suggested that the most important action for supporting the downtown would be facilitating more mixed-use development with housing. This would help increase the property tax base, as well as provide additional discretionary spending potential that could be captured by local businesses. The survey results and ensuing discussions also indicated that streetscape and façade improvements to create a more attractive and welcoming downtown environment were also strongly encouraged. Other commonly noted themes were a lack of street activity and attractions, particularly during the evening and nighttime to draw people to the downtown and inadequate parking. The Town has invested CDBG money into public space

improvements in and around the downtown. Potential additional recommendations for this area include:

- ED 1. Continue to target CDBG activities toward improvements to the public realm in downtown – trees/landscaping, street furniture, lighting, façade improvements.
- ED 2. Investigate the potential for hosting a farmers market or additional special event programming in the downtown as a supplemental draw to bring residents and visitors into the downtown.
- ED 3. Celebrate the rail trail and recreational opportunities available within the core of the town and consider ability to support a recreation-oriented public concession in association with the rail trail (e.g., food cart, bicycle rental/repair.)
- ED 4. Consider financial incentives such as property tax abatement to encourage rehabilitation and redevelopment of downtown buildings for mixed-use.
- ED 5. In addition to continuing to promote mixed-use downtown development with residential use on the upper floors, consider additional multifamily housing on the downtown fringe. There are several large sites within proximity to the downtown core that could support residential, recreational, educational, or municipal development, such as the closed St. Michael’s Catholic School on Main Street. Additional density within walking distance of the downtown could expand the customer base for local businesses and generate additional street activity. Residents who live in close proximity to the core are more likely to patronize local shops and restaurants and help provide a stable customer base. With a more active customer base, local business owners may be more likely to adjust offerings or hours of operation to respond to local demands.
- ED 6. While there is a perception that the downtown is undersupplied with parking, there is substantial off-street private and public parking between Main Street and South Street and the perpendicular side streets. It may be possible to promote better usage of these existing resources through signage and development of a more active and pedestrian friendly streetscape. As described in the Land Use chapter, a parking study may be warranted to identify whether additional public spaces or a parking management system should be considered.
- ED 7. Work with downtown property owners and local artists to install temporary “pop-up” exhibits or public art installations in vacant ground floor retail spaces in order to avoid empty facades that contribute blighting or depressing influence.
- ED 8. Review whether regulations inhibit development of restaurants, nightlife or arts/performance uses that would help activate the downtown during the

evening. (e.g., overly burdensome parking regulations, limitations on outdoor dining, etc.)

Route 85

For the Route 85 focus areas, the public forum survey indicated a clear preference for allowing small-scale commercial and mixed residential and small-scale commercial development. The substantial roadway improvements being undertaken along Route 85 will ease congestion, improve its functioning and attractiveness, and prime the corridor for additional investment. Supporting recommendations could include:

- ED 9. Creation of design guidelines to help ensure that new development complements the public improvements and contributes to a more cohesive and attractive visual environment, including updating the sign section of the Zoning By-laws.
- ED 10. Consideration of more fine-grained zoning or a corridor master development plan that identifies specific locations for appropriately scaled infill commercial and residential development.
- ED 11. Given the surrounding commercial development, the Town should explore development or rezoning opportunities (commercially or mixed-use) for the currently residentially zoned Brigham Estate parcel located along the Route 85 Corridor.
- ED 12. Explore transitional zoning opportunities for properties on Route 85 that are currently zoned residential

Mill Buildings

The public forum discussions also indicated a clear desire to see Hudson's mill buildings rehabilitated and reactivated with new commercial and residential uses.

- ED 13. The Town created the Adaptive Reuse Overlay District in order to encourage this type of reuse, although there has been limited new development that has taken advantage of those provisions. This may partially be a result of the nationwide recession and associated challenging financing environment that hit shortly after the zoning was enacted. However, it may be worthwhile to consider whether better marketing or revision would be warranted (e.g., increased residential density) to create more of a development incentive. Additionally, the Town should consider adding buildings to the Adaptive Reuse Overlay District such as the Apsley Street mill (Hudson Lock, LLC) and the industrial area on Cherry Street.
- ED 14. Property tax abatements or public infrastructure investment through District Improvement Financing (DIF) or Tax Increment Financing (TIF) could also be explored to provide financial incentives to enhance the attractiveness of these sites for reuse.

- ED 15. Another option for supporting individual commercial or manufacturing businesses that could be appropriate for tenants of mill buildings (or anywhere in the Town), would be a local revolving loan fund. A revolving loan fund is established with public money that is then lent to the private sector, typically for real estate, machinery, permanent working capital, and business improvements. As the money is repaid, it is then lent to other businesses. This type of program could be targeted to businesses in certain desired locations (e.g., mills) or industry cluster or sectors (e.g., technology, renewable energy/efficiency). Some communities have utilized CDBG funds as a potential initial source of funds for their programs.
- ED 16. Mill buildings might also provide a suitable location for a small business incubator. As indicated by the business characteristics statistics, the Town has seen a growth in the number of small businesses. Incubators typically provide low-cost space, support services and management training for start-ups and can be operated by private, public or non-profit entities. While operating an incubator may be beyond the Town's ability due to resource and staff time or expertise constraints, the Town could explore relationships with educational institutions in the region to provide incubator space and services that would provide practical experience and research for staff and internship opportunities for their students, while supporting local business development and innovation.
- ED 17. Offer higher density bonuses and other incentives for keeping mill buildings intact.

Other Considerations

- ED 18. Wireless service has become an increasingly important feature for both residents and businesses, with many households and establishments foregoing landlines entirely. Currently, wireless coverage on the east side of Town, which includes commercial and industrial development areas, is spotty and inconsistent. As wireless service becomes a major business siting factor, this condition will put Hudson at a disadvantage in attracting business.
- ED 19. During the public forum, relaxed zoning and permitting procedures for commercial development were also identified as important in supporting business growth and development. The Town has (and markets) available land within commercial and industrial zoning districts that permit a fairly wide range of uses, so it appears unlikely that zoning restrictions per se are constraining investment. However, complicated development review processes can result in uncertainty and delays that have a monetary impact on applicants. A more predictable and streamlined process can help encourage redevelopment or incorporation of new building technologies. The Town could review whether there are any unnecessary roadblocks or delays in its administrative procedures for review of development

applications that could be made more efficient. The Town could also look to expanding the amount of 43D Priority Development Areas in order to streamline permitting for industrial and commercial development to assist in business growth.

- ED 20. Energy efficiency measures can reduce energy costs, providing a benefit to both commercial and residential users. The Town could consider establishing an expedited permitting procedure and/or building permit fee discount for installation of energy conservation devices (e.g., solar installations) or other “green” development features.
- ED 21. Similarly, the construction or retrofitting of high performance buildings that meet green building certification could be encouraged through financial (e.g., property tax abatement) or development incentives. Incentive zoning is a rewards-based system where additional density or height above a zoning district’s baseline is offered as a bonus in exchange for a specific defined community benefit or feature, which could be targeted to energy efficient construction.
- ED 22. Create a solar by-right bylaw to install solar energy on buildings that is easy for businesses to comprehend. Solar options on buildings should be by-right unless the installation is a certain maximum size, requires removal of trees, or is controversial in terms of reflection. As-of-right solar installations would only require a building permit and would not require additional approval by the Planning Department. This encourages the installation of solar energy on buildings. Additionally, develop a streamlined process for alternative energy for accessory uses to further encourage their installation.
- ED 23. Hudson is located within a region with a particularly high density of universities and colleges. The Town or its Economic Development Commission could work with local business to identify the most pertinent skills to meet local industry needs and direct job-seekers to the available instructional resource or workforce training.
- ED 24. Market reuse or redevelopment opportunities better. For example, determine ways to better market vacancies (such as the future Intel site and Cabot Road office park); develop marketing strategies for specific areas of Town; and market the Town in a regional sense, collaborating with other communities such as Marlborough and Southborough.
- ED 25. Implement a Transitional Overlay Zoning District between commercial/industrial and residential zones in order to minimize the impacts between the uses and districts. See the Housing chapter for more information on the Transitional Overlay Zoning District.
- ED 26. Work more closely with neighborhoods on economic development strategies, ideas, and initiatives for each neighborhood and the overall community.

- ED 27. As a way to encourage new economic development, expand expedited and coordinated permitting processes to other developments, similar in the way Chapter 40B or 43D developments are reviewed.
- ED 28. Examine options for connecting Cherry Street to Main Street, as Cherry Street currently exists as a dead end with commercial and industrial uses. This could facilitate redevelopment of commercial buildings at the end of Cherry Street while minimizing impacts to nearby residential uses. By providing direct access from Main Street, the extension will offer an alternative means for truck traffic to access the industrial section of the street without traveling through residential neighborhoods.
- ED 29. Conduct an evaluation of commercial tax rates, especially as expressed on a square foot basis to determine how its tax rates compare with neighboring and comparable communities.



Downtown, Assabet River Area, Hudson, MA

5

Natural, Historic, and Cultural Resources

Introduction

Hudson boasts many natural, historic and cultural resources, and it is particularly known for its water features, open spaces, farmland, and scenic vistas. The Assabet River in particular is the heart of the community, providing many scenic views, and opportunities for a variety of recreational activities. It also ties Hudson to its historic past as a former mill town. Residents have long valued Hudson's natural resources, seeing them as an integral part of the community. While Hudson has experienced significant land use changes over the years, the Town strives to maintain its character and traditions as it manages its growth going forward.



The first section of this chapter provides an overview of the natural resources in Hudson, including key geological, habitat, and water resources. The following sections discuss planning efforts by the Town of Hudson, federal and state agencies and non-profit groups to conserve and protect natural resources in Hudson. The chapter ends with a series of recommendations largely drawn from the objectives and action items identified in the 2011 Hudson Open Space and Recreation Plan.

Natural, Historic and Cultural Resources Goals

- Preserve, protect and enhance Hudson’s natural, cultural and historic resources.
- Improve water quality of streams, ponds, and the Assabet River.
- Protect Hudson’s drinking water resources.
- Acquire, expand and enhance areas for open space and recreation.
- Support Town administration of natural resources and leverage funding opportunities to support conservation efforts.

Natural Resources Overview

Setting

Most of Hudson’s stormwater and groundwater drains into the Assabet River. The Assabet, along with the Sudbury River to the east, is a major tributary to the Concord River. These three rivers comprise the SuAsCo Watershed District. Portions of these rivers were designated as Wild and Scenic in April 1999, and were recognized for their outstanding ecological, historical, scenic and recreational values.

A small portion in the east of Hudson (bordering the Towns of Sudbury and Marlborough) drains into Hop Brook in the Town of Sudbury and then into the Sudbury River. The Concord River, in turn, flows northeast, joining the Merrimack River in the City of Lowell, and entering the ocean in Newburyport. Hudson,



like some of its neighbors on the Assabet River, is a town that has always been dominated by water, particularly the Assabet River. The river has physically and culturally shaped the downtown due to the early development of mills on the main stem and its tributaries: Hog Brook, Tripp’s Pond, Danforth Brook and Bruce’s Pond. Two lakes created by damming streams have encouraged residential development: Fort Meadow Reservoir (partly in Marlborough) and Lake Boon (partly in Stow). In the early 1900’s, both of these lakes attracted residents from the Boston area, resulting in summer cottage development. These

cottages have virtually all been converted into year round residential homes with ‘infill’ of vacant parcels now being developed.²¹

Due partly to Hudson’s industrial heritage and the presence of the river for industrial uses, agriculture plays a relatively smaller role. This part of Massachusetts is typically known as apple country and Hudson had orchards on its hills. Perhaps the best known orchard and farm area in town is Gospel Hill, located in the geographic center of Town and portions of this area are still active agricultural land. Other major agricultural lands in town have long since been converted to housing and commercial development. For instance, Roundtop Hill was converted to the manufacturing site for Digital (now Intel) and the neighboring area known as Lakeview is now a dense single-family neighborhood.²²

Soils, Topography and Geology

This section discusses the characteristics of the soils, topography and geology in Hudson.

Soils

The soils of Hudson, like those in surrounding communities, reflect the broad geological activities noted previously and are based on the composition of the underlying bedrock and the glacially transported debris left by the last glaciation some 10,000 years ago. The soils in Hudson are predominantly two very different types. In the low, flat areas are many large beds of well-drained sandy or gravelly soils. The sandy, more fertile types predominate generally in the northern half, and the gravelly soils in the southern half of the town.²³

Table 5-1 Soils

Soil Classification	Percent of the Town	Soil Type Description
1. Windsor-Hinckley-Deerfield	37%	Level to rolling, scattered throughout the town, well drained, fluctuating water table, fewest limitations for development
2. Paxton-Woodbridge-Hollis	36%	Deep, well drained, developed on glacial soils and shallow bedrock areas, often a hardpan 2 – 3 inches below surface
3. Muck-Scarboro-Whitman	11%	Poorly drained, along the rivers and swamps, high water table
4. Canton-Hollis-Scituate	11%	Gently sloping to rolling hills, western part of town well drained, does not have impermeable layer within 4 - 5 inches of surface
5. Other (minor associations & water)	5%	Variable

Source: Natural Resource Conservation Service (NRCS).

²¹ *Town of Hudson Open Space and Recreation Plan, 2011.*

²² *Ibid.*

²³ *Ibid.*

One way to conceptualize the soils of the Town is to view the detailed classification by grouping associations of similar soils. The following is the percentage of Hudson as charted by the Natural Resource Conservation Service (NRCS).

Prime Farmland Soils

Agriculture has played a small role in Hudson's economy and cultural identity since well before the town was incorporated in 1866, although it does have soils conducive to agriculture. Hudson has approximately 320 acres of land in Chapter 61A or 61B, about half of which is classified as agricultural land²⁴. A portion of Hudson's oldest agricultural community still remains in the eastern end of town.

Table 5.2 Chapter 61 Land

Plate - Parcel	Property	Location	# of Acres	# of Chapter Acres	Potential Use	Significance
71-10	480 River Rd Realty Trust (Curley's)	480 River Rd.	10.56	9.64	61A	agricultural restriction along Assabet River
72-11	480 River Rd Realty Trust (Curley's)	River Rd.	1.5	1.5	61A	agricultural restriction along Assabet River
72-14	Carney (Pine Hill Invest Trust)	290 Brigham St.	9.8	9.8	61A	conservation/recreation restriction across from Old Town Road
72-15	Carney	290 Brigham St.	7.0	7.0	61A	conservation/recreation restriction across from Old Town Road
73-4	(Carney) Pillar Realty LLC	290 Brigham St.	3.91	3.91	61A	conservation/recreation restriction across from Old Town Road
18-1	Albert Sukis Land	Central St.	40.2	39.28	61A	Conservation / recreation restriction adjacent to Danforth/Mayo
22-20	Gulknecht, Ruth	Wilkins St.	5.86	1.47	61B	conservation/recreation restriction next to Rod and Gun
22-2	Riverside Rod and Gun Club	Wilkins St.	41.5	40.58	61B	conservation/recreation restriction adjacent to Mulready School
22-7	Riverside Rod and Gun Club	Wilkins St.	0.70	0.70	61B	conservation/recreation restriction adjacent to Mulready School
33-3	Ferjulians Land	7 Lewis St.	57.27	55.42	61A	agricultural restriction Gospel Hill
23-16	Ferjulians Land	Main St.	1.3	1.3	61A	agricultural restriction Gospel Hill
33-4	Ferjulians Land	Main St.	3.07	3.07	61A	agricultural restriction Gospel Hill
33-5	Roger Kane - Pompositicut	25 Lewis St.	29.5	25.37	61A	conservation/recreation restriction Gospel Hill
32-26	Albert Hovagmian Land	482 Main St.	61.5	60.12	61	conservation/recreation restriction Gospel Hill
46-2	Hudson Golf LLC-Charter Oak	15 Brent Dr.	208.81	78.61	61B	conservation/recreation restriction Watershed Protection District
Subtotal land in Chapter 61			482.48	337.77		

Source: Town of Hudson, Open Space and Recreation Plan 2014.

²⁴ Massachusetts General Laws Chapter 61, 61A and 61B is designed to encourage the preservation and enhancement of the Commonwealth's forests, agricultural land and privately-owned recreation parcels by offering tax incentives to property owners for managing these lands for those purposes, and allowing the municipality the first option to buy (and protect) the land if landowner decides to sell. Note that Hudson does not have any land classified as forest land pursuant to Chapter 61.

Topography

Hudson lies in the Assabet Valley within a region of hilly land, characteristic of the area between the lower elevation Boston Basin to the east and the broad north-south Worcester uplands to the west. Significant water resources found at the Town's lower elevations are around the 200 foot elevation: Lake Boon (186 feet), Ft. Meadow



Reservoir (262 feet), and Bruce's Pond (215 feet); while a significant number of hills reach to over 400 feet including Potash Hill (451 feet) and Phillips Hill (455 feet) in the western end of town. As you move east in Hudson, the general hilltop elevations decline to approximately 300 feet. The local relief in Hudson is therefore around 200 to 250 feet. Little land in town can be considered level.²⁵

The geology and the resulting topography yield hilltops with attractive and distant views that contribute a special character to the Town of Hudson. It is one of the important aspects of the physical environment of Hudson. The soils present various limitations for development as in the recent housing development in the northwest section of town that presented monumental problems for the residents when large rain storms caused those slopes to erode. Developers must be made to ensure that proper control measures are taken in those situations.²⁶

Geology

Hudson's bedrock geology, like that of the surrounding region, is both complex and mostly hidden by overlaying glacial debris. Prior to the last glaciations, a "bedrock surface" existed that is thought to be somewhat different from the topographic surface we see today, particularly affecting drainage patterns.²⁷

The glacier certainly has been the major landscape modifier in Hudson. Although there is considerable scientific debate about how much the glacier "tore down the hills," there is little question it "filled up the valleys" with significant deposits of sands, gravel and other permeable and porous materials. These "buried valleys" make excellent aquifers, or water resource areas. These are the primary sources for high-capacity public wells. In many of these areas, the valleys are sufficiently saturated with water that is expressed on the surface in swamps and marshes and occasionally as ponds and lakes. The Town successfully sought funding at the November 2004 Special Town Meeting to continue Phase II and III of the Bedrock

²⁵ *Town of Hudson Open Space and Recreation Plan, 2011.*

²⁶ *Ibid.*

²⁷ *Ibid.*

Water Exploration Program to identify location(s) for future wells to be used for a public water supply.²⁸

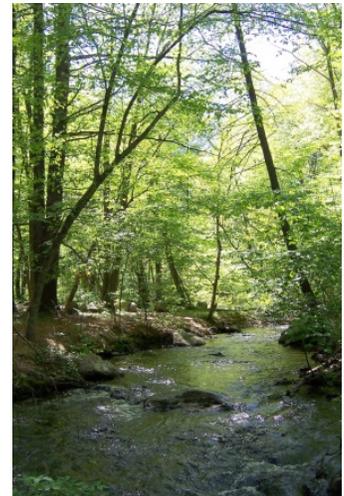
Other glacial impacts are also important to Hudson. There are a variety of other surface deposits scattered around and the most prominent are the drumlins, elongated hills trending in a north-south direction, made up of tightly packed and unsorted glacial materials together. These account for the major viewpoints in the area but are poor places for development, since the tight soils do not readily yield much water to shallow wells or accept sewage effluent. Many of the prominent hills in Hudson, excluding Gospel Hill and Roundtop Hill, are drumlins.²⁹

On the flatter areas, for example around Lake Boon, outwash plains result where the melting water from the glacier sorted and deposited layered sand and gravels in a horizontal manner. The flat of topography in the center of Town is a variation of the outwash plain, but there the deposition resulted from slightly different glacial conditions.³⁰



The area east of Manning Street, including the broad stretch of Roundtop Hill, Gospel Hill, Whitney Hill, and much of the old Goodale property, is covered with “ground moraine”. This is a thin veneer of glacial debris overlying bedrock. It is generally of poorer development potential since not only is it shallow to bedrock but also presents development limitations, since it is unsorted till.³¹

The geology has been very important to Hudson’s development as a community. It has conditioned where settlement originally occurred, where some of the resources are found, and where some of the opportunities and limitations are. The bedrock provides water but at a cost. It is generally deep, often in the range of 50 to 100 feet down (or more) and, in places, is sufficiently fractured to allow the collection of water in small quantities. Currently, there is no public water that is obtained from bedrock. The Intel Corporation is permitted to withdraw approximately 350,000 gallons per day from an onsite well; however, due to the high levels of iron, it has chosen not to utilize this source. The Town is currently undertaking a bedrock well



28 *Town of Hudson Open Space and Recreation Plan, 2011.*

29 *Ibid.*

30 *Ibid.*

31 *Ibid.*

exploration program that has identified a number of sites for future consideration. Test drilling has been ongoing since fall of 2005. Approximately 10 percent of the Town's population obtain its water from onsite wells, many of which are bedrock or artesian.³²

Most of the landscape results from glacial activity. This is particularly true of the hills. These are not particularly suited for development without allowance for soil limitations. The steeper slopes need to be avoided since erosion is a serious problem on such slopes.³³

Water Resources

Watershed

Three tributaries of the Assabet River (Hog Brook, Danforth Brook and Fort Meadow Brook) form the major drainage of the town. The southeastern portion of Hudson is within the watershed for the Sudbury River. The Assabet River and its sub-basins join with the Sudbury River in Concord to form the Concord River. Included in this tributary system are a number of ponds that provide wildlife habitat, recreational opportunities, and flood control.³⁴



Surface Water

Hudson is a typical river town with at least one major river and several brooks. Much of Hudson's early industrial activity and subsequent growth was based on its location along this major river and the water power that it provided early industry.

The Assabet River (see Figure 5-1, *Wetlands and Surface Waters*), with its headwaters in Westborough, travels 31 miles in a northeasterly direction through the center of Hudson towards the town of Stow to meet with the Concord and Sudbury Rivers. The Washington Street dam in the center of town allows the upstream section to become a gentle and meandering section, creating a wide floodplain, while downstream the river is restrained by concrete walls along the adjacent property before widening into floodplains below the Forest Avenue Bridge. The Town of Hudson Recreation Department hopes to develop a walking trail along both sides of the river from the Taylor Memorial Bridge to Riverside Park at Chapin Street, in the future.³⁵ Hudson has several other water bodies including:

- ▶ **Hog Brook** (see Figure 5-1, *Wetlands and Surface Waters*) travels easterly into Hudson and is dammed at Tripp's Pond before entering the Assabet River.

³² *Ibid.*

³³ *Town of Hudson Open Space and Recreation Plan*, 2011.

³⁴ *Ibid.*

³⁵ United States Army Corps of Engineers. *Assabet River, Massachusetts. Sediment and Dam Removal Feasibility Study*. September 2010.

The brook, once highly polluted by failing septic systems in the Brown's Corner area, has recently seen a dramatic increase in brook trout.

- **Tripp's Pond**, which is restocked by the Department of Fish and Wildlife, is the former site of a vibrant swimming facility until the mid-1960s that has been neglected and drastically underused as a recreation area for many years. The pond is in dire need of dredging, with silt filling in many deeper areas where fish would normally breed, and creating the conditions for invasive vegetation to overgrow, such as purple lustrife.



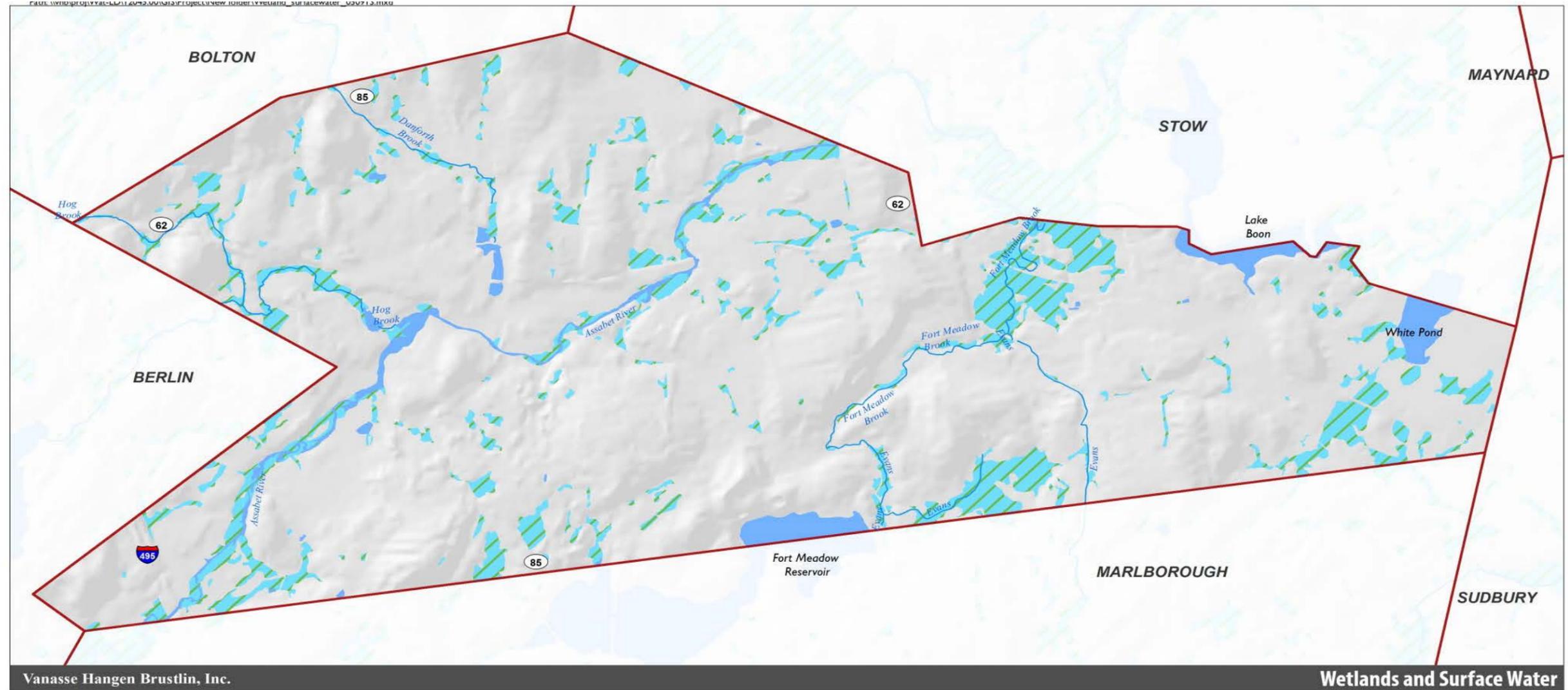
- **Danforth Brook** flows southeasterly into Hudson from Bolton, and is also stocked with trout and has been a highly-regarded fishing area for many years. The brook features scenic waterfalls on a property acquired by the Town in 2001.
- Danforth Brook enters another dammed pond, known as Bruce's Pond, which is privately owned by Larkin Lumber Company and was once used to generate power for their mill. The stream continues under Main Street and becomes Tannery Brook running north to south bisecting a newly created park (South Street Skate Park), ending its journey at the Assabet River. A grant from the Department of Housing and Community Development (DHCD) created a walkway along Tannery Brook. A grant from the Executive Office of Environmental Affairs, Division of Conservation Services assisted with purchasing a parcel along the river to expand an existing park, and another grant from DHCD renovated and developed that parcel. Both grants made a significant difference to open up views of the brook and the river, while creating active recreation areas. This redevelopment has helped enormously in connecting our urban center with the river.

- **Fort Meadow Brook** begins as the outfall of Fort Meadow Reservoir, former meadowlands once owned by Digital Equipment Corporation, that were created to provide additional water to the Assabet River during periods of low flow. This brook zigzags through gravelly land and fine marshes before entering the Assabet. Land adjacent to this brook was a former gravel operation and is now the



location of three of the Town's extremely important wells. Fort Meadow Reservoir is currently used as a swimming area by both the public at the Town Beach and by private landowners bordering the lake. It is a significant boating, fishing and skating resource for both Hudson and Marlborough.

Figure 5-1 Wetlands and Surface Waters



Vanasse Hangen Brustlin, Inc.

Wetlands and Surface Water

Legend

- | | |
|---|---|
|  Town Boundaries (MassGIS) | Rivers and Streams |
|  Wetlands |  Perennial |
|  Open Water |  Intermittent |

Source: MassGIS
 May 2013
 Master Plan Update
 Town of Hudson, MA



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- **Lake Boon**, another former meadowland, is home to many summer cottages now converted to full time residences. This recreational treasure, located in both Hudson and Stow, has many private beaches and boat launches. Stow has a public beach in the northeastern corner of the lake, but Hudson has no public access, with the exception of some residents having beach rights written into their property deeds. Recreational activities include swimming, boating, fishing, skating and snowmobiling.



- **White Pond**, located in both Hudson and Stow, formerly served as a part of the Town of Maynard's water supply. This body of water is adjacent to two 100 acre parcels of land, one owned by the Division of Conservation and Recreation, and the second by the Division of Fisheries and Wildlife. Much of this land, known as the Fort Devens Annex, was formerly owned by the Federal Government, housing munitions sheds and army personnel. With rights to the property changed in recent years, trails for walking and hiking are available to the public, with some restricted areas being posted in various locations.
- **Pickle's Pond** is located on land belonging to the Farley Elementary School. It is part of an unnamed drainage brook which enters Hudson from Bolton, runs through the Falls Brook Development to Plant Ave, there creating the pond, then ends in the Danforth Brook on Lincoln Street. It had previously provided the Town with an area for winter skating and hockey games. Neglected in recent years, it abuts a conservation parcel and has significant potential for both active and passive recreation. The Town recently purchased another 9 acres northwest of the conservation parcel. This recent purchase included the actual waterfall of Danforth Brook, now totaling over 61 acres of densely wooded conservation property.
- **Bruce's Pond** is located in the downtown just north of the former Larkin Lumber property. At its westerly shore is the Hudson Senior center and located to its east is Saint Michael's Church. A Mass Central Railroad Branch trestle and a bridge on Apsley Street bisect the pond. There is a dam that feeds into Tannery Brook located at the southern point of the pond, currently owned by the Parker family.

Floodplains

Hudson contains extensive floodplain areas, many encompassing large wetlands which facilitate flood storage. Based on the recently updated FEMA map, the 100-year floodplain in Hudson includes approximately 836 acres (11 percent) of the Town. The 500-year floodplain represents approximately 329 additional acres (4 percent) of land beyond the area categorized as being in the 100-year floodplain.³⁶ As a result of changes to the FEMA maps, additional homes and businesses in Hudson may find that they are located within the floodplain resulting in higher insurance costs and potential new development restrictions.³⁷

Surface water and marshes, floodplain boundaries and floodways indicate areas where soil conditions are prone to be seasonally wet or subject to possible flooding. The Town of Hudson has adopted a Floodplain/Wetland District and a Watershed Protection District. The Floodplain/Wetland District is an overlay district which includes all areas designated as Zone A and AE (areas that would be inundated during a 100-year flood event) by FEMA. Within this district, new buildings cannot be erected, existing structures cannot be enlarged or moved, dumping and filling are not permitted, and land, buildings, or structures cannot be used for any purpose except those specified in the bylaw. The Watershed Protection District is also an overlay district which includes certain designated areas specified by the Town, including all land lying within 25 feet of the normal highwater line of lakes, ponds, marshes, swamps, bogs, brooks, streams, and rivers. Various uses are prohibited within this district in order to preserve and protect waterbodies in the community, and maintain the water recharge areas so as to protect the Town's water supply.

What is a floodplain?

Floodplains are areas adjacent to water bodies and watercourses that hold water during times of increased flow, usually in early spring as the snow melts or during times of heavy rainfall. A 100-year flood is a base flood having a one percent chance of occurring in any one year. A 500-year flood has a 0.2 percent chance of happening in any given year. They serve important public safety, public health, and environmental interests. Any disturbance within the floodplain, such as filling, earth removal, or construction has the potential to alter its water-holding capacity. When this happens, flooding can extend beyond the actual boundary of the floodplain, causing damage to roads and buildings and potentially redirecting the course of rivers and streams.

Federal Emergency Management Agency (FEMA) determines the boundaries of floodplains and publishes the data on Flood Insurance Rate Maps (FIRM), used by the National Flood Insurance Program as a uniform standard for establishing property insurance requirements. Massachusetts and other states also use the FIRM for floodplain management. The 100-year floodplain is determined by the edge of the water level of a flood that has a one percent chance of occurring each year.

³⁶ Based on MassGIS FEMA Q3 Flood layer data and calculations

³⁷ There is a process for seeking an amendment to the flood zone designation. See <http://www.fema.gov/national-flood-insurance-program-flood-hazard-mapping/change-flood-zone-designation-online-letter>.

Groundwater

Groundwater is a very important resource in Hudson, as the entire Town obtains its drinking water from wells operated by the Hudson Department of Public Works Water Division and a surface waterbody located in Berlin, Massachusetts. The Town of Hudson obtains its drinking water from six active sources: five groundwater wells and one surface reservoir. These sources are: Cranberry Well, Kane Well, Chestnut Wells #1, 2, 3 and Gates Pond. Another source, Rimkus Well, is an emergency backup. The three Chestnut Wells and the Kane Well are located within the same aquifer, which underlies the land between the Assabet River and Fort Meadow Brook.

The Massachusetts Department of Environmental Protection (MassDEP) implements four types of groundwater protection areas in order to protect a community's drinking water supply from contamination:

- **Interim Wellhead Protection Areas (IWPA)** are for those wells and wellfields that lack a MassDEP approved Zone II. The IWPA is a one-half mile radius measured from the well whose approved pumping rate is 100,000 gallons per day (gpd) or greater. Wells that pump less than this are subject to a radius proportional to the approved pumping rate based on a specified calculation.
- **Zone I** is a 400 foot protective radius around wells with approved yields of 100,000 gpd or greater.
- **Zone II** are areas of an aquifer that contribute water to a well under the most severe pumping and recharge conditions that can be realistically anticipated.
- **Zone III** are areas beyond the area of Zone II from which surface water and groundwater drain into Zone II.³⁸

The Chestnut Wells, Cranberry Well, and Kane Well aquifer lies within the Watershed Protection District, and the Town has an approved Zone II designation from MassDEP for these aquifer areas. Gates Pond, located in the Town of Berlin, has been filtered under the requirements of the Federal Safe Drinking Water Act. The Cranberry and Kane Wells were placed offline due to high levels of iron and manganese in order to complete a filtration project which would help reduce these levels. The filtration project entailed constructing a pipe system from the Kane and Cranberry wells to the Chestnut filtration plant. As of January 2014, the Kane well was put back in service (see Chapter 7 – *Public Services and Facilities* for more detail). The Rimkus Well, closed due to high levels of iron and manganese, is currently undergoing an evaluation to determine the feasibility of returning it to a reliable drinking water source and expanding its output. There is an interim well-head protection radius of ½ mile for the Zone II

³⁸ MassDEP Water Supply Protection Area Definitions.
<http://www.mass.gov/eea/agencies/massdep/water/drinking/water-supply-protection-area-definitions.html>

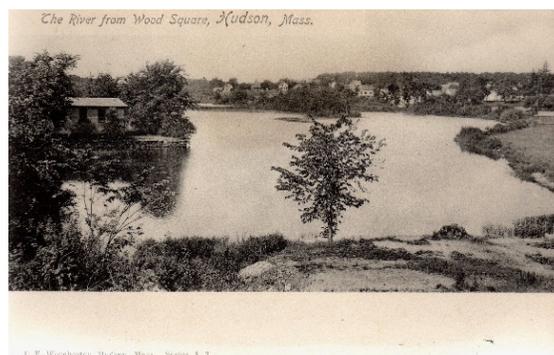
for this well also. For all wells, the Town owns or controls the Zone I's (a radius of 400 feet around each source). Figure 5-2, *Water Supply and Protection District*, identifies IWPA's, Zone I Wellhead Protection Areas, and Zone II Wellhead Protection Areas in Hudson.³⁹

Wetlands

Wetlands are protected by federal and state law due to their importance to the health and balance of the natural environment. They offer aesthetic, recreational, and biological value to a community and serve as a home to a variety of wildlife species.

Approximately 20 percent (1,548 acres) of Hudson is considered wetland areas.⁴⁰ These include bog, deep marsh, shallow marsh meadow or fen, shrub

swamp, wooded swamp coniferous, wooded swamp deciduous, wooded swamp mixed trees, and open water. Wetlands are shown on Figure 5-1, *Wetlands and Surface Water*.



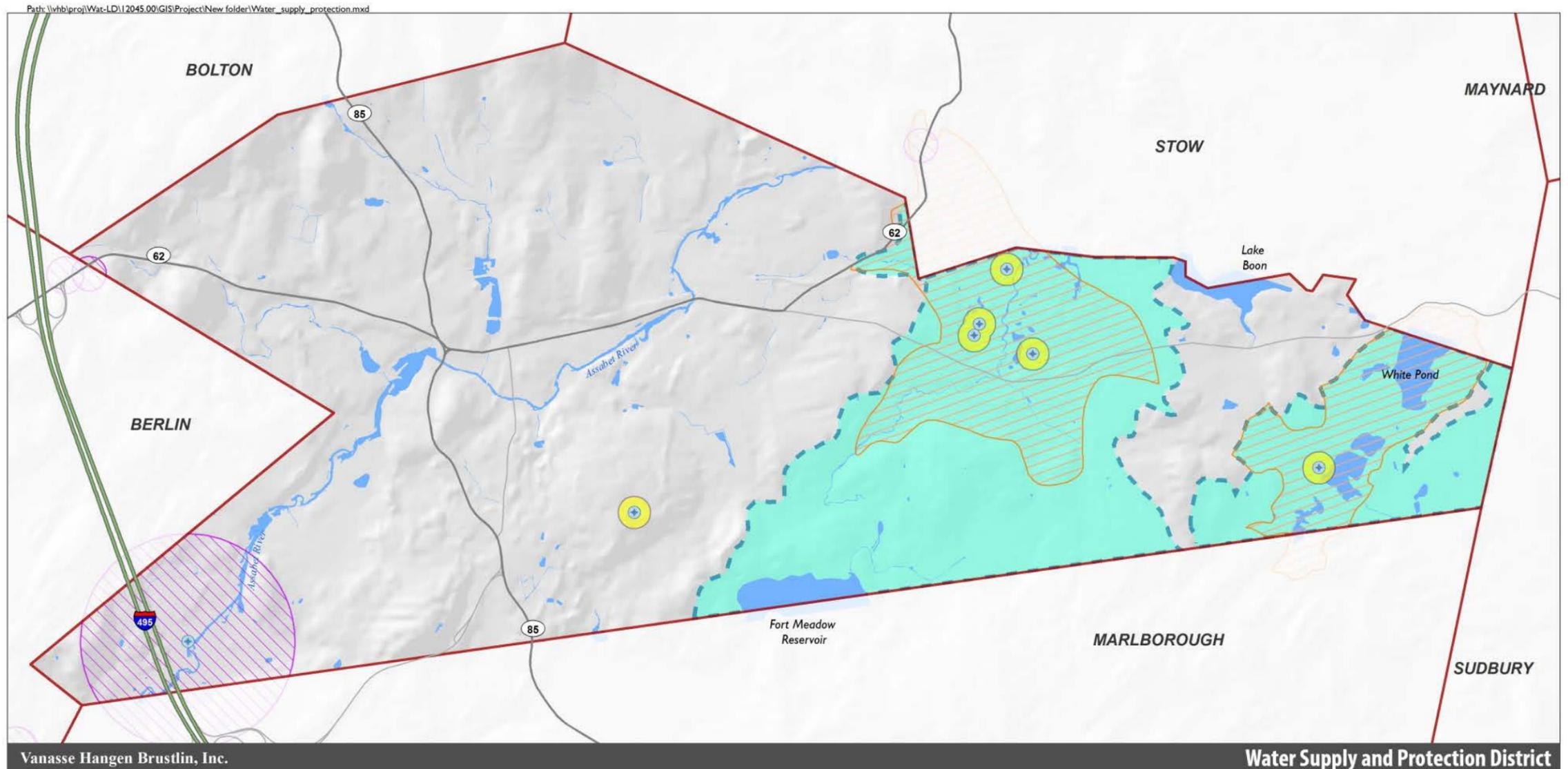
Vernal Pools

Vernal pools are unique natural resources that serve as wildlife habitat to amphibians and invertebrate animals. They typically fill with water during the fall or winter and remain filled through the spring and summer, drying completely in mid to late summer each year or every few years. Complete drying up of vernal pools prevents fish from establishing in these waterbodies, which makes them ideal for amphibians and invertebrates to thrive. The Massachusetts Natural Heritage & Endangered Species Program (NHESP) is the state agency which officially certifies vernal pools. The Massachusetts Aerial Photo Survey of Potential Vernal Pools has been produced by NHESP to display potential areas of vernal pools, until they are officially certified. There are approximately 57 potential vernal pools (partially or entirely) and five certified vernal pools (entirely) in the Town of Hudson based on NHESP datalayers and information, shown in Figure 5-3, *Wildlife Habitats*. The Town of Hudson should work with NHESP on certifying all potential vernal pools to ensure their protection.

