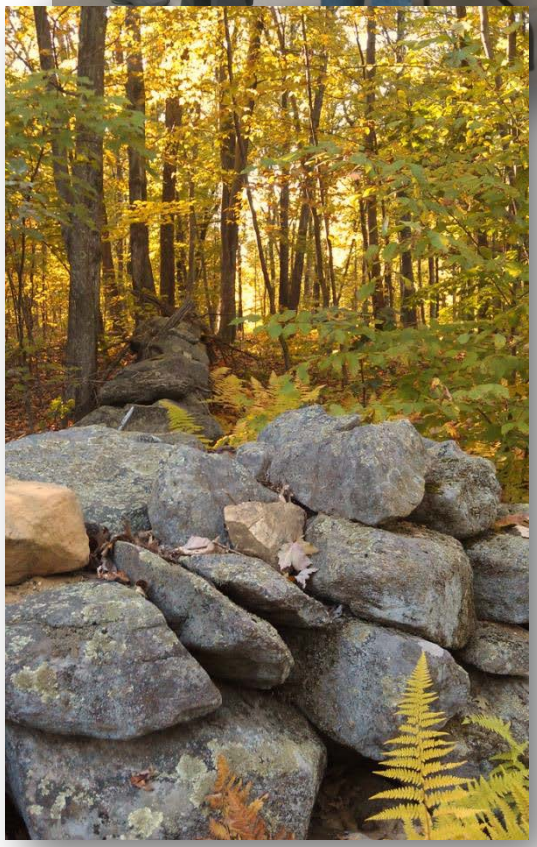

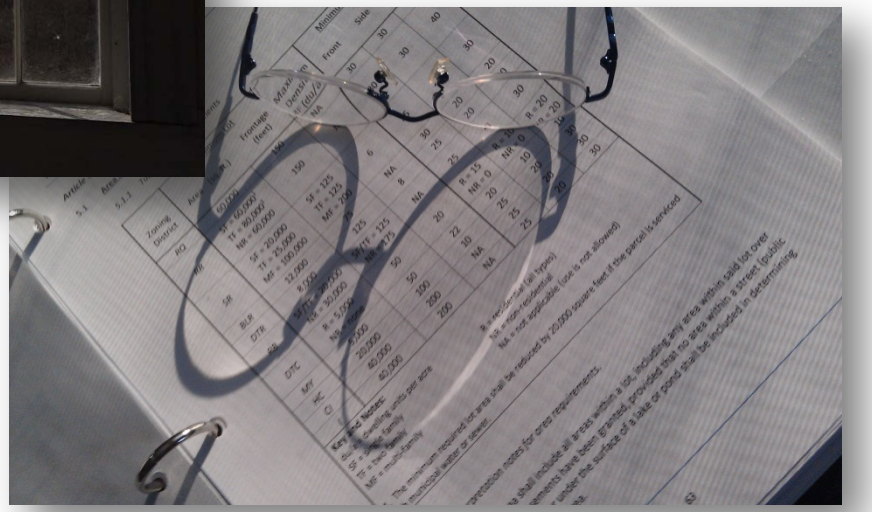

Town of Ware

Window to Ware's Future
The 2016 Master Plan

~Appendix~

Ware, MA
Somewhere Worth Seeing

Appendix - Table of Contents

1 Natural Resources – The Basis of Ware

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Natural Resources – The Basis of Ware

1

Natural resources are naturally occurring materials that humans can use in ways that are beneficial to us. These features - such as plants, soils, minerals, sunlight, water, animals, and fossil fuels - affect land use and economy, and ultimately influence the character of a town. In a rural town like Ware, surface features such as bodies of water and soil composition are as vital to understanding the basis of the town as the geographic context is.

One of the aspects which people enjoy about Ware is that it has a little bit of everything. It is a small town with a variety of housing, including homes to purchase or rent, in a range of price points and settings. There is a New England Village center, there are suburban neighborhoods, and there are miles of country roads. To the north are some of the most splendid tracts of natural lands Massachusetts has to offer. Ware has a great (albeit complicated) location within the state. A modest drive to the east and west are the Worcester and Springfield metropolitan areas, and eight miles to the south is the Massachusetts Turnpike (Interstate Route 90). The Ware River, which once sustained the town's milling industry and culture, still provides scenic vistas and recreational opportunities, and the Quabbin Reservoir is highly valued by residents and visitors alike. Though current statistics show a decline in recent years, working and historic farm properties are vital to the town's character and contribute to the local economy. Ware also maintains a large amount of conservation lands including Town Forest parcels.

Location

The location of the Town is both a strength and a weakness. The easternmost town in Hampshire County, Ware is centrally located between two large employment centers in the state: Worcester in central MA and Springfield in western MA. Additionally, Ware enjoys a close proximity to three major highways, including the Massachusetts Turnpike to the south. However, Ware is also far enough from these cities to be at the fringes of service areas, thus limiting access and leaving the town somewhat isolated.

Ware is located within the jurisdiction of the Pioneer Valley Planning Commission's (PVPC) policy area. This zone includes Hampshire and Hampden County. Since Ware shares a border with Worcester County, this means that the Town is affected not only by the policies enacted in their region and in Hampden County by PVPC, but that planning policy in Worcester County also has the potential to influence daily life. The way in which surrounding policy plays into development, traffic, and settlement is an example of how existing on the fringes of different regions can help or hinder Ware.

Figure 1 demonstrates the complex relationship that Ware has within the surrounding region. Ware is located at the southern tip of the Quabbin region, and is included in the East West opportunity corridor that follows Route 9. It has also held a longstanding association with additional employment and educational opportunities to the West in the Sustainable Knowledge Corridor. Ware is considered a rural service center and is strongly connected to the communities of the Quabbin Region by providing jobs and housing, but is largely disconnected from resources associated with the Knowledge Corridor.

Additionally, Ware is at the intersection of four counties: Hampshire (in which it lies), Franklin (to the northwest "across" Quabbin Reservoir), Worcester (to the north and east), and Hampden (to the south). While this has little impact from the former county government perspective, there are many services that are based on county boundaries, which leads to fragmented availability of such services. Most such services have their offices in Northampton (Hampshire County; 25 miles/43 minutes by car), Greenfield (Franklin County; 43 miles/57 minutes by car), Worcester (Worcester County; 27 miles/54 minutes by car), or Springfield (Hampden County; 27 miles/38 minutes by car). None of these destinations have reasonable public transit options, which leaves a significant gap in accessibility for the nine percent of Ware's households that do not have a vehicle [US Census Bureau, American Community Survey, 2013].

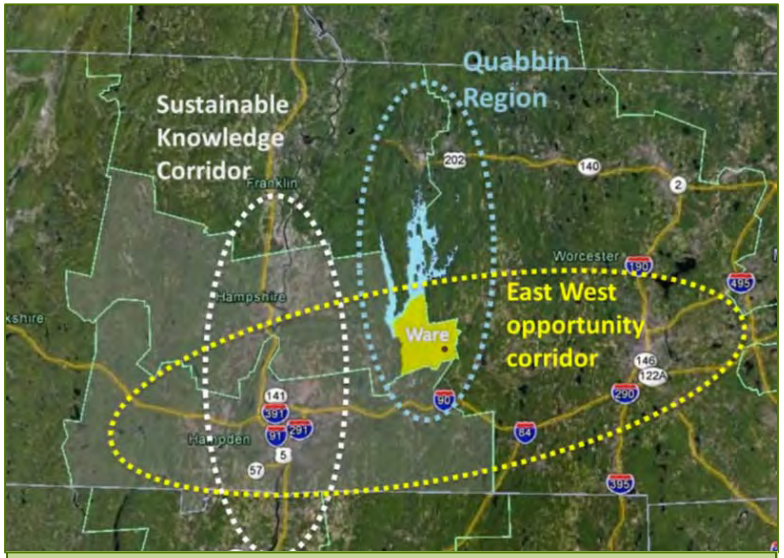


Figure 1: Ware's Unique Place.

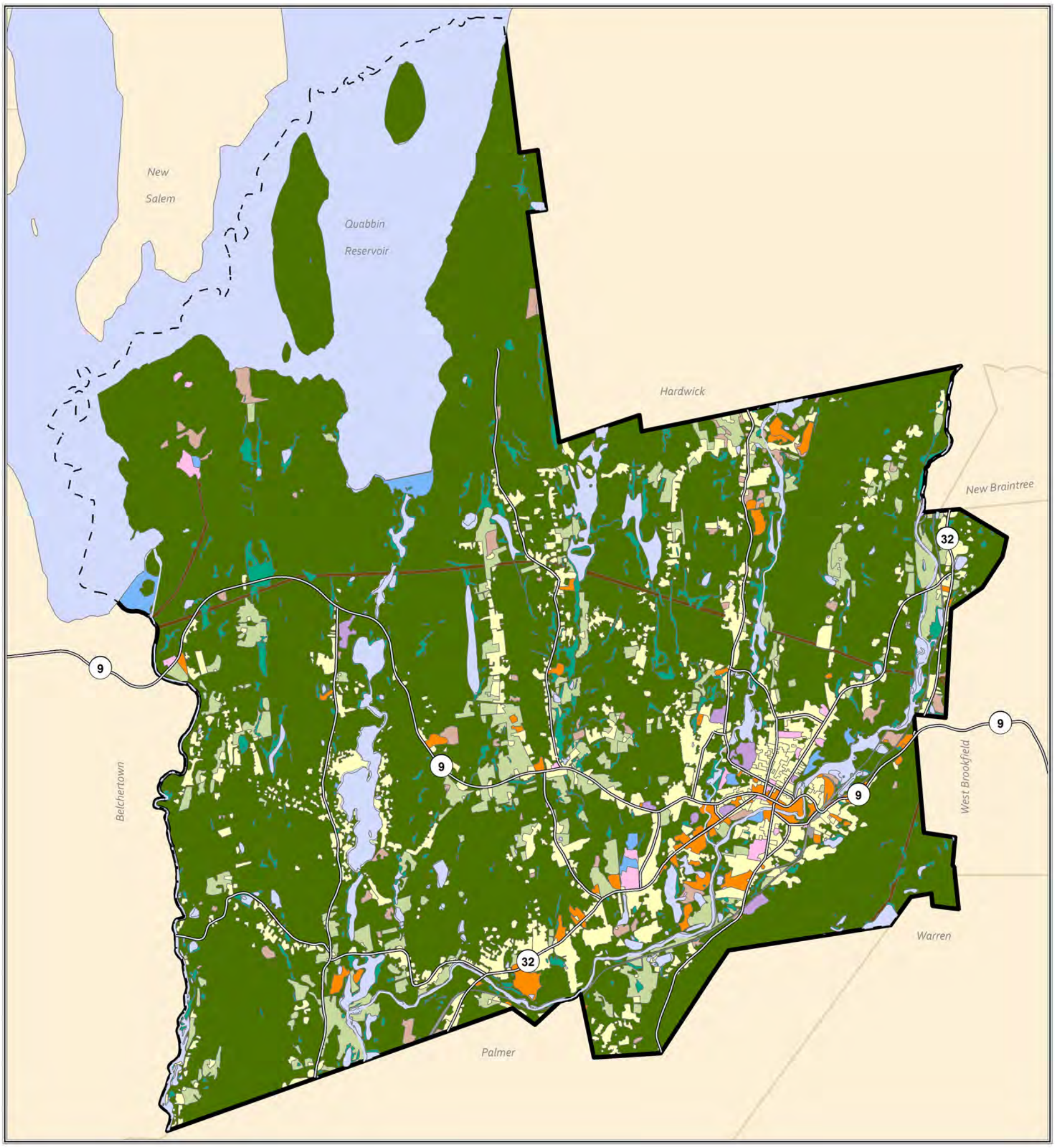
Various regions and corridors in relation to Ware.

Land Use

One of the most important resources any community has is the land itself. Since the earliest settlers started using the land they have left their imprint on it, as is evidenced by the fields still in use today and miles of stone walls lying throughout our forests, reminders of past uses of the land. Before them, Native Americans inhabited this area, and while they lived lightly on the land with few changes evident today, they too used the land as a resource - all people do, their survival depends on it.

Figure 2 shows the land use in town as of 2005, the most recent year for which data is available at a scale useful for town planning. At that time as well as today, Ware is largely forested - with 63.3 percent of the area within the town boundaries, this land use category is by far the largest. Water is a distant second at 15.1 percent, which includes the portion of the Quabbin Reservoir within the town boundaries. Residential land use is third at 8.2 percent, followed by agriculture (4.9 percent) and wetlands (4.5 percent). Non-residential land uses (commercial, industrial, etc.) are only 1.2 percent of the town, and the remaining categories are each less than 1 percent.

Figure 3 shows how land use had changed between 1971 and 2005. Areas shown in red depict a change from agriculture or forest to developed (mostly residential), and areas shown in pink depict changes from one category to another that are less significant (e.g. agriculture to forest). This map shows a clear trend of residential growth along existing roadways through this time period. The land use change statistics on Figure 3



2005 Land Use, with Acreage

Agriculture - 1,261	Recreation - 117	Cemetery - 67
Forest - 16,200	Residential - 2,097	Transitional** - 244
Water - 3,860	Non-residential - 319	Transportation - 52
Wetland* - 1,157	Institutional - 90	Utility - 119

Note: This data was developed using automated analysis of orthophoto imagery in combination with existing data such as wetlands and assessor data.