³⁹ Hudson Open Space and Recreation, 2011.

⁴⁰ Based on MassGIS Wetlands layer data

Figure 5-2 Water Supply and Protection



Vanasse Hangen Brustlin, Inc.

Water Supply and Protection District

Legend

- Town Boundaries (MassGIS)
- Active Wellhead for Water Supply
- Interim Wellhead Protection Area (IWPA)
- Aquifer Protection Zone I
- Aquifer Protection Zone II
- Watershed Protection District
- Surface Water

Source: MassGIS, Town of Hudson

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Land Cover and Wildlife

Hudson's forested areas make up approximately 3,046 acres⁴¹ of land cover out of the Town's total area of 7,616 acres, consisting of mainly central hardwoods with some transition hardwoods, some elm-ash-red maple, and red and white pine.⁴² According to the NHESP, there are two plant species classified under the Massachusetts Endangered Species Act (MESA) as threatened or species of special concern that have been identified in Hudson. They include one species of special concern, the Climbing Fumitory (*Adlumia fungosa*); and, one threatened species, the Dwarf Bulrush (*Lipocarpa micrantha*).⁴³

Most open space areas in Hudson are scattered throughout the Town. According to Massachusetts Geographic Information Systems (GIS) data, there are approximately 1,037 acres of protected and recreational open space in Hudson.

NHESP in collaboration with The Nature Conservancy's Massachusetts Program, created *BioMap2*, a rigorous analysis and report on the state's biodiversity status. It combines rare species, natural community, and ecosystems data with spatial information in order to identify species and habitats impacts and develop concepts to protect these resources. *BioMap2* identifies Core



Habitats and Critical Natural Landscapes as part of the analysis. Core Habitats are those "areas that are critical for the long-term persistence of rare species and other Species of Conservation Concern, as well as a wide diversity of natural communities and intact ecosystems across the Commonwealth."⁴⁴ Protecting Core Habitats helps in conserving biodiversity. Various components can determine if an area should be considered a Core Habitat: rare species presence; other Species of Conservation Concern; priority natural communities; vernal pools; forest cores; wetland cores; and, aquatic cores. Critical Natural Landscapes are "large natural Landscape Blocks that are minimally impacted by development. If protected, these areas will provide habitat for wide-ranging native species, support intact ecological processes, maintain connectivity among habitats, and enhance ecological resilience to natural and anthropogenic disturbances in a rapidly changing world."⁴⁵ Components that determine Critical Natural Landscapes include: landscape blocks; upland buffers of wetland and aquatic cores; and, upland habitat to support coastal adaptation.

⁴¹ Based on MassGIS Land Use (2005) layer data for Forest areas.

⁴² NHESP BioMap2 Hudson Summary Report. Produced in 2012.

⁴³ NHESP MESA Rare Species Occurrences by Town.

http://www.mass.gov/dfwel/dfw/nhESP/species_info/species_viewer/species_viewer.htm

⁴⁴ NHESP BioMap2 Hudson Summary Report. Produced in 2012.

⁴⁵ *Ibid.*

According to the latest *BioMap2* analysis and report, the Town of Hudson contains 16 acres of Core Habitat, and no Critical Natural Landscapes. The Core Habitat partially or entirely includes one wetland core (Core 1995) and two Species of Special Concern (Core 1981). Core 1995 is located at the northeast corner of the Town, mainly located in Sudbury but just reaching across the Hudson town border. Core 1981 is located at the northwest corner along the Bolton and Hudson town border. These Core areas can be seen in Figure 5-3, *Wildlife Habitats*. The Species of Special Concern associated with Core 1981 are the Marbled Salamander (*Ambystoma opacum*) and the Four-toed Salamander (*Hemidactylium scutatum*).

According to the NHESP, there are two animal species classified under the MESA as species of special concern that have been identified in Hudson. They include the Eastern Whip-poor-will (*Caprimulgus vociferus*) and the Eastern Box Turtle (*Terrapene carolina*).⁴⁶

Resource Protection

Hudson contains a variety of important natural and cultural resources within its boundaries, such as water supply resources, open space and recreation areas, wetlands, historic resources, and waterbodies. The Town along with various organizations work towards the protection of these key resources through protection and planning efforts. This section describes some of those efforts, including reports and studies, of how the community's resources are protected and preserved for future generations.



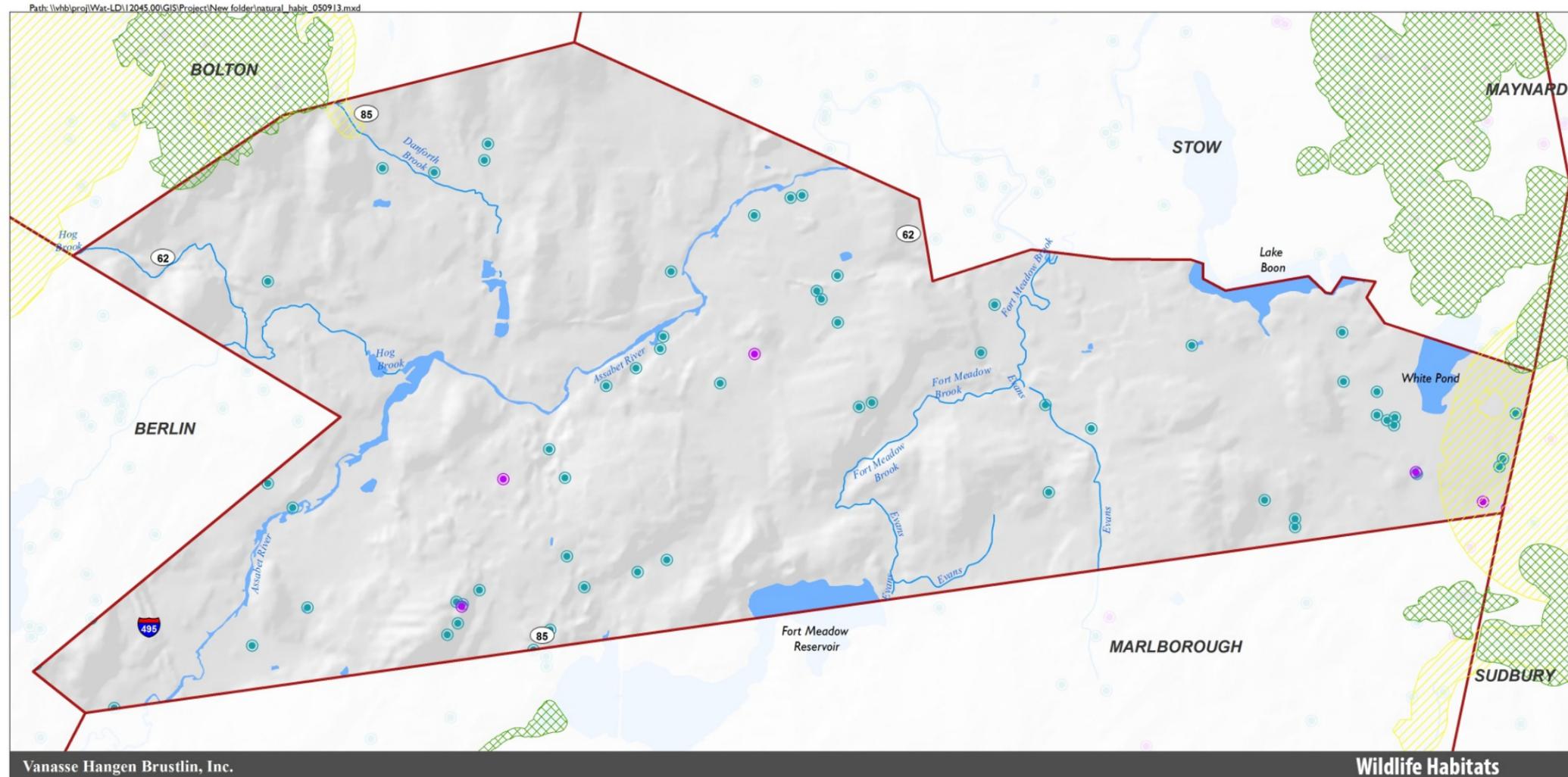
Natural Resource Protection

Hudson Conservation Commission

Hudson's Conservation Commission is made up of seven members appointed by the Board of Selectmen. The Commission has statutory responsibility for administering the Massachusetts Wetlands Protection Act, M.G.L. c. 131, s. 40. It also is responsible for managing all conservation land owned by the Town, initiating new acquisitions or conservation restrictions, reviewing major development proposals, and protecting wildlife habitats.

⁴⁶ NHESP MESA Rare Species Occurrences by Town.
http://www.mass.gov/dfwele/dfw/nhesp/species_info/species_viewer/species_viewer.htm

Figure 5-3 Wildlife Habitats



Legend

- | | | |
|---------------------------|---|---------------------------|
| Town Boundaries (MassGIS) | NHESP Priority Habitats of Rare Species | Rivers and Streams |
| Certified Vernal Pool | Biomap2 Core Habitat | Perennial |
| Potential Vernal Pools | Open Water | Intermittent |

Source: MassGIS

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The Town has not adopted more stringent local wetlands by-laws, which have been adopted by approximately 200 Massachusetts communities to better protect wetland resources. Such by-laws typically expand upon the jurisdiction of the state law by regulating work in the buffer zone more stringently or adding to the “interests” or values of wetland resources that are protected through the permitting process. Thus, the Town can enhance wetland protection through the adoption of a local by-law, although it may complicate the permitting process for projects that would have fallen outside of local regulatory jurisdiction.

Open Space and Recreation Plan⁴⁷

Hudson’s *Open Space and Recreation Plan* was updated in February 2011. The Town has been successful in acquiring, preserving and protecting key parcels since the 1999 plan, although many sites have undergone changes in this 12 year span. Some of the parcels that have been acquired and protected (either via conservation restrictions, deed restrictions, or other methods)



include the Sauta Cornfield on Brook Street, Assabet River Rail Trail properties from Marlboro to Wilkins Street, Mayo property on Route 85 and Fall Brook Road, and the Fossile Property on Brigham Street. For a complete list of acquired and protected parcels since during this time period, refer to the *Hudson Open Space and Recreation Plan, February 2011*.

Not only has the Town acquired and protected key parcels listed in the 1999 plan; significant steps have been taken towards recreation and open space goals. The most significant of these being the development of Hudson’s section of the Assabet River Rail Trail, a multi-use recreational rail trail that would pass through Marlborough, Hudson, Stow, Maynard, and Acton



when fully built out. The now completed Hudson/Marlborough section is 5.8 miles long and was opened to the public on September 24, 2005. Bicyclists and pedestrians alike heavily utilize the rail trail, which approximately spans in Hudson from Wilkins Street to the Hudson/Marlborough town line around Fitchburg Street. The Town also was successful in the development of the 19-acre

⁴⁷ *Hudson Open Space and Recreation, 2011*.

Sauta Complex located in the eastern part of Town into a multi-purpose athletic facility, which includes a baseball and soccer fields. Other accomplishments since the last updated Open Space and Recreation Plan in 1999, include:

- Development of an urban park in downtown along the Assabet River, with amenities such as a skating park, splash pad, playground, and pavilion.
- Purchase of a 6+ acre parcel adjacent to Hudson High School, along the Assabet River, for recreation and conservation purposes.
- Amendments to the zoning bylaw in order to preserve open space areas, and target new growth areas
- **Open Space and Residential Development (OSRD)** – allows greater flexibility while encouraging the permanent preservation of natural resources.
- **Accessory Dwelling Unit By-Law** – allows residents in single family neighborhoods, the opportunity to develop moderately priced rental units to meet the needs of smaller households, while preserving residential character of the neighborhood.
- **Adaptive Re-Use Overlay District** – encourages the reuse of existing buildings and allows mixed use development.

Hudson's Five Year Action Plan outlined in the 2011 Open Space and Recreation Plan lists goals, objectives, and action items to accomplish within the five year time span of the plan's completion date. Through 2016, the Town plans on the following actions:

- Acquiring parcels of land around water supplies such as those on River Road and near the Cranberry Well and Maynard Reservoir
- Dredge Tripps' and Pickle's Pond to prevent eutrophication
- Increase signage along streams indicating stream health and flow information; develop reforestation programs for conservation and recreation lands
- Designate lands along the Assabet River for scenic views
- Replace Cherry Street playground equipment
- Investigate properties for community gardening
- Connect River Road properties with Gates Pond and Assabet River
- Encourage developers to build according to conservation by-laws.

To view the list of all action items, schedule, and responsible parties for the action items, refer to the *Hudson Open Space and Recreation Plan, February 2011*.

Community Preservation Plan⁴⁸

In 2006, Hudson accepted the CPA statute and approved a surcharge on real property of 1 percent. With the Town's surcharge and all state matching funds, Hudson has received \$2,314,813 in the past five years for CPA funding, which is managed by the Community Preservation Committee.

Since the total amount of money raised through CPA includes the state matching grant, the Town could consider leveraging that funding source further by providing additional appropriations to the CPA in order to increase the state match.

The Community Preservation Committee gives preference to those proposals which address multiple general criteria, consistent with state guidelines. The general criteria for proposals are described in Hudson's Community Preservation Plan (Figure 5-4).



Community Preservation Act

The Community Preservation Act (CPA) is a state law that allows communities to adopt a property tax surcharge, with revenues from this surcharge to be used for open space preservation, the creation of affordable housing, preservation of historic buildings and landscape, and the creation of recreational opportunities. Dependent on the total number of communities in Massachusetts participating in the CPA and the number of deed transactions that generate fees for the fund, the state matches the town's surcharge revenues.

At least 10 percent of the town's revenue generated annually by the CPA must be spent or reserved specifically for historic preservation, open space, and community housing. No more than 5 percent is utilized for administrative costs. The remainder of the revenue can be spent or reserved for recreation projects, in addition to historic preservation, open space, and community housing.

⁴⁸ Town of Hudson Community Preservation Committee. *Community Preservation Plan*. Updated January 2013.

Figure 5-4 General Criteria for CPA Proposals in Hudson

- Projects eligible for CPA funding must meet at least one of the requirements outlined in the legislation; specifically:
 - The acquisition, creation and preservation of open space;
 - The acquisition, preservation, rehabilitation and restoration of historic buildings or landscapes;
 - The acquisition, creation and preservation of land for recreational use;
 - The acquisition, creation and support of community housing;
 - The rehabilitation and restoration of open space, land for recreational use, and community housing that is acquired or created using the monies from the CPA fund.
- Projects that are consistent with the Town's planning documents and are acknowledged in at least one of the following: Community Development Plan, Open Space and Recreation Plan, Long-Range Capital Plan;
- Projects that have received wide scrutiny and public input and/or have been supported by the town in some other fashion;
- Projects that meet more than one CPA purpose (i.e. open space, recreation and historic preservation);
- Projects that leverage additional public and/or private funding;
- Projects that have received the endorsement of other Town boards and committees;
- Projects that demonstrate practicality and feasibility within a realistic budget.

The Community Preservation Plan also establishes more specific criteria and goals related to open space, historic preservation, community housing, and recreation resources. Overall, the Town's CPA goals are to protect natural features, scenic vistas, farmland, wetlands, hill top views, and other natural resources, while managing growth and maintaining the community's character. This means maintaining wildlife corridors and important habitat areas along the rivers and streams, balancing commercial and residential growth without compromising historic features and natural beauty, and offering a diverse housing stock and variety of recreational resources to all residents.

The following criteria have been applied for the use of CPA funds for open space preservation:

- Project provides protection of threatened parcels along rivers and streams, adjacent to other town owned property, near agricultural open land or undisturbed natural areas;
- Project provides connections of unique parcels for conservation and recreation purposes for enjoyment of the natural environment and/or educational opportunities;
- Project provides connections with existing trails or potential linkages;
- Project preserves scenic views;
- Project protects drinking water quantity and quality;

- ▶ Project preserves important surface water bodies, including wetlands, vernal pools and riparian zones.⁴⁹

Since the Town adopted the CPA statute, CPA funds have been used to: acquire key parcels to conserve and increase natural resources (such as the Fossile Land acquisition and Schofield Land acquisition), rehabilitate and restore the senior center, restore the Main Street Cemetery veterans graves, engineer and develop key parcels (such as the Sauta Cornfield, Cherry Street site, and Fossile Land), complete work on the library windows of the Carnegie Building, renovate the Main Street Fire Station, expand community gardens, and transfer funds to the Municipal Affordable Housing Trust Fund. Other eligible potential projects that could be funded by CPA funds in the future include the creation of affordable housing and down payment assistance programs, trail design, and dredging of Tripp's Pond. CPA funds are an important financial resource used by the Town.

495/MetroWest Development Compact Plan⁵⁰

The 495/MetroWest Development Compact is a regional-level planning process that focuses priorities and strategies along the I-495 corridor while collaborating and integrating these priorities into regional and state strategies. Thirty-seven communities are included in the Compact Region, including Hudson. The objective of the *495/MetroWest Development Compact Plan* was to identify and evaluate Priority Development Areas (PDAs) and Priority Preservation Areas (PPAs). PDAs are those areas that are capable of supporting additional development or redevelopment. PPAs are those areas not currently protected that deserve protection due to significant environmental resources that may be present. Some areas may be identified as a combination of the two priority areas (PPA/PDAs) containing components of both development and protection. Throughout the planning process which involved analyzing existing conditions, meeting with town staff, and holding a variety of local, regional, and state public meetings and roundtables, nearly 800 priority areas were identified within the 37 communities in the Compact. These priority areas were identified in municipal planning documents, input from municipal boards and staff, and informed by the public discussions and forums. Those priority preservation areas identified in Hudson are shown in Table 5-2 along with their relevant address. The properties that have also been identified by the Hudson Open Space Plan as areas for potential protection are noted in bold to show particular areas of interest.

As part of the plan, municipalities are encouraged to advance the goals of the priority areas identified, and working with neighboring communities advance regionally significant projects.

⁴⁹ Town of Hudson Community Preservation Committee. *Community Preservation Plan*. Updated January 2013.

⁵⁰ Executive Office of Housing & Economic Development. *495/MetroWest Development Compact Plan*. March 2012.

Table 5-2 Hudson Priority Areas

Name	Priority Type	Significance
Hudson Gold LLC-Charter Oak	Preservation	Local
White Pond Road/Capasso Farms	Preservation	Local
Sarno Land	Preservation	Local
Saaristo Land	Preservation	Local
Curley	Preservation	Local
Carney (two parcels)	Preservation	Local
Carney (one parcel)	Preservation	Local
Yankee Golden Retriever	Preservation	Local
Doris Jenkins	Preservation	Local
Portuguese Club (two parcels)	Preservation	Local
Elks Club (two parcels)	Preservation	Local
Gay Land	Preservation	State
Sukis Land	Preservation	Local
Davis Land	Preservation	Local
Murphy	Preservation	State
Riverside Rod & Gun Club	Preservation	State
Ribber Land	Preservation	Local
Gutknecht	Preservation	Local
Standard Orchards	Preservation	Local
Kane	Preservation	State
Gerwick	Preservation	State
Hovagimian	Preservation	State
Kane (Main Street)	Preservation	State
Murphy Road	Preservation	Local
Fossile	Preservation	Local
Burris/Kittredge	Preservation	Local
Kane/Perkins	Preservation	Local
Donald Newcombe	Preservation	Local
Sauta	Preservation	Local
Standard Orchards	Preservation	State
Underwood	Preservation/Development	Local

Note: Bold text notes Hudson's preservation and protection priorities according to the Hudson Open Space and Recreation Plan, 2011.

Water Protection Planning Efforts

As the Town of Hudson contains important water features that make the community unique, a separate section on water protection efforts is warranted. Not only does the Assabet River flow through the Town, there are important drinking water supply features that need to be protected also. Hudson

additionally contains many different surface waterbodies ranging from brooks, lakes, and ponds, as noted earlier in the *Water Resources* section of this chapter. The following are efforts relevant to protecting Hudson's water features.

Organization of the Assabet Sudbury and Concord Rivers (OARS)

The Organization of the Assabet Sudbury and Concord Rivers (OARS) recently instituted a StreamWatch program to monitor the health of many of these important tributaries. OARS scientists take into consideration water flow, its effect on the river and ultimately the overall health for both fish and local drinking



water sources. Charts have been placed near various streams as well as new signs. Along with monitoring the water, they also identify and measure aquatic plants in areas behind dams. According to Executive Director, Allison Field-Juma, one of the primary concerns for the Assabet River is the eutrophication (a high concentration of nutrients, especially phosphates and nitrates that can lead to an excessive growth of algae).⁵¹ This eutrophication has taken place over many years, especially in dam impoundment areas, needs to be drastically reduced before the river can be fishable. Hudson has recently upgraded its wastewater treatment facility which improves the quality of wastewater effluent discharged to the Assabet River, improving the phosphorus flow. However, the river is still listed as an impaired water body by the U.S. Environmental Protection Agency. OARS notes that the water quality problem is especially evident in the summer months, when the river water level is low, resulting in a larger proportion of the water as effluent. In this area of the state, OARS along with the Army Corp of Engineers is investigating dam removal and will be holding workshops and community training sessions. Hudson should participate since there will be a significant impact with the removal of the Washington Street Dam.

UrbanRiver Visions⁵²

The Executive Office of Environmental Affairs ran the UrbanRiver Visions program in order to provide assistance to communities to create visions and establish planning efforts to revitalize urban riverfronts across the state. The UrbanRiver Visions process involved conducting a charrette in a community, creating a rendering a vision expressed by the community, and developing an action plan to achieve the vision. Seven communities are involved in the

⁵¹ Telephone interview with Allison Field-Juma, OARS Executive Director, May 15, 2013.

⁵² Executive Office of Environmental Affairs. UrbanRiver Visions. Hudson Charrette. October 8 & 9, 2002 Summary Report.

program, including Hudson. One of Hudson's most important natural features, the Assabet River, flows directly through the downtown area and provided Hudson the opportunity to take part in this program and create plans for future development and improvements.

During a two night community visioning session in Hudson, residents were asked to discuss ideas, goals, and potentials for the river and downtown area. Key initiatives that were discussed during the charrette included:

- ▶ Establishing a river park below the Washington Street dam and a town waterfront area above the dam with a riverwalk connecting the two destinations.
- ▶ Improving the pedestrian setting of South Street and the cross connections between Main Street and the Assabet River.
- ▶ Exploring further the potential of a town parking garage and the uses this would support such as river parks and a four-season performance facility.
- ▶ Encouraging growth of an urban village within walking distance of Main Street through the redevelopment of old mill building sites for residential uses.⁵³

Specific focus group questions, comments, and notes can be viewed in the *UrbanRiver Visions, Hudson Charrette Summary Report*.

As a result of the UrbanRiver Visions Planning Charrette, Hudson was awarded a Community Development Block Grant (CDBG) to design streetscape improvements for South Street and the interconnecting streets between Main and South Street, which included the burying of utilities. In 2005, Hudson received a \$19,661 UrbanRiver Visions Implementation Grant to complement the CDBG project for legal and right-of-way surveys associated with the South Street CDBG award. In 2006, the Town received another \$128,500 to restore canal walls and construct a canal walk along Tannery Brook. Related to the UrbanRiver Vision Plan, two additional CDBG were awarded; one for the South Street Parking lot and a second for the Cellucci Skate and Water Park.

⁵³ Executive Office of Environmental Affairs. UrbanRiver Visions website. Hudson – The Charrette and Plan Implementation. http://commpres.env.state.ma.us/urv_web/Public_Site/Hudson.asp.htm

Sediment and Dam Removal Feasibility Study – Assabet River, Massachusetts⁵⁴

The Assabet River, which flows throughout the Town of Hudson, currently does not meet state requirements for water quality due to pollutant levels. Excessive amounts of phosphorus are present in the Assabet River due to internal recycling from sediments and stormwater runoff, and discharges from wastewater treatment facilities located in Westborough, Marlborough, Hudson, and Maynard. Areas within the river behind dams experience variations in dissolved oxygen and excessive growth of aquatic vegetation, which are both caused by high levels of phosphorus. Adequate levels of dissolved oxygen are required to support aquatic life; therefore, high levels of phosphorus do not create ideal environments for aquatic life to thrive. There are nine dams located throughout the Assabet River, seven of these were developed originally for mill buildings to generate industry power.

The New England District of the United States Army Corps of Engineers (USACE) performed a sediment and dam removal feasibility study in order to provide planning assistance for the Massachusetts Department of Environmental Protection on feasibility of sediment and dam removal to reduce internal recycling of phosphorus levels. Ultimate goals for the Assabet River are to improve water quality in order to meet state water quality standards, and achieve a sustainable and restored aquatic ecosystem. The main focus of the USACE study is the goal of 90 percent reduction of phosphorus release by sediments, as required in the nutrient Total Maximum Daily Load (TMDL) for the river. A TMDL is a calculation of the maximum amount of a type of pollutant that a waterbody can receive while still safely meeting water quality standards.⁵⁵ The TMDL requires reductions of how much phosphorus wastewater treatment facilities are allowed to discharge into the Assabet River, and also requires a 90 percent reduction in sediment phosphorus. These requirements have been established in order for the river to achieve water quality compliance.

Dam Removal Benefits

Removing a dam has multiple benefits on water quality:

- Reduced residence time (amount of time the water remains in one area)
- Reduced biomass growth (algae and other plants) due to reduced residence time
- Reduced sediment phosphorus because there is less biomass growth
- Improved dissolved oxygen in shallow water depths

As part of the sediment and dam removal feasibility study, the USACE in conjunction with the engineering firm Camp, Dresser, and McKee (CDM) performed data collection and computer monitoring to determine plans to

⁵⁴ United States Army Corps of Engineers. *Assabet River, Massachusetts. Sediment and Dam Removal Feasibility Study*. September 2010.

⁵⁵ United States Environmental Protection Agency. Impaired Waters and Total Maximum Daily Loads. <http://water.epa.gov/lawsregs/lawguidance/cwa/tmdl/index.cfm>

achieve the 90 percent reduction in sediment phosphorus goal. Based on the results of the modeling studies, removal of four of the old mill dams would benefit water quality the most (Ben Smith dam in Maynard, Gleasondale dam in Stow, Hudson dam in Hudson, and Powdermill dam in Acton). See the *Dam Removal Benefits* box on this page for more information on how removing a dam can increase overall water quality. The removal of the Ben Smith dam would reap the most benefits, as it is a significant contributor of biomass growth (due to its large size and long residence time) and affects the Powdermill dam and further downstream river reaches. The Hudson dam located on Washington Street, along with the Powdermill dam mentioned above would have the next best benefits after the Ben Smith dam. Sediment removal (dredging) was also analyzed as part of the study, but was determined to be of little value and in some cases could have negative impacts on the river water quality. Therefore, sediment removal without dam removal was dropped as a solution in the study.

Potential dam removals combined with planned wastewater treatment facility improvements (required in the TMDL) would collectively reduce sediment phosphorus by approximately 80 percent, 10 percent less than the 90 percent TMDL target. Planned wastewater treatment facility improvements would result in a 60 percent reduction, while potential dam removals would result in another 20 percent reduction. The sediment and dam removal feasibility study also identified engineering and environmental considerations and issues that would be associated with a potential dam removal project (such as cost estimates and impacts to resources).

Environmental Challenges

Based on the information provided in this chapter and other Town of Hudson documents, Hudson faces various environmental challenges today and into the future that pose threats to the Town's natural resources. These challenges should set the basis for developing strategies and plans relevant to the community's natural resources goals.



An ongoing concern for the state, Hudson, and communities located along the Assabet River, is that related to high levels of phosphorus in the water. As mentioned earlier, the Assabet River does not meet state water quality standards due to high phosphorus pollution levels. These high levels are attributed to stormwater runoff and effluent from wastewater treatment facilities located along the river, including one located in Hudson.

Mentioned in further detail in the *Public Services and Facilities* chapter, Hudson receives its drinking water from one surface waterbody located in Berlin, Massachusetts and five groundwater wells, in which water is treated by two water treatment facilities. Concerns with high levels of iron and manganese in two of the groundwater supplies have triggered a feasibility study by the Department of Public Works Water Division. Hudson should consider the alternatives outlined in the study, as well as additional potential zoning to put in place in order to prevent further contamination and increase protection of wellheads.

As with many communities in the Commonwealth and country, there exists a struggle between the preservation of open space areas and meeting needs of development and a growing population. A majority of development in Hudson occurs in the western end of Town due to the proximity of the Assabet River. Protection of lands along the Assabet River remains a priority of the Town, as well as protection of major drainage basins. Hudson should continue to work towards preserving its valuable open space and natural resource areas.

The U.S. Environmental Protection Agency notes that warming winters in the Northeast “cause more precipitation to fall as rain rather than snow. Furthermore, rising temperatures cause snow to begin melting earlier in the year.”⁵⁶ While serious droughts are a problem mainly in the western United States, New England and Hudson specifically may experience heavier precipitation events with a warming climate that could “cause problems for the water infrastructure, as sewer systems and water treatment plants are overwhelmed by the increased volumes of water.”⁵⁷ The increases in water volumes will also impact surface water quality of Hudson’s lakes, ponds, rivers and streams as increased run off associated with heavier storms will also increase the amount of sediments, nutrients, and pollutants that enter these water bodies water supply. Gates Pond, one of the Town’s main sources of water other than ground water, will be particularly susceptible to increased pollutants as a result of heavier storms.

⁵⁶ U.S. Environmental Protection Agency. <http://www.epa.gov/climatechange/impacts-adaptation/water.html>

⁵⁷ CCSP (2008). *The Effects of Climate Change on Agriculture, Land Resources, Water Resources, and Biodiversity in the United States*. A Report by the U.S. Climate Change Science Program and the Subcommittee on Global Change Research. U.S. Environmental Protection Agency, Washington, DC, USA.

Historic and Cultural Resources

Historic Resources

The Hudson Community Preservation Plan lists the following goals for historic preservation:

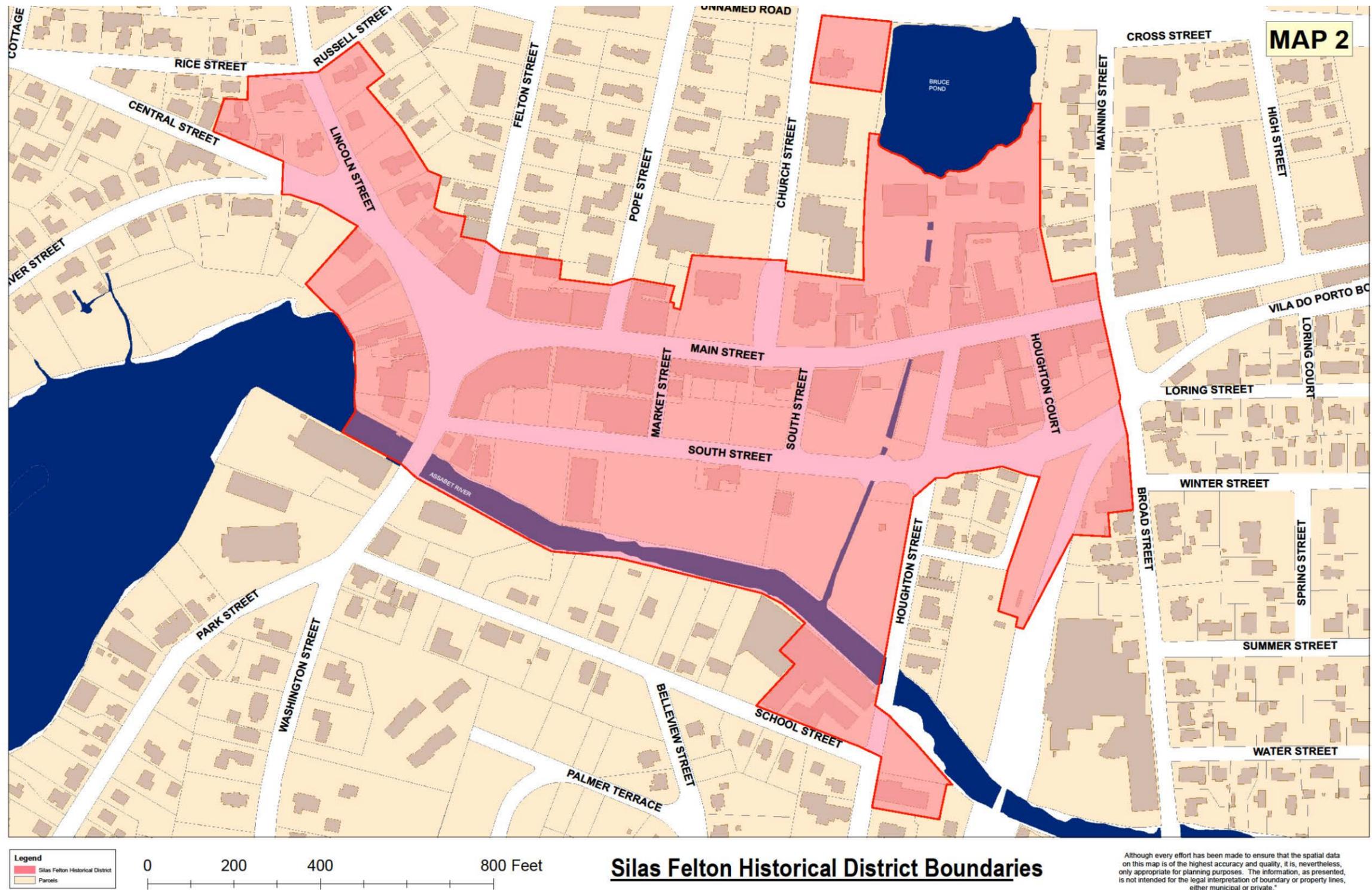
- Preserve and maintain Hudson's historic landmarks and historic districts.
- Preserve and protect publicly owned facilities of historic value.
- Re-evaluate the historic district boundaries to assure incorporation of historically significant buildings and properties within the district.
- Investigate State or National Historic Register designation for various landscapes and buildings.
- Maintain the Town's historic character.



The most significant historic resource in Hudson is the Silas Felton Historic District, which was established by Hudson's Special Town Meeting in November 1988. The District encompasses all of what is considered to be downtown Hudson. A fire in 1894 destroyed many of the buildings downtown. The reconstruction of the entire downtown shortly after the 1894 fire resulted in a downtown that is architecturally from that one period. At the time, 65 buildings within the District were identified as being historically significant, particularly because of their unusually unique and uniform architectural style and character representing a distinct time in the development of the Town.⁵⁸ This includes Town Hall and the Senior Center, both of which were recently renovated. The Town established rules and regulations to govern future development in the District, especially with respect to architectural character. Significant renovations and building alterations within the historic district require design review by the Silas Felton Historic District Commission (note that this differs from the Historical Commission as described below). Prior to the establishment of the District, a number of buildings were constructed that were thought to detract from the character of the area.

⁵⁸ The initial inventory of historically or architecturally buildings in the downtown area was included in the 1978 Hudson Historic Survey. Approximately 40 structures and sites were listed, along with some conceptual design improvements that could be implemented to revitalize downtown Hudson.

Figure 5-5 Silas Felton District



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The Town also adopted a Bed and Breakfast by-law, which is incorporated into the zoning by-laws. It is designed to foster the development of bed and breakfast establishments, in part, to help preserve the long term maintenance of the Town's larger and significant historic properties.⁵⁹

The Hudson Historical Society is a private organization interested in historical subjects pertaining to the Town of Hudson. They operate a museum on Broad Street.

Hudson has three properties that are individually listed in the National Register of Historic Places and also listed in the State Register: Felton Street School (the high school built in 1882 and closed in 1956), Goodale Homestead (an historic house built in 1702) and Col. Adelbert Mossman House (a Queen Anne style house built in 1895). The National Register is the official federal list of districts, sites, buildings, structures and objects that have been determined significant in American history, architecture, archaeology, engineering and culture.



In 2006, Hudson participated in the Massachusetts Heritage Landscape Inventory Programs through the Department of Conservation and Recreation along with the Freedom's Way Heritage Association. Heritage landscapes are special places created by human interaction with the natural environment that help define the character of a community and reflect its past. They are dynamic and evolving; they reflect the history of a community and provide a sense of place; they show the natural ecology that influenced land use patterns; and they often have scenic qualities.⁶⁰

That project identified the Assabet River Corridor as having great historical significance and placed emphasis on areas of the downtown that are of historic value. Additional areas cited in the report include the Central Street Neighborhood, Downtown Hudson, Gospel Hill, Mass Central Railroad ROW, the Park/Washington Street Neighborhood, the Pleasant/Pearl Street Neighborhood, and Wood Square. Descriptions of each area along with recommendations for each are contained within that report and are incorporated into this Plan by reference. Additionally, it is worth

⁵⁹ See Section 5.2.7 of the Hudson Zoning By-laws.

⁶⁰ Massachusetts Department of Conservation and Recreation, Freedom's Way Heritage Association, Hudson Reconnaissance Report, June 2006

noting that Hudson was a mill community and there are still four industrial mills and three lumber mills in existence.

The report also identifies three categories of “critical concern”. Churches were mentioned given the number of vulnerable and potentially significant churches that have not been inventoried by the MA Historical Commission (MHC). Given the heritage of railroads crossing through Hudson, the report identified the presence of railroad artifacts that should also be documented. Finally, the report mentions regional landscapes such as the Assabet River Rail Trail, the Assabet National Wildlife Refuge, and the local lakes and ponds that have regional significance and should be managed through cooperative arrangements with adjacent communities.

Hudson has eight documented ancient Native American sites dating back to the Late Archaic Period (6,000-3,000 B.P.) and four historic archaeological sites. Based on the known information about this region as well as the Native American activity in Hudson, it is likely that there are additional sites of archaeological significance in Hudson. The Massachusetts Historic Commission monitors and evaluates these sites, but the exact locations are kept confidential to limit public interference with these sites.