** Wetlands are from DEP data and do not show every wetland in town.*
*** Transitional includes brushland, vacant land with no evident purpose, and land in the process of changing from one use to another where the new use is unknown.*

Sources:
Land Use: MassGIS (2005)
Base Data (roads, water, towns): MassGIS

N W E S
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March 27, 2014

Natural Resources

Land Use - 2005

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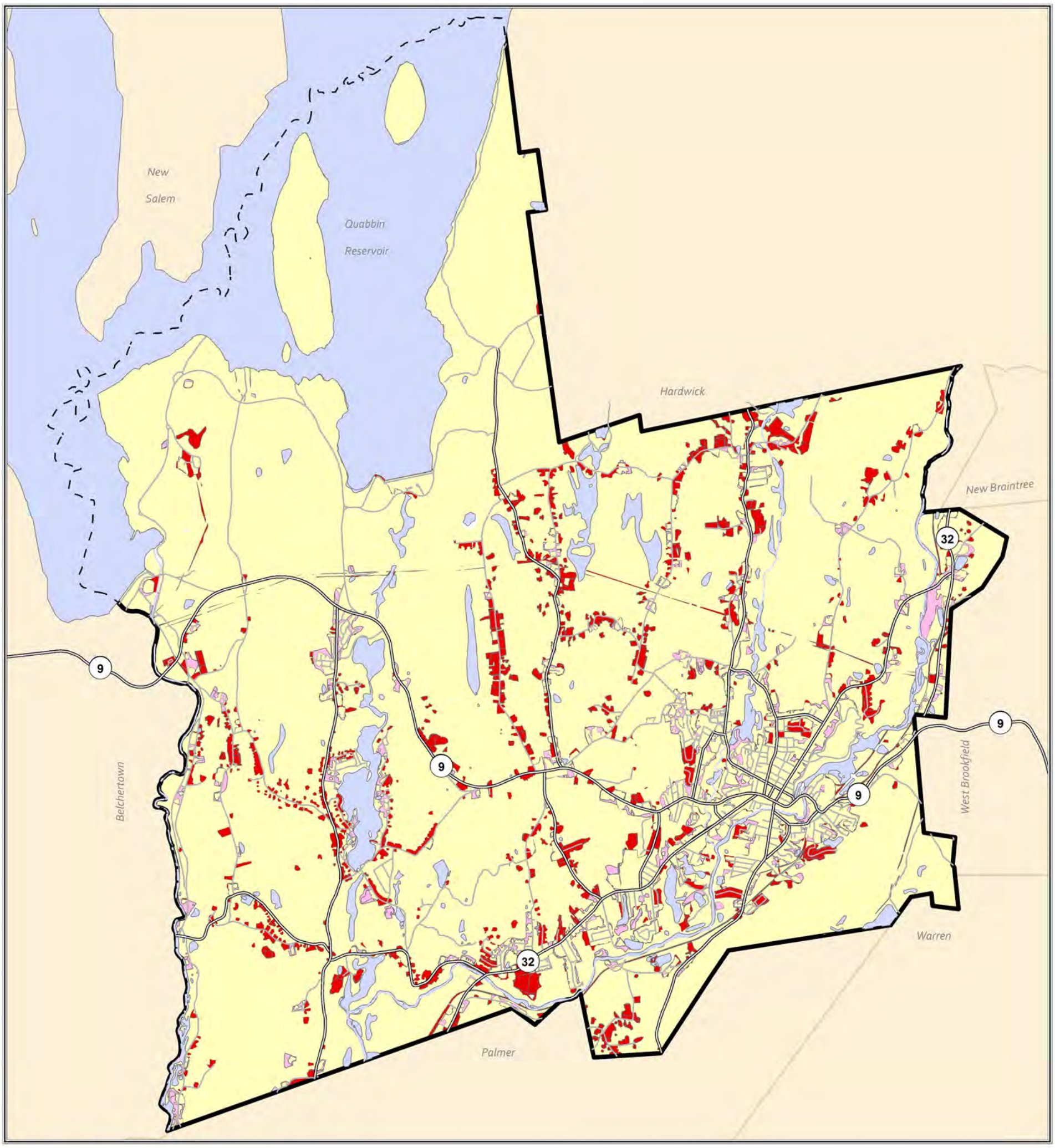

Change in Land Use, 1971 to 2005

- No Change
- Changed to Developed
- Other Change

Notes:

This map shows the areas of land that had a change in land use between 1971 and 1999. The red areas changed from agriculture (including pasture) or forested to developed. The pink areas changed from one broad category to another, butwere not major changes (e.g. agriculture to forested).

A total of 1,346 acres changed from undeveloped (agriculture, forest, wetland, or open land) to developed between 1971 and 2005.

This map is the result of an analysis of the 1971 land use data and the 2005 land use data, which were not obtained using the same methodolgy, thus this map should only be used as a general guide to the locations of where land development took place.

Land Use Change Statistics

Category	Acres, 1971	Acres, 2005	Change, 1971-2005 Acres	Change, 1971-2005 Percent
Agriculture	2,157	1,261	-895.4	-71.0%
Forest	16,673	16,200	-472.6	-2.9%
Residential	1,530	2,097	567.2	27.1%
Non-residential	550	720	169.1	23.5%
Recreation	156	117	-39.1	-33.5%

Note: Not all land in the town is included in this table due to changes in how data was collected in the reported years.

Sources:

Land Use: MassGIS (1971, 1985, 1999, and 2005)
Base Data (roads, water, towns): MassGIS

N W E S

0 0.5 1 2 Miles

April 10, 2014

Natural Resources

Land Use Change - 1971 to 2005

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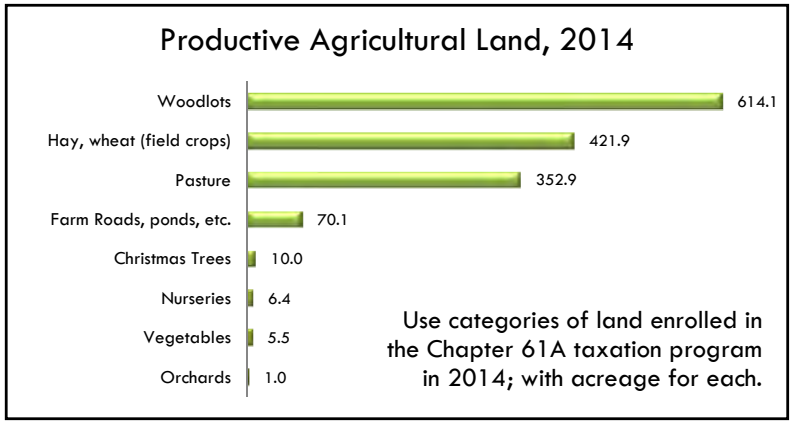
show an alarming decline in acreage devoted to agricultural use, with a 71 percent decline from 1971 to 2005. Forested areas remained steady while recreational use land (as classified in these analyses) declined 33.5 percent. As expected, both residential and non-residential uses increased, by 27.1 and 23.5 percent, respectively.

Protected Land, Town Forest, and Waterfront Recreation

There are no shortages of waterfront access, forest, farmland, or recreation areas in Ware - the town has many natural resources vital to its well-being and identity. As development spreads, Ware's natural resources (most notably farmland) are threatened. As seen in Figure 3, agricultural and forested lands have decreased in Ware for several decades. Residents have repeatedly expressed a need and desire to preserve Ware's agriculture and natural landscapes in various planning efforts over the years. The community has also expressed a need to improve and expand recreational facilities and opportunities in a sustainable manner that will be compatible with the town's natural resources. Despite shrinking numbers in open space acreage, it is important to note that only 12% of the Town is developed. Active agriculture comprises over 1200 acres while forests make up over 16,000 acres. This abundance of natural open space is critical to the rural character of the town.

Ware has demonstrated a commitment to preserving farmland and other open space. The Town has a strong Chapter 61 taxation program that includes more than 4,250 acres of privately owned lands protected for agricultural, forestry, and private recreational use (Figure 4). Chapter 61 preserves land for long-term active forest management; Chapter 61A is intended for land with agricultural uses, and Chapter 61B is for lands that will remain open and used for recreational purposes. It is a tax incentive tool which encourages landowners to temporarily protect their property in exchange for reduced tax rates. It is a temporary protection measure as the landowner can take the property out of the program at any time. The Town has the first right of refusal when these lands are sold. Most of these lands are located in the center of Ware, in West Ware, along the Ware River Greenway Trails Project, and within the Dougal Range.

In addition to protection offered under Chapter 61, there are 9,705 acres with higher levels of protection including the portion of the Quabbin Reservoir within the town boundaries. Figure 5 is a map showing these areas by their level of protection. From this map it is clear that if Ware did not have a portion of the Quabbin Reservation or the Herman Covey or Coy Hill Wildlife Management Areas, the amount of protected land in town would be much smaller. Other permanently protected lands include agricultural protection restrictions (APR's), conservation restrictions (CR's), land owned by the Town that has legal, permanent protection (not simply ownership), and cemeteries; these areas total 849.5 acres.



The Town Forest is comprised of three different non-contiguous parcels, including a 5.6 acre lot on North Street, which consists of Red Oak forest. Because this lot is so small and there is no available public parking, it is only used by neighbors for hiking and walking. The Walker Road property consists of 28 acres about a mile north of downtown. This parcel is surrounded by forest land, some of which is included in Chapter 61B. There are hiking and cross-country skiing trails and hunting is allowed; however there is no defined parking area, making it difficult for residents to use this parcel.

The third parcel is the Muddy Brook lot, which is about 66 acres located in the northeastern part of Ware. Similar to the Walker Road property, this parcel is surrounded by forest and agricultural properties, some in Chapter 61 or 61A, and the land to the north is permanently protected with a conservation restriction. This parcel has two access roads that are mostly maintained by hikers and recreational ATV use, and there are several smaller trails that connect the roads. This lot provides important habitat for many species and the corridor along the brook has been identified as a priority habitat area by the Massachusetts Division of Fisheries and Wildlife.

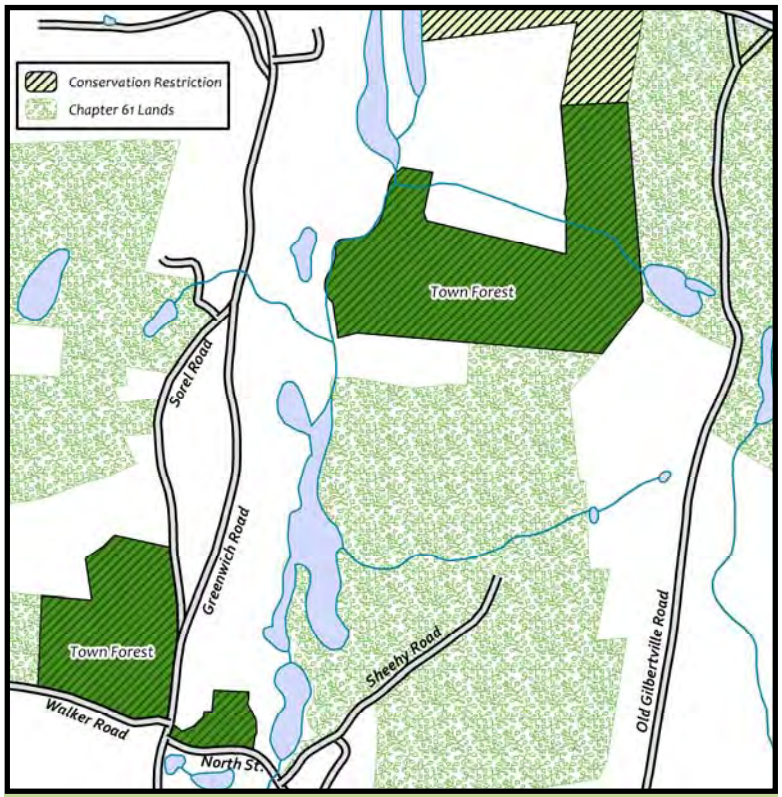
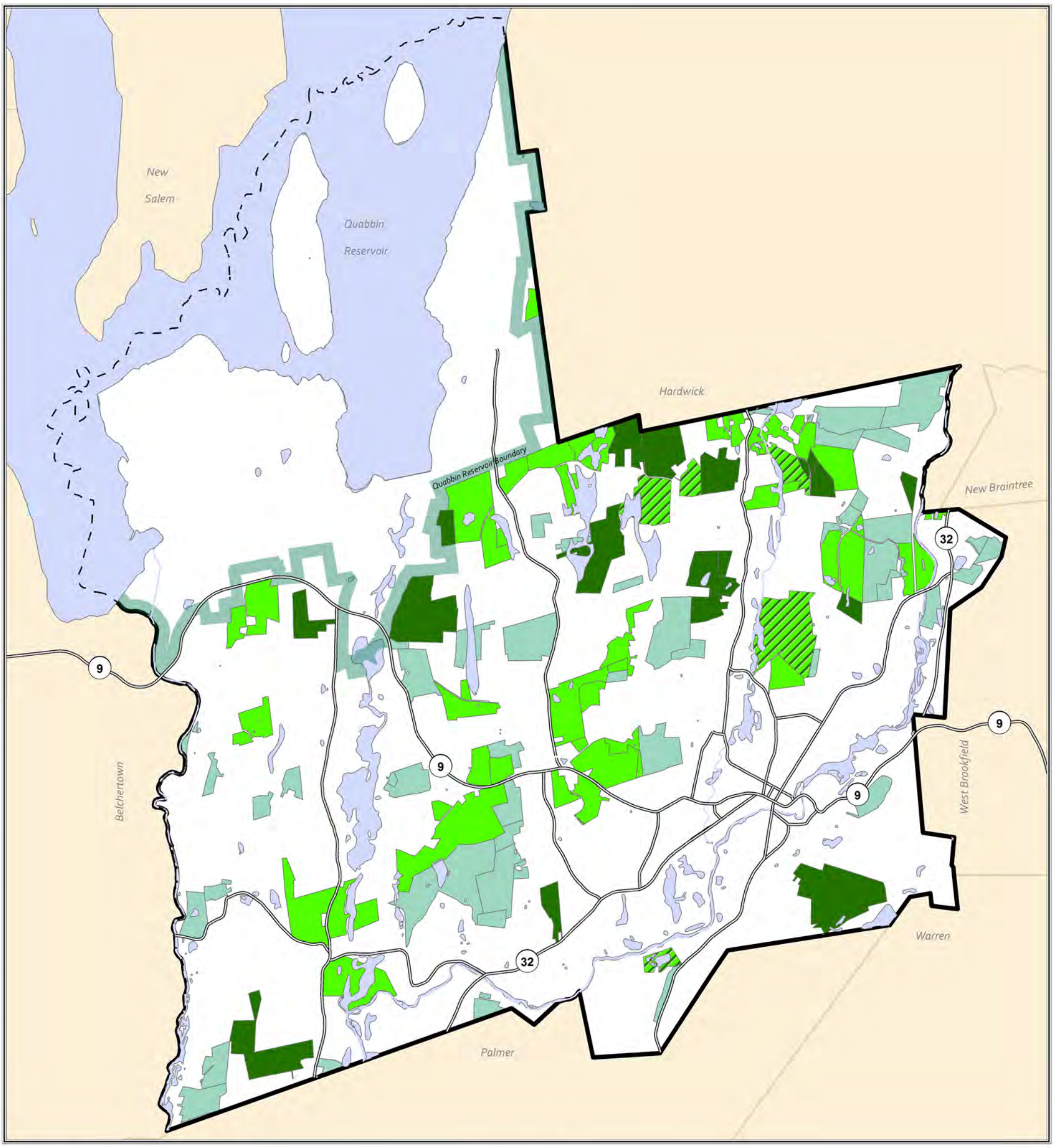


Figure 6: Town Forest parcels.

The Town developed a forest management plan with help from PVPC and local input for the preservation of the Town Forest. The management plan was developed with the goal of developing adequate trails while maintaining the forest's natural resources. A public meeting was held to discuss priorities for forest management and to identify concerns that residents had regarding the forest. The major issues the public identified included that the town should establish forest boundaries, increase and improve recreational opportunities, conduct an inventory of resources, perform selective cutting to improve forest growth, implement signage for all three properties, and provide maps of the town forest. Tools for the preservation of natural resources such as this are vital as the amount of forest has decreased over the past several years.

The Town of Ware enjoys added recreational opportunities and waterfront access along the Ware River and the Quabbin Reservoir. The Ware River snakes through the town providing residents and visitors with a connection to their natural heritage and serves as a reminder of the industrial past of the area. The Quabbin Reservoir is a natural resource that is fundamental to Ware's rural charm and is highly valued by its residents. The Quabbin Reservation provides an abundance of outdoor recreational activities to residents and visitors alike. While many Ware residents enjoy the Quabbin, there seems to be little recognition that the main Quabbin recreational area is located in Ware. A raised awareness of this natural resource through better tourism marketing could encourage residents to visit it more frequently.

The recreational uses of the Town Forest, Ware River, the Quabbin, and other Town trails and parks will be discussed further in section six of this appendix, Open Space and Recreation. The town has an abundance of natural areas that could increase passive recreation opportunities.



Chapter 61 Category

- *61 - Forestry*
- *61A - Agriculture*
- *61B - Open Space or Recreation*
- *Multiple Categories**

** Properties with multiple categories include a portion of the land in Chapter 61A and a portion in either 61 or 61B.*

Chapter 61 Category	Acres	% Total	% Town
61	1,107.1	26.0%	4.3%
61A	1,713.0	40.3%	6.7%
61B	1,433.8	33.7%	5.6%
Total	4,253.8	100.0%	16.6%

Acreage figures include parcels with two categories.

Sources:
Chapter 61 Data: Assessor's Office, 2014
Base Data (roads, water, towns): MassGIS

N W E S

0 0.5 1 2 Miles

October 28, 2014

Natural Resources

Land in Chapter 61 Taxation Program

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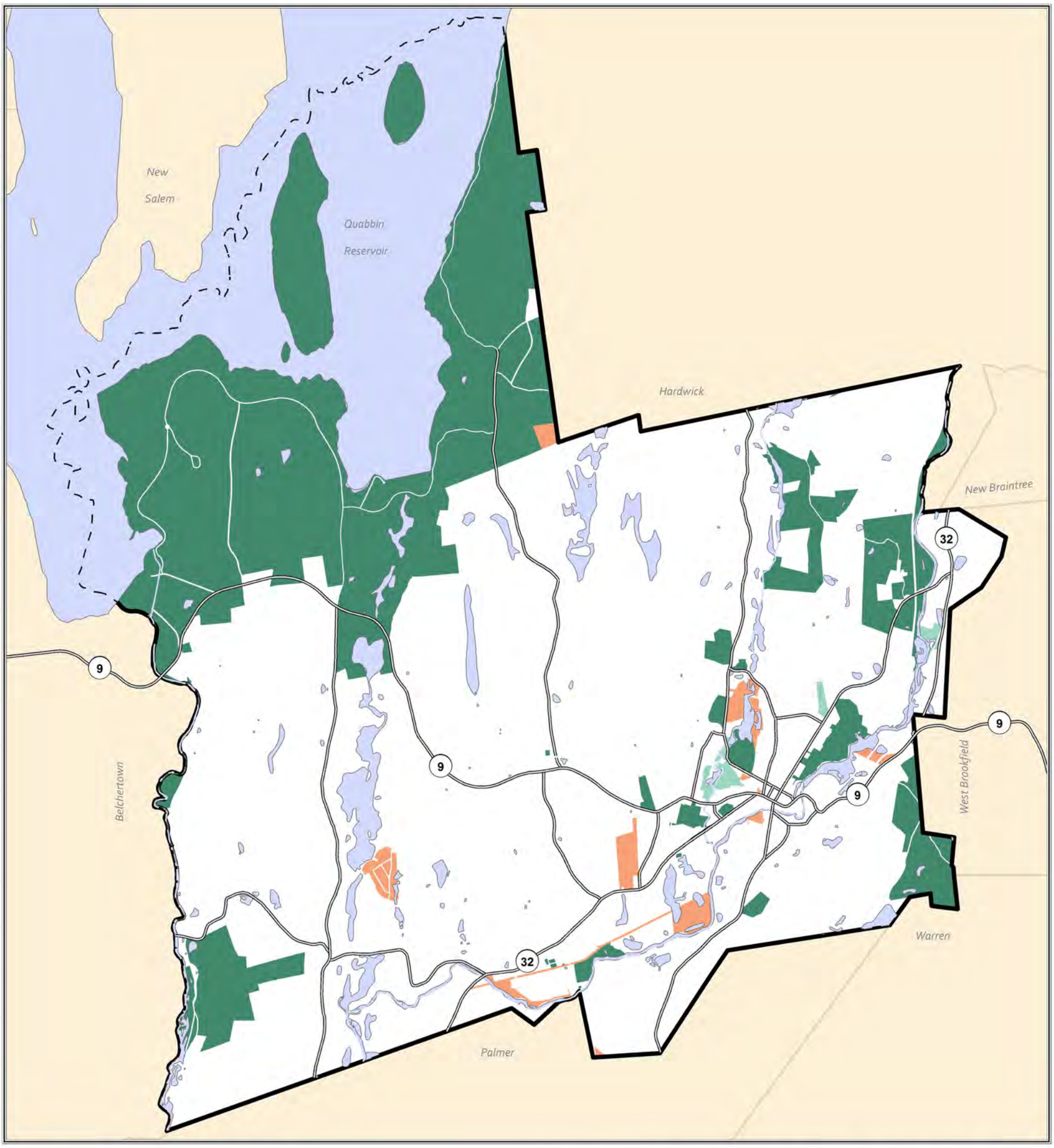

Open Space by Level of Protection

- Permanent
- Very High
- Low

Notes:
Permanent means the land has legal restrictions for use in perpetuity.
Very High means the land is owned by the Town and is currently used for recreation or water supply protection, but development is an option in the future since no permanent legal protections were placed on the parcels.
Low means the land is owned by an entity such as the town or religious organization and is currently undeveloped, but no legal protections for future use are in place; thus development remains an option.

Level	Parcels	Acres	% Open Space	% Town
Permanent	35	6,006.0	94.8%	23.5%
Very High	8	63.9	1.0%	0.2%
Low	24	265.9	4.2%	1.0%
Total:	67	6,335.8	100%	24.8%

Note: The acreage of the water area in the Quabbin Reservoir (3,368.9 ac) is not included in these figures.

Sources:
Open Space: MassGIS, Ware Assessors Records
Base Data (roads, water, towns): MassGIS

N W E S
0 0.5 1 2 Miles

March 3, 2015

Natural Resources

Protected Land

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The East Quabbin Land Trust (EQLT) is a valuable partner for Ware in the protection of forestland and open space. It works with private landowners to protect land from sprawl and strives to protect farmland. The EQLT owns several parcels in Ware, including two key properties. The Frohloff Farm was acquired in 2010 and consists of 90 acres located off Church Street. The Hyde Wood Lot is approximately 100 acres, located off Old Stagecoach Road with frontage on Muddy Brook and adjacent to the northernmost Town Forest parcel. The Town of Ware oversees a conservation restriction on both properties (Henshaw, 2012).

Recently, the EQLT has focused much of its efforts on the Dougal Range, which runs from Hardwick to the center of Ware. The Dougal Range is an intact-forested area with over 2,000 acres of woods crucial to maintaining the declining migratory bird population. It includes one farm and several fields. Several trails have been informally mapped in this region.

Active Agriculture

At one point, the local economy in Ware was based on agriculture. Now, only a small percentage of the population is employed in agricultural related jobs and only 6.4% of resident income is produced via the sector that includes agriculture, forestry, fishing, hunting, and mining. Despite this, Ware still has approximately 48 working farms of varied land types and participates in farming activities ranging from berries to vegetables to cut Christmas trees. The most common activities in Ware are timber and hay production. According to the USDA's 2007 Agricultural Census data, two-thirds of these farms have fewer than 50 acres. None of the farms in the remaining third exceed 1,000 acres. Commodity totals from this census show that only one farm had sales totaling more than $50,000. As Figure 7 shows, Ware has 723 acres of prime farmland soils and over 3,000 acres of statewide importance for agriculture. It is important to maintain these soils in a condition that can be used for agriculture in the future to secure decent crop yields should the need arise for local food production on a larger scale than exists in town today.

Figure 7 also shows the land areas classified as agriculture in the 2005 land use survey. The statistics show that 706 acres of the land area that was in agricultural use in 2005 were located on farmland soils. Of those, 218 acres were in prime farmland soils, 475 acres were in soils of statewide importance, and 13 were in soils of unique importance (mucks, peats, and coarse sands used for specific high value crops).

Ware has two primary soil types:

Canton-Gloucester-Scituate soils, which are very deep, well-drained and formed in sandy glacial till, with most areas having stones and boulders on the surface. These soils are poorly suited to farming, but have moderate potential for woodland production and are quite well suited to building site development in upland areas. However, wetness is a limitation in low areas, and these soils also readily absorb, but do not adequately filter discharge from septic systems.

Hinckley-Merrimac-Windsor soils, which are very deep and excessively drained. These soils are well suited for farming, and for building site development. These areas suffer from problems regarding the soils' tendency to readily absorb, but not adequately filter seepage from septic systems.

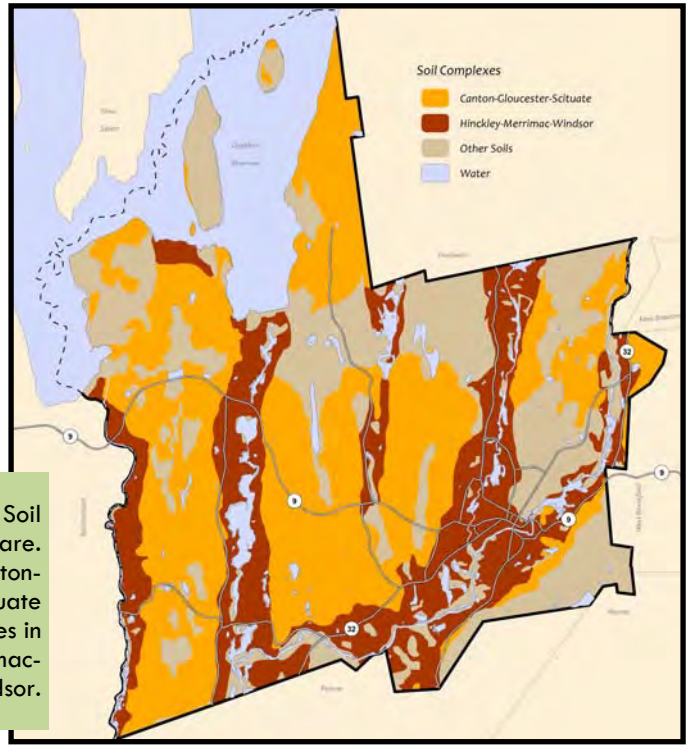


Figure 8: Soil Complexes in Ware. 9,506 acres in Canton-Gloucester-Scituate and 5,237 acres in Hinckley-Merrimac-Windsor.

Figure 9 shows the soils in Ware by drainage class. One of the more interesting soil characteristics that people often want to know about is the ability of a soil to support septic systems. Based on the variety of criteria that go into the analysis for suitability for septic systems, all of Ware's soils are classified as poorly suited for leach fields. As will be discussed, most of the land area of the town is dependent on such systems to support any type of development, and soil drainage classes can be an indication of areas where septic systems can be constructed with varying levels of cost (roughly correlating cost with complexity of the system, often based on soil conditions related to drainage). One can see clear similarities between Figures 8 and 9.