The Community Preservation Plan identifies the following criteria for funding historic preservation projects in Hudson:

- Protects, preserves, enhances, restores and/or rehabilitates historic properties, features or resources of historic significance as defined by the CPA;
- Project demonstrates a public benefit;
- Project demonstrates the ability to provide permanent protection for maintaining the historic resource.

Priority will be given to projects that preserve, protect, or enhance historic buildings or landscapes that are presently utilized for public municipal purposes.⁶¹

Cultural Resources

Hudson features a number of cultural events throughout the year including Hudson Fest, which is held each year after Memorial Day, a summer concert series in Wood Park and Cellucci Park, a Downtown Trick or Treat event for local children, and a Pumpkin Fest.



61 Town of Hudson Community Preservation Committee

The Town has a Cultural Council, which receives a \$3,500 annual allocation from the Parks and recreation budget. In recognition of the importance of the arts, the Cultural Council provides stipends to local arts programs.

The River's Edge Arts Alliance is based in Hudson. It is a non-profit organization that brings the full spectrum of the arts to the Hudson and Marlborough area. It offers opportunities to experience visual and performing arts.

The Hudson Portuguese Club was founded in 1928 to promote the Portuguese language and culture. In 2005, the Club opened its new headquarters building and restaurant on Port Street. The Hudson Portuguese Club sponsors many cultural groups, dance and music events, sports, feasts and educational programs.

The Massachusetts Cultural Council provides assistance to communities interested in establishing a Cultural District, a relatively new program. According to the Council, "a cultural district is a specific geographical area in a city or town that has a concentration of cultural facilities, activities, and assets. It is a walkable, compact area that is easily identifiable to visitors and residents and serves as a center of cultural, artistic and economic activity." It can help to attract more artistic and cultural enterprises, encourage business and job growth, expand tourism, preserve and reuse historic buildings, enhance property values, and foster local cultural development. This is a strategy that Hudson could consider.

Recommendations

Natural, historic, and cultural resources are important for a community to preserve, protect, and enhance as they contribute greatly to a community's character and quality of life. Various recommendations related to these resources have come out of this Master Plan and other Hudson documents and reports, especially Hudson's Open Space and Recreation Plan and the Hudson Reconnaissance Report. The following recommendations include those made in the previously referenced documents. Readers should refer to those plans for a complete list of recommendations relating to each plan.

Natural Resources Recommendations

Goal 1: Preserve, Protect and Enhance Hudson's Natural Resources.

- NR 1. Work with MassDEP to certify all potential vernal pools in order to better protect and preserve these areas.
- NR 2. Consider adoption of a local wetlands by-law. As mentioned earlier, wetlands in Hudson are governed by the Massachusetts Wetlands Protection Act. Local by-laws typically expand upon the jurisdiction of the state law by regulating work in the buffer zone more stringently or adding to the "interests" or values of wetland resources that are protected through the permitting process. The Town should first assess

and inventory its wetland resources to determine the need for a by-law and then consider adopting more stringent local wetlands by-law in order to better protect and preserve wetland areas.

- NR 3. Encourage developers to build according to conservation by-laws. Develop incentives and/or require conservation features of developments. These can include the set-aside of open space, reducing impervious pavement, the use of low-impact development and green infrastructure techniques to control stormwater runoff, and developing around the natural features of the site.
- NR 4. Create maintenance programs for existing conservation land to enhance scenic and natural areas as identified in the 2011 Hudson Open Space and Recreation Plan. ⁶²
- NR 5. Establish areas for enjoyment and recreational access to the natural environment by designating land along the Assabet River as scenic views and establishing greenways along selected portions of the riverbank through town.
- NR 6. Acquire scenic, connectable or threatened parcels through partnerships with other organizations and private funding sources.
- Request permanent easements from private landowners that will provide greenway linkage areas from Chapin Road to Wood Park on both north and south side of River.
 - Work with Wayside Rail Trail Group (Mass Central Line) for future trail connections through Hudson.
 - Strengthen link in the eastern end of town between the State Forest and Maynard Reservoir land. Connect with Sudbury Annex and State Forest through to Marlborough.
 - Acquire connections along River Road for better access to the Town Forest (Fosgate Property) and Gates Pond Reservoir, with easements to Assabet River over private property.

Goal 2: Improve water quality of streams, ponds, and the Assabet River.

- NR 7. Support USACE dam removal proposal. Removing the dam over Washington Street in downtown Hudson would help in improving overall water quality of the Assabet River.
- NR 8. Dredge Tripps' and Pickle's Pond to prevent eutrophication, which can decrease overall water quality.
- NR 9. Restrict overdevelopment and stringently control run off and drainage by encouraging subdivision development and design to include open space.
- NR 10. Continue cleanup efforts with OARS, SuAsCo Watershed Community Council and other conservation and civic groups.

⁶² Hudson Recreation and Open Space Plan, 2011. Pg. 59.

NR 11. Permanently protect these riverfront areas identified in the 2011 Hudson Open Space and Recreation Plan.⁶³

Goal 3: Protect Hudson's drinking water resources.

NR 12. Educate the public of the importance of aquifer protection, water quality of waterbodies, and open space and recreation areas through workshops, information brochures, and signage.

NR 13. Acquire parcels of land around water supplies, such as those on River Road and near the Cranberry Well and Maynard Reservoir. This will help in conserving water supplies and preventing contamination.

NR 14. Work with Town of Berlin to increase protected land at Gates Pond Water Supply and abutting properties in Hudson.

NR 15. Consider acquiring, conserving or purchasing the development rights of agricultural properties in the eastern end of Town on Gospel Hill and surrounding roads (Lewis, Chestnut, and Brook Streets) since they lie in the aquifer protection district.

NR 16. Identify future sites for water wells, including options in adjacent communities if financially beneficial to Hudson.

NR 17. Consider conducting a climate change risk assessment for Hudson's utilities and gauge projected capacity to provide service under changing climate conditions. The Metropolitan Area Planning Council is preparing a Regional Climate Adaptation Plan (to be completed in February 2014) that can serve as a guide for best practices.

NR 18. To adapt to heavier storm events related to climate change, protect the Town of Hudson's water quality by incorporating green infrastructure, such as permeable landscaping and pavement, into design whenever possible to manage stormwater onsite and restore the ability of the land to absorb stormwater.

Goal 4: Acquire, expand and enhance areas for open space and recreation.

NR 19. Link parcels for multi-purpose use: recreation land with conservation, school land with recreation or conservation, other non-profit conservation land with Town conservation or recreation land. Inventory potential parcels for creating connections between open space areas. Connecting these areas could create additional green spaces of 50 acres or more.

NR 20. Investigate potential properties for community gardening to increase local gardening and community food systems.

NR 21. Explore initiatives that came out of the UrbanRiver Visions charrette, such as, improving the pedestrian setting of South Street and the cross connections between Main Street and the Assabet River, and exploring the potential of a town parking garage.

⁶³ Hudson Recreation and Open Space Plan, 2011. Pg. 58.

- NR 22. Improve Kane and Chestnut Street Well land through forestry programs and/or recreation use with trails.
- NR 23. Link Clement Kane land on Stony Brook Road to Marlboro's trails on abutting parcel.
- NR 24. Obtain easements on Yankee Golden Retriever and Portuguese Club for path.
- NR 25. Discuss with private organizations and representatives of other government owned lands connecting parcels through conservation restrictions or permanent easements. Specifically discuss lands surrounding or abutting their property: Elks Club, Portuguese Club, Rod and Gun Club, N.E. Forestry Foundation, Sudbury Annex, Maynard Reservoir and the State Forest.
- NR 26. Explore opportunities to leverage additional CPA state matching funds through additional Town appropriations to the CPA accounts.

Goal 5: Support Town administration of natural resources and leverage funding opportunities to support conservation efforts.

- NR 27. Consider hiring a full-time Conservation Agent to oversee and pursue the Town's natural resources projects and goals.
- NR 28. Continue to implement the Town of Hudson's Open Space and Recreation Plan goals and five-year action plan actions.
- NR 29. Investigate property owned by State, Federal and non-profit organizations for protection status.
- NR 30. Use the Community Preservation Act to preserve and enhance open space pursuant to the January 2013 Hudson Community Preservation Plan.

Historic and Cultural Resources Recommendations

- HR 1. Use the Community Preservation Act for historic preservation pursuant to the January 2013 Hudson Community Preservation Plan.
- HR 2. The Town should continue its work to inventory the built environment, identify properties eligible for listing in the National Register of Historic Places, and pursue such listings. Additionally, the Town's Historical Commission and Historical Society should conduct a comprehensive inventory of historic homes in Hudson, including those that may be architecturally or culturally significant.
- HR 3. Consider the adoption of a Demolition Delay by-law. With a demolition delay bylaw, the Historical Commission can delay the demolition of historically significant properties in the hopes of finding an alternative to the demolition. Thus, the comprehensive inventory of historic properties is important if demolition delay is to be enacted.

- HR 4. Consider the preparation of a community-wide archaeological inventory which would identify areas of archaeological sensitivity, particularly those areas identified in the Hudson Reconnaissance Report.
- HR 5. Educate residents of the importance of maintaining the historic character of Hudson and its importance to their economic, aesthetic, and cultural investment in their community.
- HR 6. Landscapes identified in the Hudson Reconnaissance Report, especially the priority landscapes, should be further documented on MHC inventory forms. That documentation can be used in efforts to build consensus and encourage public support for their preservation.

Resources

For more information on various natural resources and historical resources topics, the following resources are suggested:

Town Resources

Town of Hudson Conservation Commission. Meets 7:00 PM. 1st & 3rd Thursday, every month. Town Hall.
http://www.townofhudson.org/Public_Documents/HudsonMA_BComm/conservation

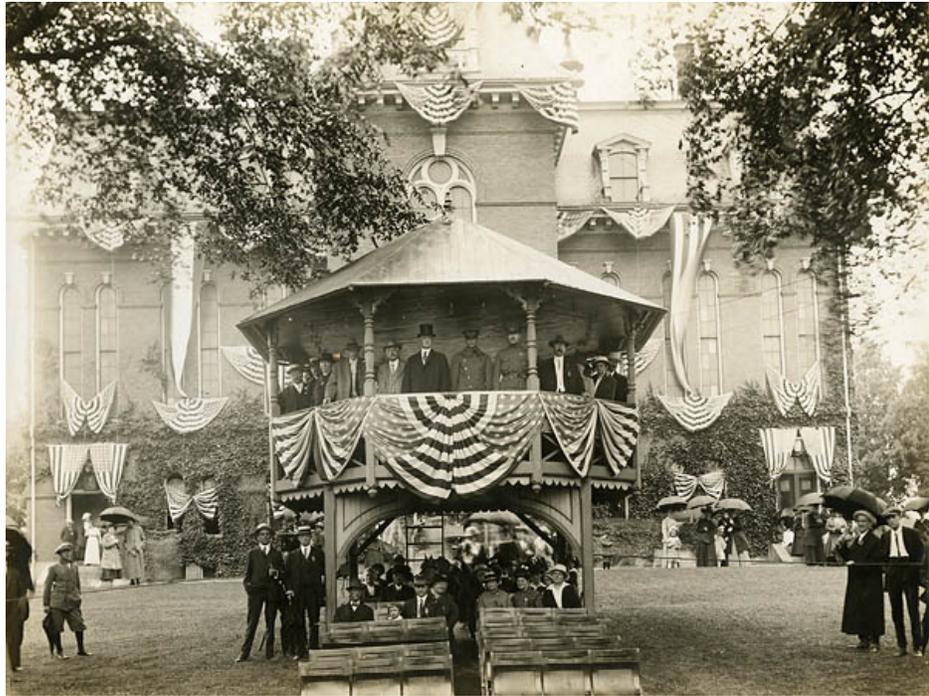
Historic District Commission. Meets 6:00 PM. 3rd Wednesday every month. Town Hall

Historical Society. Meets 7:00 PM. Last Tuesday of Month. First Federated Church, Central Street.

Hudson Open Space and Recreation Plan, 2011. Approved January 2012.
http://www.townofhudson.org/public_documents/hudsonma_bcomm/MPDocuments/Plans/OpenSpace/list.

Hudson Community Preservation Plan, Updated January 2013, Town of Hudson Community Preservation Committee,
http://www.townofhudson.org/Public_Documents/HudsonMA_BComm/Community%20Preservation%20updated%20January%202013.pdf.

Hudson Reconnaissance Report, Massachusetts Department of Conservation and Recreation, Freedom's Way Heritage Association, June 2006,
http://www.townofhudson.org/Public_Documents/HudsonMA_ComDev/Hudson%20Reconn%20Report%20Herita.pdf



Bandstand in front of Hudson Town Hall in 1916 (top).
Clark & O'Neil Market ca. 1900 (bottom).

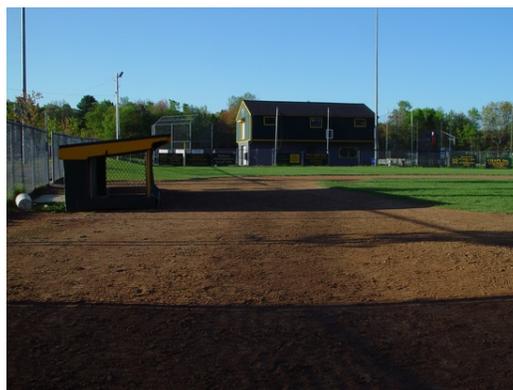
Source: Hudson Historical Society Collection

6

Open Space and Recreation

Introduction

According to the Massachusetts's Executive Office of Energy and Environmental Affairs, open space is "conservation land, recreation land, agricultural land, corridor parks and amenities such as small parks, green buffers along roadways or any open area that is owned by an agency or organization dedicated to conservation." The Open Space and



Recreation element must examine a community's desire to ensure a balance between the preservation of open space areas, and the future and current development trends of the community. Additionally, the present and future needs for recreation are assessed, along with the management of these resources. As communities seek to improve public health, the provision of recreational programs for people of all ages should be accommodated. Open space and recreational resources are addressed in this plan element while service and facilities needs will be addressed in Chapter 7 - *Public Services and Facilities*.

Communities in the Commonwealth are encouraged to develop stand-alone Open Space and Recreation Plans that includes an inventory of conservation and recreation lands, description of the community's environmental resources, and a vision of the future with goals, objectives, and a seven-year action plan. Open Space and Recreation Plans are required to be updated every seven years in order to qualify for grant programs for land acquisition or park improvements offered through the Division of Conservation Services.

Accomplishments since 1999

Hudson most recently finalized their Open Space and Recreation Plan in February of 2011 (originally approved in draft form in 2008). Hudson's Division of Recreation is currently working on updating its Open Space and Recreation Plan, as it expired and reached its five year mark in June 2013. The finalized 2011 plan provides a framework of accomplishments achieved since the previous version of the Open Space and Recreation Plan in 1999. Since 1999, the Town has acquired and protected various land parcels, developed new and improved old recreational sites and facilities, and achieved administrative accomplishments related to Town Hall staffing and zoning regulations. Some of the recreation, conservation, and administrative accomplishments since the 1999 Open Space and Recreation Plan are described below.

Recreation Accomplishments

- The development and opening of the Assabet River Rail Trail in 2005.
- The development of a multi-purpose athletic complex in the eastern end of Town – Sauta Field Complex.
- The donation of six acres of land for soccer fields in 2004 in the eastern end of Town, which were developed into soccer fields and opened in spring of 2013 – Sauta Cornfield.
- The opening of the Cellucci Skate and Splash Park on the Assabet River in 2008.
- Purchase and development (using CPA funds) of a 6.5 acre parcel along the Assabet River adjacent to Hudson High School, which will open in spring 2014 – Fossile Field.



Conservation Accomplishments

- Expansion of the Town-owned Danforth Conservation Property through acquisition of the nine acre Mayo Property.
- Key land acquired along the Assabet River on the northern shores to increase protection from adverse development – Warner/Loureiro.
- Through two separate private projects over 22 acres were protected – one through a conservation restriction (Freeman) and the other deeded for conservation purposes (Clement Kane).

- Seventeen acres acquired adjacent to the Cranberry Well for water resources protection and recreation – Schofield Property.
- Accepted a gift of 6.5 acres adjacent to Kane and Chestnut wells – Hunter Swamp – Parker.

Administrative Accomplishments

- Development of the Open Space and Residential Development (OSRD) Overlay District in 2007.
- The hiring of a Conservation Agent and full time Town Planner.
- Facilitation of agreements with developers to preserve open space and provide recreational facilities.
- The Town of Hudson is active in and has made great strides towards accomplishing the community's goals and objectives related to its open space and recreational resources. This chapter serves to describe open space and recreation in the Town of Hudson along with current goals and objectives related to these resources. Much of this information is taken from the 2011 Hudson Open Space and Recreation Plan and information gathered from an Open Space and Recreation Public Forum in January 2013 which community residents attended.

Open Space and Recreation Goals

- Establish a healthy balance between development and open space.
- Provide a wide range of recreation opportunities for all residents of the community.
- Increase recreational opportunities and open space resources by encouraging multiple uses and by creating linkages between open space and recreational properties.
- Enhance administrative capacity to support the Town's open space and recreation resources and facilities.

Open Space and Recreational Assets

Hudson contains a robust network of open space and recreational assets within and across its boundaries. A majority of Hudson's land use (46 percent) consists of forest, wetlands and open space parcels (with residential land use making up the second largest land area at 38 percent). With its prime location along major routes and being almost equidistant between Worcester and Boston, Hudson is appealing to residential, commercial/industrial, and retail development. Focusing planning on open space and recreation is an important element in the Town's future vision and needs to be balanced with increased development pressures. The following is a description of the Town's open space and recreational assets, both privately and publicly owned.



Private Parcels

Hudson has 318.91 acres of land in Chapter 61, 61A or 61B.⁶⁴ Hudson's eastern section of Town still retains the character of an agricultural community with a mixture of wetlands, cleared pastures, cropland and upland as well as mixed forests. Several privately owned farms on Gospel Hill are the largest open space parcels in Hudson and are located in this area, along with the Marlborough-Sudbury State Forest. Agricultural and forest areas surround the Town's Watershed Protection District here and are immediately adjacent to two of Hudson's major wells, Kane and Chestnut. The Charter Oak Country Club contains 208 acres of open space within the golf course boundaries. Hudson's eastern end is a prime location for large subdivisions because of the number of acres still left undeveloped. Public sewer is not located here, requiring developers to build septic systems. However, this type of development could impact water supplies if the septic systems were to fail. Preservation and conservation restrictions on large unprotected parcels in this section of Hudson would help to protect them from development.

The Assabet River is a valued feature of Hudson, flowing directly through the downtown area. Efforts are being made to increase waterfront public access.

⁶⁴ Massachusetts General Laws Chapter 61, 61A and 61B is designed to encourage the preservation and enhancement of the Commonwealth's forests, agricultural land and privately-owned recreation parcels by offering tax incentives to property owners for managing these lands for those purposes, and allowing the municipality the first option to buy (and protect) the land if landowner decides to sell.

Protecting small private parcels along the river shoreline in the central and western sections of Town remain to be high priorities for conservation and recreation opportunities in order to improve public access to the river. In 2008, the Town purchased a parcel between Hudson High School and the Elks Lodge property using Community Preservation Act Funds. A third of the parcel is a pond, another third is wetlands, and the last third is upland area. The upland area would be used for recreation, while the pond and wetlands along the street would be conservation land.

Public and Non-Profit Parcels

Hudson's Town-owned park and recreation inventory consists of 16 sites throughout Town totaling more than 126 acres. Hudson's parks are divided into four categories:

- Athletic complexes comprised of more than 20 acres with heavy use;
- Community parks that are both active and passive areas⁶⁵ comprised of under 10 acres that preserve unique landscapes;
- Neighborhood parks that "...remain the basic unit of the park system and serve as the recreation and social focus of the neighborhood"⁶⁶; and,
- Mini parks consisting of one or two acres offering unique, limited or isolated recreation opportunities.

Two athletic complexes located in the eastern and western section of Town contains baseball, soccer and football fields, as well as playground systems and wooded picnic areas. Community parks include a public beach and a passive park area along the Assabet River offering an annual summer concert series. Fifteen parcels totaling more than 45 acres, of neighborhood and mini parks are scattered throughout Town. Total school property consists of 119.7 acres including playground systems and ball fields. When participants during the January 2013 Open Space and Recreation Public Forum were asked if they felt they had easy access to either a passive or active park and recreation facility within their neighborhood, 62 percent responded that they were within walking distance of these amenities.⁶⁷ Being located within



⁶⁵ Active recreation involves cooperative or team sports activity (playgrounds, ball fields, swimming pools, skate parks). Passive recreation includes open space characteristics of a park and are low intensity forms of recreation such as running, walking, hiking, boating, and picnicking.

⁶⁶ *Park, Recreation, Open Space and Greenway Guidelines*. National Recreation and Park Association and the American Academy for Park and Recreation Administration, page 98.

⁶⁷ January 2013 Open Space and Recreation Public Forum Summary Report.

walking distance of these amenities is important for public health and recreational needs.

Completion of the Assabet River Rail Trail has been a major accomplishment for the Town, especially relevant to recreational resources. With the development of this rail trail came additional opportunities for scenic views of the Assabet River, increased hiking, biking, walking, cross country skiing, and snowshoeing, and an alternate means of transportation to Marlborough. Walking/hiking has been cited by 58 percent of the Open Space and Recreation Public Forum participants as being the most common activity when visiting a Hudson park or open space area.⁶⁸ The Assabet River Rail Trail is a portion of a larger trail network to be developed in Stow, Maynard, and Acton. The Town is currently working with



departments and organizations on a Pathways Project to add art along the trail. The project creates art exhibits in the six kiosks along the trail four times a year created by school students. A mural project for the tunnel under the 290 Connector, trail markers painted with indigenous animals to identify sections of the trail, sculptures, rock paintings, refurbished railroad artifacts, and interpretive signage are all elements proposed as part of the Pathways Project.

Town-owned conservation lands consist of five large parcels and several smaller parcels totaling approximately 158 acres, mainly including wetlands and forested woodlands. The Hudson Conservation Commission administers these lands, and the Department of Public Works maintains these lands. These lands are not necessarily accessible to the public. These lands do not include water resource areas, well fields, water tanks and water bodies under the administration of the Department of Public Works, which total approximately 351 acres.

More than 407 acres (mainly in the eastern section of Town) of conservation land is owned by state, federal, and land trust organizations such as Sudbury Valley Trustees, the New England Forestry Foundation, the Division of Fisheries and

⁶⁸ January 2013 Open Space and Recreation Public Forum Summary Report.

Wildlife, the Division of Conservation and Recreation, as well as the Town of Maynard. The Hudson Elks Lodge, Riverside Rod and Gun Club, the Hudson Portuguese Club and Yankee Golden Retriever Rescue are non-profit organizations with property in Hudson (collectively includes ten acres of unprotected open space). The Town of Hudson should investigate any conservation restrictions or protection of all these parcels and work to protect them if they are not currently.

For more information on wetland areas, water features, groundwater/drinking water supply, and plans and initiatives to protect these resources, refer to Chapter 5, *Natural, Historic, and Cultural Resources*.

Open Space and Recreation Partnerships, Programs, and Initiatives

This section describes the partnerships and stakeholders who work on open space and recreation related goals for the Town of Hudson, recreation programs offered through the Town, and initiatives related to the open space and recreation needs and resources of the community.

Open Space and Recreation Partnerships

Hudson Division of Recreation

The Town of Hudson Division of Recreation is the Town's municipal department in charge of managing recreation lands, and running recreational programs in Hudson. The Division of Recreation's Mission Statement is "to provide the residents of



Hudson with a comprehensive leisure time program for those of all ages, while continually expanding and enhancing recreation facilities and opportunities keeping abreast of ever changing trends. Also to preserve open space and the natural features of Hudson that defines its character, identity and link to the past".⁶⁹ The Division of Recreation manages a robust network of recreational programs and activities year round, and has designed an informative, user-friendly website to find information and register online for these available programs and activities. Numerous programs are offered by the Division including: basketball, wrestling, swimming, tennis, track and field, football,

⁶⁹ Town of Hudson – Division of Recreation website. <http://hudsonrecreation.recdesk.com/recdeskportal/Home/tabid/1092/Default.aspx>. Accessed July 2013.

soccer, golf, boot camp, CPR classes, weight training, field hockey, a LEGO league, softball, and more. Many residents of all ages sign up for the recreation programs.

Multiple special events and activities are run by the Division of Recreation throughout the year. The annual Recreation Golf Tournament draws almost 150 participants every spring. The Wood Park Concert Series takes place every summer on Wednesdays at the Wood Park on Park Street. Similarly, the Cellucci Park Summer Concert



Series takes place on Thursdays and is geared towards families with young children. Pumpkin Fest is an extremely popular event that takes place October of every year. With fireworks, food musical entertainment, moon bounces, provided by area non-profit organizations, and much more, the Pumpkin Fest draws thousands of people. In 2011, Pumpkin Fest drew over 5,000 people from the area.⁷⁰ Another popular annual event run by the Division of Recreation is the George Chiasson Memorial Fishing Derby for children up to 16 years old. Over 150 children participate in the event at Tripp's Pond, which awards prizes for the first fish caught, the biggest fish, as well as the most fish caught in each age division.⁷¹

The Hudson Division of Recreation also manages a number of recreational facilities around the Town such as parks, athletic fields, Centennial Beach, a skate park, etc. Table 6-1 lists the recreational facilities in the Town that are used by the public. Centennial Beach is a publicly accessible beach for residents and non-residents to use. During the summer of 2012, a total of 1,370 beach passes were sold, including day and season passes for both residents and non-residents of Hudson.⁷²

70 Town of Hudson Division of Recreation

71 The MetroWest Daily News. *Kids angling for trout at annual Hudson fishing derby*. April 13, 2012.

72 Town of Hudson Division of Recreation

Table 6-1 Hudson Recreational Facilities

Facility	Address	Use
Apsley Park	Port and Riverview Sts	Passive along Assabet River
Assabet River Rail Trail	157 Washington Street	Bike path
Boutwell Complex	130 Chapin Road	Baseball, softball
Busch Memorial Field	69 Brigham Street	Ballfield
Cellucci Park	15 Houghton Street	Splash pad, summer concert venue
Centennial Beach	89 Fort Meadow Drive	Beach
Cherry Street Field	61 Cherry Street	Ballfield and playground
Farina Field	72 Cox Street	Ballfield
Farley Elementary	119 Cottage Street	Ballfield and playground
Forest Avenue Elementary	136 Forest Avenue	Ballfield and playground
Fossile Field	43 Brigham Street	Ballfield and fishing pond
Hubert School	119 Broad Street	Ballfield and playground
Hudson High School	69 Brigham Street	Ballfield and playground
Hudson Skate Park	29 South Street	Skate park
Intel Field	92 Technology Drive	Ballfield
Quinn Middle School	201 Manning Street	Ballfield and playground
Tripps Pond at Lamson Park	65 Green Street	Passive recreation fishing, walking trails
Liberty Park	5 Washington Street	Passive
Morgan Bowl & Track	120 Chapin Road	Ballfields, tennis, playground
Moulton's	21 Marion Street	Ballfield
Mulready Elementary	306 Cox Street	School recreation
O'Donnell Fields	69 Brigham Street	Ballfields
Riverside Baseball	120 Chapin Road	Baseball
Rimkus Clubhouse (HHS)	120 Chapin Road	Facilities for high school teams and DPW
Riverside Tennis Courts	69 Brigham Street	Tennis
Sauta Complex	538 Main Street	Ballfields and playground
Sauta Cornfield	Brook Street	Undeveloped
Warren Chamberlain Rinks	1 Municipal Drive	Skating and hockey
Wood Park	65 Park Street	Passive along Assabet River, playground and pavilion

Source: Town of Hudson Division of Recreation

<http://hudsonrecreation.recdesk.com/recdeskportal/Facilities/tabid/1096/Default.aspx>

As the Division of Recreation was in the process of updating the Town's Open Space and Recreation Plan coincidental to the preparation of this master plan, the Division designed a survey which included questions on the quality of activities offered by the Recreation Department, what recreational opportunities or facilities could be added, and what residents' priorities are for maintaining open space.⁷³ Approximately 340 people responded to the survey. Many of the residents' priorities and responses mirror the Town's goals and objectives already established for open space and recreation resources. For example, the residents' biggest priorities were to protect and preserve land around water supplies, establish facilities for the enjoyment of recreation, improve open space areas for recreation and increase maintenance of town fields.

⁷³ The MetroWest Daily News. *Survey helps officials craft Hudson's new open space plan.* June 24, 2013.

Conservation Commission

The Town of Hudson Conservation Commission is a group of seven members appointed by the Board of Selectmen with statutory responsibility for administering the Massachusetts Wetlands Protection Act, M.G.L. c. 131, s. 40. The Commission is also responsible for managing all conservation land owned by the Town, initiating new acquisitions or conservation restrictions, reviewing major development proposals, and protecting wildlife habitats.

Organization for the Assabet Sudbury and Concord Rivers

The Organization for the Assabet Sudbury and Concord Rivers (OARS) is a non-profit group whose mission is to “protect, preserve, and enhance the natural and recreational features of the Assabet, Sudbury, and Concord Rivers, their tributaries and watersheds, and to increase public awareness of the river’s values as important natural resources.”⁷⁴ As the Assabet River flows through the Town of Hudson, OARS has done work in the community relevant to the River’s water quality. One of the primary concerns for the Assabet River is that of eutrophication, caused by excessive nutrient loading into the water from stormwater runoff,

discharges from wastewater treatment plants, and presence of dams located along the River. These issues create inadequate habitats for aquatic wildlife and prevent recreational fishing to occur. Hudson has recently upgraded its wastewater treatment facility which improves the quality of effluent discharged to the River. OARS along with the United States Army Corps of Engineers plan on investigating dam removal, such as the Washington Street dam in Hudson, and will be holding workshops and community training sessions which Hudson should participate and undertake outreach to the public. For more information on the OARS work in Hudson and especially along the Assabet River, refer to Chapter 5, *Natural, Historic, and Cultural Resources*.



⁷⁴ Organization for the Assabet River website. Accessed June 2013.

Open Space and Recreation Initiatives

Just as there are various partnerships and stakeholders involved with the Town of Hudson's open space and recreation resources, the Town has additionally participated in various comprehensive planning programs related to these resources. The following are some of those programs.

Urban River Visions

The Urban River Visioning Initiative, run by the Executive Office of Environmental Affairs, helps communities create visions for revitalization of their urban riverfronts. Seven communities, including Hudson, were involved in the original Urban River Visioning Initiative. Hudson was chosen for this visioning process due to the Assabet River's presence flowing through the urban downtown center of the community. During a two night community visioning session in Hudson, residents were asked to discuss ideas, goals, and potentials for the Assabet River and downtown area. Key initiatives that were discussed during the charrette included the establishment of a riverwalk below the Washington Street dam, improving the pedestrian setting of South Street and the cross connections between Main Street and the Assabet River, exploring further the potential of a town parking garage and the uses this would support, and the encouragement of growing an urban village within walking distance of Main Street through the redevelopment of old mill building sites for residential uses.⁷⁵ Since the visioning session, the Town has received multiple implementation grants to further the revitalization of the Assabet River. In 2005, a \$19,661 grant was used to complete design, engineering, and legal work for streetscape improvements and burying utilities. In 2006, a \$128,500 grant was used to restore canal walls and construct a canal walk along Tannery Brook. For more information on the UrbanRiver Visions initiative, refer to Chapter 5, *Natural, Historic, and Cultural Resources*.

Community Preservation Act

The Community Preservation Act (CPA) is a state-wide legislation which allows communities to adopt a property tax surcharge, with revenues from this surcharge to be used for open space preservation, the creation of affordable housing, preservation of historic buildings and landscape, and the creation of recreational opportunities.

Dependent on the total number of communities in Massachusetts participating in the CPA and the number of deed transactions that generate fees for the fund, the state matches the town's surcharge revenues.

At least 10 percent of the town's revenue generated annually by the CPA must be spent or reserved specifically for historic preservation, open space, and community housing. No more than 5 percent is utilized for administrative costs. The remainder of the revenue can be spent or reserved for recreation projects, in addition to historic preservation, open space, and community housing.

⁷⁵ Executive Office of Environmental Affairs. UrbanRiver Visions website. Hudson – The Charrette and Plan Implementation. http://commpres.env.state.ma.us/urv_web/Public_Site/Hudson.asp.htm

Community Development Plan and Community Preservation Act

The Town's development of the Community Development Plan in spring 2004, included a discussion on Hudson's natural resources (including open space and recreation). The Community Development Plan reiterates the Town's need to protect natural habitat areas for wildlife, maintain a balance between recreation and open space parcels, develop additional active recreation areas, and improve access to the Assabet River. Recreation and conservation accomplishments since 1999 show the importance of these resources to the Hudson community.

In 2006, Hudson accepted the Community Preservation Act (CPA) statute and approved a surcharge on real property of 1 percent. With the Town's surcharge and all state matching funds, Hudson has received \$2,314,813 in the past five years for CPA funding, which is managed by the Community Preservation Committee. The Committee accepts applications annually for projects to spend CPA funds on, reviews these projects, and makes recommendations at the May Annual Town Meeting or the November Special Town Meeting.

The Community Preservation Committee gives preference to those proposals which address multiple general criteria, established by the Committee. The Community Preservation Plan also establishes more specific criteria and goals related to open space, historic preservation, community housing, and recreation resources. Overall, the Town's CPA goals are to protect natural features, scenic vistas, farmland, wetlands, hill top views, and other natural resources, while managing growth and maintaining the community's character. This means maintaining wildlife corridors and important habitat areas along the rivers and streams, balancing commercial and residential growth without compromising historic features and natural beauty, and offering a diverse housing stock and variety of recreational resources to all residents.

The following criteria have been applied for the use of CPA funds for open space preservation:

- Project provides protection of threatened parcels along rivers and streams, adjacent to other town owned property, near agricultural open land or undisturbed natural areas;
- Project provides connections of unique parcels for conservation and recreation purposes for enjoyment of the natural environment and/or educational opportunities;
- Project provides connections with existing trails or potential linkages;
- Project preserves scenic views;
- Project protects drinking water quantity and quality;
- Project preserves important surface water bodies, including wetlands, vernal pools and riparian zones.⁷⁶

⁷⁶ Town of Hudson Community Preservation Committee. *Community Preservation Plan*. Updated January 2013.

The following criteria have been applied for the use of CPA funds for recreational resources:

- Project proposes acquisition of land for active and passive recreation uses;
- Project maximizes or expands the use of town owned land;
- Project increases the range of recreation opportunities for residents of Hudson;
- Project serves a significant number of residents;
- Project jointly benefits conservation and recreation goals and objectives outlined in the Open Space and Recreation Plan;
- Project restores and rehabilitates facilities for better use.

Since the Town adopted the CPA statute, CPA funds have been used to: acquire key parcels to conserve and increase natural resources (such as the Fossile Land acquisition and Schofield Land acquisition), engineer and develop key parcels (such as the Sauta Cornfield, Cherry Street site, and Fossile Land), and expand community gardens. Other eligible potential projects that could be funded by CPA funds in the future include trail design and dredging of Tripp's Pond. CPA funds are an important financial resource used by the Town, especially for open space and recreational resources.

Freedom's Way Heritage Landscape Program

The Freedom's Way Heritage Landscape Program, administered by the Massachusetts Department of Conservation and Recreation, aimed to inventory and document heritage landscapes throughout the Commonwealth in order to become a National



Heritage Area (a federal designation made by the National Park Service and Department of the Interior). The designation would recognize, preserve, promote, and interpret the historical, cultural, and natural resources of the region. In each community who participated in the Program, the methodology consisted of public meetings with residents, members from boards and commissions, and representatives from local organizations, in order to create a list of heritage landscapes in the community based on participants' input. Community members were then asked to select up to 10 priority landscapes that were considered most significant and unprotected based on the master list of landscapes. Fieldwork sessions followed the public meetings to gather information on the landscapes such as physical characteristics and issues

confronting each one. In Hudson specifically, 113 total landscapes were chosen as heritage landscapes (the highest out of all communities involved) in which eight of these were considered priority landscapes.⁷⁷

- Assabet River Corridor
- Central Street Neighborhood
- Downtown Hudson
- Gospel Hill
- Mass Central Railroad ROW
- Park Street/Washington Street Neighborhood
- Pleasant Street/Pearl Street Neighborhood
- Wood Square

This study assisted the Town of Hudson (and all communities involved) with identification of key natural landscape areas in order to better protect them as cultural, historical, and natural resources. Some of these parcels have been identified by the Town in other cases as key areas to protect.

Open Space and Recreation Needs

A majority of the developed land in Hudson is located in the western section of Town due to the presence of the Assabet River flowing through this area and the resource it provided to historical industry. As this area becomes more developed and dense, runoff from impervious surfaces and lawn maintenance becomes a concern for water quality of the Assabet River. Lands along the Assabet River must be protected in order to conserve the River, and increase public waterfront access.

The Town is involved with local organizations (SuAsCo Watershed Community Council, Assabet Consortium, and OARS) to help with developing solutions and techniques to improving water quality. For example, the SuAsCo Watershed Community Council has developed posters, brochures, and public hearings to inform the public of the importance of “Keeping Stormwater Clean”. The brochures describe what to do and what not to do when caring for your lawn, garden, and vehicles. The Intel company located in Hudson has established a \$1.5 million Assabet Watershed Groundwater Recharge Fund in



⁷⁷ Department of Conservation and Recreation Freedom's Way Heritage Association. *Reconnaissance Phase Final Report. Freedom's Way Landscape Inventory*. Massachusetts Heritage Landscape Inventory Program. 2006

order to support large and small scale projects that capture, store, and recharge stormwater into natural aquifers. The Town needs to continue collaboration with these groups and work towards keeping residents informed of the potential effectiveness of water quality improvement alternatives that will also improve wildlife habitat areas. Educating the public of water quality issues and ways to improve it individually will help contribute to resolving this issue also.

Acquiring parcels that contribute to creating connections and linkages between open space and recreational areas is something the Town should be continuously achieving. During the January 2013 public forum, better connections between neighborhoods and parks was chosen as the second highest way Hudson neighborhoods can be better served (28 percent), and connectivity of open spaces/trails was the second most important issue regarding the Town's recreational and natural open spaces (16 percent).⁷⁸ Many Chapter 61 and 61A parcels are located in the eastern section of Town. The Town has first right to refusal for these properties if the properties were to be sold. Ongoing discussions and good communication with present landowners of these parcels creates positive relationships and could ensure that the Town would be contacted first if the property were to be sold. Identifying preservation and conservation restrictions on parcels in the eastern more rural section of Hudson will assist in protection of these important parcels also. Development in this area could impact water supplies, and affect Hudson's rural character that remains. Connections recommended for the Town to explore between open spaces during the January 2013 public forum included a boat launch behind downtown's Fire Station along the Assabet River⁷⁹, walking trail from Cellucci to Liberty Park, development of the Mass Central Rail Trail (proposed for a rapid transit rails to trails), increasing sidewalk systems, and extension of the existing Assabet River Rail Trail to Maynard and Stow.