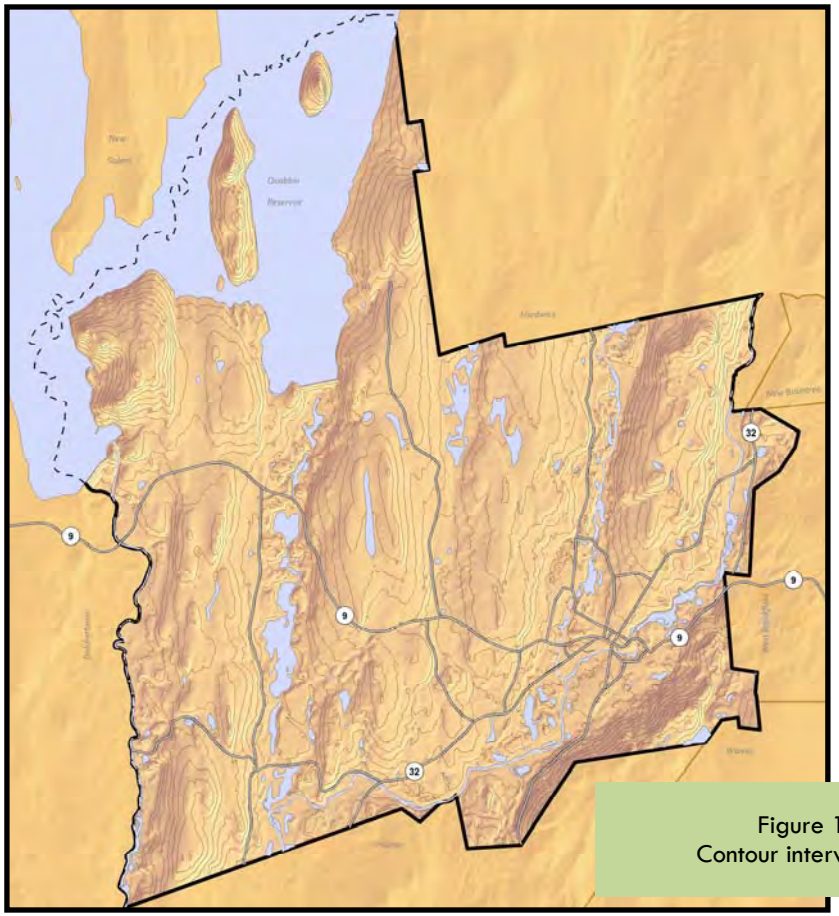
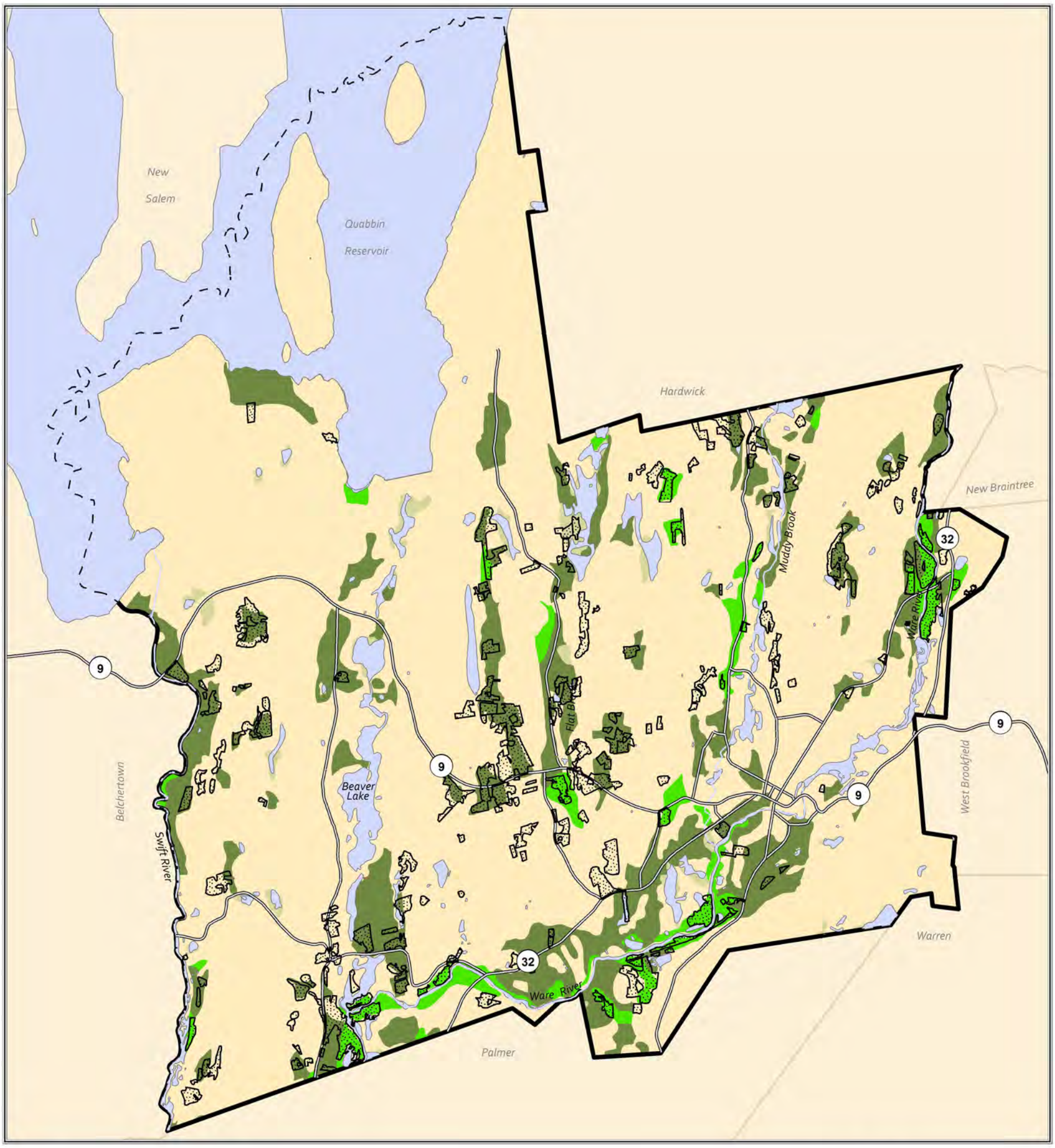


Figure 10: Topography. Contour intervals are 50 feet.

The topography of Ware consists of moderate slopes with elevations ranging from 370 feet above sea level in the river valleys, to elevations of approximately 1,070 in the southeast mountains and 1,026 feet at Quabbin Hill.



Legend

Agricultural Use in 2005

Farmland Soils

Prime Farmland

Statewide Importance

Unique Importance

Other Soils

Farmland Soils	Acres	Percent	Percent of Town	Acres in Agricultural Use, 2005	Percent
Prime	723	17%	2.8%	218	31%
Statewide Importance	3,012	72%	11.8%	475	67%
Unique Importance	451	11%	1.8%	13	2%
	4,186	100%	16.4%	706	100%

Sources:
Soils: MassGIS (NRCS)
Agricultural Landuse: MassGIS (2005)
Base Data (roads, water, towns): MassGIS

N W E S

0 0.5 1 2 Miles

February 19, 2015

Natural Resources

Farmland Soils

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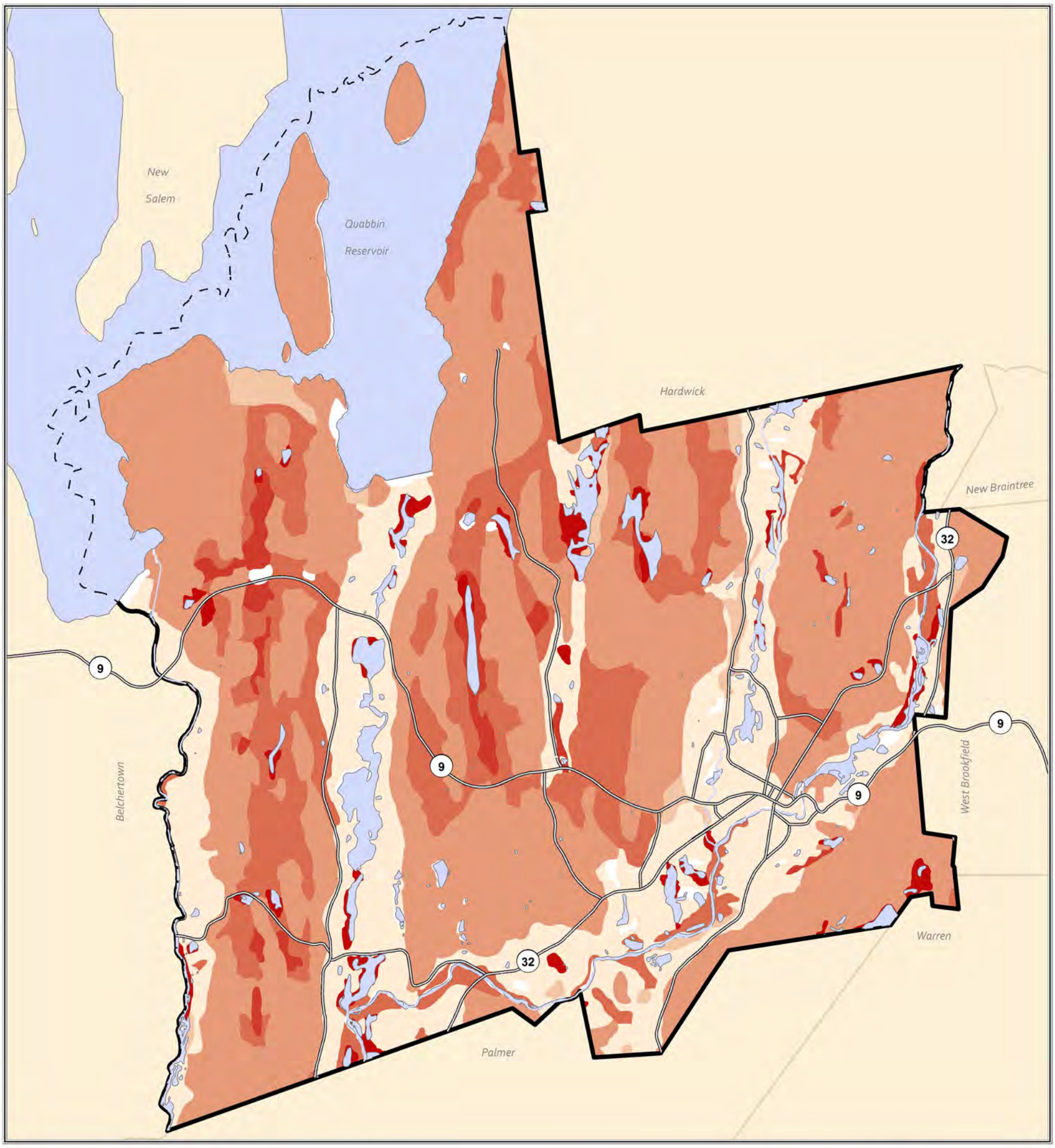


Soil Drainage Class

- Excessively Drained
- Somewhat Excessively Drained
- Well Drained
- Moderately Well Drained
- Poorly Drained
- Very Poorly Drained

Blank (white) areas are water, gravel pits, dams, or landfills and are not given drainage classifications.

Drainage Classification	Acreage	Percent of Town
Excessively Drained	4,827	19%
Somewhat Excessively Drained	414	2%
Well Drained	11,560	45%
Moderately Well Drained	3,715	15%
Poorly Drained	495	2%
Very Poorly Drained	710	3%
Not Rated*	3,855	15%
Total:	25,576	100%

** Includes water area of Quabbin Reservoir.*

Sources:
Soils: MassGIS, NRCS
Base Data (roads, water, towns): MassGIS

N W E S
0 0.5 1 2 Miles

March 3, 2015

Natural Resources

Soils by Drainage Class

Floodplains

A floodplain is an area that, left in it's natural state, becomes inundated with water during a flood. Typically floodplains are located adjacent to rivers and streams, but may also occur along lakes, ponds, and wetlands. The floodplain serves as a critical habitat for many plant and animal species and provides some of the most fertile soils in the region. The terminology for flood hazard areas has changed over the last decade as the nation has dealt with - and learned from - flooding events. What was once called the 100-year floodplain is now called the 1% Annual Chance flood zone, and what was once called the 500-year floodplain is now called the 0.2% Annual Chance flood zone. These terms give a more accurate picture of what the hazard is; e.g. the old 100-year floodplain is the area with a 1% chance of flooding in any given year. Areas in the 1% Annual Chance flood zone in Ware are primarily those lands adjacent to, and including, the open water areas at the Quabbin Reservoir, Ware River, Swift River, Flat Brook, and Muddy Brook. Flood hazard areas are mapped by the Federal Emergency Management Agency and can be seen in Figure 11; note that the mapped areas include open water including the Quabbin Reservoir.