In order to keep up with urban development in the Town while also retaining adequate open space and recreational facilities, existing facilities and areas need to be expanded upon. Properties surrounding the Town's water supplies should be investigated to better protect residents' drinking water. Vacant school lands should be greatly considered for sports field development or other opportunities. Expanding existing open space and recreational areas would also contribute to the goal of creating linkages and connections amongst these areas in the Town by

⁷⁸ January 2013 Open Space and Recreation Public Forum Summary Report.

⁷⁹ The Assabet River was additionally chosen as the number one spot for a boat launch in the Town of Hudson Division of Recreation survey administered Spring 2013 (42 percent of participants chose this location).

decreasing the gap between one parcel to the next. Developing a more robust open space and recreational network with connections is an overall need and goal of the community.

Figure 6.1 depicts Hudson's Open Space Action Plan. This map displays parcels that are open space assets in Hudson and areas that further protection is recommended.

Open Space and Recreation Recommendations

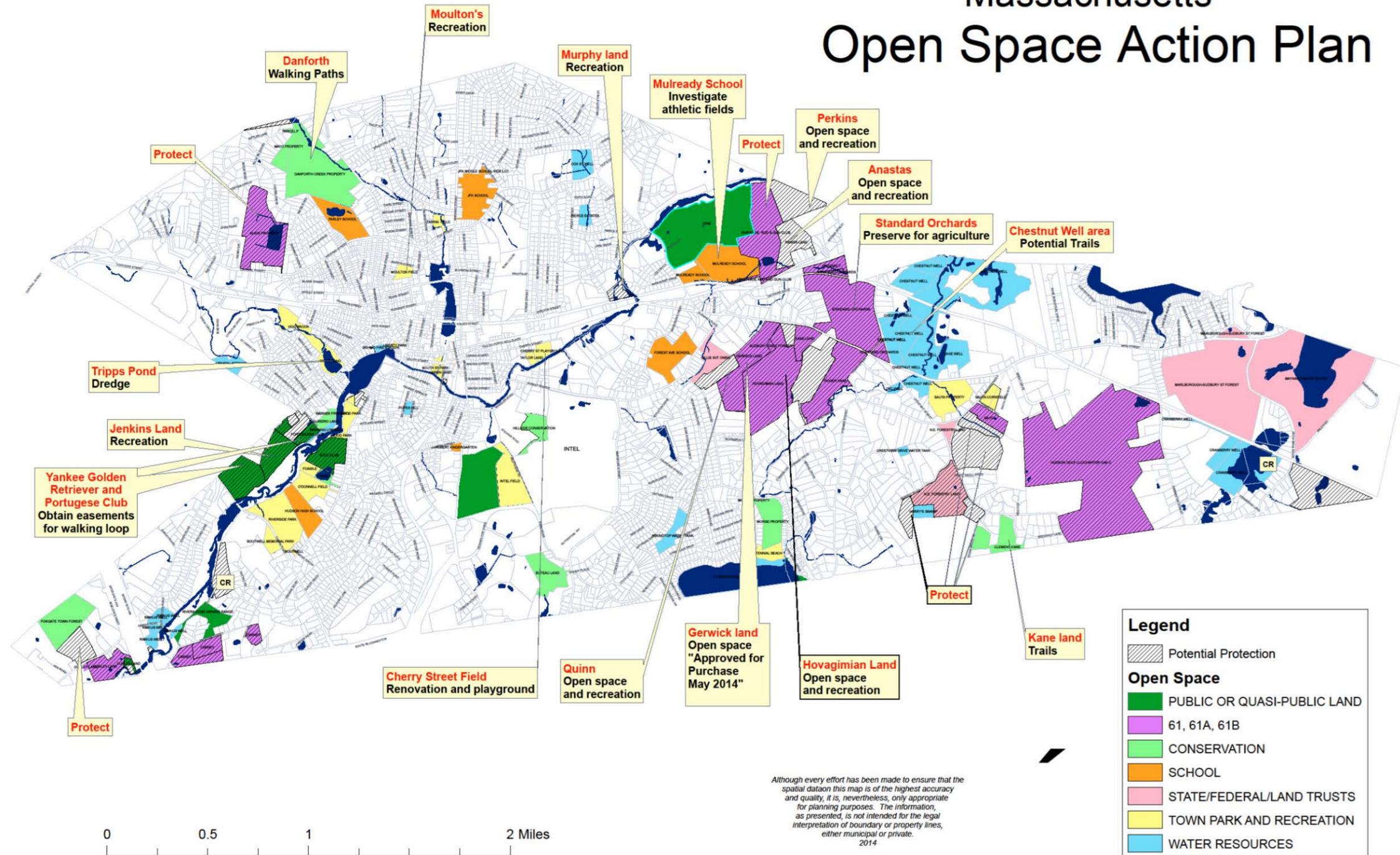
The following are open space and recreation recommendations established throughout this analysis that the Town should aim to accomplish to enhance the open space and recreational network and features in the community. Some of these recommendations are taken from Hudson's 2011 Open Space and Recreation Plan, 2004 Community Development Plan, and the January 2013 Open Space and Recreation Public Forum. Additional recommendations relating to recreational facilities may be found in Chapter 7 - *Public Services and Facilities*.

- OS 1. Investigate property surrounding Cranberry Well (and other wells) for Town acquisition to better protect drinking water supplies from contamination.
- OS 2. Pursue discussions with present landowners of Chapter 61 parcels, to create positive relationships while encouraging continued management of Chapter 61 lands for either agricultural, forest or recreations purposes. If the parcels were to be removed from the Chapter 61 program, it is hoped that the owner would provide advance notice to the Town prior to any contact with a potential developer of the land.
- OS 3. Consider parcels of land that may be utilized for the development of a dog park.
- OS 4. Seek out agricultural preservation and conservation restrictions on large parcels in eastern section of Town in order to protect water supplies in this area and retain Hudson's rural character in this section of Town.
- OS 5. Increase public waterfront access along the Assabet River through acquisition of parcels adjacent to the River.
- OS 6. Investigate vacant school lands for sports field development and to increase recreational opportunities.
- OS 7. Expand existing recreational facilities onto adjacent areas surrounding fields and schools.

Figure 6-1 Open Space Action Plan



Town of Hudson Massachusetts Open Space Action Plan



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- OS 8. Encourage multi-purpose use of facilities.
- OS 9. Continue to upgrade existing equipment at present recreation facilities.
- OS 10. Develop connections and linkages of open space and recreation areas through development of trails and acquiring parcels that would support this.
- OS 11. Create maintenance programs for existing conservation land to enhance scenic and natural areas.
- OS 12. Educate the public of the importance of protecting lands around water supplies and potential development, acquiring and expanding areas for open space and recreation, and improving water quality of the Town's water features through workshops, informational brochures, and signage. Many other outreach ideas were discussed during the January 2013 public forum, which should be explored.
- OS 13. Continue to work towards implementation of the Hudson Pathways Program. Develop educational signage for the Assabet River Rail Trail in Hudson displaying information of the historic railroad and importance of recreational areas/trails.
- OS 14. Investigate potential sites to be used as a Community Center, as there is a need for publicly accessible indoor recreational space.
- OS 15. Collaborate with the Department of Conservation and Recreation in the development of the Mass Central Branch Rail Trail along the former Mass Central Branch Railroad. Development of this trail should be consistent with transportation goals outlined in Chapter 8- Transportation
- OS 16. Continue to advocate for the construction of future phases of the Assabet River Rail Trail, including joining Stow and Maynard, and terminating in Action. This also includes developing the final segment in Hudson that connects to Stow.



Bruce Pond Railroad Bridge, Hudson, MA

7

Public Services and Facilities

Introduction

The public services and facilities portion of a master plan helps to guide decisions and develop a plan relevant to public buildings, utilities, and infrastructure in order to meet future needs of the community. Community facilities make it possible for municipal employees and volunteers to provide services for the public good. The adequacy of municipal facilities for the functions they serve is largely determined by four factors:

- The form, size, and organization of the community's local government;
- Projected population and economic growth;
- The community's land use pattern; and,
- The expectations of the community's population.

A town's ability to provide adequate facilities depends on effective capital planning and a commitment to implementation, asset management policies, and the amount of revenue available for local government operations. Hudson, like many other municipalities, receives very little funding from non-local sources and relies almost entirely on its own residents and businesses for financial support. Although it has basic core facilities for local services, some of Hudson's facilities are insufficient to meet current or future needs in order to accommodate the personnel, equipment, technology and records storage that government organizations need in order to run efficiently.

What is a Public Facility?

A public facility is any municipal property that has been improved for public purposes, such as a town hall, library, police or fire station, parks and playgrounds, and schools.

It also includes municipal services and utilities such as water or sewer service, and solid waste facilities such as a transfer station or recycling center.

Public Services and Facilities Goals

- Improve the comprehensive planning process for short- and long-term capital improvements for all town facilities and services.
- Given the often conflicting demands, establish priorities for building and facility upgrades and replacement.
- Establish new or improved/upgraded facilities and increase staffing for public safety to meet demands resulting from anticipated growth.
- Lead by example in community facilities and operations by establishing sustainability principles and initiatives.

Hudson's Local Government

The municipal services that Hudson provides are fairly typical of other Massachusetts communities. To residents and businesses in just about every city or town, many local government services qualify as “essential” regardless of whether the state mandates them. For example, municipalities do not have to provide solid waste disposal services, youth services, recreation programs, a senior center or a public library, but the towns that provide these services often consider them important to the quality of life and an indispensable part of what it means to be a community. The following are the municipal services that the Town of Hudson offers:



Table 7-1 Hudson's Municipal Departments

Department of Assessors	Geographic Information Systems
Board of Health	Information Technology
Building Department	Library
Department of Community Development	Light and Power Department
Executive Assistant	Planning Department
Finance Department	Police Department
Fire Department	Division of Recreation
Department of Public Works:	School Department
Public Administration	Board of Selectmen
Parks/Cemeteries/Forestry	Senior Center
Streets	Treasurer/Collector's Office
Water	Town Clerk
Sewer	Veteran's Services

Source: Hudson Town website, http://www.townofhudson.org/public_documents/index

In addition to its municipal services and departments, Hudson is home to a variety of boards, committees, and commissions working to advance and improve the community. The Town's executive decisions are made by the Board of Selectmen, a board composed of five elected members who serve as the primary policy makers for the Town. The Board of Selectmen is responsible for approving all employment appointments, authorizing new licenses, and executing contracts for the Town, amongst other tasks.

However, elected boards such as the Housing Authority, Hudson Light and Power and the School Committee are charged with setting and implementing policies related to the departments they oversee.

Aside from the Board of Selectmen, the Town's other active elected and appointed boards, committees, and commissions are shown below.

Table 7-2 Hudson Boards/Committees/Commissions

Assabet Valley Technical School Committee*	Economic Development Commission
Board of Assessors*	Fence Viewers
Trustees of Benevolent Funds*	Finance Committee
Cemetery Commission*	Historic District Commission
Constables*	Historical Commission
Board of Health*	Industrial Development & Finance Authority
Housing Authority*	Internal Traffic Committee
Board of Library Trustees*	Board of Registrars
Municipal Light Board*	Tripps Pond Commission
Park Commission*	Veteran's Graves
Planning Board*	Community Preservation Committee
School Committee*	JFK Building Committee
Master Plan Steering Committee	Fort Meadow Commission
Board of Appeals	Lake Boon Commission
By-Law Committee	Municipal Affordable Housing Trust Fund
Cable Television Committee	
Conservation Commission	
Council on Aging	
Hudson Cultural Council	

Source: Hudson Town website, http://www.townofhudson.org/public_documents/index.
Those marked with * are elected; all others are appointed

Existing Facilities and Services

Hudson's municipal services operate from multiple facilities located in different areas of the Town. Below is a description of these facilities including their location, functions, size, year constructed or renovated, and current condition. Based on this summary the two buildings, the Police Station and the Department of Public Works (DPW) building are noted as being in poor condition, and possess the greatest need for upgrades. The Town should focus its attention on these specific facilities in order for them to remain in proper working order. The Town has appropriated funding for the construction of a new combined Police and DPW building at the May 2014 Town Meeting.

Table 7-3 Hudson's Municipal Facilities

Facility	Location	Functions	Acres /SF	Year Built/ Renovated	Condition
Town Hall	78 Main Street	Government Offices	0.85 acre	Built in 1872	Good
Library	3 Washington Street	Library	0.57 acre	1905; additions in 1929 and 1966, renovations in 2002 and 2010	Good
Police Station	62 Packard Street	Public Safety	1.91 acre	1920, renovation in 1980	Poor
Fire Headquarters	296 Cox Street	Public Safety	23,900 sq. ft.	October 2004	Excellent
Fire Station 1	1 Washington Street	Public Safety		1895, renovation in 2014	Good
Auxiliary Station 2	Lower Main Street	Public Safety			Fair
Department of Public Works (DPW)	1 Municipal Drive	Administration Offices and Garage	3,600 sq. ft.	1969	Poor
Light and Power	Multiple locations	Building, power station, and power lines.	19.33 acre	Unknown	Good
Transfer Station	300 Cox Street	Solid waste		Unknown	Good
Gates Pond Water Treatment Facility	Gates Pond Road	Water treatment		1995	Good
Chestnut Street Water Filtration Facility	Chestnut Street	Water treatment		1995	Good
Wastewater Treatment Facility	1 Municipal Drive	Wastewater treatment		Major upgrade in 2007	Excellent
Senior Center	29 Church Street	Administration and community meeting rooms.	.74 acre	1859, major renovation in 2010	Excellent

Education

The Hudson Public Schools system is comprised of five schools (Hudson High School, Quinn Middle School, Forest Avenue Elementary, Farley Elementary, and Mulready Elementary), preschool programming, and the Hudson Maynard Adult Learning Center. Hudson's school district facilities, along with grade



levels and current condition, are listed in the following table. The new Quinn Middle School opened in September 2013 replacing the 50-year old JFK Middle School. The Hudson High School is also in excellent condition and was built in 2004. Aside from the new middle school, each school has some capital improvement needs, although some fall into the routine maintenance category. However, the total cost runs into millions of dollars. Planned upgrades at the schools include new roofs, asbestos abatement, additional science labs, and fire alarm replacements.

Table 7-4 Hudson's School District Facilities

Facility	Grade Levels	Condition	Enrollment (10/13)
Hudson High School	8-12	Excellent	1,144
Quinn Middle School	5-7	Excellent	692
Forest Avenue Elementary	K-4	Fair	336
Farley Elementary	Pre K-4	Good	528
Mulready Elementary	K-4	Fair	288
Hubert School/CHAPS	Pre-Kindergarten	Good	Closed

According to the Hudson School there were 2,988 students attending Hudson public schools in the 2013-2014 academic year. There are 238 teachers in the system for a student/teacher ratio of 12.4 to 1 (2013-2014 academic year), which compares with 13.6 to 1 for Massachusetts. The four year graduation for all students in 2013 was 88.6 percent, which is slightly higher than the 85 percent rate for Massachusetts as a whole. The dropout rate of 5.9 percent is also better than the 6.5 percent statewide average. The four year graduation for all students in 2013 was 88.6 percent.⁸⁰

In 2011, the Town spent \$12,551 per pupil, which rose to \$13,294 in 2012. The statewide average in 2012 was \$13,636.⁸¹

⁸⁰ MA Department of Elementary and Secondary Education School/District Profiles, http://profiles.doe.mass.edu/grad/grad_report.aspx?orgcode=01410000&orgtypecode=5&, accessed 4/26/14

⁸¹ *Ibid.*

Library

The Hudson Public Library was originally established in 1867 with 720 volumes in circulation. Today the library contains about 65,000 volumes in circulation and a variety of programs/services. Since its original establishment, the library has grown significantly and as a result has relocated to various spots and undergone extensive renovations and expansions. At one point, the



library was housed in Town Hall until it became evident that a larger space was needed. During this time the Town approved the development of an individual building for the Free Public Library and was opened to the public in 1905. Expansion of a second floor and new roof were added in 1929. In 1966-67, a two-story addition was added to the rear of the building. The original footprint of the building has remained since the 1967 expansion, but renovations have been made in more recent years. The parking lot has been reconfigured, public restrooms refurbished, sidewalks replaced with the addition of a ramp for handicapped access, etc. In 1997, the library transitioned from a paper card catalog to an automated circulating system. Recent work included a new roof and a \$500,000 renovation and expansion to the Children's Room in 2002. With this new construction, a craft area, playhouse, story hour room, and storage area were able to be added to the library, creating a warm and welcoming environment for children and families of the community. The Town won a "Leading by Example" award, in part, for the Library Window Project for the installation of 117 energy efficient double and triple glazed windows and shades with an anticipated 40 percent energy savings.

There is some concern regarding ADA accessibility to the library. The front door main entrance is not accessible, so patrons need to use the ramp to enter the building. There has been some discussion regarding the potential construction of a downtown garage which could establish a direct connection to the library that would enhance access to the building.

As mentioned earlier, the library offers various programs and services free to the general public. Book clubs targeted to all age groups, "One Book, One Hudson" reading events, children and teen summer reading programs, and a writers group are some of the free programs offered. The library also offers Zinio: Digital Magazine services, audiobooks, Freegal music downloads, and museum passes to library card holders.

Department of Public Works

The Department of Public Works (DPW) provides residents with an extensive variety of services on a daily basis amongst eight separate divisions: Public Administration, Parks, Cemeteries, Forestry, Streets, Vehicle Maintenance, Water, and Sewer. Within each individual division are distinct responsibilities and services such as roadway maintenance, sweeping, street lights, traffic lines, drainage, grass mowing, burials, tree removal and plantings, roadside brush, water supply treatment and distribution, sewer collection and treatment, snow removal, and utility billing. DPW currently employs a total of 49 people within each of these divisions as follows: Public Administration (8), Parks (5), Cemeteries (3), Forestry (2), Streets (9), Vehicle Maintenance (4), Water (8.5), and Sewer (9.5).

The administration building for the DPW located at 1 Municipal Drive is in poor condition. Given the breadth of responsibilities of the DPW, enhanced facilities for DPW administrative staff is one of the most pressing concerns facing public services in the Town. The DPW is responsible for major town functions including operating the two water treatment facilities. This is described further below.

Most of the DPW buildings were constructed during the 1960's and consist of vehicle storage, vehicle maintenance, equipment and material storage, the administration building, and wastewater treatment facilities. As mentioned earlier, the administration building will be before Town Meeting again for replacement in conjunction with a new Police Station. All DPW buildings are rated as being in fair to poor condition except the wastewater treatment facilities.

DPW has a pavement management plan which identifies the need for the expenditure of \$4.25 million per year to get the Town's roadways into a condition of good repair and reduce project backlog so that the Pavement Condition Index (PCI) is improving. The current annual budget is approximately \$750,000 between Chapter 90⁸² funding and Town appropriation.

Water Supply and Wastewater Management

The Town of Hudson owns and operates two treatment facilities that treat five of the six available water resources. They are the Gates Pond Water Treatment Facility and the Chestnut Street Water Filtration Facility. The Gates Pond Water Treatment Facility treats surface water from Gates Pond, the Town's sole water supply source located in Berlin, Massachusetts. The Chestnut Street Water Filtration Facility treats four groundwater well supplies (Chestnut Street wells 1, 2, and 3 and the Kane well). The remaining groundwater well supply (the Cranberry well) is currently only treated with chemical addition.

The Kane and Cranberry wells are subjects of remediation and reconditioning efforts to address elevated iron and manganese levels. The *Kane and Cranberry Wells Treatment Evaluations* report identified elevated levels of iron and manganese and studied various options for treatment of them. According to the report analysis, raw water iron concentrations for the Chestnut Street wells have also increased from 1.5

⁸² M.G.L. c. 90 provides funding for the state reimbursement of municipal road improvement projects such as resurfacing.

mg/L in 2005 to 4.8 mg/L in 2012, an increase of about three times over a 7-year time frame. Elevated levels of these naturally occurring elements in the water can cause unpleasant color and issues in plumbing and laundry fixtures. At extreme levels manganese, in particular, can be of some health concern. Three main alternative solutions were analyzed in the report along with cost estimates, based on discussions with the Hudson DPW. Each of the three alternatives also include upgrading existing treatment methods at the Chestnut Street Water Filtration Facility in order to handle current and future projected concentrations of iron and manganese.

- Option 1 involved conveying raw water from the Kane and Cranberry wells to the Chestnut Street Water Filtration Facility (in addition to the three existing Chestnut Street wells). This option centered treatment of all Hudson's groundwater resources in one location, which would be beneficial for operations and maintenance costs. However, any failure at the plant could impact all five groundwater supply sources. This would be the cheapest option to implement.
- Option 2 involved conveying raw water from the Kane well to the existing Chestnut Street Water Filtration Facility, and constructing a new water treatment facility near the Cranberry well for its treatment. This option would provide redundancy in facilities during emergencies, but would add to maintenance and operations costs.
- Option 3 involved constructing a new water treatment facility near the Cranberry well for treatment of both the Kane and Cranberry wells. This option would also provide redundancy in facilities during emergencies, but would add to maintenance and operations costs. This would be the most expensive option to implement.

The Town chose to proceed with Option 1. The Massachusetts Department of Environmental Protection (MassDEP) ultimately approved Hudson's plan. Work has been completed at the Kane Well and is ongoing at the Cranberry well. Further improvements will be made at the Chestnut greensand filtration facility to handle the increased volume at the treatment site. On January 9, 2014, the MassDEP conducted a site visit of the Kane Well and approved it for operations returning it to service at the end of January 2014. The well is now operational and is regularly tested to ensure compliance with regulatory standards for iron and manganese.

Pending completion of the work on the Cranberry well, the three Chestnut wells, Kane and Gates Pond are providing water to Hudson's residents. Hudson is temporarily using approximately 500,000 gallons per day of water from the Massachusetts Water Resources Authority through a connection with Marlborough.⁸³

As mentioned in *Chapter 5, Natural Resources*, Hudson recently upgraded its wastewater treatment facility. The facility improves the quality of wastewater effluent discharged into the Assabet River by removing nutrients, such as phosphorus. In light of high levels of phosphorus, the Assabet River is a concern, especially in summer months. Consequently, dam removal is being considered as a potential means to improve water quality. The nutrient Total Maximum Daily Load (TMDL) for the Assabet requires a reduction in the amount of phosphorus wastewater facilities are

⁸³ Wicked Local – Hudson. *Hudson to keep Cranberry, Kane wells offline*. July 2, 2013.

permitted to discharge into the River. Planned wastewater treatment facility improvements would result in a 60 percent reduction in phosphorus loading while potential dam removal would result in another 20 percent; these combined measures make up 80 percent of the 90 percent TMDL target.

The wastewater treatment facility has a design average flow of 3.05 MGD and a design peak flow of 9.2 MGD. The Town is operating under a new discharge permit requiring the facility to meet a stringent effluent limit of total phosphorus, total copper and other parameters within a specific deadline.

Stormwater

Most of Hudson's stormwater and groundwater drains into the Assabet River. Stormwater which flows over impervious surfaces collects pollutants, including phosphorus, which leads to lower water quality in Town waterbodies. As mentioned in *Chapter 6, Natural Resources*, Hudson is involved with several organizations to help with developing solutions and techniques to improve water quality. For example, the SuAsCo Watershed Community Council and the Organization for the Assabet River have developed materials to inform the public of the importance of clean stormwater. Informational materials provide the public with information regarding lawn, garden, and vehicle care and how they relate to stormwater issues. Continued Town collaboration with local groups will be necessary to address and improve water quality issues.

The Town of Hudson along with the Towns of Maynard, Stow, Sudbury, Wayland and the City of Marlborough, all contiguous members of the Sudbury-Assabet-Concord (SuAsCo) watershed, recently won a Sustainable Water Management Initiative (SWMI) Grant funded through MassDEP. The SWMI grant program is designed to assist eligible public water suppliers and municipalities with Water Management Act (WMA) permits by providing funds for planning assistance, demand management, and withdrawal impact mitigation projects in local communities. The project has four objectives:

1. Provide information and methods to assist municipalities in complying with both SWMI and WMA requirements.
2. Provide watershed-scale analysis that supports both economic development and an improved water balance.
3. Identify practical recharge opportunities within and between the selected municipalities in the SuAsCo watershed.
4. Educate local decision-makers about the opportunities to increase groundwater recharge.

Solid Waste and Recycling

The Town of Hudson does not currently provide curbside trash and/or recycling removal. The Hudson Board of Health currently oversees the operation of a Transfer Station, located at 300 Cox Street, for use by town residents. The Transfer Station is currently run by BP Trucking of Ashland, MA. To dispose of trash at the transfer

station, residents purchase a decal for \$10 to use through the year plus a cost per bag/item. In addition to the Transfer Station on Cox Street, the Town owns two capped landfills. The first is located on Gates Pond Road in Berlin and the second is located on Old Stow Road in Hudson.

Public Safety

Fire Department

The Fire Department built a new state-of-the-art facility on Cox Street for its Fire Headquarters in 2004. The facility is 23,900 square feet with 9,100 square feet dedicated to the apparatus floor. It contains five double bays and 13,800 square feet for support space, personnel quarters, and administration. The first floor houses the Emergency Operations Center, a training classroom that converts during emergencies into an operations center for Town agencies. In order to train and prepare firefighters for real life scenarios, a training tower was also developed. This 3-story simulated tower contains fire protection sprinklers, a fire suppression standpipe system, heavy-duty rope anchor points, a simulated manhole, and the availability to create theatrical smoke – all for the purposes of training and preparing the Town’s firefighters.



The development of the building was also created to take advantage of sustainable products to minimize harmful impacts to the environment. For example, the building is situated to make full use of the sun’s seasonal positions to minimize interior temperature changes, and materials such as linoleum were chosen for their lack of “off-gassing” (releases of gas that were trapped or absorbed in some materials). With the expanded spaces, a state-of-the-art training tower, and green products implemented into the design, the Hudson Fire Department Headquarters can better serve the community and keep the public safe.

The Town’s other fire station is located at 1 Washington Street and was originally built in 1895. There have been numerous renovations to the building since, with the installment of a new roof and windows in 2014 being the most recent upgrades. Interior improvements are scheduled for the next couple of years and the building needs a new floor. It is structurally sound and the Town has adequate capacity to meet its fire protection needs. There is one other fire station,

Auxiliary Station 2, which is currently not staffed and is used for emergency management and storage.

In addition to the Chief and Deputy Chief, the Department has 32 firefighters working four shifts.

Police Department

The Police Department, located on 62 Packard Street, was originally a public elementary school located on a 1.9 acre site. The mission of the Hudson Police Department is “to work harmoniously with all citizens of the community to create a safe and secure environment with emphasis on racial equality, fairness, integrity, and professionalism”. The Department includes a Chief of Police, Captain, two Lieutenants, six Sergeants, four Specialists, and 18 Patrol Officers, for a total of 32 officers. The Department also includes a three person staff consisting of a secretary, two clerks, and nine full-time and three part-time dispatchers. Additionally, the Department maintains up to ten reserve officers with five positions currently filled. Community programs include a prescription drug take back kiosk, a safety net program to rescue individuals prone to wandering, a summer youth academy, child safety seat inspections, Drug Abuse Resistance Education (DARE), Rape Aggression Defense (RAD) training, and radKIDS, which teaches children about personal safety.



The Police Station is deemed to be woefully inadequate to meet the Department’s and the Town’s current needs. The facilities are antiquated and do not meet public safety standards. Replacement of the Police Station is considered to be the top capital facilities priority. Funding for the new Police Station was approved at the May 2014 Town Meeting in conjunction with new administrative offices for DPW.

Hudson Light and Power

The Town of Hudson Light and Power Department services all of Hudson and Stow and parts of surrounding communities, delivering reliable, efficient and cost effective power. It is a tremendous asset to the Town, providing a dependable source of electricity for residents and businesses and keeping electric rates low for its customers. In addition to supplying affordable electricity, Hudson Light and Power

also offers free or discounted energy audits and energy conservation incentives and rebates for Hudson residents. A detailed description of the services provided by Hudson Light and Power is provided in *Chapter 10, Energy*.

Division of Recreation

The Division of Recreation's goal is to provide the residents of Hudson with a comprehensive leisure program for all ages while continually expanding and enhancing recreation facilities and opportunities. The Division also seeks to preserve open space and natural features within the Town that defines its character, identity, and link to the past.⁸⁴ Park and recreation property consists of 16 sites throughout the Town for a total of 126 acres. Hudson parks are classified into four categories:



- Athletic complexes comprised of over 20 acres with heavy use;
- Community parks that are both active and passive areas of under 10 acres that preserve unique landscapes;
- Neighborhood parks that serve as the recreational and social focus of the neighborhood; and
- Mini parks, which consist of one or two acres of parkland offering unique, limited, or isolated recreation opportunities.⁸⁵

There are dozens of different programs and leagues using the facilities including youth baseball, softball, and soccer. Hudson's two athletic complexes afford residents a variety of recreational opportunities in both the eastern and western ends of the Town with baseball, soccer, and football fields, as well as playground and picnic areas. Hudson's community parks include a public beach and a pristine passive park area along the shores of the Assabet River offering an annual summer concert series for residents of all ages. Neighborhood and mini parks consist of more than 45 acres scattered throughout the Town.⁸⁶

⁸⁴ Town of Hudson. *Division of Recreation*. http://www.townofhudson.org/Public_Documents/HudsonMA_Recreation/index. Accessed January 30, 2014.

⁸⁵ Town of Hudson. 2011. *Hudson Open Space and Recreation Plan*.

⁸⁶ *Ibid.*

Public schools also play a vital role in providing recreation opportunities. The three elementary schools have playground systems and ball fields that are used by the public after school hours, on weekends, and during the summer. There are nearly 120 acres of school property within the Town.⁸⁷



The completion of the Assabet River Rail Trail in Hudson is one of the most important recreational resources. It is used heavily for hiking, biking, walking, cross country skiing, and snowshoeing. The Town is working with the River's Edge Arts Alliance, ARRT, Inc., Hudson Police, Hudson Historic Society, and Hudson Public Schools on a Pathways Project that adds art along the trail. The Town envisions the Trail to be a transportation corridor, recreational resource, and a cultural and historic path going forward.⁸⁸

The Division of Recreation operates from Town Hall and has open office hours Monday through Friday from 8:30 AM to 4:00 PM. Staffing consists of a Director and Assistant Director of Recreation. Seasonal employees are also hired each summer to assist in running the recreational programs. Detailed information on recreation land and facilities can be found in Chapter 6, Open Space and Recreation.

Capital Planning

Hudson has a five year Capital Plan. Items for the capital plan are initially proposed by department heads and then brought to the Executive Assistant. Each project considered for inclusion in the plan is carefully developed with costs evaluated and alternatives considered. For instance, feasibility studies are typically done prior the initiation of any major building project. Also, DPW maintains a 20-year vehicle replacement list that is used to project the useful life of each piece of equipment and each vehicle so that the optimal replacement schedule can be determined. Mileage, condition, useful life of vehicles is all factored into vehicle replacements.

Typically, a public meeting is held in December or January by the Board of Selectmen to review and approve the plan. Once the capital plan receives approval from the Board it is then placed on the Annual Town Meeting warrant to obtain a vote of approval from residents. Prior to the Town Meeting vote, the Finance Committee also meets with Departments and reviews each item in the capital plan and makes a recommendation to the Town Meeting on whether or not to support each item.

⁸⁷ *Ibid.*

⁸⁸ Town of Hudson. 2011. *Hudson Open Space and Recreation Plan.*

The town typically funds the annual capital plan in the range of \$700,000 to \$1.2 million from its cash resources depending on available funds and the revenue climate from year to year. It then schedules borrowing items as needed for larger building projects and major infrastructure initiatives. Examples of items the Town would borrow for include water line replacement, sewer line expansions or replacements, new schools, and major facility renovations. The finance director and Executive Assistant maintain a 20 year debt retirement schedule which is a further set of data that informs large borrowing decisions so that debt and repayment can be scheduled in a way that does not overwhelm the operating budget.

CIP submissions in recent years include: police cruisers, roadway resurfacing, water main extensions, fire department protective clothing, recreational renovation, and building updates (e.g., school, library). Approved at the May 2014 Town Meeting, the Town has plans to borrow money to expand the police station and construct a new combination Police Station/DPW headquarters. Both buildings are currently in poor condition.

Public Services and Facilities Public Forum

The Town of Hudson hosted a public forum to discuss community services in June 2013. The focus of the forum was to examine the various municipal service functions performed by the Town and the facilities in which the various Town departments operate.

Recreational facilities that residents would like to see more of in the Town include large, multi-purpose fields, basketball courts, swimming pools, and a dog park. Residents thought that the biggest issues facing recreation facilities in Hudson were, in order of importance, maintenance, insufficient parks/fields, lack of lighting for evening use, parking, safety, and the condition of fields and equipment.

Residents also would like to see boat ramps; a community center with a gym; parks with mature trees and benches; a performance and rehearsal space; a community pool; and kayak tours on the Assabet. There is growing demand for recreational opportunities with adult and youth programs due to increased development over recent years. Additional land surrounding existing fields and schools is important and necessary; vacant school land should be investigated for sports field development.⁸⁹



⁸⁹ Town of Hudson. 2011. *Hudson Open Space and Recreation Plan*.

Regarding the Town library, residents felt that expanding parking was the highest priority followed by improved access to the building, and expanded/Sunday hours. Many residents also thought that a new police headquarters was very important or somewhat important; similar sentiments were shared regarding the DPW facility. Major issues with the DPW facilities include replacement of the administrative offices and garage facility.

Hudson will also face Town Hall capacity issues as the demand for town services increases with population growth. Top priorities identified for improving Town Hall include creating additional space for document storage, providing more office space, maintenance, and providing additional meeting spaces.

Public Services and Facilities Recommendations

Hudson, like many other communities in Massachusetts, is facing an uphill battle in trying to meet the needs of residents and businesses to provide cost effective services and to maintain and improve its public facilities. The Town, through its Capital Improvement Planning process, recognizes the need to plan, schedule, and budget for its capital investments.

The funding situation is exacerbated by two primary factors that were out of the Town's control. First, the nation faced a significant economic downturn during the 2008 recession, which stressed municipal budgets across the country. Second and somewhat related, the State of Massachusetts was not in a position to assist through grant programs or other initiatives.

PSF-1 The Town should improve its systematic process for developing, maintaining and implementing a CIP. The Town should continue its capital improvement planning process and update it on a regular basis. However, much of that planning is done by the individual departments, as well as by the School District. While that helps to establish priorities for each department, the plans need to be looked at in a coordinated and comprehensive manner so that the Town can better prioritize needs on a town-wide basis across all departments. The Town has a five-year CIP that list departmental requests and levels of priority. Some items are recurring requests for maintenance and repairs or vehicle replacement.

Projects anticipated to extend beyond the plan's window should be memorialized in an appendix or future projects list, and revisited as the plan is updated each year. Developing a CIP is not difficult, but developing a long-range CIP that a community can actually implement requires all of the following:

- A complete, descriptive inventory of existing assets – real estate, equipment, vehicles, infrastructure, and other items defined as a capital project under local policy;

- An assessment of the lifespan of existing assets;
- Criteria for evaluating and ranking capital project requests;
- A roster of current and anticipated near-term capital funding requests from town departments and the schools, including a description of each request, the time required to start, carry out and complete each request, and the estimated capital and operating costs associated with each request;
- An analysis of potential funding sources on a project-by-project basis, i.e., a determination of each project's eligibility for general fund, enterprise fund, recreation fees, grants, developer contributions, bonds, proceeds from sale of existing assets, and so forth, and the approximate amounts that should be contributed from each source;
- Six-year financial goals for the Town;
- Debt evaluation standards;
- Local revenue projections, and a transparent methodology for preparing them;
- An analysis of the CIP's impacts on the tax rate, cash reserves, enterprise reserves, and bonding capacity; and
- A financing plan for all projects included within the CIP.⁹⁰

Years of deferred maintenance will aggravate the condition of facilities that need to be renovated, replaced or expanded. Substantial funds are needed to meet these needs and with all these pressing requirements, it is necessary to address the long-term priorities for making improvements, recognizing that continued deferral of these expenses will result in ever increasing expenses over time.

Essentially, the Town should ensure that a coordinated CIP process takes a holistic and comprehensive view of all the Town's capital needs. The process needs to allow for the integration of recommendations from various plans and studies with other capital needs. The goal is for all departments to continue to work closely together to obtain the funding necessary to provide the best services and support to all Hudson residents.

PSF-2 With growing fiscal constraints, it has become more difficult for municipalities in Massachusetts to provide services in a cost-effective manner. As an alternative, municipalities around the country have considered ways in which supplies can be purchased and services provided across municipal boundaries. Examples include inter-municipal agreements to provide public safety, solid waste disposal,

⁹⁰ Terry Holzheimer, FAICP, Capital Improvement Programming, PAS QuickNotes No. 25, a publication of the American Planning Association's Planning Advisory Service (PAS), April 2010.

library (the Town is already part of a large regional system), and public works services and shared facilities.

Although there are some challenges to implementation of a regional approach to the sharing of municipal responsibilities, such as funding disparities between small and large municipalities, control of budgets and services, and potential resistance among employees, the Town should attempt to work with the Metropolitan Area Planning Council and neighboring communities to begin a dialog on options for shared services and facilities.

- PSF-3 Continue to explore how to meet the space and staffing needs of municipal services. As Hudson grows and changes in how it provides municipal services throughout the Town, it will need to continue to consider how to meet space and staffing needs of its municipal services. In particular, the Town should move forward with the funding, planning and design for new Police Headquarters/administration building for DPW. It is important to use the completed space studies, site identification and design to move this potential project forward in a timely manner. A continued assessment of similar municipal services and their facilities will enable the Town to plan for where it needs to grow and reduce future space needs.
- PSF-4 Provide for adequate and ongoing maintenance to address the needs resulting from new building facilities, parks, playgrounds, transportation amenities and other public spaces.
- PSF-5 The Town should take a leadership role in “greening” Hudson through its operations, governance, and management. This is particularly true with respect to municipal buildings and facilities. Additionally, the Town should continue to advance employee and occupant health in municipal buildings through lighting and ventilation improvements. As an example, the Town has been upgrading energy efficiency in some municipal buildings and seeking ways to reduce energy costs across all municipal operations. These are substantial projects that can serve as models for making cost-effective, sustainable planning and building practices part of project design, planning, construction, and operations.
- PSF-6 The Town should seek ways to reduce the cost of municipal energy use and its carbon footprint. This strategy could advance efforts to develop public and private partnerships and to also reduce residential and business energy use.
- PSF-7 Develop a long-range energy reduction plan for municipal operations.
- PSF-8 Develop sustainability principles or guidelines for Town projects, operations, policies and regulations including new or renovated municipal facilities.

PSF-9 Incorporate cost-effective Green Infrastructure and Low Impact Design (LID) strategies into all municipal projects and work with developers and residents on what they can do. This strategy will enable the Town to move forward with implementing green infrastructure best practices into projects.

PSF-10 Consider expanding solid waste management options to include curbside pickup. This may help to encourage more recycling among Hudson residents and businesses.

PSF-11 Options for document storage include storage facilities in any new buildings constructed by the Town and digitizing documents wherever possible to reduce need for storage of paper copies.



Skate park, Hudson, MA

8

Transportation

Introduction

Nestled between Marlborough, Sudbury, Bolton, Berlin, and Stow; Hudson has good access to the regional transportation infrastructure with two interchanges on I-495 and one on I-290 leading to Worcester and other major urban areas. Other significant roadways traversing the Town include Routes 85 and 62, which connect to Routes 117, 20 and



27 in adjacent communities. Being in this location limits to some degree the amount of “pass through” traffic that the community needs to accommodate on its roadway infrastructure, but also segregates it from other major transportation infrastructure and connections.

Transportation Goals and Key Recommendations

Prior planning efforts locally and regionally identified a number of challenges for the community as a whole to be considered and targeted certain areas with the community to focus on. During public outreach efforts, a number of themes emerged and form the basis for goals for this Master Plan including:

- Develop an identity and sense of place for the Downtown that focuses on balancing the needs of the residents of Hudson, the businesses, and the need for continued economic development at an appropriate scale.
- Balance the need to facilitate traffic flow throughout the community as a whole with desires to make the roadways more walkable and bikeable; calm vehicle traffic speeds where appropriate;

- Seek opportunities to introduce public transportation at an appropriate scale and in an affordable manner to the community as a whole;
- Identify necessary transportation infrastructure needs and seek traditional and non-traditional funding sources to advance these projects;
- Ensure that paratransit service meets the expanding needs for elderly and disabled residents; and
- Address the perceived lack of parking availability throughout the community.

Much like many of the communities in the MetroWest area, Hudson continues to see residential growth. The population is expected to continue to increase due to the availability of land, the relatively low cost of house lots, and the proximity and access to major highways.

Looking forward, the added demands on Hudson's transportation system from residential growth and potential economic development activities could counter the transportation, driver, and pedestrian/bicyclist safety, aesthetic, and community visions of the Town. Thus, future land use decisions and transportation infrastructure enhancements should be made in a coordinated, multimodal, and sustainable manner.

This Transportation Element of the Hudson Master Plan identifies the range of transportation issues, needs, and deficiencies from the short-term to the long-term and establishes goals and recommendations for physical enhancements and policies worth implementing.

Key recommendations include:

- Expand transportation options for traveling within Hudson focused on access and mobility for the elderly and on active transportation modes (bike, pedestrian, etc...);
- Expand transportation options for traveling regionally into and out of Hudson (residents and employees focused on regional transit providers and suburban transit services);
- Develop a complete streets approach on all active and future roadway projects to further promote walking and cycling as safe and active transportation options. Incorporate complete streets policies into Site Plan review, the Subdivision Rules and regulations, and project peer reviews);
- Focus bicycle recommendations on exploring opportunities to expand and enhance current bicycle paths within the community, commissioning a Bicycle Master Plan, and education to encourage bicycling in Hudson.
- Develop a parking management and infrastructure plan for the downtown area with the goal of identifying the most efficient means of utilizing the current parking supply, identifying future supply options, and connecting those parking needs/supply with the overall community development plans for Hudson's downtown economic engine;

- Signage recommendations include removing signage clutter, modifying and improving the consistency of existing signage, create wayfinding signage for businesses and recreational uses, and considering modifications to the existing regulations in the Hudson Zoning By-laws (§6.2.1.4).

Regional Context

Regionally, Hudson is positioned on the western edge of the MetroWest Region, just inside of I-495 with access to the freeway along Route 62 in the northwestern section of the Town and Route 85 in the southwest. Hudson is approximately 35 miles west of Boston and 20 miles east of Worcester. While positioned close to these urban centers, Hudson is identified as a “Developing Suburb”⁹¹ with low-density housing in the eastern portion of the Town and retail and commercial development surrounding Downtown. Higher density housing can be found in the western section of Hudson. These higher density areas have been shown in various regional studies to be dense enough to potentially support fixed route transit services for residents.

In January 2014, the Town of Hudson joined the MetroWest Regional Transit Authority (MWRTA's) service area and will be working towards creating fixed and flexible route transit options. . An initial first step in working with the MWRTA may be to utilize the Transit Authority's resources in dispatching for senior transportation services.

Regional Planning

For the development of a Master Plan, it is important to acknowledge and understand the transportation planning and land use efforts of the adjacent communities to ensure that recommendations are consistent and complementary across municipal bounds. Residents of nearby cities and towns have to travel through Hudson to obtain access to Interstates 495 and 290. Therefore, it is important for Hudson to be aware of large-scale developments that are proposed in those communities. Regional planning agencies (RPAs) play a key role in the development and execution of a municipality's Master Plan. As overseers of a larger area, RPAs help ensure that adjacent communities' plans are complementary. The Metropolitan Area Planning Council (MAPC) is the RPA for Hudson. MAPC is made up of many subregions. Hudson belongs to the Minuteman Advisory Group on Interlocal Coordination (MAGIC) subregion and is adjacent to the MetroWest Regional Collaborative subregion, which includes Marlborough and Framingham.

Municipalities and organizations with relevant plans include:

- **Metropolitan Area Planning Council (2008)** - The MAPC Regional Plan, “MetroFuture”⁹², outlines a number of goals, objectives, and implementation strategies for the future of the region. Key transportation goals for the region

⁹¹ Developing Suburb is a community type defined by MAPC. Other community types include 'Inner Core', 'Regional Urban Centers', 'Maturing Suburbs & Cape Cod towns' and 'Rural Towns'.

⁹² For more information on MetroFuture, visit the MAPC website at: [www.mapc.org/metrotfuture/http://www.mapc.org/sites/default/files/MAGIC_tip-upwp_2013-2016_final_3-20-12.pdf](http://www.mapc.org/sites/default/files/MAGIC_tip-upwp_2013-2016_final_3-20-12.pdf)

focus on ensuring that people will have more transportation choices. Goals include:

- An expanded transit system will provide better service to both urban and suburban areas, linking more homes and jobs
 - More people will use transit for work and personal trips
 - Commuters will have more options to avoid congestion
 - Most people will choose to walk or bike for short trips
 - The average person will drive fewer miles every day
 - Outlying areas will see little increase in traffic congestion
 - People with disabilities will find it easier to get around the region
 - Regional transportation planning will be linked with sustainable land use planning
 - The transportation system will be reliably funded and transportation agencies will demonstrate accountability to the public
 - Transportation projects will be designed and built quickly and cost effectively
 - Roads, bridges, and railways will be safe and well maintained
 - The region's businesses will access the global marketplace through an efficient freight transportation network
- **Town of Bolton** – Bolton's 2006 Master Plan goals include managing growth and protecting open space through land use and housing policy, and enhancing the Downtown and historic districts. From a transportation standpoint, recommendations are geared towards multimodal safety and mobility improvements.
 - **City of Marlborough**– The most recent planning activity taking place in the City of Marlborough focuses on an Economic Development Master Plan (2011). This plan emphasizes the importance of economic development to continue to support the city and quality of life for its residence. The plan also highlights the value and importance of a strong transportation network, particularly the access and connectivity provided by the interstate system within the City. Additionally, the City recently completed a corridor study of the eastern portion of Route 20 that addresses streetscape and access management issues.
 - **Town of Berlin**– Berlin is a low density, primarily residential town neighboring Hudson with a strong agricultural history. Planning in Berlin is focused on maintaining current housing and economic trends moving forward.
 - **Town of Stow** –In terms of transportation planning, Stow's Master Plan (2011) emphasizes improvements to safety, alternative transportation options, and expanding shuttle services for seniors.
 - **Town of Sudbury**– Sudbury's 2001 Master Plan transportation recommendations include themes similar to nearby towns including reducing congestion in town and on major roadways, specifically on Route 20, and improve roadway aesthetics.

Statewide Transportation Improvement Program (TIP)

The Transportation Improvement Program (TIP) and Air Quality Conformity Determination is an intermodal program of transportation improvements produced annually by MAPC. The TIP serves as the implementation arm of the Boston Region Metropolitan Planning Organization's 25-year Regional Transportation Plan by incrementally programming funding for improvements over the next four-year period. It programs federal-aid funds for transit projects and state and federal aid funds for roadway projects.

There are no projects programmed for Hudson in the 2013-2016 TIP. MAGIC has cited the Washington Street Bridge as a priority transportation project for the subregion, which is currently under design.⁹³ It is on the Accelerated Bridge Program, and should be on the TIP within a year, subject to State approval and once design is complete.

Existing Conditions

Mobility in and around Hudson is the central theme of the Transportation Element of the Master Plan. The sections below discuss the components that comprise the existing transportation network in Hudson.

Roadway Jurisdiction & Functional Classification

The jurisdiction of roadways in Hudson is depicted on Figure 8-1 and summarized on Table 8-1. The jurisdiction of a roadway indicates the ownership and responsibility for maintenance, enhancements, and repairs.

Table 8-1 Jurisdiction of Roadways in Hudson

Roadway Ownership	Length (miles)	Length (%) ¹
Town-owned roads	88	72%
Private roads unaccepted by the Town	3	3%
MassDOT roads	3	3%
Other	28	23%
Total	122	100%

Source: Office of Geographic Information (MassGIS), Commonwealth of MA Information Technology Division

1 Percentages may not sum due to rounding.

The majority of the roadway system falls under the jurisdiction of the Town of Hudson (88 miles, or 72 percent). The state owned roadways include the segment of I-495 passing through the southwest corner of the state and the southern segment of Route 85 (Washington Street) from Brigham Street to Technology

93 http://www.mapc.org/sites/default/files/MAGIC_tip-upwp_2013-2016_final_3-20-12.pdf

Drive. As part of the Washington Street/Route 85 road project, the Town will take over this 0.79 mile stretch of roadway.

The functional classification of roadways in Hudson is depicted on Figure 8-2 and summarized in Table 8-2. A roadways functional classification indicates its design function – to serve local demands with multiple driveways to maximize access; or to serve regional demands with limited access points to maximize mobility.

Table 8-2 Functional Classification of Roadways in Hudson

Functional Classification	Length (miles)	Length (%)
Local Roads (Rural and Urban)	90	74%
Interstates (I-495)	1	1%
Urban Principal Arterials ¹	6	5%
Urban Collectors ¹	20	16%
Urban Minor Arterials ¹	5	4%
Total	122	100%

Source: Office of Geographic Information (MassGIS), Commonwealth of MA Information Technology Division
¹ Eligible for Surface Transportation Program (STP) federal funding for improvements.

The majority of the roadways in Hudson are classified as local roadways totaling 90 miles, or 74 percent of the total roadway miles in Hudson followed by Urban Collectors which comprise 16 percent of the network. Route 62 and the southern portion of Route 85 are Urban Principal Arterials, and provide the majority of access throughout the Town.

Roadway Network

Vehicular traffic in Hudson is carried on several key roadways. The major east-west roadway in Hudson is Route 62, and the major north-south roadway is Route 85.

No interstate highways travel through the Town with the exception of a segment of I-495 less than a mile long in the southwest area of the Town. With I-495 running close along the western edge of Hudson, it does provide access to businesses and residents. This access recently spurred development in the new Highland Commons retail complex. Hudson has access directly to I-290 leading to Worcester. As mentioned previously, Routes 85 and 62, connect to Routes 117, 20 and 27 in adjacent communities

Route 62

Route 62 provides the primary east to west access through the Town of Hudson. Route 62 is also known as Coolidge Street, Central Street, Main Street, and Wilkins Street moving through the Town. The land use and roadway characteristics along this roadway vary throughout the Town as well.

Berlin town line to Main Street

The western segment of Route 62 from the Berlin town line to the intersection with Main Street is a two-lane and sometimes four-lane cross-section with wide shoulders and turning lanes at key intersections. Key intersections along this segment are private drives providing access to the Highland Commons retail development south of Route 62 and east of the nearby I-495 interchange. Along the northern edge of Route 62 are retail and commercial land uses. Speed limits along this stretch range from 45 to 50 miles per hour (mph). The roadway in this segment is in good condition.

Central Street to Tower Street

The segment of Main Street from Central Street to Tower Street is a two-lane roadway providing access for residents and Downtown. Housing along this segment generally consists of densely located single-family homes compared to areas of the Town outside of the Downtown. There are sidewalks on both sides of the roadway and occasional intersection crosswalks or mid-block crossings for pedestrians. Speed limits on this road are between 25 to 30 mph.



Downtown

The Downtown area of Hudson is located along Main Street from Route 85 to Tower Street. The land uses along this segment are retail and institutional including small and local businesses, public library, and Town Hall. The roadway characteristics remain the same with the addition of on-street parking on both sides of the roadway. At the public forum on April 11, 2013, specific concerns about the lack of public parking in the Downtown were discussed and there was interest in finding opportunities to expand or better manage the demand for public parking.

The rotary at the intersection of Route 62 (Main Street) and Route 85 is a major transportation issue in this segment. The rotary was identified at the public forum as possibly being outdated and ineffective.



Hudson's Rotary is not a modern roundabout and consequently lacks the safety features inherent in modern roundabouts. The rotary has wide areas of unmarked pavement making it unclear to motorists who has the actual right of way. Furthermore such open areas encourage speeding through the rotary. Modern roundabouts channel traffic into the circle at oblique angles which require vehicles to move slowly through the intersection.

During the Highland Commons development permitting process, plans were proposed to modernize the rotary by installing pavement markings and potentially permanent pavers and other features to guide movement through the rotary. However, these designs also indicated a potential loss of parking if such plans are implemented. Through the Town's recent parking study, alternatives for the rotary have begun to be discussed that may allow improvements to the rotary while also preserving parking. Such ideas are still in early development but include the potential of a traffic light with large new areas for public use and green spaces. A focused design effort must be undertaken to develop improvements that meet safety needs, enhance pedestrian and bicycle mobility, and preserve as much parking as possible.

South Street was originally built a few decades ago to potentially be a "second Main Street" and was believed at the time to be ideal for a one-way traffic pattern. However, once completed, businesses were concerned that a one-way pattern would reduce foot traffic and negatively impact downtown commerce. Thus, the one-way movement concept was abandoned. South Street itself, has design plans developed for an upgrade but funding has been unattainable because the roadway is not on the National Highway System and is therefore ineligible for Federal funds. The Town should explore ways to change the functional classification of this roadway from a local roadway to a collector or other designation to allow it to become part of the national highway system.

Additionally, the intersection of Main Street at Manning Street and Broad Street meets Highway Safety Improvement Program (HSIP) requirements for funding based on 2010 crash clusters.

Tower Street to Stow town line

This easternmost segment of Route 62 continues to be a two-lane roadway with narrow shoulders and speed limits as low as 25 mph near the Stow town line and ranging between 30 to 40 mph otherwise.

From Tower Street to Forest Avenue the roadway has a sidewalk along the northern edge. A segment of the Assabet River Rail runs along the southern edge of the roadway protected by a grassy median.



This segment of Route 62 was cited at the public forum as having issues with congestion and could benefit from improvements that focus on traffic flow.

Route 85

Route 85 provides the primary north to south connectivity through Hudson via the Downtown. This roadway is also known as Lincoln Street and Washington Street.

Bolton town line to Cox Street

This northernmost segment of Route 85 consists of low-density housing and provides access to the Town of Bolton. It is wide enough to provide bike lanes. This is a two-lane roadway with speed limits of 40 mph. There are some sidewalks along one side of the street.

Cox Street to Main Street

This segment of Route 85 runs through the Downtown. Much like the segment of Route 62 running through Downtown, this segment is two lanes with sidewalks and on-street parking along both sides of the roadway through portions of the Downtown area and speed limits of 25 to 30 mph. Land uses are also similar including high-density housing, retail, and institutional. Finally, as described for Route 62 in the Downtown, the public has expressed that there is a perceived of public parking and opportunities for additional public parking or parking demand management are necessary.

The intersection of Route 85 at Cox Street and Packard Street was described as a transportation safety concern at the public forum and meets the HSIP criteria for transportation safety improvement funding. Some steps have been taken

including instituting a 4-way stop sign at the intersection. A Central Transportation Planning Staff (CTPS) study recently conducted here due to the high accident rate, had recommended a traffic light. As the Massachusetts Department of transportation deemed this light a low priority, the Town installed the four-way stop. Traffic accidents have since decreased significantly.

The Washington Street Bridge falls into this segment of Route 85. The bridge is structurally deficient⁹⁴.

Main Street to Marlborough city line

The southernmost segment of Route 85 connects the Downtown to I-495 in Marlborough. Land uses are more retail and commercial in nature including grocery stores, shopping plazas, and restaurants. Public sentiment that the roadway continues to have poor traffic flow patterns and recurring congestion has been exacerbated by the existing roadway reconstruction that has been taking place over the past 18 months. The two-lane roadway has been recently widened, traffic signals installed, and pedestrian and bicycle accommodations have been added. These improvements were made in support of heavy retail and commercial growth along the corridor and into the City of Marlborough.

Main Street

Route 62 to Stow town line

Main Street continues west of Route 62 as Route 62 transitions north towards Stow. This last segment of Main Street is a two-lane roadway with a 40mph speed limit. There are no traffic signals or sidewalks along the segment and shoulder widths of about four feet. Traffic is able to flow easily under typical conditions.

The intersection of Main Street at Chestnut Street and Lewis Street is eligible for HSIP funding based on the 2010 crash clusters. It is undetermined how the recently completed Washington Street/Route 85 road project will affect these numbers.

Cox Street & Packard Street

Cox Street/Packard Street provides east to west access in Hudson without crossing Downtown. As such, this two-lane roadway has speeds of 30 to 35 mph, narrow shoulders, and sidewalks along one side of the roadway in some locations and limited sidewalks between Manning Street and Stratton Road.

⁹⁴ MassDOT NBIS Master List 2011.

Given the critical access that the Cox Street Bridge provides including access to a school, fire station, and waste water treatment plant among others, this weight restricted bridge is the next priority for the Town.

Sidewalks along the Packard Street section are on both sides, and allow safe pedestrian to/from Farley Elementary School, the Hudson Police Station, Pickle’s Pond and the Danforth conservation area. Packard Street was identified in MAPC’s Assabet River Rail Trail Communities Bicycle and Pedestrian Network Plan as a location wide enough to support bicycle lanes.

Vehicular Traffic

To gain an understanding of existing travel patterns and to provide a basis for recommendations, historical traffic data, trip distribution patterns, and transportation mode choice data were obtained.

Traffic Volumes

Table 8-3 summarizes traffic volumes on various roadways throughout Hudson using MassDOT⁹⁵ historical traffic volume data and traffic volume data collected in the Town for other transportation or development projects.

Table 8-3 Traffic Volumes on Select Roadways in Hudson

Route	Source	Count Date	Average Daily Traffic Volume ¹
Route 62 (Coolidge Street) east of Bolton town line	Highland Commons ²	2008	8,100
Central Street east of Coolidge Street	MassDOT	2010	1,820
Route 62 (Central Street) west of Route 85	MassDOT	2007	11,500
Route 62 (Main Street) west of Tower Street	MassDOT	2009	9,100
Route 62 (Wilkins Street) west of Marlborough Road	MassDOT	2011	6,300
Route 85 (Washington Street) south of Route 62	Route 85 Study ³	2009	24,000
Gates Pond Road south of Route 62	Highland Commons ²	2008	1,400

Source: Historical MassDOT and traffic study traffic count data
 1 Average daily traffic volumes expressed in vehicles per day (vpd).
 2 Highland Commons Retail Development Traffic Impact Study 2009
 3 2009 Washington Street Reconstruction PS&E Plans

⁹⁵ <http://www.mhd.state.ma.us/default.asp?pgid=content/traffic01&sid=about>, accessed October 12, 2010

As would be expected, traffic volumes along Route 62 and Route 85 are the highest in Hudson, carrying approximately 10,000 and 24,000 vehicles per day (vpd), respectively.

Journey-to-Work

A review of US Census American Community Survey journey-to-work data⁹⁶ for Hudson residents reveals commuting trends - specifically work location and mode choice. Table 8-4 illustrates where Hudson residents travel to work. In contrast, Table 8-5 shows where people who work in Hudson begin their commute.

Approximately 23 percent of Hudson residents were also employed in Hudson. This means that almost a quarter of Hudson residents who are employed work in Hudson and therefore they have shorter commutes. This presents opportunities to advance mode shifts toward cycling and walking for the commutes, which also advances the Town's healthy lifestyle goals. The top commute single destinations outside Hudson were Marlborough (14 percent) and Framingham (6 percent).

The remaining commute destinations represent a variety of Massachusetts cities and towns, though; many are located along major interstates including I-495, I-90, and I-290. Approximately five percent of Hudson residents work in Boston or Cambridge.

Table 8-4 Census Journey-to-Work Data for Hudson Residents

Location of Employment	Percent of Residents
Hudson	23%
Marlborough	14%
Framingham	6%
Sudbury	4%
Westborough	4%
Worcester	4%
Boston	3%
Southborough	2%
Cambridge	2%
Waltham	2%
Hopkinton	1%
Natick	1%
Newton	1%
Northborough	1%
Other ¹	32%

Source: U.S. Census Bureau, 2006-2010 American Community Survey

Data are based on a sample and are subject to sampling variability. Discussion on methods and errors provided by the U.S. Census Bureau:
www.census.gov/acs/www/Downloads/data_documentation/Accuracy/MultiyearACSAccuracyofData2010.pdf

1. Other towns and cities not listed comprise one percent or less each of employment locations of Hudson residents.

The journey-to-work census data was also reviewed to determine from where people who work in Hudson are commuting. Table 8-5 summarizes these data.

⁹⁶ U.S. Census Bureau, 2006-2010 American Community Survey

Table 8-5 Census Journey-to-Work Data for Hudson Workers

Location of Residence	Percent of Workers
Hudson	26%
Marlborough	10%
Worcester	8%
Leominster	3%
Northborough	2%
Shrewsbury	2%
Lowell	2%
Framingham	2%
Clinton	2%
Berlin	1%
Sudbury	1%
Stow	1%
Bolton	1%
Lancaster	1%
Other1	38%

Source: U.S. Census Bureau, 2006-2010 American Community Survey
 Data are based on a sample and are subject to sampling variability. Discussion on methods and errors provided by the U.S. Census Bureau:
www.census.gov/acs/www/Downloads/data_documentation/Accuracy/MultiyearACSAccuracyofData2010.pdf
 Other towns and cities not listed comprise one percent or fewer of each of employment locations of Hudson residents.

Approximately 25 percent of Hudson workers also live in Hudson. Approximately 10 percent of people employed in Hudson resided in Marlborough and 8 percent in Worcester. The majority of the remaining locations of residence of Hudson employees are neighboring towns along I-495 and other area interstates.

Mode Choice

Similar to the journey-to-work evaluation, Table 8-6 summarizes the mode choice for Hudson residents.

Table 8-6 Hudson Journey-to-work Mode Choice

Mode	Percent of Employed Residents
Single-Occupant Automobile	84%
Multiple-Occupant Automobile	8%
Transit	1%
Walk/Bicycle	3%
Other	1%
<u>Work at Home</u>	<u>3%</u>
<i>Total</i>	<i>100%</i>

Source: U.S. Census Bureau, 2007-2011, American Community Survey

Approximately 92 percent of Hudson residents take a car to work – either alone (84 percent) or with others (8 percent). Approximately three percent of Hudson residents work from home. Transit and walk/bicycle modes rounded out the survey results; approximately four percent of Hudson residents either utilized transit or walked/bicycled.

The low transit mode share for Hudson residents and workers reflects the limited public transportation options in the Town. This lack of public transportation options was cited as a weakness of the Town by residents at the public forum.

Vehicle Miles Traveled

MAPC has placed an emphasis on the benefits to reducing vehicle miles traveled throughout the region. As such, the MAPC MetroFuture project has presented a number of statistics about passenger vehicle miles traveled in the region. Table 8-7 describes passenger vehicle miles traveled in MAPC, MAGIC, typical developing suburbs, and Hudson.

Table 8-7 Passenger Vehicle Miles Traveled (VMT)

Average Municipality:	Registered Vehicles	Annual VMT	Daily VMT	Daily VMT per household
MAPC	11,400	135,911,760	372,361	70
MAGIC	9,319	113,597,490	311,226	74
Developing Suburb	12,147	146,168,122	400,461	69
<i>Hudson</i>	<i>13,893</i>	<i>168,606,690</i>	<i>461,936</i>	<i>66</i>

Source: Metropolitan Area Planning Council and MassGIS

Although Hudson shows higher than average passenger vehicle miles traveled than municipalities in the MAPC regional or MAGIC subregion, number of registered vehicles is higher and ultimately, the daily passenger vehicle miles traveled per household are lower than the regional averages. In the 2010 Census, Hudson had 7,528 households, so the average household had 1.85 vehicles.

Intersection Safety

Potential transportation safety issues in the Town of Hudson were identified at a public forum by the community. Specific intersections of concern were the intersections of Main Street at Lewis Street and Brook Street, and Route 85 (Lincoln Street) at Packard Street/Cox Street, which is a 2010 HSIP funding eligible intersection. Similarly, concern was raised at the public forum about trail crossings over roadways and intersections.

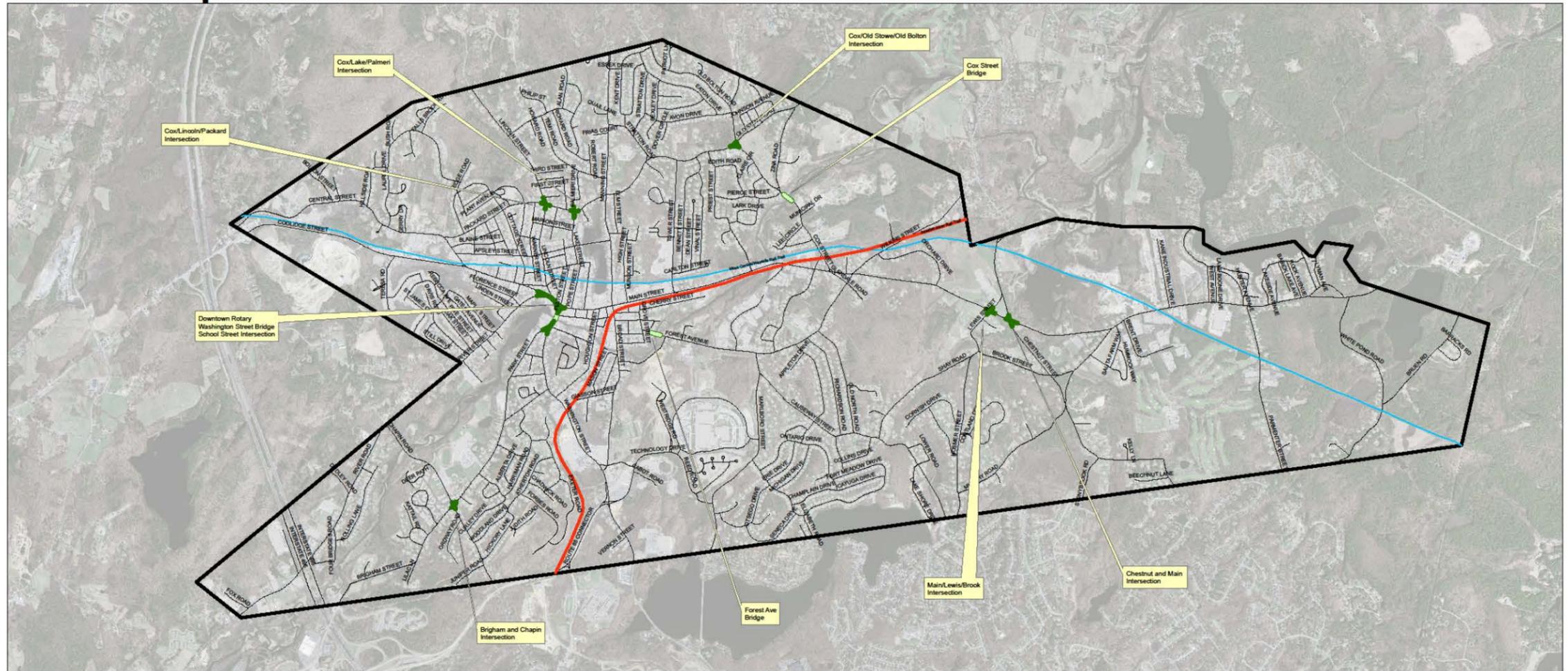
A total of three intersections in Hudson also meet the 2010 HSIP eligibility requirements.

- Lincoln Street at Packard Street/Cox Street (Note: in the past year, this intersection had a four-way STOP sign traffic control added to it. It may no longer meet HSIP eligibility criteria).
- Main Street at Manning Street/Broad Street
- Main Street/Lewis Street

Figure 8-1 depicts addition transportation needs in Hudson. Both intersections and bridges of concerns have been identified on this map.

Figure 8-1 Transportation Needs

Town of Hudson Massachusetts Transportation Needs



Although every effort has been made to ensure that the spatial data on this map is of the highest accuracy and quality, it is, nevertheless, only appropriate for planning purposes. The information, as presented, is not intended for the legal interpretation of boundary or property lines, either municipal or private.
2014



- | Transportation | Bike Trails |
|---|---|
| Intersections of Concern | Assabet River Rail Trail |
| Bridges of Concern | Mass Central/Wayside Rail Trail |
| Streets | |

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Transit

While the Town recently joined the MetroWest Regional Transit Authority (MWRTA), the Town is not currently served by a fixed route public transit system. This should change in the not-too-distant future as the MWRTA and Town coordinate their priorities. Without public transit options, populations that do not have access to a private automobile such as low income, young adults, and the elderly are negatively impacted. Regionally, the Worcester Regional Transit Authority and the MetroWest Regional Transit Authority each currently provide reliable service in nearby towns and cities. The lack of transit options has been cited by the public and the Town as a limitation of the transportation system.

Table 8-8 Vehicle Ownership

Household Information	
Total Households	7,774
Households without Vehicles	396
Households with 1 Vehicle	2,556

Source: 2011-2013 American Community Survey 2-year Estimates

In 2011, MAGIC completed the *MAGIC Suburban Mobility Transit Study* which evaluated transit needs and developed possible recommendations for the subregion to improve transit. Hudson was found to have high potential for ridership from those residents who are travelling between communities. Specifically, Hudson was noted to have a higher-than-average number of zero-vehicle households, low-income families, and persons with disabilities and that any future services should be targeted towards this population.

Currently the Town helps to fund a shuttle service for the elderly with help from the Friends of the Hudson Senior Center. This service alone does not provide transit connections and mobility for the disabled (12% of Hudson residents) or the general population of the community to destinations such as shopping, medical appointments, and other transit connections. Currently, 14 percent of Hudson's population is over the age of 65 and 12% are between the age of 10-19.⁹⁷

Pedestrians and Bicycles

During the public forum, residents showed strong support for funding pedestrian and bicycle facilities. Currently, there are over three miles of the Assabet River Rail Trail crossing the Town and providing connectivity⁹⁸. As

⁹⁷ US Census, 2010 Demographic Profile Data

URL: http://factfinder2.census.gov/rest/dnldController/deliver?_ts=432469987272

⁹⁸ 2012 Greater Boston Cycling and Walking Map. MAPC,

URL: http://www.mapc.org/sites/default/files/images/smartgrowth/transportation/MAPC-Bike-Map_2012_PRESS_Reduced.pdf

plans continue to evolve, this trail could be tied in with the East Coast Greenway and Mass Central Rail Trail (MCRT) and be a part of a network of bicycle trails connecting areas of eastern and central Massachusetts. (A portion of the MCRT between Church Street and Pope Street was built as part of the construction of the Railroad Avenue parking.) At this time while there is a defined need for upgrading these types of facilities, funding is not available. Moreover, a larger challenge to implementation continues to be the available right-of-way to allow for these upgrades.

Pedestrian access and mobility are mixed in Hudson. The Downtown and the immediately outlying areas have the sidewalks and crosswalk connectivity necessary for safe and desirable walking. Outside of the Downtown however, sidewalks along critical roadways are missing. Lack of funding, right-of-way width and specific planning directives are the primary obstacles that prohibit constructing the necessary bicycle and sidewalk connections to promote walking and cycling in the Town.

The Safe Routes to School program is a national program that aims to find and develop safe routes for children to be able to walk and bike to school. The three elementary schools and the middle school in Hudson are all partner schools in the program.

In 2013, MAPC produced the Assabet River Rail Trail Communities Bicycle and Pedestrian Network Plan, encompassing the communities of Hudson, Marlborough, Maynard and Stow. This plan identified two potential areas for bike lanes in Hudson, areas that had high mobility and adequate road width. As a result of this study, Hudson's first two bike lanes were installed along Manning Street, providing safe access to/from the new Quinn Middle School. There are also recommendations to incorporate two more bike lanes along Packard Street. These lanes would provide access to/from Farley Elementary School, the Hudson Police Station, Pickle's Pond and the Danforth conservation area.

Additionally, the Town continues to seek opportunities for funding to improve and construct needed sidewalks that will connect residential communities to town recreational resources that will encourage more active, non-motorized transportation and healthy decision-making through the Commonwealth's Community Innovation Challenge Grant (CIC) program.⁹⁹

In spring 2014, MetroWest Moves, a tri-community public health initiative of which Hudson is part, and MAPC won a CIC grant to enable Hudson, Marlborough and Framingham better facilitate the planning and implementation of Complete Streets procedures. The product of this CIC grant will create a ranking system that will enable the three communities to improve capital expenditure decision making by prioritizing roads that have the maximum utility for bike and pedestrian access. By identifying a community's high-volume

99 <http://www.mass.gov/anf/budget-taxes-and-procurement/working-for-you/community-innovation-challenge-grant/>

origin areas, destination points & traveling routes, the communities can better prioritize where these roadway improvements are needed.

Bridges

There are several bridges in Hudson that are routinely inspected by MassDOT using National Bridge Inspection Standards (NBIS). The primary purpose of the NBIS is to locate, evaluate, and act on existing bridge deficiencies to ensure that the bridges are safe for the traveling public. Each NBIS bridge is inspected at regular intervals of two years with certain types or groups of bridges requiring inspections at less than two-year cycles.

Table 8-8 summarizes the four bridges in Hudson that are classified as “structurally deficient” or “functionally obsolete” by NBIS standards. Structural deficiencies are characterized by deteriorated conditions of significant bridge elements and reduced load-carrying capacity. Functional obsolescence occurs when the geometry of the bridge is not meeting current design standards based on traffic demands carried, including lane or shoulder widths or horizontal/vertical curvature. Neither type of deficiency indicates that a bridge is unsafe. There are no bridges outside of the NBIS inventory that have either of these deficiency designations. The Broad Street Bridge and the Main Street Bridge were rebuilt in the last five years.

Table 8-9 Hudson Deficient/Obsolete Bridges

Bridge #	Bridge Carrying	At	Owner	Year Built	Year Rebuilt	Deficiency
H-25-003	Washington Street (Rt. 85)	Assabet River	MassDOT	1900	1940	Structurally Deficient
H-25-004	Houghton Street	Assabet River	Town of Hudson	1890	1918	Structurally Deficient
H-25-006	Forest Avenue	Assabet River	Town of Hudson	1910		Functionally Obsolete
H-25-008	Cox Street	Assabet River	Town of Hudson	1928	1980	Functionally Obsolete

Source: MassDOT NBIS Master List 2011.

The Cox Street Bridge crossing the Assabet River is functionally obsolete¹⁰⁰ and currently weight restricted. This bridge is adjacent to several key municipal buildings including the Fire Department Headquarters, the Department of Public Works, the Town Transfer Station and Mulready Elementary School. This bridge needs to be crossed multiple times per day by large, heavy vehicles, from fire trucks to road work equipment, from busses to garbage trucks. Efforts should be made to prioritize the reconstruction of this bridge.

¹⁰⁰ MassDOT NBIS Master List 2011.

Closed since 2006, construction on the Houghton Street Bridge was completed in October 2014. The Washington Street (Route 85) bridge is currently under design with plans for construction in the next several years. Located in the heart of our Downtown and with approximately 20,000 cars crossing the Washington Street Bridge daily, this bridge is the Town's highest priority. Plans for its replacement include a widening of the bridge to accommodate the traffic flow into the rotary and southbound towards the traffic light at School and Park Streets.

Future Conditions

The next step in the planning process is to identify growth trends in the area (see Chapter 3 for population and housing forecasts). These trends are often based on previous traffic volume patterns (as described in Table 8-3), past and forecasted population growth, and major development projects.

Future Challenges and Opportunities

As described in earlier, Hudson's population has steadily grown over the last six decades and is expected to continue growing through 2030 due in part to its accessibility to major highways. Increases in population and employment in the future will lead to increased vehicular traffic along both the minor and major roadways in Hudson.

These increased traffic volumes will impact the ability of existing transportation infrastructure to handle the increased demand placed on it, particularly during the morning and evening peak hours. In order to avoid operational and safety issues along roadways and at intersections in the Town, alternative modes of transportation should be investigated further. These alternatives could include expanded shuttle bus service, carpooling, public transportation, telecommuting, park and ride facilities, and improved pedestrian and bicycle accessibility.

Planned Developments

Currently, there are several development proposals that may affect traffic conditions on the Town's roadways. The development projects¹⁰¹ are described below.

- ▶ **Highland Commons** – Highland Commons is located on a site in northwest Hudson and Berlin on 165 acres. This development is primarily retail, restaurants and a gas station.

¹⁰¹ http://www.townofhudson.org/Public_Documents/HudsonMA_BComm/planning

- **Brigham Hill III** - A preliminary plan for 36 lots was submitted in 2011 for a site on Exeter Road located south of Downtown Hudson. The project is currently under construction.
- **Westridge Retirement Community** – Westridge Retirement Community located on Westridge Road is currently under construction. This development will include 146 units of condominiums for older adults. The development is located a short distance off of Route 85 in southern Hudson.
- **Cabot Ridge Apartments** – 176 apartments developed pursuant to M.G.L. c. 40B, which is currently under review.
- **Broadview Heights Condominiums** – 32 units under construction.

Transportation Recommendations

Hudson transportation must meet the needs of its residents, commuters, and businesses through vehicular, public transportation, bicycle and pedestrian means. Transportation must be convenient, safe, aesthetically pleasing and environmentally friendly as it meets the complex needs of residents and travelers. A thorough transportation plan which both provides active and passive connectivity internally to communities in Hudson and ties Hudson to the greater region is essential to ensure a sustainable system over the long-term. The recommendations described in this section are based upon this framework.

As the Master Plan process progressed and community input was received, the following were common themes and needs for transportation in Hudson:

- Expand transportation options for traveling within Hudson focused on access and mobility for the elderly and on active transportation modes (bike, ped, etc.);
- Expand public transportation options for traveling regionally into and out of Hudson residents and employees focused on regional transit providers and suburban transit services;
- Development of a complete streets approach on all active and future roadway projects to further promote walking and cycling as safe and active transportation options;
- Focus bicycle recommendations on exploring opportunities to expand and enhance current bicycle paths within the community, commissioning a Bicycle Master Plan, and education to encourage bicycling in Hudson.
- Develop a parking management and infrastructure plan for the Downtown area with the goal of identifying the most efficient means of utilizing the current parking supply, identifying future supply options, and connecting those parking needs/supply with the overall community development plans for Hudson's downtown economic engine;

- Improve signage regulations to reduce signage clutter and encourage consistency in existing signage.

Recommendations

Taking into account the existing and future issues, needs, and the goals of the transportation element, the following specific recommendations have been developed.

Expand Transportation Options

Issue:

Hudson has good transportation options available within the community, but many locations are constrained by physical and geographical boundaries.

Recommendation:

One of the identified strengths of the community is the active transportation elements that exist within the community, including the oft mentioned Assabet River Rail Trail. The Town has indicated both the willingness and desire to increase walking and biking options within the community.