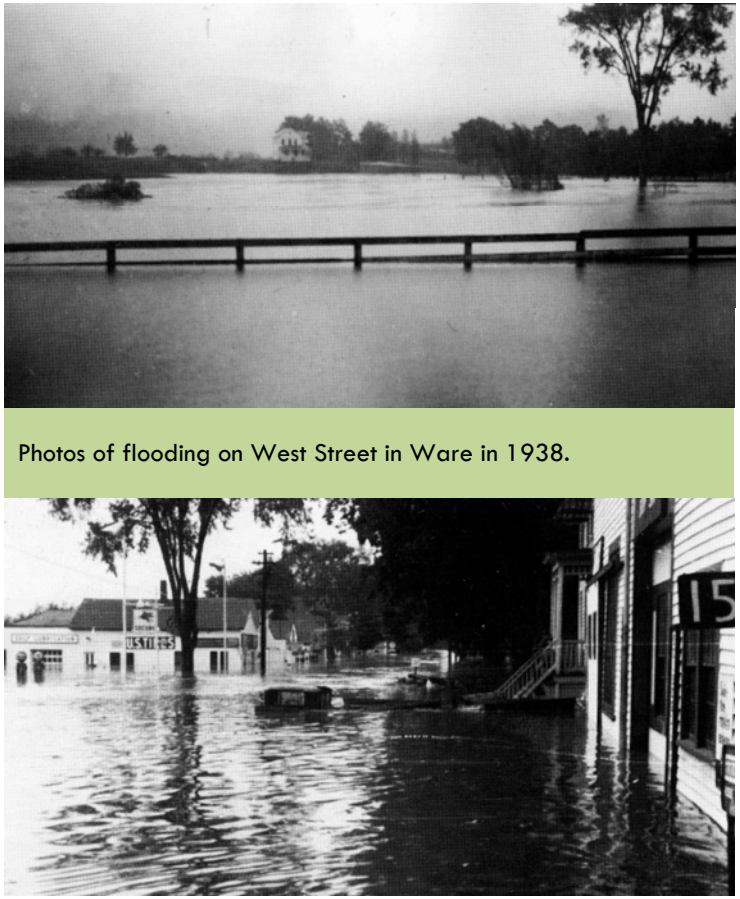
Not including open water areas, there are 507.7 acres of 1% Annual Chance flood zones in town. Protective regulations and disincentives that limit development in the floodplain exist at several levels:

- Ware's zoning bylaw contains effective regulations that can control development in these critical areas. If properly enforced, Ware's Floodplain Overlay District should effectively control residential and commercial development in floodplains.

- Lending institutions require flood insurance for structures built in the 1% Annual Chance flood zone. Although the consumer cost of this federally-supported insurance program is relatively inexpensive, some homeowners simply do not want to take on this added burden. The town should, however, guide development in these areas and be proactive in its approach to educating municipal boards and loan officers on the effect of floodplain development.

- The Massachusetts Wetlands Protection Act limits the impacts of construction and alteration activities in the floodplain through its local enforcement by the Conservation Commission.

- The State Building Code requires the elevation of structures in the floodway—the floor of the lowest habitable area in the structure must be above the base elevation for floodwaters during a 100-year storm event. The code also reinforces the overlay district regulations by prohibiting any change in the flood storage capacity of the area (Ware Community Development Plan 2004).



Photos of flooding on West Street in Ware in 1938.

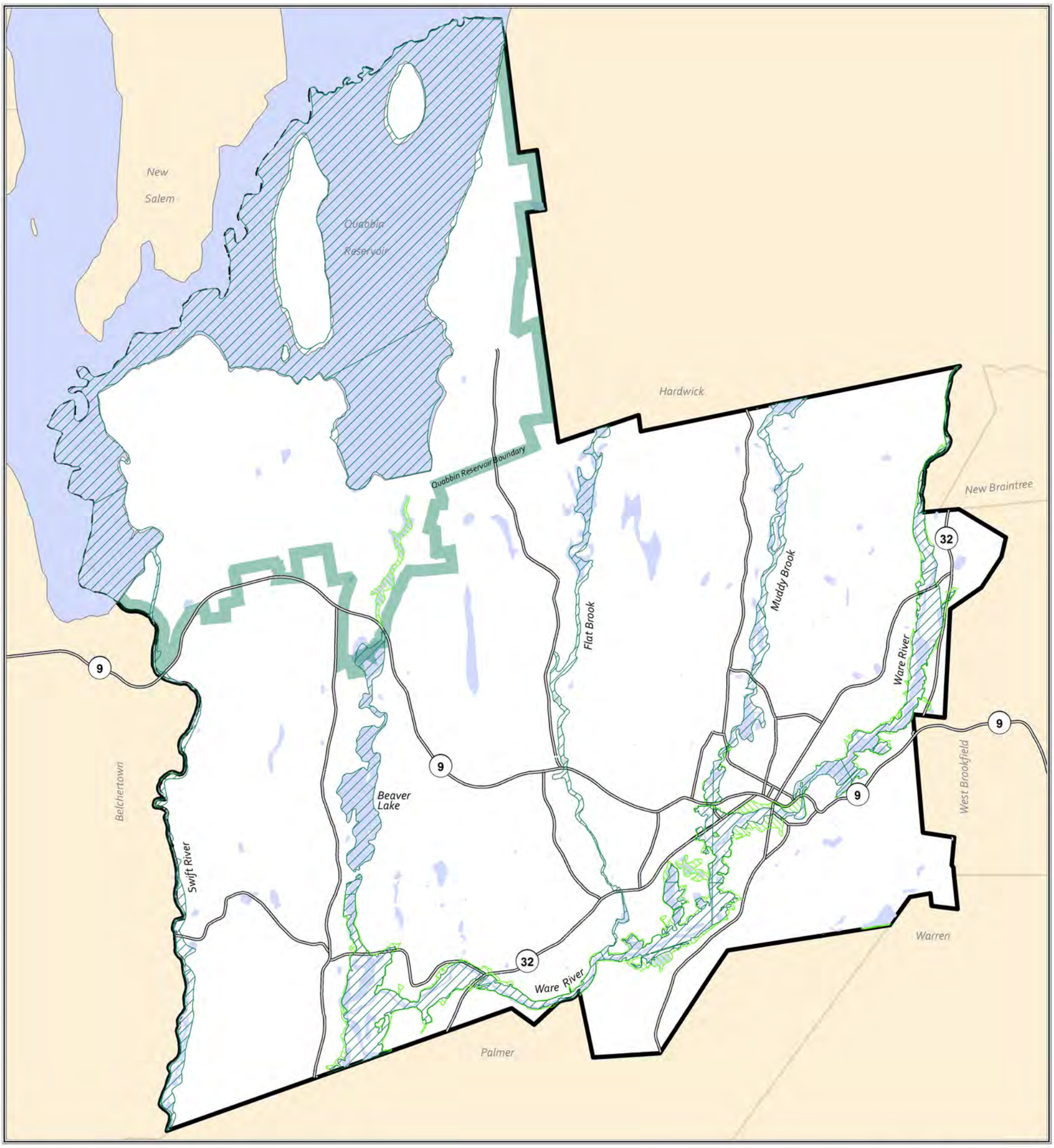
Development of land for residential, commercial, industrial, or institutional uses requires access to potable water and a means to safely dispose of wastewater. Between 40% and 45% of Ware's population live in areas not serviced by municipal water or sewer systems, and are reliant on individual, privately-owned septic systems and usually individual water supply wells. Figure 12 shows the approximate service areas for the municipal systems; only seven percent of the town is within the sewer service area. Septic systems provide a viable alternative to municipal sewer systems, although their cost and viability depend on the soil conditions, groundwater levels, proximity to wetlands or waterbodies, as well as lot size, shape, and proximity to existing wells and septic systems. Proper maintenance of septic systems is crucial to preventing system failure, which in addition to being a health hazard for residents can pollute the environment. A high density of private septic systems compounds the problem of ensuring a safe water supply for homeowners who rely on private wells.

The Beaver Lake area of Ware was originally developed as a seasonal home community for its residents, with very small lots around the private, man-made lake. Many of these seasonal homes have been converted to year-round housing, placing increased strain on individual septic systems. Today, many properties consist of two lots, one for the house and the second for the septic system; often these are located on the opposite side of the street from the house. There have been discussions in the past regarding extending the municipal sewer system to the Beaver Lake area, but doing so presents both a high cost, estimated at $10 million, and incentivizes further development in the area (Martens 2012). This increases sprawl rather than encouraging development where infrastructure exists, and the idea has encountered opposition by residents who would like to keep the area less developed. Complicating matters is the fact that the Town of Ware does not have jurisdiction over this body of water, other than through the Wetlands Protection Act (WPA) via the Conservation Commission.

While the Beaver Lake area has a number of circumstances which make it difficult for the town to take direct action, not addressing the issue proactively could result in long-term impacts. Disruption of the ecosystem through leaching of wastewater into Beaver Lake could lead to nitrogen loading, also known as eutrophication, resulting in algae blooms and leading to fish kills. While Beaver Lake is a private body of water, it is still an integral part of Ware's ecosystem and environmental degradation of even small areas can have vast consequences for the larger community. If Beaver Lake were to become eutrophic, there would not only be significant implications for the larger ecosystem, but this could result in reduced desirability of one of Ware's prime real estate areas.

The wastewater treatment industry has been working for decades along with academic institutions to develop better technologies for treating wastewater on individual lots. Similar to standard septic systems which consist of a septic tank and a leach field, these alternative wastewater treatment systems incorporate different ways to effectively remove the pathogens and nutrients from the wastewater before it is discharged into the environment, and, particularly in areas like Beaver Lake, could save the residents as well as the community at large a lot of trouble in the long term. The Massachusetts Department of Environmental Protection maintains a list of both approved alternative and innovative wastewater treatment technologies as well as technologies approved for pilot programs (Summary of Alternative and Innovative Wastewater Treatment Technologies Approved for Use and Under Review. Mass DEP 2012). Another method for protecting the water supply for residents relying on private wells would be to institute a monitoring program for septic systems, hopefully detecting problems with systems prior to failure.

Recently, the residents of a manufactured home community in the rural area north of Beaver Lake purchased the development, buying out the management company (now called Quabbin Sunrise Cooperative). As cooperative owners, residents are able to use additional funds to make



Floodplain

1% Annual Chance Zone

0.2% Annaul Chance Zone

The 1% annual chance zone is the area subject to inundation by a flood having a one-percent or greater probability of being equaled or exceeded during any given year. It is sometimes referred to as the "base flood" and was formerly called the "100 Year" Floodplain. It is the national standard on which the floodplain management and insurance requirements of the National Flood Insuance Program are based.

The 0.2% annual chance zone is the area that has a two-tenths percent chance to be flooded in any given year. It was formerly called the "500 Year" Floodplain.

Both zones include the waterway or waterbody.

Floodplain Zone	Acres	Percent of Town
1% Annual Chance	507.7	2%
0.2% Annual Chance	256.8	1%
	764.5	3%

Note: These acreage figures exclude the portion of the floodplain that is within a waterway or waterbody. Including those areas increases the acreage of the 1% chance zone to 4,896.5 acres.

Sources:
Floodplain: MassGIS (FEMA, Q3 data)
Base Data (roads, water, towns): MassGIS

N W E S
0 0.5 1 2 Miles

February 20, 2015

Natural Resources

Floodplains

Ware's Future - 2015 Master Plan

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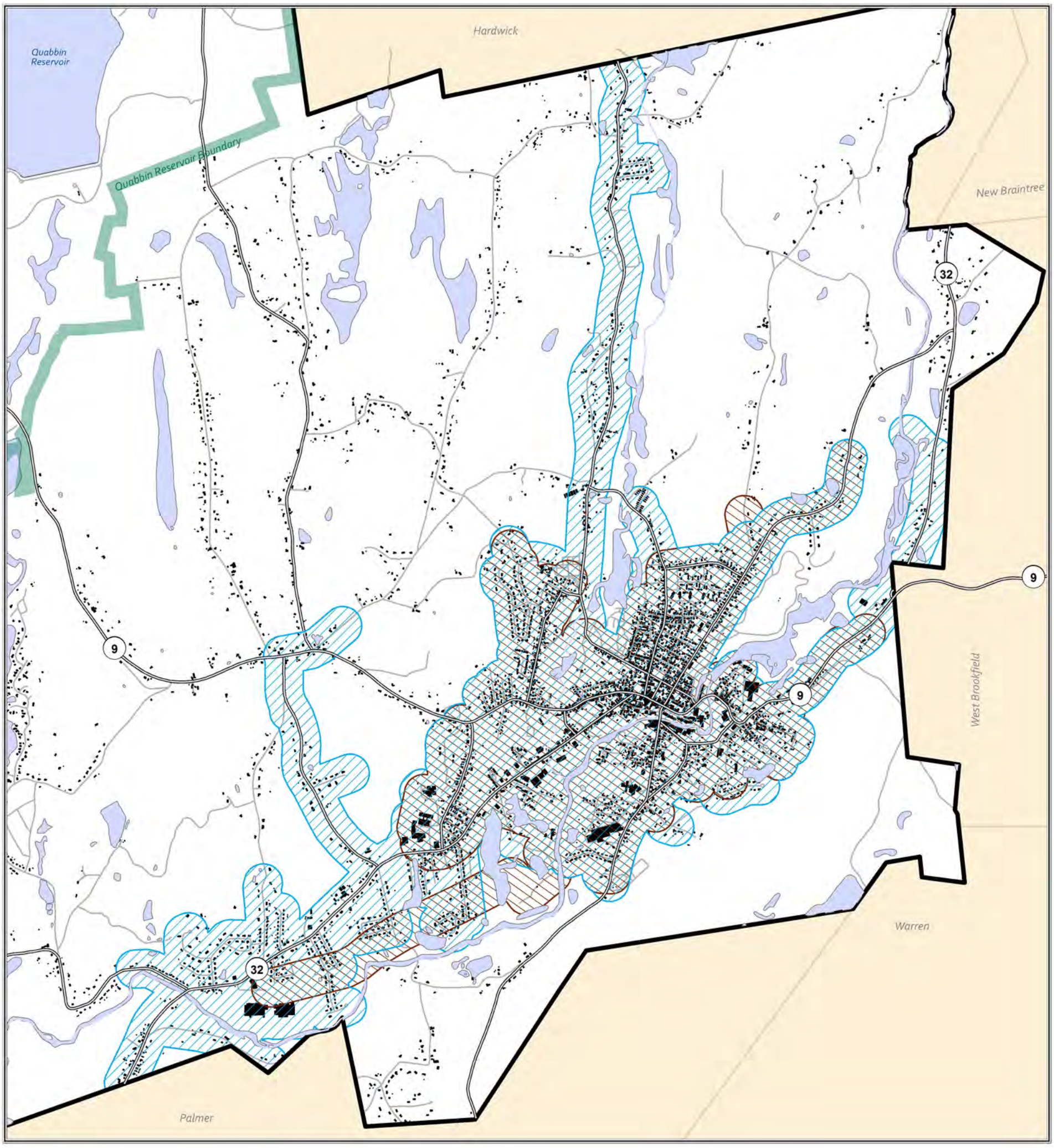