- T 1. Utilizing the current bike/ped facilities as a jumping off point, the community should expand both pedestrian trails and on-street/off-street bicycle options into neighborhoods and portions of the community where businesses and residents would utilize them.
- T 2. The community should engage neighborhoods, conduct a series of walking audits to learn what makes a good pedestrian environment and where logical, connected bicycle pathways could be implemented and integrated into the existing networks.
- T 3. Plan and develop new bicycle facilities within the community including the identification of on-street bike lanes, connections to the bicycle trails, and providing preferred and secure parking for bicyclists in the Downtown area.
- T 4. Develop a short and long-term Bike & Walk Action Plan that prioritizes policies, projects and, ultimately, programs that can be implemented over the short term 3-5 years and over the next decade. Specific focuses should be made on identifying traditional funding sources for these items as well as non-traditional sources if opportunities present themselves (such as the previously mentioned CIC Grant program).

Expand Public Transportation Options

Issue:

Identified as one of the primary gaps in the transportation network within the Town of Hudson, the lack of public transportation options was highlighted repeatedly at public outreach meetings.

Recommendation:

Transit planning is an important part of the complete streets focus area for the transportation system in the community. The Town of Hudson should focus on developing a transit program that is safe, efficient, and dependable by the community at large. This can be accomplished by reaching out to surrounding communities who all have varying levels of services provided by the MBTA (commuter rail), MWRTA, and/or the WRTA. While the Town has recently joined the MWRTA, services at this point in time are limited and have extremely limited options available to its businesses and residents. Goals should focus on the following:

- T 5. Explore and identify financing options within the Town budget to maintain the assessments of the MWRTA.
- T 6. The Town should identify high residential and employment areas within the community (see Chapters 2, 3 and 4 for more information) and work with the MWRTA to coordinate expanding their existing services within neighboring communities to establish bus routes into and out of the downtown area of Hudson and other major employment areas within the Town, as needed.
- T 7. Expand upon existing elderly and include handicapped para-transit options by utilizing existing and other regional transit service providers to bring residents to nearby medical and recreational destinations.
- T 8. Target those areas of the Town where zero vehicle households are prevalent and identify transit options to support those populations.

Expand Upon Complete Streets Programs within the Community

Issue:

Infrastructure projects should consider all forms of transportation prior to being finalized.

Recommendations:

The three-pronged approach of complete streets seeks to incorporate multimodal designs into roadway projects to ensure that streets are safe for all users, not only automobiles, and to encourage active modes of transportation.

Communities like Hudson also require an emphasis on green design elements that promote an environmentally sensitive, sustainable use of the public right-of-way. Greener designs incorporate street trees, rain gardens, bio-swales, paving materials and permeable surfaces, with plants and soils collecting rain water to reduce flooding and pollution.

Lastly, smarter technology-assisted design elements incorporate intelligent signals, electric vehicle sharing, car and bicycle-sharing, way-finding and social networks for greater system efficiencies and user convenience.

The Town of Hudson should develop a complete streets checklist that is appropriate for the community goals and objectives. Elements should be respectful of the specialized needs and environmental resources within the Town. But these should also be balanced with the overarching goal of providing for all modes of transportation.

Specific recommendations should include:

T 9. Develop Scenic Streetscapes.

Durable landscaping that is close to the highway or along medians can increase the driver's awareness of the immediate environment and alter behavior, resulting in slower speeds and a safer street. The following streetscape strategies should be considered:

- Consider replacing overhead utilities with underground services in the downtown;
- Consider expanding upon the existing street lighting with period lighting in the downtown. Lighting for sidewalks needs to be lower, pedestrian scale, and more closely spaced than conventional "cobra head" street lights;
- Design ADA compliant sidewalks that include a landscaping buffer between the sidewalk and roadway in the downtown;
- Where appropriate, replace the existing faded crosswalks with imprinted/textured crosswalks at intersections and mid-block locations along major through routes through the downtown.

T 10. Consider Traffic Calming Measures

Traffic calming involves changes in street alignment and other physical measures to reduce traffic speeds in the interest of street safety and livability. The following traffic calming elements could be considered for the downtown and within the established neighborhoods that abut high-volume roadways:

- Curb extensions/bump outs/neckdowns along with complimentary on-street parking;
- Narrowed travel lanes and widened shoulders with potential for bike lanes;
- Speed tables;

- Raised crosswalks; and
- Roundabouts.

T 11. Develop Access Management and Foster Compact Development

Develop access management and traffic impact study guidelines and incorporate them into the zoning by-laws and subdivision regulations. Minimizing curb cuts and greater separation between driveways improve safety, appearance, and the viability of roadways. An access management approach would benefit both Route 85 and Route 62 corridors (noting that several driveways along Route 85 have recently been consolidated as part of the roadway improvements in this area of the Town).

Review the zoning by-laws and consider amendments that would encourage mixed-use (residential, office, retail) and compact/clustered development in areas already served by transportation infrastructure, particularly in the downtown area.

Intersections

Issue:

A number of intersections in Hudson are problematic. Traffic flow, character, and safety need to be improved. For intersections with state-owned roadways, these recommendations would have to be vetted with MassDOT.

Recommendations:

The following intersections were identified as being potentially high-crash locations. The intersection of Lincoln Street at Packard Street/Cox Street in particular was also called out in a number of public outreach meetings.

- T 12. Study the following intersections in more detail to determine the best course of action.
- Lincoln Street at Packard Street/Cox Street
 - Main Street at Manning Street/Broad Street
 - Washington Street at Hudson Road
 - Hudson Road at Fitchburg Street
 - Main Street/Brook Street/Lewis Street

Pedestrians

Issue:

Need to provide a more safe and walkable environment.

Recommendations:

- T 13. Install or upgrade sidewalks to be ADA compliant and include a landscaped buffer.
- T 14. Enhance the areas in and around public open spaces (parks, schools, athletic fields) so that children and parents who live nearby can make choices about how they can travel between home and these destinations. Currently, in many locations, automobile use is perceived to be the safest mode of transportation.
- T 15. Construct crosswalks that enhance the awareness of drivers to pedestrians; could include raised and or textured treatments.
- T 16. Install crosswalk signage to reinforce vehicle and pedestrian awareness.
- T 17. Install countdown pedestrian signal heads at signalized crossings that do not currently have them.
- T 18. Improve pedestrian mobility on rural residential and suburban residential roads by exploring opportunities for interconnecting short sections of trails and connecting cul-de-sacs.
- T 19. Educate public to "Stop- Look- and Wave" in the Town of Hudson at crosswalks.
- T 20. Educate the public of existing walking trails.

Bicyclists

Issue:

Need to make areas within Hudson more bikeable – for both commuter and recreational users.

Recommendations:

- T 21. Develop, update, and implement a Town-wide Bicycle Master Plan that addresses both commuter and recreational bicycling.
- T 22. Consider additional installation of bicycle racks at activity centers.
- T 23. Explore connections to the Assabet River Rail Trail into the Town of Hudson's bicycle plans.
- T 24. Implement programs and events which will encourage people to consider bicycling and trail hiking.
- T 25. Educate the public of existing bicycling opportunities; and
- T 26. Improve bicycle mobility on rural residential and suburban residential roads by expanding bicycle-related options (bike lanes, sharrows, etc.).
- T 27. New subdivisions should be encouraged to connect to ARRT.

Parking

Issue:

The Downtown area of Hudson is perceived by many to lack adequate parking supply to accommodate the residents, services, and businesses in the Town. Future demands related to increased population and economic development will require increased parking availability.

Recommendation:

- T 28. Create a parking plan that focuses exclusively on the current and future needs of the downtown;
- T 29. Evaluate future development proposals with an eye towards increasing the publically available parking supply, particularly in the downtown; and
- T 30. Seek to create reserved and/or dedicated parking supply for the public buildings in the Town (Library and Town Hall, in particular).

Signage

Issue:

Need to address signage on Town roadways.

Recommendations:

- T 31. DPW and MassDOT should collaboratively remove existing sign clutter along state routes;
- T 32. Commission a “Way-finding Program” to assist visitors to navigate to and from the downtown areas of Hudson and direct them to public parking opportunities by using branded signage for the community; and
- T 33. Upgrade the overall consistency of traffic signage throughout Town by reviewing current regulatory signage and assuring that it is consistent with the current Manual on Uniform Traffic Control Devices (MUTCD) guidelines.



Rotary in the Downtown Area, Hudson, MA

9

Energy

Introduction

Energy is a critical component of day to day operations throughout Hudson, the region, and the entire globe. Energy is used to operate buildings, lighting, vehicles and other equipment. It is a driving force in the global economy requiring a tremendous amount of infrastructure for both supply and distribution. Our energy systems, however, are not without externalities. Traditional sources of energy and rates of consumption are no longer sustainable. Fossil fuels are in greater demand and shorter supply, increasing costs exponentially. And the burning of fossil fuels has harmful impacts on the environment, including release of criteria air pollutants and greenhouse gas emissions. Energy systems and the operations dependent on them are therefore changing rapidly, with greater emphasis on efficiency, cleaner supplies, reduced costs, and improved reliability, while also maintaining a significant contribution to the economy and job creation.

When thinking about energy as it relates to Hudson's Master Plan, it is important to keep this larger picture in mind. Energy planning is relevant to the Town's operation of buildings, vehicles, lighting, and other infrastructure, as well as to residents and businesses living and operating within the town. In addition to consumption, the Town must consider sources of energy, generation and distribution, security and reliability, and finally, the impact on the local economy.

In addition, energy issues are tightly linked to several other areas of this Master Plan, including land use, housing, economic development, public services and facilities, transportation, and public health. These important connections will be highlighted throughout this chapter.

Energy Goals

- Incorporate energy efficiency considerations into all short- and long-term planning for capital improvements, transportation, infrastructure, housing, and land use.
- Lead Hudson by example in the promotion of energy efficiency and clean energy throughout municipal operations.
- Utilize policy, financial, educational, and other mechanisms to promote energy efficiency and clean energy among Hudson residents and businesses.
- Maintain the benefits of Hudson Light & Power as a community asset by maintaining electricity reliability and low costs to customers.

Hudson Light & Power

Hudson Light & Power (HLP) is the Town's municipal electric utility. It is a tremendous asset to the Town, providing a reliable source of electricity for residents and businesses and keeping electric rates low for its customers. In contrast to some other electric utilities in the region, and especially in other parts of the country, HLP also has a relatively clean fuel supply in its energy generation, with approximately 70 percent of its electric supply coming from sources that do not produce greenhouse gas (GHG) emissions, including hydro, solar and nuclear power.

HLP also offers a number of resources that can help residents and businesses in Hudson conserve energy, help the environment, and save money. These include:

- Free/discounted energy audits – free energy audits to residents that will assess and provide recommendations for building envelope, heating and cooling systems, lighting, appliances, overall energy consumption, and provide information on rebates available to implement conservation measures. Audits are provided to commercial customers at a discount.
- Renewable energy incentives – solar incentives for residential and commercial installations.
- Energy conservation incentives/rebates
 - For residents: reduced cost compact fluorescent lamp (CFL) replacements, appliance rebates.
 - For commercial: rebates for lighting upgrades and variable frequency drives.

Massachusetts has instituted a program called Green Communities and over 120 municipalities have been designated. Five criteria must be met to gain the designation including:

- Provide as-of-right siting in designated locations for renewable/alternative energy generation, research and development, or manufacturing facilities.
- Adopt an expedited application and permit process for as-of-right energy facilities.
- Establish an energy use baseline and develop a plan to reduce energy use by twenty percent within five years.
- Purchase only fuel-efficient vehicles.
- Set requirements to minimize life-cycle energy costs for new construction; one way to meet these requirements is to adopt the new Board of Building Regulations and Standards (BBRS) Stretch Code.¹⁰²

Although the Town meets some of the criteria, it cannot pursue the Green Community designation is because the Town is served by a municipal utility and has not adopted the renewable energy charge for the MA Renewable Energy Trust Fund. The fund is supported by a surcharge of \$0.0005 per kilowatt-hour, imposed on customers of all investor-owned electric utilities and competitive municipal utilities in Massachusetts. As a non-competitive municipal utility, HLP has not opted into the program. Instead, as described below, HLP offers a variety of incentive programs to assist its residential and non-residential customers.

Non-Municipal Utilities

In addition to Hudson Light & Power for electricity service, Hudson is served by NStar for natural gas service.¹⁰³ According to the US Census, 62 percent of homes in Hudson are heating with natural gas. Approximately 22 percent heat with fuel oil and 14 percent with electricity.¹⁰⁴ For the 22 percent heating with fuel oil, NSTAR offers natural gas heating system conversion installations and incentives. Natural gas, while still a fossil fuel that emits GHG emissions, is much cleaner and more affordable than heating oil. The Town may wish to consider working with NStar to further promote its natural gas conversion program or to provide enhanced incentives for making the switch.

In addition to natural gas conversion, NStar offers a number of energy efficiency incentives to both residential and commercial customers as well, including rebates for weatherization, programmable thermostats, high-efficiency water heaters, high-efficiency heating systems, and other programs.

¹⁰² See <http://www.mass.gov/eea/energy-utilities-clean-tech/green-communities/gc-grant-program/> Accessed March 2014.

¹⁰³ Massachusetts Department of Public Utilities. http://www.env.state.ma.us/DPU_FileRoom/frmCityUtilitiesSP.aspx Accessed June 2013.

¹⁰⁴ US Census, American Community Survey, 2007-2011, 5-Year Estimates. http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS_11_5YR_DP04

Green Technologies

A number of green technologies can be utilized in the promotion of energy efficiency and clean energy throughout Hudson. Such green innovations will produce energy savings and can also help position the Town for new forms of economic growth, as well as providing educational and job-training opportunities. Some technologies that the Town may consider in its energy planning, some of which were raised during the master planning outreach process, include the following.

Renewable Energy Installations

Solar energy installations, such as solar photovoltaics and solar thermal systems, as well as other renewable energy installations (e.g., wind, geothermal) are a critical component of the future energy economy. Such technologies are renewable (i.e. unlimited supply), free of GHG emissions and other pollutions, and create jobs for clean technology manufacturing, research and development, and installation.

Massachusetts recently ranked 2nd in the nation in the 2013 U.S. Clean Tech Leadership Index, receiving a perfect score for clean energy policies and for clean tech investment. Clean energy jobs are on the rise throughout the state with approximately 5,000 clean energy companies.¹⁰⁵ Massachusetts has been performing especially well in the field of solar technology, meeting Governor Deval Patrick's goal of 250 MW of solar installations four years early. A new aggressive target of 1,600 MW by 2020 has now been set. A number of programs have aided the state in achieving these goals by streamlining the permitting process and reducing up-front costs for installations, including:

- Solar Renewable Energy Credits (SRECs)
- Commonwealth Solar
- Solarize Massachusetts
- SunShot Initiative Rooftop Solar Challenge
- Community Shared Solar¹⁰⁶

HLP offers its own solar installation incentives as well to further promote solar installations on homes and commercial properties. Hudson is well positioned to work with HLP and state and federal programs to further promote solar energy development. The Town should also consider the following policies and programs:

¹⁰⁵ MA Executive Office of Energy and Environmental Affairs. "Patrick Administration Announces National 2013 Clean Energy Report Ranks Massachusetts No.2," June 4, 2013. <http://www.mass.gov/eea/pr-2013/mass-2nd-in-clean-energy.html>

¹⁰⁶ More information on all of these programs is available at: <http://www.mass.gov/eea/energy-utilities-clean-tech/renewable-energy/solar/>

- ▶ Providing incentives to solar and other clean tech business to site within Hudson. Such incentives could be financially based or offer expedited permitting.
- ▶ Work with local technical schools to provide clean energy training programs.
- ▶ Work with HLP and DOER to enhance and promote incentives for solar and geothermal for residents and businesses.

Green Roofs

Green roofs have become increasingly popular because of the multiple benefits associated with them. These roofs utilize vegetation on roof spaces that provide additional insulation, reduce the urban heat island effect, provide stormwater management benefits, and aesthetic enhancements to buildings. The Town could pursue a demonstration project on a municipal building or school and/or provide information to local property owners and developers on the benefits of green roofs. Some municipalities have started including green roofs as a consideration in development approvals.

Energy Management, Monitoring, and Tracking Systems:

There are numerous programs available for managing energy within buildings, including building automation systems, as well as for monitoring and tracking energy use over time. These types of systems are helping facilities managers to manage heating, ventilation, and cooling (HVAC) systems more efficiently and monitor energy consumption in order to identify spikes in use and target areas for improvements. An energy management system has recently been installed at the 14,000 square foot Hudson Senior Center along with a geothermal exchange HVAC system. The Town should monitor improved comfort and energy and cost savings that result from this new system and consider implementation of a larger energy management system for multiple Town buildings.

The Department of Public Works has begun using MassEnergyInsight, a web-based energy monitoring tool for municipal governments. This tool will allow the Town to benchmark, monitor, and evaluate Town buildings' energy use over time.

Waste-to-Energy

An increasingly popular process in the U.S. and globally is converting sewage waste to energy. Wastewater treatment facilities can incorporate anaerobic digestion into their processes and use resulting methane gas as a source of energy. This typically involves the anaerobic digestion of biosolids in wastewater, though a new trend is adding food waste to the digesters, which has a few key benefits, including:

- Diversion of food waste from landfills. In the landfill, the decomposition of food waste releases methane, a potent greenhouse gas. However, if diverted to a wastewater treatment facility, the methane can be captured and used as an energy source. This provides a useful opportunity for diverting food waste from the community’s total waste stream.
- This energy production on site at the facility also reduces demand for energy from the grid, which in turn has additional GHG reduction benefits and reduces energy costs for the facility. Food wastes also have a much higher energy production potential than other biosolids.
- The facility can collect tipping fees for accepting food waste.

The following resource from the EPA Region 9 provides a helpful overview of food waste digestion at wastewater treatment facilities.

<http://www.epa.gov/region9/organics/ad/Why-Anaerobic-Digestion.pdf>

The Massachusetts Department of Environmental Protection also released “Tapping the Energy Potential of Municipal Wastewater Treatment: Anaerobic Digestion and Combined Heat and Power in Massachusetts” in 2011.

<http://www.mass.gov/eea/docs/dep/water/priorities/chp-11.pdf>

Smart Grid

Smart grid generally refers to a modernizing of the electricity network, using computers to allow for two-way communication, feedback systems, remote control of energy systems, and automation. Making the electric grid “smarter” will improve efficiency throughout the grid and in utility companies’ operations, and provide the data and control systems needed for homes and businesses to improve efficiency within their buildings. Under the American Recovery and Reinvestment Act (ARRA) of 2009, a number of investments were made in developing the smart grid, including the Smart Grid Investment Grant Program and the Smart Grid Demonstration Program.¹⁰⁷ There are currently eight smart grid projects underway in Massachusetts.¹⁰⁸ HLP and the Town of Hudson will benefit from learning from these initial projects and beginning to engage in smart grid enhancements.

Municipal Energy Reduction and Renewables

The Town can play a significant role with regard to energy in leading by example within its own operations. In the public forum held March 4, 2013, 29 percent of participants responded that the single most important thing the Town can do with regard to energy is to address energy efficiency in municipal buildings. This

¹⁰⁷ SmartGrid.gov. http://www.smartgrid.gov/recovery_act/overview Accessed June 2013

¹⁰⁸ Smart Grid Network. <http://www.massachusetts.smartgrid.com/smart-grid-projects/massachusetts#> Accessed June 2013.

includes identifying policies and practices to improve energy efficiency and the use of alternative or renewable fuels in its buildings, lighting, vehicle fleet, and other equipment. In fact, a goal for “Public Services and Facilities” in this Master Plan is to “lead by example in community facilities and operations by establishing sustainability principles and initiatives.”

As mentioned earlier, the Town should begin by assessing its current energy consumption and efficiency. The Town has begun doing this utilizing the MassEnergyInsight tool. To date, this energy data tracking tool only contains data on the Town’s Department of Public Works facilities. The Town can use this tool to benchmark and track energy use and associated greenhouse gas emissions for all of its facilities and vehicles. Having all of this data centrally located in one database will help the Town to identify the greatest opportunities for efficiency improvements and cost savings. It can then use this information for setting internal energy reduction targets and identifying the best combination of actions that will allow the Town to achieve those reductions. The Massachusetts Department of Energy Resources (DOER) has useful guidance for municipalities on establishing an energy baseline and creating an energy reduction plan. More information is available at: <http://www.mass.gov/eea/energy-utilities-clean-tech/green-communities/gc-grant-program/criterion-3.html>

The Town has already made significant progress in leading by example by undertaking many energy efficient measures throughout town. These measures were recognized by the Department of Energy Resources (DOER) with the Leading by Example award in 2011. The Hudson Public Library, Hudson Senior Center, and the Cellucci Skate and Splash Park have all been outfitted or retrofitted with various resource-conserving systems and upgrades. The Town has been able to install energy and cost-saving upgrades while retaining the historic character of these buildings.

In 2010, the Hudson Public Library won an Energy Efficiency and Conservation Block Grant, funded through the American Recovery and Reinvestment Act (also known as Stimulus funds). With this grant, 117 windows were upgraded to double and triple glazed windows. The Town also installed 27 solar shades through this project. These 117 windows took up nearly 30% of the building’s exterior envelope.

At the Senior Center, the Town installed a geothermal well HVAC system, low-flow and dual-flush bathroom fixtures, and high efficiency hot water heaters. Both interior and exterior lighting also has been equipped with sensors to energize the lights when required but keep them dormant when not needed. The use of other energy savings techniques such as a Building Automation System (BAS) networked to the Director’s office computer provide additional significant energy savings over a standard base building design. The BAS allows the Director to control specific areas, set heating/cooling temperature setpoints, as well as occupied and unoccupied schedules. The BAS allows spaces to be

independently controlled for climate conditions or to be completely shut down when unoccupied.

In Cellucci Park, a unique feature of the 630 SF splash pad is that it is not a standard flow-through or drain-away system. With a 2,000 gallon underground holding tank, the splash pad features a special reclamation water filtration system that recycles the water being used, running the water through an underground filtration system and separately-housed water quality management system. The water conservation measure allows the splash pad to clean and recycle the water used, and allows the Town to operate the facility in times of drought, while conserving nearly 5 million gallons per year.

For its success in integrating energy efficiency improvements, the Town was selected by DOER to present at an ARRA Best Practices Exchange conference.

The Town recently appropriated money at the May 2013 Town Meeting to conduct audits aimed at reducing energy consumption and/or advancing renewable energy projects at municipally owned properties including the Hudson Public Library, Town Hall, and the Police Station.

Finally, the Town is implementing a recycling and energy reduction programs in its municipal buildings including paper, book, furniture, ink cartridge and electronics recycling; purchasing energy efficient computer equipment; using programmable thermostats; and installing energy efficient lights.

To further these energy improvement efforts, the following are some additional strategies the Town may wish to consider.

Best practices for energy reduction and renewables in municipal operations:

- Audit municipal buildings and implement identified energy conservation measures for HVAC and lighting. Funding has already been approved to audit three Town buildings. As additional funding is available, the Town should conduct energy audits at all of its buildings.
- Conduct investment-grade audits for water and wastewater treatment facilities to identify upgrade opportunities.
- Water and wastewater treatment facilities tend to be among the most significant source of energy consumption within municipal operations. In addition, the Town is has completed a filtration project to connect the Kane and Cranberry wells to the Chestnut Street Water Filtration plant. The Kane Well was approved for operations returning it to service at the end of January 2014. Ensuring this and other treatment facilities are operating as efficiently as possible will be essential to keeping operations and maintenance costs down.

- Upgrade streetlights and traffic signals to light-emitting diode (LED) technology. It is common practice to upgrade traffic signals to LEDs given the energy savings and quick return on investment. Increasingly, communities are upgrading streetlights to LED technology as well due to the significant energy savings. Massachusetts DOER has developed guidance on how to get started when considering these upgrades: <http://www.mass.gov/eea/docs/doer/green-communities/eap/led-street-lights-2-pager.pdf>, which also includes a financial analysis tool to help in the calculation of the payback. Calculation of the payback for such an investment requires a thorough analysis of the cost for the light fixtures, operation and maintenance expenses, energy charges, and interest rates, among other factors.
- Conduct feasibility studies for renewable energy installations on municipal property, including solar photovoltaic, solar thermal, geothermal, and waste-to-energy. The Town is already considering solar arrays at two sites – the Gates Pond water treatment facility property (capped landfill) and the Chestnut Well area land. These installations were approved at the May 2014 Town Meeting.
- Adopt a green building or energy efficiency policy/standards for new construction and major renovation of municipal facilities. The new Fire Department Headquarters and newly renovated Senior Center integrated energy efficient and green building design elements. The Town could adopt an official policy or design standards for all future new construction or major renovations.

The Town makes standard practice of recycling materials from demolition and construction of Capital Projects. During the recent reconstruction of the Senior Center, the scope of work called for a Waste Management Plan that resulted in end-of-project rates for salvage/recycling of 50 percent by weight of the total waste generated by the work. This Waste Management Plan, applied to both the demolition phase and the construction phase, consisted of waste identification, waste reduction, handling, transportation and recycling/disposal procedures. The contractor was charged with coordinating and documenting compliance with the policy.

- Green building design should be given special consideration for school buildings. The newly-built Quinn Middle School is a LEED Silver building. As other schools are renovated or new schools built, green construction and retrofitting should be considered. Green buildings provide a healthier and more productive learning environment for students. They also provide numerous opportunities to educate students and other building occupants on energy use, energy data, renewables, green building

LEED is an environmental program which provides a means of verifying that a building was designed and built in a way that would improve energy savings, water efficiency, indoor environmental quality, and CO2 emissions reduction. It uses a verification system to determine if a project falls within LEED standards.

materials, and other attributes. MA DOER offers resources related to clean energy education in K-12 schools. More information is available at: <http://www.mass.gov/eea/energy-utilities-clean-tech/energy-education/>

- Adopt an energy efficiency purchasing policy that requires certain efficiency standards for HVAC equipment, windows, insulation, appliances, IT equipment, motors, etc., such as specifying Energy Star certified appliances.
- Adopt a policy for the municipal fleet that emphasizes energy efficient and alternative fuel vehicles. The DOER Green Communities program has numerous resources and templates to assist with developing an efficient vehicle policy. <http://www.mass.gov/eea/energy-utilities-clean-tech/green-communities/gc-grant-program/criterion-4.html> In addition, the Town should make an effort to right-size its fleet. In other words, have only as many vehicles as necessary for carrying out municipal operations. Adopting and enforcing an anti-idling policy among municipal vehicles can also have an impact on fuel reduction. Many municipalities have begun to utilize alternative fuel vehicles and provide alternative fueling infrastructure on site to support them, including electric vehicles, biodiesel, compressed natural gas, and others. The Massachusetts Clean Cities Coalition is a helpful resource for municipalities making a shift to fuel-efficient and alternative vehicles and is a source of information on funding sources as well.

Commercial and Residential Energy Reduction

In addition to its own operations, the Town can also play a vital role in establishing policies and financial mechanisms to promote energy efficiency, renewables, and further develop the local economy. Housing in Hudson is approximately 72 percent owner-occupied with 68 percent of homes built before 1970.¹⁰⁹ This presents a significant opportunity for upgrading existing homes to be more energy-efficient and the Town can play a role in facilitating such upgrades.

Best practices for supporting energy reduction and renewables in the community:

- Create an energy outreach and education program. A primary hurdle in engaging residents and businesses in energy efficiency and renewable energy is education. The Town should work with HLP and other state/federal programs to create a robust education and outreach program that educates consumers on the benefits of energy reduction, renewable

¹⁰⁹ US Census, American Community Survey, 2007-2011, 5-Year Estimates. http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS_11_5YR_DP04

energy, what actions they can take, as well as technical and financial resources available to them. Components of this program may include:

- Establishing a website clearinghouse of information and resources to improve energy literacy and knowledge of existing incentive programs. In addition, connect the website to social media to further engage the community.
- Partner with local retailers to educate customers on efficient products and rebates.
- Engage local schools and other community stakeholders in the program.
- Establish a revolving energy fund (or a property assessed clean energy finance program). The Town should partner with a financial institution to develop a revolving energy loan fund through which the Town –or other administering entity – can provide low-interest loans to residents and businesses for energy efficiency improvements or renewable technologies. The loans are paid back with the energy savings produced and replenish the fund. Establishment of such financing programs is permitted in Massachusetts under the “Municipal Relief Bill” (H.B.4877) passed in July 2010. The Town must hold a public meeting and then pass a by-law for establishing the program. Further information is available at: http://www.dsireusa.org/incentives/incentive.cfm?Incentive_Code=MA106F
- Adopt an expedited permitting process for renewable energy installations. Reducing permitting fees would further incentives renewable energy development, especially for larger installations.
- Adopt an energy efficient or green building code locally that is more stringent than the Massachusetts base energy code. More than 100 communities in the state have formally adopted the “Stretch Energy Code” as a condition under the Green Communities program. While Hudson does not intend to pursue designation as a Green Community, the Town could still pursue adoption of such a code and utilize the resources available in adopting and implementing the code. At the March 4 Public Forum, 36 percent of participants indicated that establishing green building or energy efficient building codes was the single most important thing the Town could do with regard to energy.

Energy Recommendations

The following is a summary of the recommendations provided in more detail throughout earlier sections of this chapter.

- E 1. Create incentives (financial and non-financial) for clean energy businesses to locate in Hudson.
- E 2. Support the development of clean energy/green jobs training at local technical schools.
- E 3. Enhance and promote existing incentives for renewables offered through HLP and the State.
- E 4. Consider a green roof demonstration project.
- E 5. Integrate additional municipal buildings into MassEnergyInsight to completely benchmark and track municipal energy use.
- E 6. Conduct energy audits on municipal buildings and implement recommended energy conservation measures.
- E 7. Explore anaerobic digestion for waste-to-energy production.
- E 8. Conduct investment-grade audits for efficiency improvements at water and wastewater treatment facilities.
- E 9. Conduct feasibility studies for renewable energy installations on municipal property.
- E 10. Upgrade outdoor lighting, streetlights, and traffic signals to LED.
- E 11. Engage in Smart Grid enhancements to modernize and improve efficiency and resiliency of the electric grid.
- E 12. Adopt a green building or energy efficiency policy for municipal buildings.
- E 13. Adopt an energy efficiency purchasing policy.
- E 14. New municipal buildings should endeavor to be LEED silver.
- E 15. When conducting renovations to municipal buildings, a cost-benefit analysis of energy efficiency upgrades should be conducted whenever possible.
- E 16. Adopt a policy emphasizing efficient and alternative fuel vehicles for the municipal fleet.
- E 17. Establish an energy outreach and education program.
- E 18. Establish a revolving energy loan fund.
- E 19. Provide expedited permitting for renewable energy installations.
- E 20. Adopt an energy efficient or green building code for residential and/or commercial new construction and major renovations.

Energy Resources

For more information on various energy topics, the following resources are suggested:

Town Resources

Hudson Light & Power, <http://www.hudsonlight.com/>

State and Other Resources

MA Department of Energy Resources (DOER): <http://www.mass.gov/eea/grants-and-tech-assistance/guidance-technical-assistance/agencies-and-divisions/doer/>

NStar: <http://www.nstar.com/>

MA Clean Cities Coalition:

<http://www.afdc.energy.gov/cleancities/coalition/massachusetts>

MassSave: <http://www.masssave.com/>



Hudson Light and Power Department Parade Car in 1916

Source: Hudson Historical Society Collection

10

Social Services and Public Health

Introduction

The American Public Health Association (APHA) defines public health as “the practice of preventing disease and promoting good health within groups of people”.¹¹⁰ Many master plan documents may not typically include a section on public health. However, by doing so a community can analyze health data and determine what actions need to be taken to

improve overall health within the community. Public health as a planning consideration is important in the context of rising obesity, lung cancer, and asthma rates. Master plans can address public health concerns by encouraging the development of active transportation options, improved environmental health and safety, and access to healthy foods.

Social services cover the wide range of services offered by a community, such as elderly services, veterans’ affairs, disabilities/mobility services, homelessness prevention, human relations and human rights, youth services, literacy campaigns, and neighborhood and community outreach. The Senior Center in Hudson is a local example of a social service that benefits the Town’s aging population. Establishing social services that support the needs of the community is important for society’s quality of life.



¹¹⁰ American Public Health Association. *What is Public Health?*
http://www.apha.org/NR/rdonlyres/C57478B8-8682-4347-8DDF-A1E24E82B919/0/what_is_PH_May1_Final.pdf.

This chapter describes the current level of social services and public health in Hudson, while also suggesting and recommending ways to improve social services and public health systems.

Social Services and Public Health Goals

Overarching goals related to the Town of Hudson's social services and public health systems have come out of this master plan process. These will be explained throughout this chapter and include the following:

- Improve water quality in order to maintain safe and clean drinking water resources.
- Increase access to local and healthy foods.
- Improve pedestrian amenities to encourage walking, running, bicycling, and public transit.
- Develop additional programming and capacity related to public health and social services.



Public Health Relationship to Land Use Planning and the Built Environment

Overlap exists between public health issues and land use planning, as many planning goals and initiatives can be directly correlated with the public health of a community. For example, increasing access to local and healthy food sources can result in decreased diabetes and obesity rates. Development of bike lanes, sidewalks, rail trails, and other pedestrian amenities decreases automobile use which results in improved air quality and contributes to lower asthma rates. Development of these amenities also increases opportunities for active exercise, assisting with multiple public health concerns already mentioned. Improvements to pedestrian crossings and roadway networks increase public health and safety overall, as this can decrease the rate of pedestrian/bicyclist collisions.

Encouraging active transportation, enhancing local and healthy food access, addressing health issues such as substance abuse, tobacco use, mental health, and pediatric asthma are pressing issues that are being addressed by the Town's Public and Community Health Services Department to improve the Town's overall public health. In addition, providing better management of solid waste

and maintaining safe living environments for seniors are key concerns for the Town. Active transportation is synonymous with sustainable transportation, as it emphasizes “self-propelled transit modes, such as walking and bicycling,”¹¹¹ unlike single occupancy travel by automobile which consumes resources. This physical activity reduces obesity rates. “In a 2009 report, Samimi [the author] found that a one percent decrease in automobile use is correlated with 0.4 percent reduction in obesity.”¹¹² Even increasing public transportation contributes to positive health benefits, as it has been found that light rail usage contributes to a 1.18 decrease in Body Mass Index (BMI) and reduces one’s chance of obesity by 81 percent.¹¹³ Increasing active transportation, carpooling or car sharing programs, and public transportation are positive ways to decrease obesity and other health issues, through development of sidewalks and trails, increasing the amount of public transit, and educating the general public of the benefits of decreasing automobile use and instead turning to more active options.

How buildings are constructed and sited on the property can have important public health and environmental implications. Employing green building standards can result in efficient use of energy, water, and other resources; protect occupant health and improve employee productivity; and reduce waste. New construction can incorporate materials that are reused, recycled-content, or made from renewable resources; create healthy indoor environments through reduced product emissions; and feature landscaping that requires minimal water usage. Properly sited buildings can also enhance the connectivity of streets and sidewalks.

Conventional food systems today rely heavily on big-box retail corporations to provide food and household needs in one spot. The issues surrounding this system relate to the fact that these primary stakeholders span great distances from each other, requiring most residents/shoppers to drive to these locations. Food deserts are defined as low-income census tracts where residents have no access to fresh produce or whole grains within one square mile. Low-access to a healthy food retail outlet is defined as households that are more than one mile from a supermarket or large grocery store in urban areas and as more than 10 miles from a supermarket or large grocery store in rural areas.¹¹⁴ The Town can avoid these issues in the future and develop a healthier food system by:

- increasing access to local and healthy food options particularly within the Downtown area;
- encouraging fast-food restaurants and convenience stores to switch to healthier and more affordable food products; and,
- educating the public of the importance of choosing healthier diets.

111 Tufts University and VHB. *Community Planning Guide for Public Health*. May 2013.

112 *Ibid.*

113 MacDonald, John M., Robert J. Stokes, Deborah A. Cohen, Aaron Kofner, and Greg K. Ridgeway. 2010. *The effect of light rail transit on body mass index and physical activity*. *American journal of preventive medicine* 39: 105-112.

114 United States Department of Agriculture, Economic Research Service, http://www.ers.usda.gov/data-products/food-access-research-atlas/documentation.aspx#_ft_z9Nlo69l. Accessed January 29, 2014.

Hudson's Social Services and Public Health Programs

Hudson is an active community in promoting public health and social services. With the Hudson Board of Health, Senior Center, and Hudson Veterans Services Department, the community is able to advance various initiatives to work towards a healthful environment and active community programs. Additionally, the Hudson Housing Authority provides housing to people that require social services and it refers people to service providers as needed. This section describes the Massachusetts Department of Public Health's (DPH) role, the roles of the Hudson Board of Health, Senior Center, and Veterans Services, and grants and programs Hudson is involved in related to public health initiatives.

Massachusetts Department of Public Health

DPH's mission is to "prevent illness, injury, and premature death, to assure access to high quality public health and health care services, and to promote wellness and health equity for all people in the Commonwealth."¹¹⁵ Through grant funding and other programs and initiatives DPH works to advance public health in the state.



Community Transformation Grant and MetroWest Moves

Community Transformation Grants (CTG) are administered by the Centers for Disease Control in order to help states and local communities address chronic health issues such as smoking, poor diet, and lack of physical activity. In 2011, DPH and the Metropolitan Area Planning Council partnered to develop the CTG application to promote health and wellness in Middlesex County. DPH was awarded \$1.6 million for its grant application and goal efforts. DPH created the statewide Mass in Motion program to promote healthy eating and active living in order to create healthy communities across the Commonwealth. The Town of Hudson is now receiving funding each quarter as a result of its active involvement in the grant application. The Town also secured a matching grant from the MetroWest Health Foundation for the tri-community collaborative (MetroWest Moves). The MetroWest Moves program is described further in the next section.

¹¹⁵ Massachusetts Department of Public Health.
<http://www.mass.gov/eohhs/gov/departments/dph/welcomewe12.html>. Accessed September 2013.

Prevention & Wellness Trust Fund

With the establishment of the Prevention & Wellness Trust Fund (PWTF) in 2012, the Massachusetts Legislature set forth a challenge to communities across the Commonwealth: reduce health care costs by preventing chronic conditions. Sometimes referred to as the “Massachusetts Healthcare Reform 2.0”, the PWTF supports community-based partnerships including municipalities, healthcare systems, businesses, regional planning organizations, and schools. These groups work together to provide research-based intervention that will reduce rates of the most prevalent and preventable health conditions, increase healthy behaviors, and address health disparities. In January of 2014, the MetroWest Prevention & Wellness Partnership, led by Hudson Board of Health, was among the nine community partnerships awarded grants through the PWTF.

For more information on Hudson’s involvement in MetroWest Prevention & Wellness Partnership and MetroWest Moves see the *Hudson Board of Health* section below.

Hudson Board of Health

The Town of Hudson’s Board of Health is the municipal entity responsible for promoting healthier choices in the community in order to create a safer and healthier quality of life for its residents. Its mission is to “promote the health of the people through the prevention and control of disease and injury. We work to insure the quality of our food, check the safety of homes, and protect the environment from damage and pollution.”¹¹⁶ The Board of Health is managed by a Director of Public and Community Health Services, who leads a small team of professional staff to deliver the services of the department. A three-member board, elected every three years by town residents, oversees the Board of Health and assists in making decisions related to the Board’s responsibilities. The Town currently does not have a public nurse on staff, and contracts with the VNA Care Network and Hospice (VNA) for appropriate services. Hudson’s Board of Health actively manages many programs areas related to community health including:

- Solid Waste Management
- Food Protection
- Waste Water Management
- Mental Health
- Healthy Aging (in conjunction with the Senior Center)
- Housing
- Community Health
- Emergency Preparedness, Planning and Response (emergency shelters)
- Environmental Health
- Grants Application and Management
- Community Outreach and Education

¹¹⁶ Town of Hudson Board of Health website.
http://www.townofhudson.org/Public_Documents/HudsonMA_Health/index. Accessed July 2013.

- School Health Services Collaboration
- Regular Health Clinics for Residents (flu, blood pressure, bone density, and rabies)

In addition to these program areas the Board of Health is actively involved with six programs including, MetroWest Prevention & Wellness Partnership, MetroWest Moves, Health Needs Assessment, Hudson Youth Substance Abuse Prevention, Tobacco Control Program, and Communicable Disease Investigations, which are described further below.

MetroWest Prevention & Wellness Partnership

Organized by Hudson Board of Health, the MetroWest Prevention & Wellness Partnership was formed in late 2013 to apply for the PWTF grant. The partnership consists of municipalities (Hudson Framingham, Marlborough, and Northborough), healthcare entities (MetroWest Medical Center, Edward M. Kennedy Community Health Center, and Charles River Medical Associates), community-based organizations (YMCA of Central Massachusetts, MetroWest YMCA, Latino Health Insurance Program, and Central Massachusetts Area Health Education Center), and Metropolitan Area Planning Council (MAPC). This grant provides funding of almost \$2 million per year for 3 years, including matching funds from the MetroWest Health Foundation.

The MetroWest Prevention & Wellness Partnership focuses on four chronic health conditions: pediatric asthma, hypertension, falls among older residents, and tobacco use. The initiative calls for development of a linkage system between clinical sector, such as physicians, and community health sector, such as local boards of health and YMCA. Through this structured linkage system, patients with these chronic health conditions are connected with evidence-based interventions provided by community health organizations.

The goal of this initiative is to improve health outcomes while reducing healthcare costs for residents with these chronic health conditions.

MetroWest Moves

With the CTG funding, Framingham, Hudson, and Marlborough collectively formed MetroWest Moves, “a tri-community Mass in Motion initiative that creates opportunities for people who live, work, and play in Framingham, Hudson, and Marlborough to engage in healthy eating and active, smoke-free living.”¹¹⁷ MetroWest Moves is also supported by a matching grant from the MetroWest Health Foundation. As Hudson is MetroWest Moves’ host community, Hudson’s Board of Health is actively involved with the Town’s

¹¹⁷ Massachusetts Department of Public Health. Mass in Motion website. MetroWest Moves. <http://www.mass.gov/eohhs/gov/departments/dph/programs/community-health/mass-in-motion/community/mim-communities/metrowest.html>. Accessed July 2013.

MetroWest planning priorities, initiatives and strategies. MetroWest Moves' primary strategies focus on promoting healthy eating, active living, and tobacco control in order to address public health issues such as obesity, diabetes, asthma, and cancer rates among residents.

Additionally, MetroWest Moves received a \$75,500 Community Innovation Challenge (CIC) grant from the state in February 2014 to develop a Complete Streets Prioritization Tool. Hudson is the lead community in this effort. As part of its public health approach, MetroWest Moves "Complete Streets" policies ensure that transportation planning and development takes into account the needs of all road users: pedestrians, cyclists, and drivers (see Chapter 8 – Transportation for more information on complete streets). The Complete Streets Prioritization Tool that will be developed and implemented through this grant will assist in identifying opportunities for walking, bicycling, and other modes of healthy transportation within each municipality. The product of this grant will create a ranking system that will enable the three communities to improve capital expenditure decision making by prioritizing roads that have the maximum utility for bike and pedestrian access.

MetroWest Moves is also working on a Worksite Wellness Initiative, which addresses healthy lifestyle choices in the workplace. In addition to raising awareness, these programs include behavioral changes such as weight reduction and smoking cessation programs; injury prevention; vending and cafeteria changes; health screenings; and employee wellness incentives. The initiative includes a Healthy Dining Initiative in which over 25 are participating thus far across the collaborative, including eight in Hudson. In order to help Framingham, Hudson, and Marlborough establish safe streets for all users including pedestrians, bicyclists and public transit users, MetroWest Moves assists in developing community design standards such as Complete Streets. MetroWest Moves analyzes current conditions and traffic on existing transportation features (sidewalks, trails, walking paths) in order to identify and eliminate barriers that prevent residents from walking and biking to school, work, transportation hubs, parks, shopping areas, and other destinations. It also works to ensure any new development incorporates sidewalk and bike lanes into the design. To address tobacco use, the organization is working on a Tobacco Control Initiative by committing to increase smoke-free multi-unit housing.¹¹⁸

Complete Streets is a design approach to plan and develop streets in a safe, convenient, and comfortable way for all types of roadway users of all ages. A Complete Street takes into consideration pedestrians, automobile drivers, bicyclists, and public transit riders through design elements such as raised crosswalks, median crossing

In October 2014, the Town of Northborough joined MetroWest Moves to become the fourth member of the collaborative.

¹¹⁸ MetroWest Moves website. <http://metrowestmoves.org/>. Accessed September 2013.

Health Needs Assessment

The Hudson Board of Health collaborating with state-wide healthcare entities, the MetroWest Health Foundation, and other local towns in the MetroWest region, has recently completed a Community Health Assessment published September 2013. This is a comprehensive report that examines demographic trends, social and physical environmental attributes, and health data for 22 cities and towns in the MetroWest region. Using data analysis, surveys and focus groups, the Community Health Assessment examines existing public health data and how residents in the area perceive health needs in the MetroWest region and each community involved, including Hudson.¹¹⁹ The following are some of the key conclusions of the assessment:

- Obesity and access to physical activity and healthy food were concerns identified by focus group participants and survey respondents.
- Mental health and substance use were identified as pressing needs by assessment participants, and current services were largely seen as inadequate.
- The aging of the region's population was noted by many, and concerns about seniors were prominent.
- Across all issue areas, transportation was identified as a challenge for many residents to accessing services.
- The region is seen as having a strong health care infrastructure, but there are concerns about access.
- As the health system increasingly faces challenges and health reform is implemented, residents saw the great need for increased efforts focusing on prevention.

Some of the health indicators for Hudson show that the Town has fallen behind others in the MetroWest region. They include:

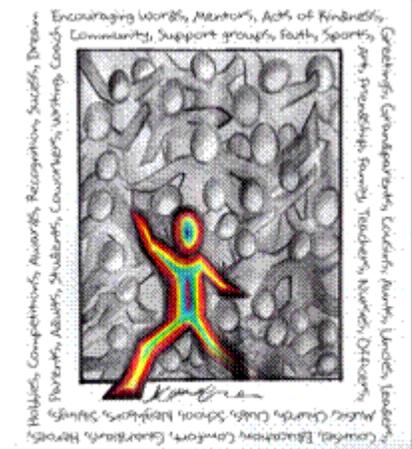
- Hudson has the highest obesity rate in the MetroWest region (20.2%), although it is slightly below the state average. Among 4th graders, Hudson had the highest rate of obesity (44.9%) while rates among 7th and 10th graders were significantly lower and well below the state average.
- Inadequate fruit and vegetable consumption was highest in Hudson (77.9%).
- Adults were less likely to exercise in Hudson.
- Hudson reported the highest incidence of adult asthma in the region.
- Hudson residents reported feeling depressed or in poor mental health more often than residents of other communities in the region.
- Hudson had the greatest proportion of its population reporting they were smokers (12.8%), but below the statewide average of 15.9%.

¹¹⁹ MetroWest Region, Massachusetts – 2013 Community Health Assessment, Fall 2013, see <http://www.mwhealth.org/Portals/0/Uploads/Documents/CommunityHealthNeedsAssm2013.pdf>

- Hudson teenagers had the third highest childbirth rate in the region.
- 8% of all births were considered to have a low birth weight, second highest in the region and potentially indicative of a relative lack of prenatal care.

Hudson Youth Substance Abuse Prevention

The Hudson Board of Health received a three-year grant from the MetroWest Health Foundation in 2012 in order to work towards initiatives for addressing youth substance abuse prevention, intervention, and increase access to treatment (related to alcohol, marijuana, prescription drugs, and tobacco). What resulted from this funding was the Hudson Youth Substance Abuse Prevention program and coalition. The coalition contains representatives from various community sectors including Hudson Public Schools, the Hudson Police Department, healthcare providers, the Hudson Board of Health, the arts and business communities, and substance use advocacy groups.



Original Hudson student artwork which inspired the Hudson Youth Substance Abuse Prevention logo

By being active in the community, developing continuous partnerships, and through various programs and activities, the group increases town-wide awareness and are better able to reach their goals. For example, the group runs a medication take-back kiosk to dispose of unwanted medications, and is involved in the National Drug Take-Back Day and the American Medicine Chest Challenge. School-based programs are especially important to the Hudson Youth Substance Abuse Prevention as these activities specifically target youth in the community. With a new Hudson High School wellness curriculum to begin in 2013-2014,¹²⁰ screenings for youth substance use, prevention, intervention, and treatment referrals, peer and family support groups, and involvement in Red Ribbon Week drug prevention activities, the group and Town are taking great strides toward preventing youth substance abuse in the community.

"The community of Hudson will work to measurably transform adolescent substance use by building community capacity and supporting substance abuse prevention, early intervention, and treatment."

Hudson Youth Substance Abuse Prevention Mission Statement

For more information on the Hudson Youth Substance Abuse Prevention along with their current activities and events, visit their informative website at <http://preventhudsonsa.org/>.

¹²⁰ This curriculum emphasizes the physical, emotional, social, intellectual, spiritual, environmental, and occupational aspects of healthy living. See <https://sites.google.com/a/student.hudson.k12.ma.us/hudson-wellness/in-the-community>.

Tobacco Control Program

The Board of Health also leads the extensive Tobacco Control Initiative aimed at enforcing existing tobacco sale regulations, promoting smoke-free housing, and discouraging the use of tobacco by residents. It supports one of the strategies of MetroWest Prevention & Wellness Partnership program, which aims to encourage smoke-free environments at multi-unit housing complexes. The Hudson Board of Health works with landlords of multi-housing units in the community to create smoke-free environments within their units. After collaborating with the Hudson Board of Health, the Hudson Housing Authority voted to go smoke-free at their housing complexes in 2013 and smoke-free units such as Brigham Circle and Norma Village on Glen Road will be in effect by August 2014. In February 2014, the Board voted to increase the minimum age for buying cigarettes to 21.

The Board of Health is partnering with other local communities to form a regional tobacco control district. Including Hudson, the district will be made up of eight communities in the region. The district's primary purposes will be to better enforce the existing tobacco sale regulations in the area and to promote smoke-free living, smoking cessation, and use prevention among minors. The Town recently revised their own local tobacco control regulations in order to reflect existing conditions on the market, such as new products (e-cigarettes, dissolvable tobacco oral pouches, etc.). Some of these new products are marketed toward youth through flavor choices and concealment appeal, making these products especially important to regulate at the community level. Hudson's old tobacco regulations were in need of updating as they did not currently reflect recent products on the market.

Communicable Disease Investigations

Communicable diseases are illnesses that can be spread from one person to another (also known as infectious diseases and transmissible diseases). Hudson is part of a statewide disease surveillance and case management system called MAVEN. When a communicable disease outbreak occurs in the area, DPH notifies the Hudson Board of Health and VNA (since they are registered as an agent for the BOH for communicable disease case management). Traditionally the Hudson Board of Health will then investigate the disease and any findings and notes obtained are reported back to Maven allowing the state to collect information on the communicable disease. The Maven system allows crucial communication between communities such as the Town of Hudson, the VNA, and state healthcare entities in response to communicable diseases and not so common infectious diseases.

Hudson Veterans Services Department

The Hudson Veterans Services Department is knowledgeable on an array of federal, state, and local benefits to which veterans and dependents may be entitled. Some of these benefits include Massachusetts General Law (M.G.L.) Chapter 115 public assistance¹²¹, Veterans Affairs (VA) benefits, social security, disability, burial, transportation, and Supplemental Nutrition Assistance Program (SNAP). The Department's goal is to help veterans living in Hudson learn about, apply for, and receive these benefits. The Veterans Services Department is run by the Veterans Agent who coordinates local benefits and related activities for Hudson's veterans.



Veterans Clubs and Organizations

Various veteran clubs and organizations are located in Hudson each containing their own events and programming. The American Legion Post 100, containing approximately 70 members, are sponsors of the annual American Legion Baseball Tournament, hold an annual pancake breakfast in May, are members of the Hudson Veterans Council, and administer a scholarship program. Amvets Post 208 has a membership of 252 people and run programs such as the "Home Alone For the Holidays" program, an annual holiday party, annual fishing derby and barbecue, annual motorcycle ride to support local families in need, annual scholarship for nursing students, and are also members of the Hudson Veterans Council. Lastly, the Veterans of Foreign Wars (VFW) Post 1027 in Hudson has a membership of 245 members. VFW performs "Flags In" services, sells buddy poppies in which the proceeds are donated to non-profit



Memorial Day 2014
Photos by Ed Karvoski Jr., Community Advocate

¹²¹ M.G.L. Chapter 115 is a need-based program of financial and medical assistance for veterans and their dependents. Qualifying veterans and their dependents receive necessary financial assistance for food, shelter, clothing, fuel, and medical care. Applications for the program are available at the Hudson Veterans Services Department at Town Hall. (<http://www.mass.gov/veterans/benefits-and-services/chapter-115.html>)

organizations, holds a monthly lobster shoot which raises money for veterans and their family members, administers a scholarship program, and are additionally members of the Hudson Veterans Council.

VetRides

Funded by private donations from local veteran service organizations, local businesses and individuals, and annual fundraisers, the VetRides program provides free transportation to veterans and their caregivers to local and Boston area VA hospitals for appointments and treatments. In calendar year 2012 alone, 178 rides were provided to veterans. The transportation is currently provided by volunteers but grant funding through MetLife and the Ford Foundation are being sought in order to obtain a dedicated vehicle for the program. A dedicated vehicle would help to cover the current volunteer costs. This program is beneficial for local veterans as it is difficult to find public transportation within Hudson.

Council on Aging/Senior Center

The Council on Aging and the Senior Center provide advocacy and support systems empowering older adults to maintain their independence, improve their quality of life and prepare for life change. The Council provides social services; wellness and fitness programs; information and referral services; case management; health promotion and prevention activities; socialization; volunteer opportunities; advocacy; and associated support systems. The activities, programs, and services of the Senior Center are designed to: empower older adults to maintain independence; support frail elders in their homes; improve quality of life; provide some supportive services for individuals of all ages with disabilities; inform and assist families considering life change decisions concerning elder family members; and provide preventive health programming, advocacy, education, social, and leisure opportunities for active adults.¹²²



One of the most important programs the Senior Center coordinates is Serving Health Insurance Needs of Elders (SHINE), which provides free and objective health insurance information to Medicare beneficiaries, screens people for subsidy programs to help them save on prescription drugs and medical costs, and assists people with MassHealth applications. In addition, home visits are

¹²² Town of Hudson 2013 Annual Report

made and needs assessments are formulated to help the elderly remain in their own homes. The Center is an official intake site for the fuel assistance and the Supplemental Nutritional Assistance Program (SNAP).

The Center has two vehicles including a new 14 passenger van equipped with a wheelchair lift and space for two wheelchairs, and a 14 passenger van without a lift. Seniors needing transportation for medical appointments, shopping, banking, etc. between Hudson and Marlborough can call the Center to arrange for transportation. It also coordinates the Meals on Wheels Program, which is managed by BayPath Elder Services, which serves thousands of meals each year.

The Senior Center currently serves 5,517 seniors aged 55 and older, which comprises 27 percent of Hudson's total population. This segment of the population is expected to follow national trends and continue to rise over the next several decades. For example, the number of people 65 years of age and over in the U.S. increased from 35 million in 2000 to 41.4 million in 2011 (an 18 percent increase) and is projected to increase to 79.7 million in 2040, which includes the Baby Boom generation. Those 85 years and older stand at 5.7 million in 2011, with a projected increase to 14.1 million by 2040.¹²³

In the 2013-2-14 fiscal year, the Center served 1,769 individual people, for a grand total of 37,776 duplicated visits or participation in the programs/events mentioned above. Since opening the new Senior Center in 2010, attendance and program participation has tripled.

Friends of the Hudson Senior Center, Inc. are a non-profit, tax exempt organization with a goal of raising funds for improvements and renovations to the Hudson Senior Center. Through events such as raffles, dances, and suppers, funds are raised and used for renovating the building, and purchasing equipment and vehicles used in the transportation program.¹²⁴

There are a number of issues that continue to concern the Council on Aging. As Hudson's population continues to age, these issues are likely to be on the Council's agenda for years to come. They include affordable housing options for senior citizens, transportation for basic errands and medical appointments, helping establish financial security as people age through workshops and education, and the stigma associated with mental illness as our aging population expands.

¹²³ Administration on Aging, Department of Health and Human Services

¹²⁴ Town of Hudson Senior Center website. http://www.townofhudson.org/Public_Documents/F00014246/Index. Accessed July 2013.

Other Services

The Hudson Housing Authority offers many outreach services and maintains active referrals within Hudson’s social service network. See Chapter 3 – Housing.

The Town also administers the Benevolent Fund. This fund has an elected Board of three trustees, each serving a three-year term.

There are many other private social services run through organizations such as church groups, the Assabet Valley Chamber of Commerce and the Hudson Rotary Club, to name only a few.

Public Health Data and Trends

Various public health data is available for both Hudson and the MetroWest region in order to describe trends in the community. The MetroWest Health Foundation is a key resource for public health related data. The Foundation “provides financial support to community-based and community-driven programs to meet the unmet health needs of twenty-five communities in the MetroWest area of Massachusetts”.¹²⁵ Through various grants, scholarships, initiatives, and analyses the MetroWest Health Foundation is able to assist the 25 communities in the MetroWest region (including Hudson) with improving their individual health statuses.¹²⁶

Data from the Foundation’s Community Health Data Center is collected from several state and federal resources and can be viewed for each community or the region as a whole. Evaluating data related to cancer, smoking and drinking, asthma, obesity, and more help to determine the issues a community faces related to its public health. The following table displays select public health data for the Town of Hudson compared to the MetroWest region and Massachusetts.

¹²⁵ MetroWest Moves. Community Health Data. <http://metrowestmoves.org/in-your-community/health-data/>. Accessed September 2013.

¹²⁶ MetroWest communities include: Ashland, Bellingham, Dover, Framingham, Franklin, Holliston, Hopedale, Hopkinton, Hudson, Marlborough, Medfield, Medway, Mendon, Milford, Millis, Natick, Needham, Norfolk, Northborough, Sherborn, Southborough, Sudbury, Wayland, Wellesley, and Westborough

Table 10-1 Select Community Health Data – Hudson, MetroWest, and Massachusetts, 2013

	Town of Hudson	MetroWest Region	Massachusetts
Lung Cancer Rate¹	87.8	66.7	72.2
Lung Cancer Mortality ¹	54.6	45.1	50.7
Adult Smoking Rate	12.8%	10.3%	N/A
High School Smoking Rate	15.1%	12.1%	N/A
Diagnosed Asthma	9.0%	8.5%	10.1%
Obese Residents	20.2%	18.1%	21.8%
Obese high schoolers ²	26.8%	23.0%	32.1%

Source: MetroWest Health Foundation. Community Health Data Center. <http://www.mwhealth.org/Default.aspx?TabId=257>. Accessed September 2013.

1 Age adjusted rate per 100,000 people

2 Grade 10 students

According to the MetroWest Health Foundation, Hudson has higher rates of lung cancer, lung cancer mortality, and adult and high school smoking rates compared to the MetroWest region and the state. Asthma and obesity rates are typically higher in Hudson than the region, but lower than the state averages. Developing programs targeted towards decreasing smoking rates could in turn potentially reduce lung cancer and lung cancer mortality incidences (and even asthma rates). Establishing more active recreation programs, especially those for high school students, could lower the obesity rates for Hudson’s residents. Although these statistics show Hudson residents have higher rates of certain health risks, the Town and MetroWest region are thriving in other health factors. For example, MetroWest residents are least likely to report fair or poor health (9 percent), least likely to report not having health insurance (2 percent), least likely to report being a current smoker (13 percent), and residents above the age of 50 are more likely to have received the shingles vaccine (15 percent) compared to other residents in any other region.¹²⁷ This data is shown in the table below.

Table 10-2 Select Community Health Data – Massachusetts Regions, 2011

	MetroWest Region	Western Region	Central Region	North East Region	South East Region	Boston Region
Reports of fair or poor health	9%	17%	15%	13%	16%	16%
No health insurance	2%	6%	4%	5%	6%	5%
Current smoker	13%	21%	20%	19%	21%	18%
Shingles vaccine, Age 50+	15%	10%	8%	10%	10%	8%

Source: Massachusetts Department of Public Health.

Since 2006, the MetroWest Health Foundation has administered a MetroWest Adolescent Health Survey every other year to students in communities involved. Students at the Hudson High School and JFK Middle School have completed the MetroWest Adolescent Health Survey most recently in 2012. The purpose of the survey is to learn about adolescents’ attitudes and behaviors on health issues in order to help school districts provide the best possible health education and

¹²⁷ Massachusetts Department of Public Health. *A Profile of Health Among Massachusetts Adults, 2011. Results from the Behavioral Risk Factor Surveillance System.* <http://www.mass.gov/eohhs/docs/dph/behavioral-risk/report-2011.pdf>

related services to students.¹²⁸ The anonymous survey assesses teen attitudes and behaviors related to alcohol, tobacco and other drug use; violence and safety; nutrition and physical activity; sexual behaviors; and mental health. The following table displays some of the results of the most recent 2012 survey for the two Hudson schools involved in the program. Full survey results can be viewed on the Hudson Public Schools' website.

Table 10-3. MetroWest Adolescent Health Survey Results - Hudson Public Schools, 2012

	Hudson Middle School (Grades 6-8)	Hudson High School (Grades 9-12)
Substance Use	Total (%)	
Lifetime cigarette smoking	6.8	26.3
Lifetime alcohol use	14.0	59.8
Rode with driver who had been drinking (lifetime)	13.7	17.9
Lifetime marijuana use	4.7	38.6
Violence		
Physical Fighting	39.2 (lifetime)	13.8 (past 12 months)
Carried a weapon	12.3 (lifetime)	5.9 (past 30 days)
Bullying Victimization		
Bullying victim (past 12 months)	37.4	25.6
Bullying victim on school property (past 12 months)	29.8	21.6
Mental Health		
Depressive symptoms (past 12 months)	13.0	20.8
Considered suicide	11.1 (lifetime)	14.5 (past 12 months)
Attempted suicide	2.5 (lifetime)	5.1 (past 12 months)
Physical Activity and Body Weight		
Exercise Frequency	78.9 (exercised for ≥20 minutes on 3 or more days/week)	44.1 (exercised for ≥60 minutes on 5 or more days/week)
Overweight or obese	29.0	24.3

Source: MetroWest Adolescent Health Survey. Key Indicator Report. Hudson Public Schools. 2012.
<http://www.hudson.k12.ma.us/LinkClick.aspx?fileticket=Kp-A1rLmQag%3d&tabid=675>

Public health issues that Hudson faces such as high lung cancer rates, smoking rates, and obesity can be directly correlated with poor health behavioral actions such as smoking, lack of exercise, and lack of access to healthy foods.

Programs and initiatives to work towards resolving these issues and in turn improving Hudson's public health would aim to reduce smoking rates, increase opportunities for exercise, and advance access to healthier and local food options in the community.

¹²⁸ MetroWest Moves. *Community Health Data*. <http://metrowestmoves.org/in-your-community/health-data/>. Accessed September 2013.

Public Health Needs

Transportation

Hudson joined the regional transit authority in January 2014, but it has not received services yet so there are no public bus transit stops within the Town at this point in time. Additionally, “the Town requires that new developments construct sidewalks, but does not require the necessary connections to other sidewalks.”¹²⁹ This leads to gaps in the sidewalk system, and has left some neighborhoods disconnected from the sidewalk system. Lack of alternative transportation options, such as public transit and a comprehensive sidewalk system forces residents to consistently travel daily via automobile even for short trips, although some public transit service is expected in the near future. This constant use of automobile traveling contributes to poor air quality and does not promote healthy exercising normally associated with alternative transit modes. Partnering with a regional transit authority in order to bring bus routes and stops to Hudson would be beneficial to the community’s overall public health. Examining the sidewalk network in Hudson to develop an interconnected network of pedestrian access would also promote public health in the Town.

Drinking Water

Drinking water used by residents is obtained from surface water at Gates Pond in Berlin and five groundwater wells located throughout Hudson. Two of the groundwater wells, Kane and Cranberry wells, have been tested for concentrations of iron and manganese. Tests uncovered levels which surpass the Massachusetts Department of Environmental Protection’s (DEP) limits for these natural elements. The Town has decided to pursue a solution that entails conveying raw water from the Kane and Cranberry wells to the Chestnut Street Water Filtration Facility (an existing facility that treats the three other groundwater wells in Town), has constructed a pipe system from the Kane well and is constructing one from the Cranberry well to the filtration plant. Although, the Town is taking appropriate measures for resolving this water quality issue, it is important to note for public health reasons as high levels of iron and manganese in drinking water supplies do affect the aesthetic qualities of water and prolonged exposure many affect the public health of certain residents with sensitivity to iron and manganese. See Chapter 5 – Natural Resources and Chapter 7 – Community Facilities for more information.

Healthy Food Access

Hudson is well-served by five supermarkets in Hudson, including BJ’s Wholesale Club, Hannaford Supermarket, Super Stop & Shop, Wal-Mart Supercenter, and Market Basket. These grocery stores provide affordable and healthy food options to

¹²⁹ Tufts University and VHB. *Community Planning Guide for Public Health*. May 2013.

the community. Supplementing these stores at the neighborhood level with additional smaller scale food entities that also sell local, affordable, and healthy food products would improve the Town's food access. The community garden and food pantry provides an additional resource.

Neighborhood level stores within walking distance of most Hudson residents would fill in any future food system holes. Access to local, healthy, and affordable food for everyone is key in developing a sustainable food system and addressing public health concerns related to food access. Currently, there are no farmers markets in Hudson. Establishing community supported agriculture (CSA) programs and weekly farmers markets during the growing season is another step Hudson can take towards improving the community's food system.

Lung Cancer and Smoking

As Hudson has higher lung cancer rates, lung cancer mortality rates, and smoking rates than regional and state averages, there is a need for educational programming of the effects smoking can have on one's health. Brochures, informational sessions, advertisements and other forms of media are ways to educate the community, especially youth and high school students, of the consequences of smoking and rates of smoking, lung cancer and lung cancer mortality in the Town compared to other areas. Tobacco control programming in place could potentially help to reduce smoking rates and in turn, reduce lung cancer and lung cancer mortality rates.

Healthy Aging

Like many communities, Hudson can expect its population of senior citizens to increase dramatically over the next 10 to 20 years. The U.S. Census Bureau estimates that 10,000 "Baby Boomers" per day will turn 65 years of age. Thus, it is increasingly important to address the need to establish programs and a comprehensive approach to helping older adults live longer, high-quality, productive, and independent lives. Both the Center for Disease Control (CDC) and DPH have programs that focus on injury prevention, disability prevention, and adult immunizations. Through health promotion and disease prevention, the goals of such efforts are to improve the overall health and quality of life for older adults, and to slow the expected growth of health care and long-term costs for this and future generations. Important services include health promotion and education, preventive services, mental health counseling, caregiving, decision making at the end of life, emergency preparedness, and chronic disease management. See <http://www.cdc.gov/aging/about/index.htm>.

Public Input

At a Public Health and Social Services public forum in April of 2013, residents were polled on the current and future status of the public health and social services systems in Hudson. They indicated the desire for an assisted living facility, programs to help seniors retrofit their homes in order to support aging in place, and education

to help seniors age in place were the most important goals to achieve in Hudson. Elder services were also the highest rated social service program that participants felt Hudson should prioritize in the next several years.

Public Health Recommendations

As mentioned earlier, many goals and objectives that come out of a master planning process are directly correlated with public health concerns. As the Town of Hudson has higher smoking, asthma, and adolescent and adult obesity rates than the MetroWest region averages, those goals and objectives that can improve these issues are even more important. The following are some goals and recommendations the Town should take in order to improve its public health and social services issues. Some of these may overlap with goals from other elements of this master plan.

Goal 1: Improve water quality in order to maintain safe and clean drinking water resources, include the water quality of private drinking water wells. See Chapter 5 – Natural, Historic and Cultural Resources for more recommendations.

SSPH-1. Investigate property, such as those on River Road and near the Cranberry Well, for Town acquisition to better protect drinking water supplies from contamination.

SSPH-2. Identify future sites for water wells, including options in adjacent communities if financially beneficial to Hudson.

Goal 2: Increase access to local and healthy foods.

SSPH-3. Consider development of a farmer to schools food program, an agreement through which local farms grow and provide food to the Hudson Public Schools for healthy student meals.

SSPH-4. Actively identify and recruit a medium-sized grocer to locate in the Downtown area.

SSPH-5. Develop a food hub near Downtown to serve as a farmers market and regional community supported agriculture location that utilizes agricultural opportunities from surrounding towns.

SSPH-6. Identify and target areas for agricultural development and revise zoning bylaws to encourage this development in these areas.

SSPH-7. Work with local convenience stores and fast-food restaurants to offer healthier food choices at lower costs to consumers.

A **Food Hub** is a business or organization that actively manages the aggregation, distribution, and marketing of source-identified food products primarily from local and regional producers to strengthen their ability to satisfy wholesale, retail, and institutional demand. bicycle parking, public transit accommodations (bus lanes, shelters), and traffic calming measures (street trees, face-out parking spaces).

SSPH-8. Continue to work towards the MetroWest Moves initiatives: worksite wellness, and healthy dining initiatives.

Goal 3: Improve pedestrian amenities to encourage walking, running, bicycling, and public transit. See Chapter 7 – Transportation for more recommendations.

SSPH-9. Continue to support and promote the Safe Routes to School¹³⁰ or Walking School Bus¹³¹ program community-wide in order to increase the amount of students safely walking to school. These programs would also help to identify pedestrian amenities that may be lacking in crucial areas.

SSPH-10. Maintain existing and develop additional sidewalk connections. Create a sidewalk management program and a Complete Streets Committee to improve the sidewalk network and prioritize connections to schools, recreation spaces, and primary transit locations.

SSPH-11. Encourage and support Complete Streets policies and strategies for current or future projects that involve Hudson's roadways by amending the Town's Site Plan Review and Subdivision Rules and Regulations. Target existing roadways for Complete Streets development.

SSPH-12. Require alternative transportation infrastructure in new or existing developments to promote alternative transportation usage. For example, require bicycle corrals, racks, cages, and lockers for certain types of development.

SSPH-13. Require all new developments to include bike lanes and/or interconnected sidewalks for pedestrians.

SSPH-14. Incorporate healthy community design into Hudson's planning process in order to make healthy choices easier for the Town's residents. The concept of healthy community design links the traditional planning concepts including land use, transportation, community facilities, parks, and open space with health themes such as physical activity, public safety, healthy food access, mental health, air and water quality, and social equity issues.

SSPH-15. As a means to facilitate walking and biking, the Town should explore ways to build-out its existing biking/pedestrian network. For example, it might want to create a sidewalk mitigation fund to receive funds needed to increase bike and pedestrian access to the larger network. With this fund created the town might then exempt small cul-de-sacs developments from building sidewalks for a payment-in-lieu-of-taxes to the sidewalk mitigation fund.

¹³⁰ National Safe Routes to School Program. <http://www.saferoutesinfo.org/>.

¹³¹ National Walking School Bus Program. <http://www.walkingschoolbus.org/>.

Goal 4: Develop additional programming and tasks related to public health and social services.

- SSPH-16. Educate Hudson residents of the importance of public health and its issues related to food access, transportation, and tobacco use through school programs, informational brochures, community workshops, mailing flyers, and through electronic media.
- SSPH-17. Continue to actively support the Hudson Youth Substance Abuse Prevention program and coalition and tobacco control program and MetroWest Moves initiatives such as Healthy Dining and the tobacco control program.
- SSPH-18. Update the Town's Tobacco Products Regulations to include recent products on the market.
- SSPH-19. Implement educational programs to help seniors retrofit their homes in order to support aging in place.

Goal 5: Increase technical and administrative staff and support for the Hudson Board of Health and Veterans Services Department.

- SSPH-20. Hire a public health nurse on staff. Hudson currently contracts through VNA to do communicable disease follow-up. A public health nurse on staff would be better for planning and programming to address health issues occurring in Town.
- SSPH-21. Hire a full-time public health inspector to enforce state and local sanitary codes, and inspect establishments, such as restaurants, public swimming areas, and public housing, to ensure that they are clean, healthy and up to the local health codes.
- SSPH-22. Evaluate the amount of public health funding compared to the Town's population to other communities in the area to ensure parity with other communities, and develop alternative funding mechanisms to expand the programs and services for the Hudson Board of Health to address chronic health conditions and wellness promotion.
- SSPH-23. Develop a new Community and Social Services Coordinator (social worker) position for the Town to provide technical assistance on coordinating outreach, town resources, and social service programs for Hudson. Consider establishing a committee to monitor what additional social services may be needed.
- SSPH-24. Increase administrative staff and support for the Hudson Board of Health and Veterans Services Department.



Downtown Assabet River Area, Hudson, MA

11

Implementation

Introduction

The implementation element is based on the goals and objectives of this Master Plan and the data that was collected and analyzed.

All planning elements will be initiated by the Planning Board. The Board of Selectmen and other Town Boards, Commissions and Committees with the assistance of the Town staff should use this Master Plan as a guidance and policy document for the period of 2014 to 2025.

It is important to note that planning is a dynamic process and priorities can shift over time. Additionally, the Town's capacity to implement the Plan may shift over time due to changes in staffing, for example. A consistent review process allows for these issues to be acknowledged while keeping each specific recommendation on the table unless a situation dictates that it be reconsidered. A regular evaluation or follow-up procedure will at least indicate how a particular action item was ultimately addressed, or it calls out those that still need attention.

In order to ensure follow-through on the recommendations of this plan and provide some "accountability" for plan implementation, the Town should consider some mechanism for reporting on progress on a regular basis. It is important to make sure that the Town makes progress toward implementing the Plan and highlighting accomplishments over time. This reporting should include updates on progress and achievements, but should also address barriers to implementation that have been identified and how they may be overcome. Some communities provide this information in annual reports to the Board of Selectmen or Town Meeting. Others have developed a follow-up evaluation form that specifically lists each action item and asks for responses. The appointment of a Master Plan Implementation Committee could assist in the oversight and coordination of the plan's implementation.

The implementation plan intends to deliver on the promise of the goals and objectives expressed throughout this process, with a program of tangible steps for the Town to take over the next ten years and beyond. There is a high level of activity on these issues, based upon the input received during the planning process.

Table 11-1 below summarizes the specific recommendations found at the end of each of the plan's elements. The timing for implementing the plan's recommendations are assigned on a short-, medium-, and long-term basis to assist in determining the timeframe in which each item is to be considered. Some recommendations do not necessarily fall into a short-, medium-, or long-term designation and are noted in each column to reflect that they are ongoing in nature. It is important to note that when a recommendation falls into a long-term category, it should not imply a lesser degree of importance or a lower priority. Some recommendations simply require time for financing or design, but would still be considered a high priority.

The responsible parties are also listed. If more than one entity could be charged with implementing a particular strategy or recommendation, the "lead agency" is listed first in **bold**. Table 11-2 sorts the recommendations by the agency that has the lead responsibility for implementation.