Legend

- *Water Service Area **
- *Sewer Service Area **
- *Buildings*
- *Streets*

** The water and sewer service areas are approximations only, based on the best available data, and are not an accurate representation of the properties in Ware that are connected to the public water or sewer systems. These service areas do represent areas where connection to the municipal systems is possible; e.g. the residential neighborhoods off Route 32 between the road and the Walmart/Lowes shopping center.*

Sources:
Water & Sewer Lines - PVPC
Water & Sewer Service Areas - Town of Ware
Base Data (roads, water, towns): MassGIS

N W E S

0 0.25 0.5 1 Miles

July 9, 2014

Natural Resources

Municipal Water & Sewer Service Areas

Ware's Future - 2015 Master Plan

Planning & Community Development Department
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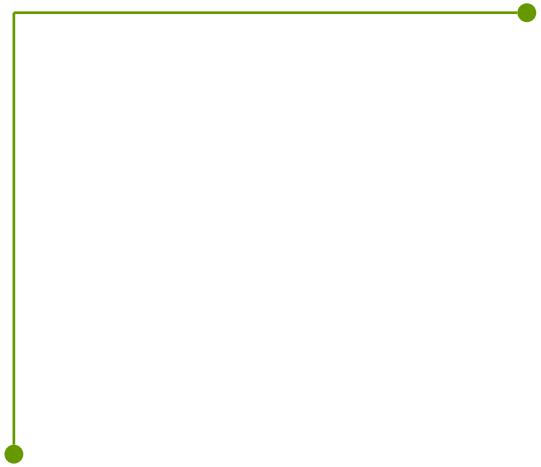
infrastructure improvements in their community, improving the quality of life and potentially lowering the cost of living (Cooperative Development Institute: Northeast Center for Cooperative Business 2010). At Quabbin Sunrise Cooperative, a new community sewage treatment system was installed in the 1990's, replacing older shared septic systems that had been installed decades ago. More recently, a new public water supply well was installed, improving the water supply for the community. This presents an example for other neighborhoods to model regarding cooperation among residents in installing alternative and innovative wastewater technologies.



Public Outreach – Plan For the People

Public participation is typically a critical part of any master planning process. During the master planning process, towns usually seek to understand the public's ideas, priorities, and preferences for the town's future. An effective public participation strategy for a Master Plan can help to ensure that the recommendations and strategies identified in the plan will be supported by townspeople in the future. Ware has a close-knit community with residents who are invested in Ware's future and are actively engaged in discussions about Ware's future. But there are also segments of the population who have a stake in Ware's future but are not engaged in conversations about it. Using a variety of tools for engaging the public in the master planning process is important in ensuring that the Master Plan reflects the wants and needs of Ware's population.

Past Public Participation in Ware

Public participation is not new in Ware; every planning initiative has incorporated some level of outreach. Previous efforts are briefly described below.

1975 Master Plan

A preliminary document for the 1975 Master Plan mentions the use of a questionnaire to determine the general desires of Ware residents.

1987 Growth Management and Development Plan

This Plan mentions the use of public meetings to review a proposed zoning bylaw. There were also public meetings held to review this plan once it was completed to ensure that it met with public approval.

1999 "Ware Speaks" Survey

In a 1999 community survey, "Ware Speaks", residents reported that the features they value most in Ware were the small town atmosphere, proximity to the Quabbin Reservoir, and the open spaces. Three-quarters of the respondents said that they preferred the vision of Ware as a "compact New England village." This type of development was described as:

> *Development in a compact, traditional pattern around the town center consisting of a common, small shops, schools, a variety of homes, and public buildings interconnected by a system of sidewalks, tree-covered streets and lanes, and small parks… new businesses moving into existing vacant buildings or store fronts or being built on lots near the town center. New homes and neighborhoods would be located adjacent to existing neighborhoods and would look very much like the existing residential areas in Ware.*

2001 Ware Strategic Plan

For the 2001 Strategic Plan (5-year plan), a public outreach campaign was conducted utilizing two methods to determine the most pressing areas of concern in the community. The two methods were a community survey and a two-part series of visioning workshops. The community survey consisted of 27 questions ranging in type from multiple choice to open ended. A sample of 1,440 households was given the survey by mail. Over

one-fourth of these households (340) responded in time to be tabulated. This response represented about nine percent of the total households in Ware. The results indicated that the valued small-town character was not adequately protected from adverse impacts and that the town's current land use policies and regulations did not support the compact New England village vision. As such, the plan recommended that Ware work to conserve and protect open space and provide high-quality recreation programs, continue downtown revitalization efforts by encouraging a diversity of business uses and removing or rehabilitating vacant buildings, foster a sense of community among residents through events and activities, and provide tourism opportunities that promote the town's small town character.

The other outreach component undertaken for this Plan was a series of visioning workshops. The series consisted of two workshops that were held at the Ware High School on January 27th and June 6th of 2000. The first was set up to be more informal and allowed residents to come in at their leisure over a three-hour period to share their thoughts and ideas about the future of the town. Seven stations were set up that covered different themes. This allowed residents to both receive information and provide feedback within specific issues and areas. The breakdown of stations was as follows:

- Stations 1, 2, and 3: Existing Conditions - Focused on areas such as community character, historic resources, zoning, land use, and infrastructure.
- Station 4: What do Ware Youth Think? - Focused on comments made by High School students conducted in a previous survey at the school.
- Station 5: More Detailed Discussion and Recordation - Facilitated discussion on issues such as economic development, infrastructure, and growth and development.
- Station 6: Buildout Analysis Preview -
- Station 7: Vote Your Conscience - Participants were asked to choose the issues most important to the town's future well-being.

The 2001 Strategic Plan noted that the first workshop was sparsely attended but did result in the identification of several themes. The second workshop was divided into two parts. The first part was a presentation of the strategic planning process as well as some similar planning work being done in the region. This was followed by a presentation of the results of the community survey. The second part of the workshop divided people into five discussion groups focusing on themes including Economic Development, Environment and Natural Resources, Government Services, Small town Character and Livability, and Youth Issues. Each group followed the process of coming up with goals within their topic area, and then identifying and prioritizing action steps to reach those goals.

2007 and 2014 Open Space Plans

In preparation for the Open Space Plan, Public Visioning Sessions were held at the Ware High School Library to identify goals and objectives of the plan. The sessions included discussions about the goals and objectives listed in previous Open Space and Recreation Plans. Although sparsely attended, the plans were edited to reflect the current views of the residents as a result of the input received. An important goal identified in these plans was to "preserve the town's rural character." This led to recommendations to work toward a town greenway system, collaborate with non-profits and other organizations on land protection and recreation development, inform the public about land protection, land trusts, conservation restrictions, land gifts, etc., and utilize regulatory tools such as zoning strategies for land protection.

2012 Zoning Bylaw

In 2012, a number of public outreach methods were used to inform the public about a major overhaul of the town's zoning bylaw. These included meetings, a show on Ware Community TV, updates at board and committee meetings, a series of newspaper articles, and a public information

forum. While poorly attended, the forum was considered a success because it got the word out in a friendly way. Fifteen posters and sixteen brochures were created for this event (Figure 13). Three years later the brochures continue to be picked up, and people had been seen reading the posters hung in Town Hall until they were taken down for repainting the hallways in 2014. This public outreach campaign was instrumental in the success of this project, with adoption of the new bylaw by well over the required two-thirds vote at the Annual Town Meeting in 2012.

Current Master Plan Public Participation Efforts

Ware 2012 Fall Fest

Ware's inaugural Fall Fest on October 6th, 2012 presented an opportunity to introduce the public to the idea of a new Master Plan, obtain general ideas and feedback from the public, and provide information on what a Master Plan entails. To that end, Karen Cullen, the Director of Planning and Community Development, procured a booth to set up posters that provided information about the master planning process along with handouts and sign-up sheets for those who wished to receive additional information as the master planning process proceeded. The Master Plan Poster (created by the UMass Studio Class) used at the event is pictured in Figure 14 on the following page.

Two public participation methods were utilized at the 2012 Fall Fest. One of the methods was a mapping exercise created by the Studio Class to get an idea of what places people like and/or don't like in Ware. The other component was the circulation of a general survey. Two students from the Studio Class roamed throughout the event asking residents and visitors if they would care to answer a few questions about Ware in order to better understand the public's opinion of the town. There were also surveys available at the booth for residents to fill out.

The goal of this exercise was to understand what places in Ware people like or do not like. The Studio Class produced a map (Figure 14) with the goal of being user friendly and interactive. The map included pictures of significant landmarks within the town and featured a blowup of the downtown in the top right corner since this area has the highest concentration of commercial and civic destinations. To indicate their

Figure 13: Public information forum on the Zoning Bylaw rewrite, 2012. While sparsely attended, the posters and brochures were widely read for many months after the event.

sentiments, participants were asked to place a green sticker on a place in town that they liked, and/or a red sticker on a place that they did not like. If a sticker was placed on a spot without a picture, the participant was asked to specify what that place was and write it directly on the map. Participants had the option to write comments about their sticker placement on an accompanying comment sheet.

In general, the mapping exercise was successful in that it attracted people to the booth and encouraged them to participate. There was a consistent flow of people that came by the booth to check out the Master Plan information posters and the mapping exercise. Approximately half of the people that came to the booth participated in the exercise. The pictures of the landmarks on the map may have increased participation because it gave people something to react to. However, they also may have guided responses. Children, in particular, were excited to participate. They especially seemed to gravitate towards the pictured landmarks, while adults occasionally chose and labeled other places that were not pictured. It is important to note that all age groups participated, from kids between five and ten to the elderly. Unfortunately, only a few participants utilized the comment sheet to provide further information about the places they marked on the map. The overall reaction to the exercise and the master planning project was positive.

The majority of responses received were positive (people overwhelmingly used green dots as opposed to red dots), indicating that overall, people think positively about Ware (Figure 15). Places with the highest numbers of green dots included: Quabbin Reservoir, Enfield Lookout, Mary Lane Hospital, Gibbs Crossing Shopping Center, Town Hall, and the Police Station. Some which received more red dots included: the school campus, Mary Lane Hospital, and the Police Station.

Fifty-three people filled out the survey during the Fall Fest. Responses regarding what the town would be like in twenty years were mostly positive – 65 percent of the survey respondents were optimistic about what Ware would look like in the future; 23 percent thought it would be about the same or were indifferent; and 12 percent thought Ware

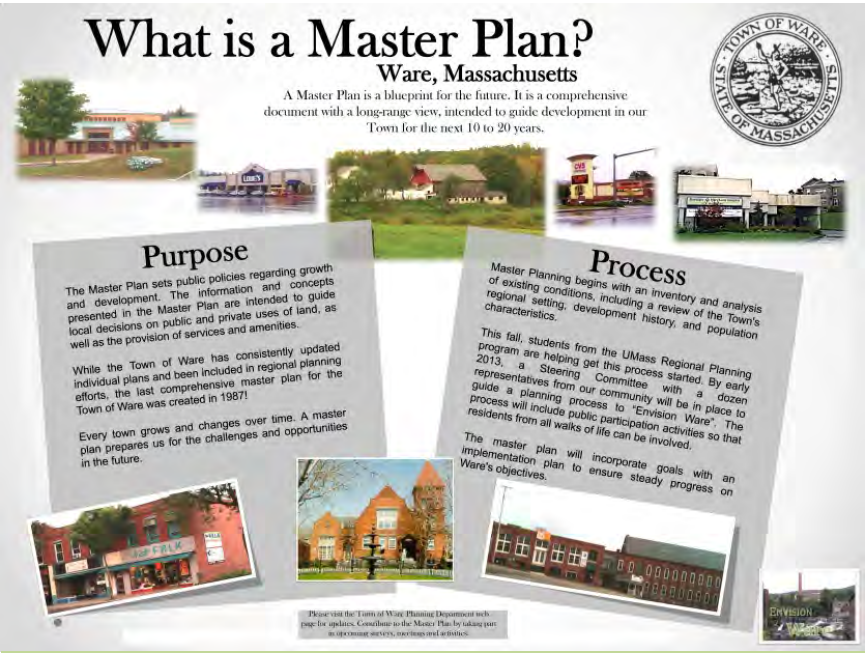


Figure 14: Poster Created by UMass Studio class for October 2012 Fall Festival (above) and map for public participation exercise (below).

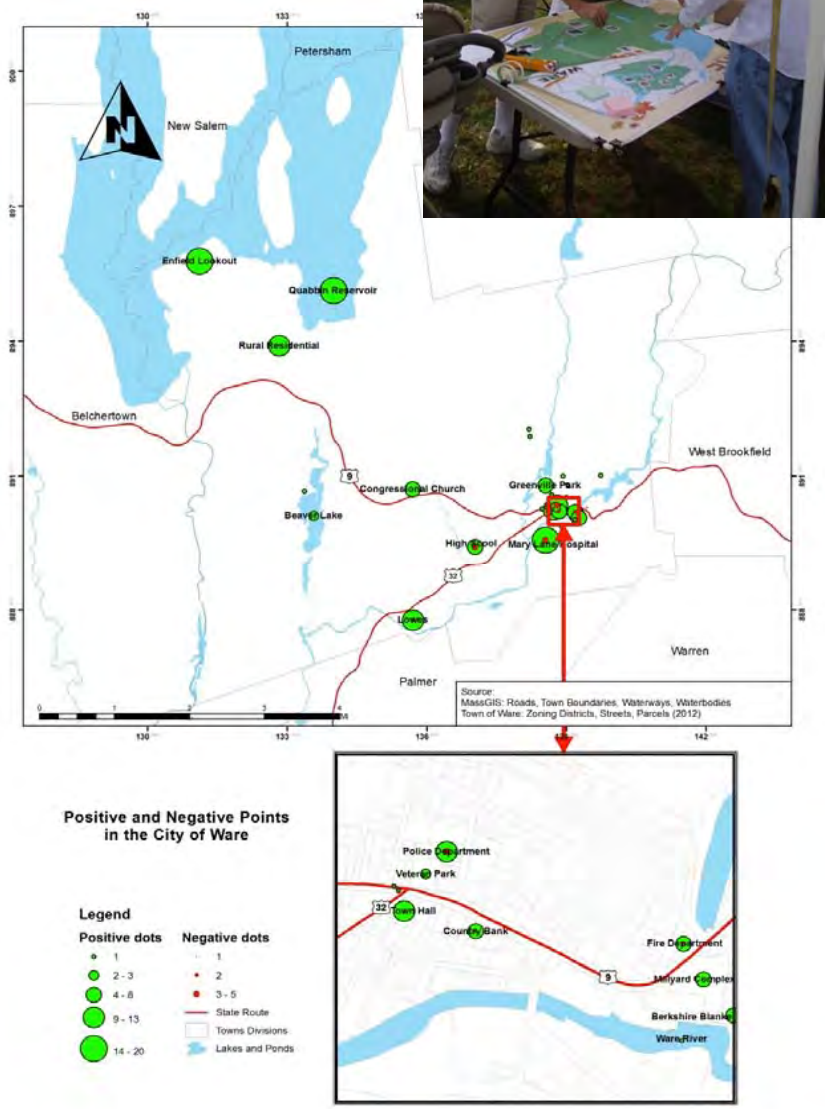


Figure 15: Fall Fest mapping exercise results. The larger the circle, the more important the feature, as identified by participants.

would be worse than it is now. Of the nine most common responses, the highest percentage of participants indicated that they thought the Town would be doing better economically (21%), 19 percent expressed that it would maintain its small town character, and 11 percent thought that Ware would be a safer community in the future.

When explaining what they liked best about living in Ware, the two most common responses by far were that people like the relationships they can form with other community members (20 respondents), and the small town feel (17 respondents). These ideas were frequently reflected in comments; people stated that the town's small town character enabled them to become better acquainted with people and develop a close-knit community (Figure 16). Other common responses included local business (8 percent of responses shared by more than two people), their own home (8%), and outdoor recreation opportunities (outdoor recreation in general terms was 12% with the Quabbin Reservoir specifically garnering 5% of the most popular responses).

The final question on the survey asked residents what their first action as the king or queen of Ware would be. The answers were split between wanting to address an existing problem in town and bringing entirely new services or amenities to Ware. Responses that were shared by 5 or more respondents included improving police and fire service within the town at 19%, beautifying the town with special attention paid to cleaning up downtown at 17%, and providing better entertainment options at 14% - suggestions included a movie theater, a skating rink, and concerts (Figure 17).

Figure 16: Favorite aspects of Ware.

Throughout these community involvement processes, Ware residents have consistently articulated the community

character as being a compact New England village - that is, a "small town" or "rural place" - and have emphasized the town's open spaces and strong downtown as being the cornerstones of that character. Additionally, recommendations from previous planning initiatives emphasize the protection of this small town character, through preserving open spaces, preserving historic resources, rehabilitating old buildings, increasing public education about Ware's open spaces and small town character, and limiting development.

Because of this very strong connection between Ware residents' opinions about the personality of their town and the existing natural resources, it is very important to consider that they are related and to understand that they fundamentally influence one another. Community character is the basis of Ware, and that character is derived in part from the natural features that propelled its history. The resulting planning implications are that conservation is a vital master plan goal in a community like Ware which identifies so strongly with its natural resources.

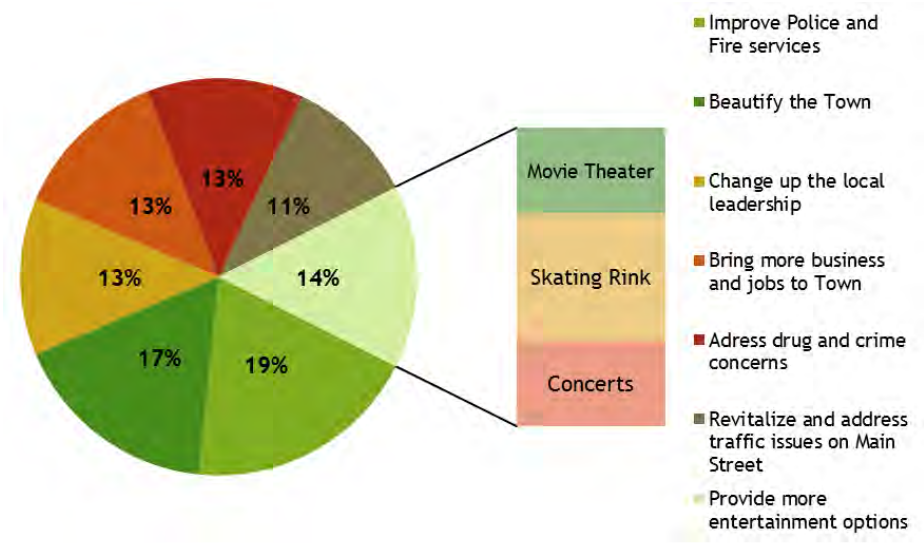


Figure 17: Results from "Ruler for a Day" survey question, in which respondents were asked what they would do if they were made the Ruler of Ware for one day.

Figure 18: Buildings often become local landmarks and contribute significantly to a community's character. The building in the photo above, at the corner of Main and North Streets, was refurbished and has become a symbol of both the past and the future. Similarly, the building in the photo at left was saved from neglect and ruin and has recently been rehabilitated as an arts and cultural center. Many other buildings in town lend character to the community, as do natural features such as the hills, forests, and open fields.

2014 Stick-a-Dot Mapping Exercise

As part of our public outreach campaign in 2014, we created a mapping exercise which we took out to a variety of events around town. We called this exercise "Stick-a-Dot" (see Figure 19). It was a simple way to engage with people; they were asked to simply stick a blue dot on the map where their favorite place in Ware is, a green dot on a place they think should never be developed, and a yellow dot on the neighborhood where they live. While thus engaged, members of the Steering Committee engaged them in conversation about Ware and how they hope to see it in the future. Anecdotally, people are very enthusiastic about the future of Ware, but are also very concerned about the social problems facing our community as well as most others across the country, primarily the current opiate abuse issues and the crime that accompanies them. Participants also expressed concerns about the public school system but felt the school administration was doing a reasonably good job given the constraints they have.

Figure 20 shows the results of the Stick-a-Dot mapping exercise; it is a compilation of the several maps we had brought out to various events. Not surprisingly, Grenville Park was the most chosen favorite place, followed by the Quabbin (note that we combined the dots put on the water with those put on the land at Quabbin). A distant third was Nenameseck Square, and there were about a dozen other sites scattered around town, including among others the covered bridge spanning the Ware River into Hardwick, several fishing spots, and the Ware Center Meeting House. The results for the locations chosen for "should never be developed" were rather interesting, and exposed a lack of understanding of what land areas in Ware are currently protected. Two dozen participants chose sites that are already protected - Quabbin, Grenville Park, the "old" Pennybrook property south of Beaver Lake, and three other sites. Nine participants chose sites that are under the Chapter 61/61A/61B taxation program, which offers temporary protection from development. Most of these are farmland or forested areas. Finally, thirteen participants chose sites that have no form of protection; again most of these sites are currently farm or forest land.

The take-away from this exercise is that residents recognize the importance of both Grenville Park and the Quabbin as jewels worthy of protection and efforts to maintain them to keep them as the irreplaceable assets they are. People also recognize the need to protect more sites in Ware for future generations, notably farmlands along Belchertown Road (Route 9), the forested hillsides of eastern Ware, and the recreational potential of the old Pennybrook site south of Beaver Lake.

Figure 19: The Stick-a-Dot map set up at one of the town events where the Steering Committee sought public input.

MindMixer

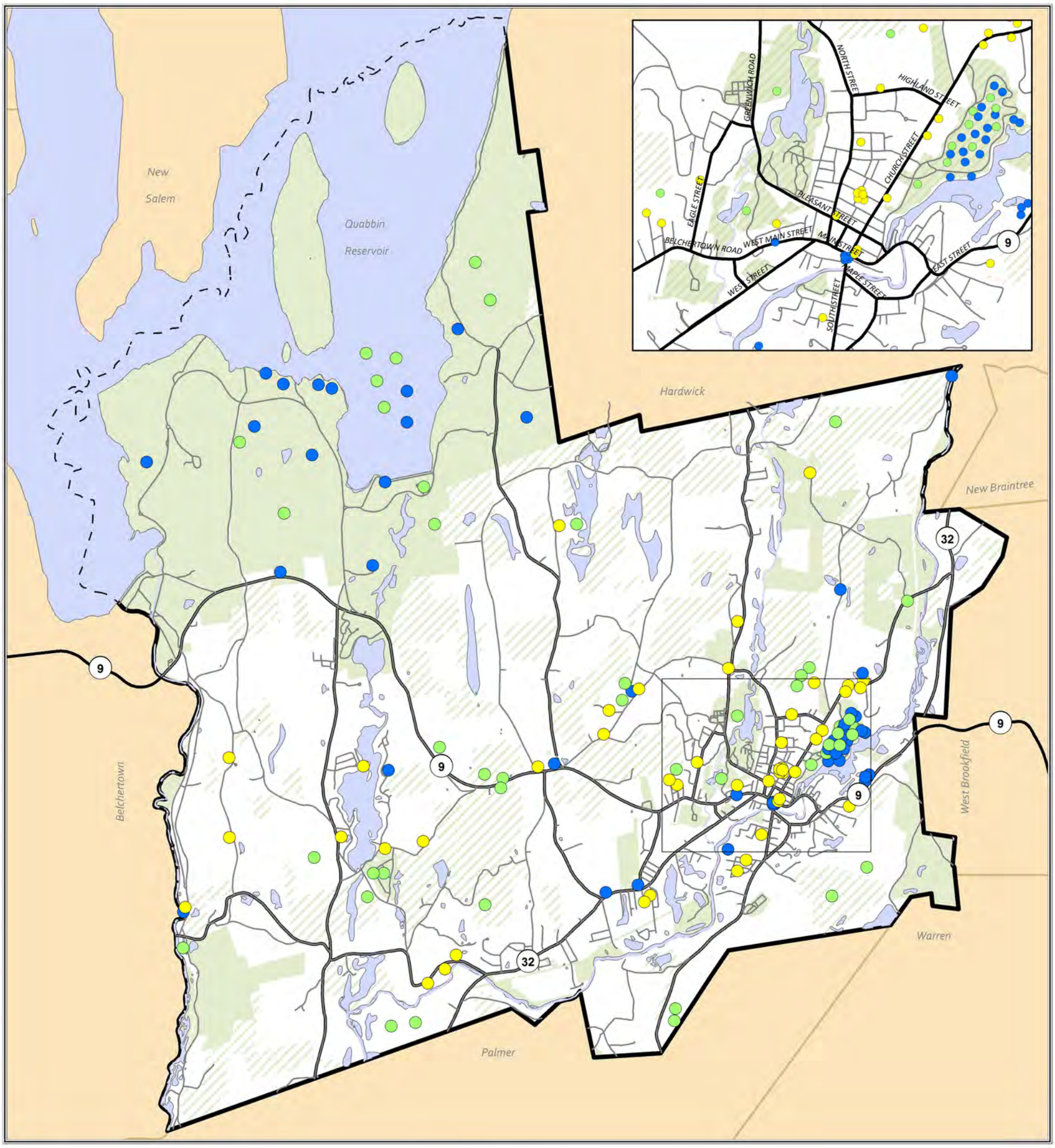
In late 2013 the Master Plan Steering Committee decided to pursue an online public participation tool called MindMixer, published by Socialmentum LLC, to expand outreach efforts to a broader audience than the relatively few people who attend meetings or stop by a booth at local events. We contracted for the services of the company for the use of the tool for one year, 2014, and launched our MindMixer site in January. The basic premise of the tool is to engage the public in conversations about the community by asking questions and responding to their answers. Figure 21 shows one of the flyers we produced to advertise the site. While we had good participation initially, over the months we found the level of participation had leveled and then dropped off, and despite our efforts to provide new topics for people to weigh in on, the final result was disappointing. Nevertheless, the input we did receive was valuable and is presented in this section. Despite the relatively small number of participants, the Steering Committee has chosen to include the results in our analysis of needed actions to get Ware closer to it's ideal vision of itself.