The following list identifies the acronyms used for responsible parties and potential funding sources in the table:

- AHT – Affordable Housing Trust Fund
- BOH – Board of Health
- BOS – Board of Selectmen
- CC – Conservation Commission
- CD – Community Development Department
- CPC – Community Preservation Committee
- COA – Council on Aging
- DCS – MA Division of Conservation Services
- DPW – Department of Public Works
- EA – Executive Assistant
- EDC – Economic Development Commission
- FC – Finance Committee
- FD – Fire Department
- HA – Housing Authority
- HC – Historical Commission
- HDC – Historic District Commission
- HLP – Hudson Light & Power
- Lib – Library
- MassDEP – Massachusetts Department of Environmental Protection
- MassDOT – Massachusetts Department of Transportation
- MHC – Massachusetts Historical Commission
- OARS - Organization for the Assabet, Sudbury and Concord Rivers
- PB – Planning Board
- PD – Police Department
- Rec – Recreation Department
- SD – School Department
- USACE – United States Army Corps of Engineers

Table 11-1 Plan Recommendations – Priority and Responsible Party

		Time Period for Implementation			Ongoing	Funding	Responsible Party
		Short-term	Medium-term	Long-term			
LAND USE RECOMMENDATIONS							
LU – 1	Inventory all underutilized properties of 2 acres or more and assess how the property can be developed or redeveloped to maximize its potential land use particularly for commercial, industrial, and mixed-uses.		♣				EDC, CD, PB
LU – 2	Consider establishing zoning incentives to encourage reinvestment and redevelopment of existing properties. Such incentives could include density bonuses.		♣				PB, CD, EDC
LU – 3	Create one table of uses to replace the existing narrative listing of uses allowed by right or special permit in each zoning district.	❖					PB
LU – 4	Consolidate all of the definitions in the bylaw into one section, Chapter 2, Definitions.	❖					PB
LU – 5	Review Table 1 – Intensity Schedule and the Town’s Zoning Map to ensure the zoning districts are consistent.	❖					PB
LU – 6	Update the parking standards and include both minimum and maximum parking standards to avoid areas that are over-parked and to establish a mechanism for reducing impervious coverage for new development. Consider allowing shared parking in certain areas such as Downtown Hudson.	❖					PB
LU – 7	Review the SB district and its purpose, and consider allowing duplexes in this district by special permit if they meet certain design standards.	❖					PB
LU – 8	To encourage redevelopment and reuse of buildings within the C-1 Downtown District, consider allowing buildings to add stories up to a maximum of 3 stories as of right, instead of only to the highest of the lowest abutting building.	❖					PB, CD, EDC
LU – 9	Consider allowing small multi-family residential dwellings whereby residential units on the first floor level are regulated by special permit and residential units above the first floor level are permitted by right within the C-1 District to encourage multi-family housing development in the Downtown.	❖					PB, CD, AHT
LU – 10	Consider combining the C2 through C-13 districts (with very similar requirements) since these districts to simplify zoning bylaw.	❖					PB, CD, EDC
LU – 11	Consider combining M-1 through 5, and 7, since these districts are virtually the same in terms of allowed uses and dimensional requirements.	❖					PB, CD, EDC
LU – 12	Develop a Downtown Wayfinding signage program.	❖				Town	CD, EDC
LU – 13	Create Downtown design guidelines for major building renovations, new construction, and new signage.		♣			Town	PB
LU – 14	Explore additional public parking and update parking regulations to be more comprehensive and understandable; to manage demand; and to increase ease of parking.			➤		Town	DPW, CD
LU – 15	Renovate Downtown sidewalks and initiate streetscape improvements.		♣			Town, MassDOT	DPW
LU – 16	Improve pedestrian connections from Downtown to other key features such as Cherry Street and the Assabet River Rail Trail.		♣			Town, MassDOT	DPW
LU – 17	Host a regularly occurring farmers market in the Downtown area.				☐	Private funding	EDC
LU – 18	Encourage streetscape improvements that create gateways to Hudson along Route 62 near the rotary and Downtown.			➤		Town, MassDOT	PB

Table 11-1 Plan Recommendations – Priority and Responsible Party (Continued)

		Time Period for Implementation			Ongoing	Funding	Responsible Party
		Short-term	Medium-term	Long-term			
LU -- 19	Consider increasing overnight parking stock to encourage residential development.	❖				Town	PB
LU – 20	Develop a master plan for the Route 85 corridor to ensure there is adequate transition between uses.		♣			Town	PB, CD, EDC
LU – 21	Reassess zoning along the Route 85 corridor to establish mixed use standards where appropriate.		♣				PB
LU – 22	Design pedestrian linkages between the mill buildings and the Assabet Rail Trail, the Assabet River, and Downtown.		♣			Town	PB
LU – 23	Create and maintain a comprehensive inventory of buildings, occupancy status, tax title status, and other pertinent information within the AROD.				<input type="checkbox"/>	Town	CD
LU – 24	Explore innovative techniques to encourage smart energy including green technologies.				<input type="checkbox"/>	Town, DOER, Utility programs	CD, HLP
LU – 25	Identify all the infrastructure improvements that may be required to revitalize the district and attempt to fund through existing state level grant programs.		♣			Town, MassDEP	DPW, CD
LU – 26	Consider adding addition buildings within the AROD.		♣			Town	PB
LU – 27	Explore financial tools to encourage new development in old mill buildings, such as tax abatements, Tax Increment Financing (TIF) or District Improvement Financing (DIF) Districts, long-term leases, and grants.		♣			Town, Private funding	CD, EDC
LU – 28	Consider incorporating public health goals and bike/pedestrian mobility into any new site-plan review.	❖					PB
LU – 29	Educate agricultural landowners about the state's voluntary Agriculture Preservation Restriction Program, which provides an alternative to selling or developing their land.				<input type="checkbox"/>	CPA	CC
LU – 30	Encourage local agriculture through the development of farmers' markets.				<input type="checkbox"/>	Private funding	EDC
LU – 31	Encourage preservation through conservation easements of Hudson's actively used farmland.				<input type="checkbox"/>	CPA	CC
LU – 32	Continue to support Hudson's community garden program and explore additional areas for gardens, such as educational gardens at public schools.				<input type="checkbox"/>	Town	CC
HOUSING RECOMMENDATIONS							
H – 1	Adopt new options for mixed-use development in downtown Hudson, building off recent state law allowing tax agreements for residential development and for downtown redevelopment.	❖				Town	CD, PB, AHT
H - 2	Update the Special Permit section of C-1 considering possible removal of Special Permit requirements and/or a more expanded number of situation where the Special Permit can be used to build missed use housing.		♣				PB
H – 3	Pursue working with property owners in downtown Hudson to undertake residential rehabilitation projects using the Community Development Block Grant funds, CPA funding, or other State, Federal, and private resources.				<input type="checkbox"/>	CDBG, CPA	CD, CPC
H – 4	Create a down payment assistance or affordable mortgage programs for income-eligible first-time homebuyers. This could be accomplished through CPA funding, the Municipal Affordable Housing Trust Fund, or in conjunction with private lenders.		♣			CPA, AHT	CPC, AHT

Table 11-1 Plan Recommendations – Priority and Responsible Party (Continued)

		Time Period for Implementation			Ongoing	Funding	Responsible Party
		Short-term	Medium-term	Long-term			
H - 5	Consider using municipal funds, such as from the Municipal Affordable Housing Trust Fund, to provide incentives to encourage the redevelopment of former mill properties in the Adaptive Reuse Overlay District and in the Downtown into additional affordable housing units.		♣			CPA, AHT	CPC, AHT
H - 6	Identify expiring use properties where the subsidized housing units are at risk of being removed from the affordable housing inventory and work with property owners to preserve affordability.	❖				Town	HA, AHT
H - 7	Be more proactive by seeking proactive opportunities (such as grants) to redevelop underutilized properties and buildings for affordable housing.				<input type="checkbox"/>	CDBG, CPA, AHT	AHT, HA
H - 8	Adopt an inclusionary bylaw to encourage development of new housing that is affordable to low and moderate-income households.		♣				PB
H - 9	Encourage the development of an assisted living facility for seniors.		♣			Private funding	AHT
H - 10	Create more senior subsidized housing or very low income housing for Hudson's growing senior population		♣			CPA, AHT, Private funding	HA
H - 11	Create more affordable housing, very low income housing, and starter homes.		♣			CPA, AHT	AHT
H - 12	Revisit zoning bylaws related to housing development, such as the OSRD, and market OSRD to developers. Consider allowing OSRD by right rather than by special permit	❖					PB
H - 13	Implement a Transitional Overlay Zoning District between commercial/industrial and residential zones in order to minimize the impacts between the uses and districts		♣				PB
H - 14	Expand expedited and coordinated permitting processes to other developments.		♣				CD
H - 15	Develop educational programs and outreach to developers and home owners pertaining to zoning mechanisms that create additional housing options, such as accessory unit bylaws.				<input type="checkbox"/>		CD, AHT
ECONOMIC DEVELOPMENT RECOMMENDATIONS							
ED - 1	Continue to target CDBG activities toward improvements to the public realm in downtown – trees/landscaping, street furniture, lighting, façade improvements.				<input type="checkbox"/>	CDBG	CD
ED - 2	Investigate the potential for hosting a farmers market or additional special event programming in the downtown as a supplemental draw to bring residents and visitors into the downtown.				<input type="checkbox"/>	Private funding	EDC
ED - 3	Celebrate the rail trail and recreational opportunities available within the core of the town and consider ability to support a recreation-oriented public concession in association with the rail trail (e.g., food cart, bicycle rental/repair.)				<input type="checkbox"/>	Private funding	EDC, Rec
ED - 4	Consider financial incentives such as property tax abatement to encourage rehabilitation and redevelopment of downtown buildings for mixed-use.		♣			Town	CD
ED - 5	Consider additional multifamily housing on the downtown fringe.		♣			Private funding	PB
ED - 6	Develop a parking study to identify if additional public spaces or a parking management system is needed.	❖	♣			Town Private funding	CD, PB, DPW
ED - 7	Work with downtown property owners and local artists to install temporary "pop-up" exhibits or public art installations in vacant ground floor retail spaces in order to avoid empty facades that contribute blighting or depressing influence.		♣			Private funding	EDC

Table 11-1 Plan Recommendations – Priority and Responsible Party (Continued)

		Time Period for Implementation			Ongoing	Funding	Responsible Party
		Short-term	Medium-term	Long-term			
ED – 8	Review whether regulations inhibit development of restaurants, nightlife or arts/performance uses that would help activate the downtown during the evening. (e.g., overly burdensome parking regulations, limitations on outdoor dining)	❖					PB
ED – 9	Creation of design guidelines to help ensure that new development complements the public improvements and a more cohesive and attractive visual environment, including updating the sign section of the Zoning Bylaws.		♣				PB
ED – 10	Consider fine-grained zoning or a corridor master development plan that identifies specific locations for scaled infill commercial and residential development.		♣				PB
ED – 11	Determine development or rezoning opportunities (commercially or mixed-use) for the currently residentially zoned Brigham Estate parcel located along the Route 85 Corridor.	❖					PB
ED - 12	Explore transitional zoning opportunities for properties on Route 85 that are currently zoned residential.	❖					PB
ED – 13	Market the Adaptive Reuse Overlay District (AROD) to prospective developers to encourage reuse and consider adding buildings to the AROD		♣				EDC, CD
ED – 14	Explore property tax abatements or public infrastructure investment through District Improvement Financing (DIF) or Tax Increment Financing (TIF).		♣				CD, EDC
ED – 15	Consider creating a local revolving loan fund to support individual commercial or manufacturing businesses.			➤			CD, EDC
ED – 16	Create a small business incubator for mill buildings.			➤		Private funding	CD, EDC
ED – 17	Offer higher density bonuses and other incentives for keeping mill buildings intact.	❖					PB
ED – 18	Improve wireless service on the east side of Town.		♣			Private funding	EDC, Wireless Providers
ED – 19	Review whether there are any unnecessary roadblocks or delays in the Town's administrative procedures for review of development applications that could be made more efficient. Expand the amount of 43D Priority Development Areas.	❖					PB, CD, EDC
ED – 20	Consider establishing an expedited permitting procedure and/or building permit fee discount for installation of energy conservation devices (e.g., solar installations) or other "green" development features.		♣			Town	CD, PB
ED – 21	Encourage the construction or retrofitting of high performance buildings that meet green building certification could be through financial (e.g., property tax abatement) or development incentives, such as additional density or height above a zoning district's baseline as a bonus.		♣				CD, PB
ED – 22	Create a solar by-right bylaw to install solar energy on buildings that is easy for businesses to comprehend.		♣				PB
ED – 23	Work with local business to identify the most pertinent skills to meet local industry needs and direct job-seekers to the available instructional resource or workforce training.		♣			Private funding	EDC, CD
ED – 24	Market reuse or redevelopment opportunities better. For example, determine ways to better market vacancies (such as the future Intel site and Cabot Road office park); develop marketing strategies for specific areas of Town; and market the Town in a regional sense, collaborating with other communities such as Marlborough and Southborough.				☐	Town	EDC, CD

Table 11-1 Plan Recommendations – Priority and Responsible Party (Continued)

		Time Period for Implementation			Ongoing	Funding	Responsible Party
		Short-term	Medium-term	Long-term			
ED – 25	Implement a Transitional Overlay Zoning District between commercial/industrial and residential zones in order to minimize the impacts between the uses and districts. See the Housing chapter for more information on the Transitional Overlay Zoning District.		♣				PB
ED – 26	Work more closely with neighborhoods on economic development strategies, ideas, and initiatives for each neighborhood and the overall community.				<input type="checkbox"/>		EDC, CD, PB
ED – 27	As a way to encourage new economic development, expand expedited and coordinated permitting processes to other developments, similar in the way Chapter 40B or 43D developments are reviewed.	❖					CD, PB
ED – 28	Examine options for connecting Cherry Street to Main Street, as Cherry Street currently exists as a dead end with commercial and industrial uses.		♣			Town	DPW
ED – 29	Conduct an evaluation of commercial tax rates, especially as expressed on a square foot basis to determine how its tax rates compare with neighboring and comparable communities.		♣			Town	CD
NATURAL RESOURCES RECOMMENDATIONS							
NR – 1	Work with MassDEP to certify all potential vernal pools in order to better protect and preserve these areas.		♣				CC
NR – 2	Consider adoption of a local wetlands by-law.		♣				CC
NR – 3	Encourage developers to build according to conservation by-laws and develop incentives and/or require conservation features of developments.				<input type="checkbox"/>		CC
NR – 4	Create maintenance programs for existing conservation land to enhance scenic and natural areas as identified in the 2011 Hudson Open Space and Recreation Plan.				<input type="checkbox"/>	CPA, DCS	CC, Rec
NR – 5	Establish areas for enjoyment and recreational access to the natural environment by designating land along the Assabet River as scenic views and establishing greenways along selected portions of the riverbank through town.		♣			CPA, DCS	CC, Rec
NR – 6	Acquire scenic, connectable or threatened parcels through partnerships with other organizations and private funding sources. <ul style="list-style-type: none"> o Request permanent easements from private landowners that will provide greenway linkage areas from Chapin Road to Wood Park on both north and south side of River. o Work with Wayside Rail Trail Group (Mass Central Line) for future trail connections through Hudson. o Strengthen link in the eastern end of town between the State Forest and Maynard Reservoir land. Connect with Sudbury Annex and State Forest through to Marlborough. o Acquire connections along River Road for better access to the Town Forest (Fosgate Property) and Gates Pond Reservoir, with easements to Assabet River over private property. 			➤		CPA, DCS	CC, Rec
NR – 7	Support USACE dam removal proposal over Washington Street to improve the water quality of the Assabet River.			➤		USACE	USACE, CC
NR – 8	Dredge Tripps' and Pickle's Pond to prevent eutrophication, which can decrease overall water quality.		♣			Town	CC
NR – 9	Restrict overdevelopment and stringently control run off and drainage by encouraging subdivision development and design to include open space.		♣				PB, CC

Table 11-1 Plan Recommendations – Priority and Responsible Party (Continued)

		Time Period for Implementation			Ongoing	Funding	Responsible Party
		Short-term	Medium-term	Long-term			
NR – 10	Continue cleanup efforts with OARS, SuAsCo Watershed Community Council and other conservation and civic groups.				<input type="checkbox"/>	Private funding	OARS, CC
NR – 11	Permanently protect these riverfront areas identified in the <i>2011 Hudson Open Space and Recreation Plan</i> .			➤		CPA	CC, Rec
NR – 12	Educate the public of the importance of aquifer protection, water quality of waterbodies, and open space and recreation areas through workshops, information brochures, and signage.				<input type="checkbox"/>		CC, DPW
NR – 13	Acquire parcels of land around water supplies, such as those on River Road and near the Cranberry Well and Maynard Reservoir.		♣			CPA, DCS	DPW, CC, Rec
NR – 14	Work with Town of Berlin to increase protected land at Gates Pond Water Supply and abutting properties.		♣			CPA, DCS	DPW, CC
NR – 15	Consider purchasing the development rights of agricultural properties in the eastern end of Town on Gospel Hill and surrounding roads (Lewis, Chestnut, and Brook Streets) since they lie in the aquifer protection district.		♣			CPA, DCS	CC, DPW
NR – 16	Identify future sites for water wells, including options in adjacent communities if financially beneficial to Hudson.	❖					DPW
NR – 17	Consider conducting a climate change risk assessment for Hudson’s utilities and gauge projected capacity to provide service under changing climate conditions.	❖				Town	DPW
NR – 18	To adapt to heavier storm events related to climate change, protect the Town of Hudson’s water quality by incorporating green infrastructure, such as permeable landscaping and pavement, into design whenever possible.				<input type="checkbox"/>	Town	DPW
NR – 19	Create linkages between recreation land with conservation, school land with recreation or conservation, other non-profit conservation land with Town conservation or recreation land. Inventory potential parcels for creating connections between open space areas.		♣			CPA, DCS	CC, Rec
NR – 20	Investigate potential properties for community gardening to increase local gardening and community food systems.				<input type="checkbox"/>	Private funding	CD
NR – 21	Explore recommendations from UrbanRiver Visions charrette including improving the pedestrian setting of South Street and connections between Main Street and the Assabet River, and a town parking garage.			➤		CPA	CD, DPW, CC
NR – 22	Improve Kane and Chestnut Street Well land through forestry programs and/or recreation use with trails.	❖				CPA	DPW, CC
NR – 23	Link Clement Kane land on Stony Brook Road to Marlboro’s trails on abutting parcel.		♣			CPA	CC
NR – 24	Obtain easements on Yankee Golden Retriever and Portuguese Club for path.		♣			CPA	CC
NR – 25	Discuss with private and other government land owners possibility of connecting parcels through conservation restrictions or permanent easements, including lands surrounding or abutting Elks Club, Portuguese Club, Rod and Gun Club, N.E. Forestry Foundation, Sudbury Annex, Maynard Reservoir and the State Forest.		♣			Private funding, CPA	CC, Rec
NR – 26	Leverage additional CPA state matching funds through additional Town appropriations to the CPA accounts.				<input type="checkbox"/>	CPA	CC, Rec
NR – 27	Hire a full-time Conservation Agent to oversee and pursue the Town’s natural resources projects and goals.	❖				Town	EA, BOS
NR – 28	Continue to implement the Town of Hudson’s Open Space and Recreation Plan goals and five-year action plan.		♣			Town	CC, Rec
NR – 29	Investigate property owned by State, Federal and non-profit				<input type="checkbox"/>		CC, Rec

Table 11-1 Plan Recommendations – Priority and Responsible Party (Continued)

		Time Period for Implementation			Ongoing	Funding	Responsible Party
		Short-term	Medium-term	Long-term			
	organizations for protection status.						
NR – 30	Use the Community Preservation Act to preserve and enhance open space pursuant to the January 2013 Hudson Community Preservation Plan.	❖				CPA	CC, Rec
OPEN SPACE RECOMMENDATIONS							
OS – 1	Investigate property surrounding Cranberry Well (and other wells) for Town acquisition to better protect drinking water supplies from contamination.		♣			CPA, DCS	DPW, CC, Rec
OS – 2	Pursue discussions with present landowners of Chapter 61 parcels, to create positive relationships while encouraging continued management of Chapter 61 lands for either agricultural, forest or recreations purposes.				<input type="checkbox"/>	CPA, DCS	CC, Rec
OS – 3	Consider parcels of land that may be utilized for the development of a dog park.	❖				CPA, DCS	Rec
OS – 4	Seek out agricultural preservation and conservation restrictions on large parcels in eastern section of Town in order to protect water supplies in this area and retain Hudson's rural character in this section of Town.		♣			CPA, DCS	CC, DPW, Rec
OS – 5	Increase public waterfront access along the Assabet River through acquisition of parcels adjacent to the River.		♣			CPA, DCS	Rec, DPW, CC
OS – 6	Investigate vacant school lands for sports field development and to increase recreational opportunities.		♣			Town	Rec, SD
OS – 7	Expand existing recreational facilities onto adjacent areas surrounding fields and schools.		♣			CPA, DCS	Rec
OS – 8	Encourage multi-purpose use of facilities.				<input type="checkbox"/>		Rec
OS – 9	Continue to upgrade existing equipment at present recreation facilities.				<input type="checkbox"/>	Town	Rec, DPW
OS – 10	Develop connections and linkages of open space and recreation areas through development of trails and acquiring parcels that would support this.			➤		CPA, DCS	CC, Rec
OS – 11	Create maintenance programs for existing conservation land to enhance scenic and natural areas.	❖				Town	Rec, CC, DPW
OS – 12	Secure funding sources for multi-purpose trail/facility planning and construction.				✓	CPA	Rec
OS – 13	Develop and publish a Town Trail Map/Brochure.		♣			Town	Rec
OS – 14	Investigate potential sites to be used as a Community Center, as there is a need for publicly accessible indoor recreational space.			➤		Town	Rec, BOS
OS – 15	Collaborate with the Department of Conservation and Recreation in the development of the Mass Central Rail Trail along the former Mass Central Branch Railroad.			➤			CD, Rec
OS – 16	Continue to advocate for the construction of future phases of the Assabet River Rail Train.			➤			CD, Rec
HISTORIC RESOURCES RECOMMENDATIONS							
HR – 1	Use the Community Preservation Act for historic preservation pursuant to the January 2013 Hudson Community Preservation Plan.				<input type="checkbox"/>	CPA	HC
HR – 2	Inventory the built environment, identify properties eligible for listing in the National Register of Historic Places, and pursue such listings.		♣			Town	HC, HDC

Table 11-1 Plan Recommendations – Priority and Responsible Party (Continued)

		Time Period for Implementation			Ongoing	Funding	Responsible Party
		Short-term	Medium-term	Long-term			
HR – 3	Adopt a Demolition Delay by-law to delay the demolition of historically significant properties and potentially find an alternative to the demolition.		♣				HC, PB
HR – 4	Prepare a community-wide archaeological inventory which would identify areas of archaeological sensitivity, particularly those areas identified in the Hudson Reconnaissance Report.			➤		CPA	HC
HR – 5	Educate residents of the importance of maintaining the historic character of Hudson and its importance to their economic, aesthetic, and cultural investment in their community.				<input type="checkbox"/>		HC, HDC
HR – 6	Landscapes identified in the Hudson Reconnaissance Report, especially the priority landscapes, should be further documented on MHC inventory forms. That documentation can be used in efforts to build consensus and encourage public support for their preservation.		♣			Town	HC
PUBLIC SERVICES AND FACILITIES RECOMMENDATIONS							
PSF – 1	Improve the Town's process for developing, maintaining and implementing a Capital Improvement Plan (CIP).				<input type="checkbox"/>	Town	EA, PB, BOS, various departments
PSF – 2	Work with the Metropolitan Area Planning Council and neighboring communities to begin a dialog on options for shared services and facilities such as public safety, solid waste disposal, library, and public works services and shared facilities.	❖					EA, BOS
PSF – 3	Assess how to meet space and staffing needs of its municipal services. In particular, the Town should move forward with the funding, planning and design for new Police Headquarters/administration building for DPW.	❖				CIP	EA, BOS, CD
PSF – 4	Provide for adequate and ongoing maintenance to address the needs resulting from new building facilities, parks, playgrounds, transportation amenities and other public spaces.				<input type="checkbox"/>	Town	EA, BOS, DPW
PSF – 5	Take a leadership role in "greening" Hudson through its operations, governance, and management, including municipal buildings and facilities. Additionally, the Town should continue to advance employee and occupant health in municipal buildings through lighting and ventilation improvements.		♣			CIP	EA, BOS, PB, CD, HLP
PSF – 6	Seek ways to reduce the cost of municipal energy use and its carbon footprint. This strategy could advance efforts to develop public and private partnerships and reduce residential and business energy use.		♣			HLP, Private funding	EA, HLP, BOS, PB
PSF – 7	Develop a long-range energy reduction plan for municipal operations.		♣			CIP	EA, BOS, HLP
PSF – 8	Develop sustainability principles or guidelines for Town projects, operations, policies and regulations including new or renovated municipal facilities.	❖					EA, BOS, PB
PSF – 9	Incorporate cost-effective Green Infrastructure and Low Impact Design (LID) strategies into all municipal projects and work with developers and residents on what they can do.				<input type="checkbox"/>		DPW, PB
PSF – 10	Expand solid waste management options to include curbside pickup encouraging more recycling among Hudson residents and businesses		♣				EA, BOH, BOS
PSF – 11	Include storage facilities in any new buildings constructed by the Town and digitizing documents wherever possible to reduce need for storage of paper copies				<input type="checkbox"/>		EA, BOS

Table 11-1 Plan Recommendations – Priority and Responsible Party (Continued)

		Time Period for Implementation			Ongoing	Funding	Responsible Party
		Short-term	Medium-term	Long-term			
TRANSPORTATION RECOMMENDATIONS							
T- 1	Expand both pedestrian trails and on-street/off-street bicycle options into neighborhoods and portions of the community where businesses and residents would utilize them.				<input type="checkbox"/>		DPW
T- 2	Engage neighborhoods and conduct a series of walking audits to learn what makes a good pedestrian environment and where logical, connected bicycle pathways could be implemented and integrated into the existing networks.	❖					PB, DPW
T- 3	Develop and test new bicycle facilities within the community including the identification of on-street bike lanes, connections to the bicycle trails, and providing preferred and secure parking for bicyclists in the downtown area.		♣				DPW
T- 4	Develop a short and long-term Bike & Walk Action Plan that prioritizes policies, projects and, ultimately, programs that can be implemented over the short term 3-5 years and over the next decade.		♣			CIC Grant program	PB, DPW, BOH
T- 5	Explore and identify financing options within the Town budget to maintain the assessments of the MWRTA.	❖				Town	BOS, FC
T- 6	Identify high residential and employment areas within the community and work with the MWRTA to coordinate expanding their existing services within neighboring communities to establish bus routes into and out of the downtown area of Hudson and other major employment areas within the Town, as needed.		♣			MWRTA, Town	CD, DPW
T- 7	Expand upon existing elderly and include handicapped para-transit options by utilizing existing and other regional transit service providers to bring residents to nearby medical and recreational destinations.		♣			MassDOT Community Transit Grant Program	BOS, DPW, SC
T- 8	Target those areas of the Town where zero vehicle households are prevalent and identify transit options to support those populations.		♣				PB, DPW
T- 9	Develop scenic streetscapes.		♣			Town, MassDOT	PB, DPW
T- 10	Consider traffic calming measures		♣			Town, MassDOT	DPW
T- 11	Develop access management and foster compact development	❖				Town, MassDOT	DPW
T- 12	Study problem intersections in more detail to determine the best course of action.	❖				Town, MassDOT	DPW
T- 14	Enhance the areas in and around public open spaces (parks, schools, athletic fields) so that children and parents who live nearby can make choices about how they can travel between home and these destinations.		♣			Town	DPW, Rec, SD, BOH
T- 15	Construct crosswalks that enhance the awareness of drivers to pedestrians; could include raised and or textured treatments.		♣			Town, MassDOT	DPW
T- 16	Install crosswalk signage to reinforce vehicle and pedestrian awareness.		♣			Town, MassDOT	DPW
T- 17	Install countdown pedestrian signal heads at signalized crossings that do not currently have them.		♣			Town	DPW
T- 18	Improve pedestrian mobility on rural residential and suburban residential roads by exploring opportunities for interconnecting short sections of trails and connecting cul-de-sacs.		♣			Town, private funding	DPW, BOH
T- 19	Educate public to "Stop- Look- and Wave" in the Town of Hudson at crosswalks.				<input type="checkbox"/>		SD, CD, Rec, PD
T- 20	Educate the public on existing walking trails.				<input type="checkbox"/>		Rec, BOH

Table 11-1 Plan Recommendations – Priority and Responsible Party (Continued)

		Time Period for Implementation			Ongoing	Funding	Responsible Party
		Short-term	Medium-term	Long-term			
T – 21	Develop, update, and implement a town wide Bicycle Master Plan that addresses both commuter and recreational bicycling.			➤		Town, MassDOT	PB, DPW, Rec, BOH
T – 22	Consider additional installation of bicycle racks at activity centers.	❖				Town	DPW
T – 23	Explore connections to the Assabet River Rail Trail into the Town of Hudson's bicycle plans.			➤		Town	Rec, DPW
T – 24	Implement programs and events which will encourage people to consider bicycling and trail hiking.	❖				Town	Rec, BOH
T – 25	Educate the public of existing bicycling opportunities	❖				Town	PB, Rec, BOH
T – 26	Improve bicycle mobility on rural residential and suburban residential roads by expanding bicycle-related options (bike lanes, sharrows, etc.).	❖				Town, MassDOT	PB, DPW
T – 27	New subdivisions should be encouraged to connect to ARRT.	❖					PB
T – 28	Create a parking plan that focuses exclusively on the current and future needs of the downtown;		♣			Town	CD, DPW
T – 29	Evaluate future development proposals with an eye towards increasing the publically available parking supply, particularly in the downtown				☐	Town	PB, DPW
T – 30	Seek to create reserved and/or dedicated parking supply for the public buildings in the Town	❖				Town	DPW
T – 31	Collaboratively (DPW and MassDOT) remove existing sign clutter along state routes	❖				MassDOT	DPW, MassDOT
T – 32	Commission a "Way-finding Program" to assist visitors to navigate to and from the downtown areas of Hudson and direct them to public parking opportunities by using branded signage for the community	❖				Town, MassDOT	CD, DPW
T – 33	Upgrade the overall consistency of traffic signage throughout Town by reviewing current regulatory signage and assuring that it is consistent with the current Manual on Uniform Traffic Control Devices (MUTCD) guidelines.		♣			Town	DPW
ENERGY RECOMMENDATIONS							
E – 1	Create incentives (financial and non-financial) for clean energy businesses to locate in Hudson.		♣			Town	BOS, PB
E – 2	Support the development of clean energy/green jobs training at local technical schools.	❖				Town	EDC
E – 3	Enhance and promote existing incentives for renewables offered through HLP and the State.	❖				HLP	HLP
E – 4	Consider a green roof demonstration project.			➤		Town	DPW
E – 5	Integrate additional municipal buildings into MassEnergyInsight to completely benchmark and track municipal energy use.		♣			Town	DPW, EA
E – 6	Conduct energy audits on municipal buildings and implement recommended energy conservation measures.		♣			HLP	HLP, EA
E – 7	Explore anaerobic digestion for waste-to-energy production.		♣			Town	DPW
E – 8	Conduct investment-grade audits for efficiency improvements at water and wastewater treatment facilities.	❖				Town	DPW
E – 9	Conduct feasibility studies for renewable energy installations on municipal property.		♣			Town	DPW
E – 10	Upgrade outdoor lighting, streetlights, and traffic signals to LED.				☐	Town, DOER, HLP	DPW, HLP
E – 11	Engage in Smart Grid enhancements to modernize and improve efficiency and resiliency of the electric grid.		♣			HLP	HLP

Table 11-1 Plan Recommendations – Priority and Responsible Party (Continued)

		Time Period for Implementation			Ongoing	Funding	Responsible Party
		Short-term	Medium-term	Long-term			
E – 12	Adopt a green building or energy efficiency policy for municipal buildings.	❖					PB
E – 13	Adopt an energy efficiency purchasing policy.	❖					BOS, EA
E – 14	New municipal buildings should endeavor to be LEED Silver.	❖				Town	BOS, EA
E – 15	When conducting renovations to municipal buildings, a cost-benefit analysis of energy efficiency upgrades should be conducted whenever possible.				<input type="checkbox"/>	Town	DPW
E – 16	Adopt a policy emphasizing efficient and alternative fuel vehicles for the municipal fleet.	❖				Town	BOS, EA
E – 17	Establish an energy outreach and education program.				<input type="checkbox"/>	HLP	HLP
E – 18	Establish a revolving energy loan fund.		♣			HLP	HLP
E – 19	Provide expedited permitting for renewable energy installations.		♣				CD, PB
E – 20	Adopt an energy efficient or green building code for residential and/or commercial new construction and major renovations.	❖					PB
SOCIAL SERVICES AND PUBLIC HEALTH RECOMMENDATIONS							
SSPH – 1	Investigate property, such as those on River Road and near the Cranberry Well, for Town acquisition to better protect drinking water supplies from contamination.		♣			CPA, DCS	DPW, CC, Rec
SSPH – 2	Identify future sites for water wells, including options in adjacent communities if financially beneficial to Hudson.	❖				Town	DPW
SSPH – 3	Consider development of a farmer to schools food program, an agreement through which local farms grow and provide food to the Hudson Public Schools for healthy student meals.		♣			Town	SD
SSPH – 4	Actively identify and recruit a medium-sized grocer to locate in the Downtown area.	❖				Private funding	EDC, PB, CD
SSPH – 5	Develop a food hub near Downtown to serve as a farmers market and regional community supported agriculture location that utilizes agricultural opportunities from surrounding towns.			➤		Private funding	EDC, PB, CD
SSPH – 6	Identify and target areas for agricultural development and revise zoning bylaws to encourage this development in these areas.		♣				PB, EDC, CD
SSPH – 7	Work with local convenience stores and fast-food restaurants to offer healthier food choices at lower costs to consumers.		♣			Private funding	BOH
SSPH – 8	Continue to work towards the MetroWest Moves initiatives: worksite wellness and healthy dining initiatives.				<input type="checkbox"/>	Middlesex County Community Transformation Grant and the MetroWest Health Foundation	BOH
SSPH – 9	Continue to support and promote the Safe Routes to School or Walking School Bus program community-wide in order to increase the amount of students safely walking to school.				<input type="checkbox"/>		SD, BOH
SSPH – 10	Maintain existing and develop additional sidewalk connections. Create a sidewalk management program and a Complete Streets Committee to improve the sidewalk network and prioritize connections to schools, recreation spaces, and primary transit locations.		♣			Town, MassDOT	DPW, BOS, EA
SSPH – 11	Encourage and support Complete Streets policies and strategies for current or future projects that involve Hudson's roadways by amending the Town's Site Plan Review and Subdivision Rules and Regulations.	❖					PB

Table 11-1 Plan Recommendations – Priority and Responsible Party (Continued)

		Time Period for Implementation			Ongoing	Funding	Responsible Party
		Short-term	Medium-term	Long-term			
SSPH – 12	Require alternative transportation infrastructure in new or existing developments to promote alternative transportation usage. For example, require bicycle corrals, racks, cages, and lockers for certain types of development.				<input type="checkbox"/>		PB
SSPH – 13	Require all new developments to include bike lanes and/or interconnected sidewalks for pedestrians.				<input type="checkbox"/>		PB
SSPH – 14	Incorporate healthy community design into Hudson’s planning process in order to make healthy choices easier for the Town’s residents.				<input type="checkbox"/>	Town	PB, BOH
SSPH – 15	Educate Hudson residents of the importance of public health and its issues related to food access, transportation, and tobacco use through school programs, informational brochures, community workshops, mailing flyers, and through electronic media.				<input type="checkbox"/>	Middlesex County Community Transformation Grant and the MetroWest Health Foundation	BOH
SSPH – 16	As a means to facilitate walking and biking, the Town should explore ways to build-out its existing biking/pedestrian network. For example, it might want to create a sidewalk mitigation fund to receive funds needed to increase bike and pedestrian access to the larger network. With this fund created the town might then exempt small cul-de-sacs developments from building sidewalk for payments-in-lieu-of-taxes to the sidewalk mitigation fund.				<input type="checkbox"/>	Private Funding	PB
SSPH – 17	Continue to actively support the MetroWest Moves initiatives such as the Hudson Youth Substance Abuse Prevention program and coalition and tobacco control program.				<input type="checkbox"/>	Middlesex County Community Transformation Grant and the MetroWest Health Foundation	BOH
SSPH – 18	Update the Town’s Tobacco Products Regulations to include recent products on the market.	❖					BOH
SSPH – 19	Implement educational programs to help seniors retrofit their homes in order to support aging in place.	❖					COA, BOH
SSPH – 20	Hire a public health nurse on staff for planning and programming to address health issues occurring in Town		♣			Town	BOS, EA, BOH
SSPH – 21	Hire a full-time public health inspector to enforce state and local sanitary codes, and inspect establishments, such as restaurants, public swimming areas, and public housing, to ensure that they are clean, healthy and up to the local health codes.		♣			Town	BOS, EA, BOH
SSPH – 22	Evaluate the amount of public health funding compared to the Town’s population to other communities in the area to ensure parity with other communities, and develop alternative funding mechanisms to expand the programs and services for the Hudson Board of Health to address chronic health conditions and wellness promotion.	❖				Town	BOS, BOH
SSPH – 23	Develop a new Community and Social Services Coordinator (social worker) position for the Town to provide technical assistance on coordinating outreach, town resources, and social service programs for Hudson.		♣			Town	BOS, EA, BOH
SSPH – 24	Increase administrative staff and support for the Hudson Board of Health and Veterans Services Department.		♣			Town	BOS, EA, BOH, VS

Table 11-2 Implementation Action Items by Lead Agency

Action Lead By	Time Period			
	Short-term	Medium-term	Long-term	Ongoing
Affordable Housing Trust		▪ H-9, 11		▪ H-7
Board of Health	▪ SSPH-18	▪ SSPH-7		▪ SSPH-8, 15, 17
Board of Selectmen	▪ T-5 ▪ E-13, 14, 16 ▪ SSPH-22	▪ T-7 ▪ E-1 ▪ SSPH-20, 21, 23, 24		
Conservation Commission	▪ NR-30	▪ NR-1, 2, 4, 8, 15, 19, 23, 24, 25, 28 ▪ OS-4	▪ NR-5, 11 ▪ OS-10	▪ LU-29, 31, 32 ▪ NR-3, 12, 26, 29 ▪ OS-2
Community Preservation Committee		▪ H-4, 5		
Community Development Department	▪ LU-12 ▪ H-1 ▪ ED-27, 29, 32	▪ LU-27 ▪ H-14 ▪ ED-4, 6, 14, 20, 21 ▪ OS-15, 16 ▪ T-6, 28 ▪ E-19	▪ ED-15, 16 ▪ NR-21	▪ LU-23, 24 ▪ H-3, 15 ▪ ED-1 ▪ NR-20
Council on Aging	▪ SSPH-19			
Department of Public Works	▪ NR-16, 17, 22 ▪ T-11, 12, 22, 30, 31 ▪ E-8 ▪ SSPH-2	▪ LU-15, 16, 25 ▪ ED-28 ▪ NR-13, 14 ▪ OS-1 ▪ T-3, 10, 14, 15, 16, 17, 18, 33 ▪ E-5, 7, 9 ▪ SSPH-1, 10	▪ LU-14 ▪ E-4	▪ NR-18 ▪ PSF-9 ▪ T-1, 13 ▪ E-10, 15
Executive Assistant	▪ NR-27 ▪ PSF-2, 3, 8	▪ PSF-5, 6, 7, 10		▪ PSF-1, 4, 11
Economic Development Commission	▪ E-2 ▪ SSPH-4	▪ LU-1 ▪ ED-7, 13, 18, 23	▪ SSPH-5	▪ LU-17, 30 ▪ ED-2, 3, 24, 26
Finance Committee				
Housing Authority	▪ H-6	▪ H-10		
Historic District Commission		▪ HR-2, 3, 6	▪ HR-4	▪ HR-1, 5
Hudson Light & Power	▪ E-3	▪ E-6, 11, 18		▪ E-17
OARS				▪ NR-10
Planning Board	▪ LU-3, 4, 5, 6, 7, 8, 9, 10, 11, 19, 28 ▪ H-12 ▪ ED-8, 10, 11, 12, 17, 19 ▪ T-2, 25, 26, 27 ▪ E-12, 20 ▪ SSPH-11	▪ LU-2, 13, 20, 21, 22, 26 ▪ H-2, 8, 13 ▪ ED-5, 9, 10, 22, 25 ▪ NR-9 ▪ T-4, 8, 9 ▪ SSPH-6	▪ LU-18 ▪ T-21	▪ T-29 ▪ SSPH-12, 13, 14, 16
Police Department				
Recreation Department	■ OS-3, 11 ■ T-24	■ OS-5, 6, 7, 13	■ OS-14 ■ T-23	■ OS-8, 9, 12 ■ T-20
School Department		■ SSPH-3		■ T-19 ■ SSPH-9
US Army Corps of Engineers			■ NR-7	

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Master Plan Steering Committee

Rodney Frias, Chair - Planning Board
Christopher Yates - Board of Selectmen
Justin Provencher - Finance Committee
Charles Corley - Council on Aging
Terrence Joyce - Conservation Commission
Donald Garcia - Economic Development Commission
Julie Torres - Housing Authority
Sam Wong - Board of Health
Brian Choquette - Municipal Light Board
Arthur Redding - Historic District Commission
Jim Quinn – Historic District Commission, Alternate
Lynn Valcourt - School Committee
Lorraine Nelson - School Committee, Alternate
Len Belli - School Committee, Alternate
Paul Blazar - Executive Assistant - retired, Ex Officio
Thomas Moses - Executive Assistant, Ex Officio
Linda Ghiloni - Director of Recreation, Ex Officio
Tony Marques - DPW Director, Ex Officio
Richard Braga - Police Chief – retired, Ex Officio
David Stephens - Police Chief, Ex Officio
Michael Burks - Police Captain – Alternate, Ex Officio
John Blood - Fire Chief, Ex Officio

Planning Board

Robert D'Amelio
Rodney Frias
Dirk Underwood
Thomas Collins
David Daigneault

Town of Hudson

Jennifer Burke, Planning Director
Michelle Ciccolo, Director of Community Development
Kerin Shea, Community & Economic Development Assistant
Alyssa Languth, Community Development Intern

VHB

Ralph Willmer, FAICP, Project Manager
Ken Schwartz, AICP, Principal-in Charge
Geoffrey Morrison-Logan
Alyssa Sandoval
Marianne Iarossi
Lauren Ballou
Rob Nagi, P.E.