Figure 21: Postcard size flyer distributed to over a thousand people in Ware, encouraging participation at the MindMixer web site.

Throughout 2014 there were 86 different topics (questions) posted on the site for participant feedback, and 1,495 interactions were recorded with 336 comments. These were provided by 85 participants, most of whom were from Ware. Two-thirds of the participants were female. The participant breakdown by age does not mimic the town's population from the 2010 US Census; a higher proportion of people aged 35-44 and age 55-64 participated, accounting for nearly half of all participants in MindMixer. 18.5 percent of the participants were younger (ages 14-34), and 17.1 percent were age 65 or older. Participants aged 45-54 accounted for 15.7 percent.

The MindMixer effort was set up with a different subject each month (e.g. transportation, recreation), and four to seven questions, or topics, were posted generally every two weeks. Question types varied and included open ended questions (i.e. fill in the blank), polling surveys, multiple question surveys, among others. Participants were also given opportunities to post their own photos and offer comments on other people's answers and posts.

In response to questions related to quality of life, community character, and a vision for the future, respondents made it clear that the Quabbin, Grenville Park, Nenameseck Square, and the Ware Center Meeting House are important symbols of the community. Residents choose to live in Ware for its family oriented and friendly atmosphere, its affordability, and its recreation and access to outdoor activities. Respondents thought that increasing or improving bicycle and pedestrian access, special events and festivals, restaurants, and shopping opportunities are ways to attract more visitors to Ware. In addition, Ware could do several things to make the town a better place to live and raise a family, namely revitalize the downtown and the millyard, promote a business friendly environment, and improve both our public schools and recreational facilities. The sentiment for revitalizing the downtown and the millyard was heard in many of the MindMixer comments, indicating how important it is for many people.



Legend

Participant Responses

- *Favorite Places*
- *Should Never be Developed*
- *Participant's Neighborhood*

Open Space

- *Non-Chapter Lands*
- *Chapter Lands*

Note: Non-Chapter Lands generally have a higher degree of protection from development than Chapter Lands do.

Favorite Places
- 17 Grenville Park
- 14 Quabbin
- 5 Nenameseck Square
- 14 Scattered Sites

Should Never be Developed
- 24 are within non-chapter land open space
  - 10 within Quabbin
  - 9 within Grenville Park
  - 2 within Pennybrook
  - 3 scattered sites
- 9 are within chapter land open space
- 13 are on land with no form of protection

Participant's Neighborhood
- 46 Total
  - 23 in the "greater" downtown area

Sources:
Open Space: MassGIS, Ware Assessor's Records
Base Data (roads, water, towns): MassGIS

N W E S

0 0.5 1 2 Miles

July 9, 2015

Public Outreach

Stick-a-Dot Excercise Results

When asked for input on the kinds of things Ware can do to be more attractive to new businesses and residents, respondents said that public or private utilities need to be improved (this includes water, sewer, internet access, natural gas, etc.), roads need to be improved, there should be greater tax incentives for businesses, and school funding should be increased. In order to protect Ware's character, people prioritized ridgeline protection, design guidelines, and discouraging strip development. People felt that Ware could benefit by having a higher education facility here, by revitalizing the downtown, rehabilitating existing vacant buildings, establishing an industrial park, and providing more housing choices for elderly residents. Obstacles to improving the quality of life in Ware included access to quality education, an aging infrastructure, traffic congestion, and a lack of quality housing.

There were a number of recurring comments throughout the MindMixer initiative period: revitalize downtown and the millyard, farmers market (access to quality locally produced food), more office businesses, increase police presence, institute a crime watch program, implement a wayfinding system, market Ware for tourism and shopping/services, create incubator space for new businesses, preserve historic structures, show off Ware's history, institute recycling for all residents, establish neighborhood parks, and create a dog park. In addition there were a number of comments regarding completing the bike path, constructing a bridge across the Ware River south of the downtown area to improve overall traffic circulation, establishing continuing education in Ware, promoting multicultural programs, making Ware an outdoor mecca for the region, and improving the aesthetics of the entrances to town.

All of these thoughts are incorporated into the Vision Statement presented in Chapter 3 of this plan.

In regards to future land use, participants overwhelmingly felt Ware does not currently have a good balance between residential and commercial development; the town needs to encourage more commercial and industrial growth. The only residential need expressed is for housing options for residents age 55 and over, and especially for elderly people in need of some level of care. When asked specifically about new residential development though, responses indicated there should be more variety in single family housing types - in addition to large houses on large lots, there should be options for new smaller houses on small lots in cluster developments with more common open space. In general, people are not keen on seeing more multi-family housing in town, especially if such housing is reserved for low to moderate income people.

A note on the perception of low-moderate income housing: many people we spoke with during the course of this project felt that Ware has an excessive amount of housing for low to moderate income people, and that such housing has brought in people who are somehow inferior and are a drain on the rest of the population of Ware. While inappropriate, this is a common sentiment in relatively small towns with a large population of residents whose families have lived in town for many years. It is likely a common societal reaction to immigrants and newcomers. As discussed in Section 4 of this Appendix, the Town's subsidized housing is currently below the ten percent threshold established by state law (MGL chapter 40B) and thus developers are eligible to take advantage of the provisions of that law to create new housing developments in town that include at least 25% of the units as affordable to low and moderate income people. Ware does have a fairly substantial amount of rental units that are low priced, mainly due to the condition of the units and the inability of the owners to rent them at higher rates.

We heard from many people that Ware's historical neighborhoods and buildings are important; indeed there are four separate Historic Districts in town. When polled, respondents said that the Church Street neighborhood (which is one of the historic districts) has retained its historic character better than any other area in town. On the other end of the spectrum, respondents said that the Aspen/Vigeant/Dale neighborhood, the West Main/Main/East Main corridor, and the North Street area have suffered the most significant losses of historic character. People felt it

was important to preserve not only specific historical buildings (Town Hall, the Ware Center Meeting House, and South Street School, among others) but neighborhoods as well. Yet, people are split on supporting additional regulations on properties to achieve such protection. There is some interest in adopting the Community Preservation Act to help raise funds needed to protect both open space and historic sites but there is opposition to using such funds on affordable housing.

One of the comments raised consistently throughout the master plan process was the need for revitalization of the downtown. In response to the various questions asked on MindMixer specifically on downtown, people said the appearance of downtown can be improved by providing trash cans, dog waste stations, and flowers. An important issue is the ability for bicyclists and pedestrians to get around downtown safely; respondents suggested improvements to the crosswalks and sidewalks, providing bicycle racks, and improving snow removal (on roads and sidewalks). The provision of benches was also mentioned, along with other elements of a good streetscape such as healthy and appropriately sized street trees. As for uses, people thought that the downtown needs coffee shops and bakeries, specialty food markets, entertainment, and more retail stores.

Recreational opportunities in Ware were noted as being important to many people. Of the MindMixer participants, many visit Grenville Park on a regular basis, and walking is the most popular activity, followed by attending events at the bandstand. Most visitors arrive by car, and stay between one-half hour and two hours. Most people think the park is well maintained. When asked about activities at all town parks, walking, jogging, observing or photographing wildlife, and picnicking were the most popular activities. Respondents were generally in favor of the establishment of sponsorship programs, donation funds, and outreach programs to increase awareness of the town parks to raise support for the town parks; establishment of user fees was not as popular and general entrance fees was not desired at all.

A number of respondents indicated they walk or jog daily or nearly so, and in addition to Grenville Park as a favorite place for this activity, Church Street and South Street were also popular. Hiking and walking was also the most cited activity for visitors to the Quabbin, followed closely by sightseeing. Respondents indicated they visit Quabbin often; those visiting monthly slightly outnumbered those visiting weekly. Most go to the Quabbin Park area (where the tower is located), while many prefer the headquarters area (in Belchertown), the Quabbin Park Cemetery, the Goodonough Dike area, or other areas of the reservation outside of Ware. Not surprisingly, respondents visit Quabbin most often in the spring, summer, and fall, although a number of people also reported visiting in winter.

Most MindMixer respondents feel that Ware's secondary roads are in need of some level of work, ranging from complete rebuild to repairing bumps and potholes. However, people in general also recognize the difficulties of maintaining roads in New England and the limited funding available for repairing roads, and are relatively patient about dealing with the condition. Most respondents also think Main Street needs improvements, not only in regards to condition but also layout, road markings and signage, lighting, and snow removal. When asked about transportation needs, most people said more facilities for bicycles are needed to encourage more cyclist activity, followed closely by a need for more bus transportation. As for school transportation, most people use the school buses, many use a private car, and a few either walk or bicycle to and from school.

In response to questions about education in Ware, most respondents felt the public schools need to provide opportunities for college preparation and tutoring programs; less important were classroom sizes, standardized tests, physical education, the arts, and physical improvements to the buildings. When asked specifically about physical education, most respondents felt it is an important component of the

public school experience. As for adult education in Ware, almost all respondents said there are not enough opportunities for people to continue their education. This is a sentiment we have heard many times and in many venues, in relation not only to young people earning a high school equivalency but also for anyone seeking to learn more about academic and non-academic topics (e.g. basic computer skills, life skills, hobbies).

When asked about safety concerns, most people think that many locations in town are not safe for bicycle activity. Suggestions for improving bicycle and pedestrian safety include installation of better signage, creating protected bike lanes or wider paved shoulders, wider sidewalks that are better maintained, and increasing lighting. In regards to general safety, most respondents feel unsafe in their neighborhoods at least some of the time, although many reported feeling very safe in their neighborhood. Half of respondents said they avoid certain areas of Ware due to safety concerns, and half said they don't. Outside of the MindMixer forum, Ware officials have heard similar sentiments for years; there are certain neighborhoods that seem to have higher levels of crime or other public safety issues than most areas of town. Certainly the current opioid crisis has had an impact on not only public safety, but people's perception as well.

With a regional hospital and many other health care services located here in Ware, most respondents think our health care options are of average, good, or very good quality. While many health services are available in town, respondents thought people could benefit from additional eye doctors and mental health professionals. In regards to healthy eating, most people were at least somewhat interested in utilizing a community garden if there was one available in their neighborhood.

The following is a more complete summary of the MindMixer results.

PARTICIPANTS:

- There were 131 participants in all, with 85 contributing.
- The majority of those 85 participants were women, with an average age of 47.
- 66% of the participants were women and 34% were men.
- Age distribution was somewhat even, but it is not aligned with the overall population's age distribution - there were fewer participants under age 35 and in the 45-54 group, and more than the overall population in the 35-44 and 56-64 age groups.
- The majority of participants were in zip code 01082 (86.6%), with zip codes 01069, 01083 and 02464 each having 2.4 percent representation. In all, participants came from 27 different zip codes representing 10 different states, as well as Europe (the Armed Forces).

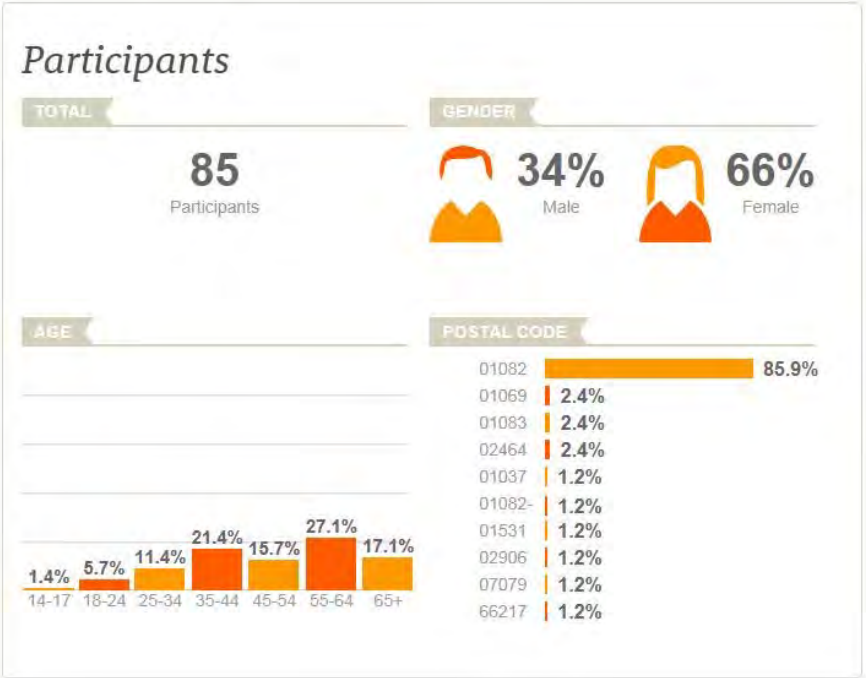
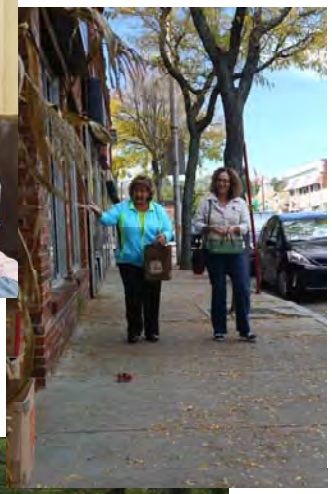
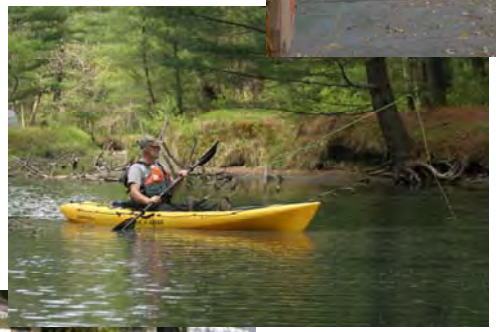


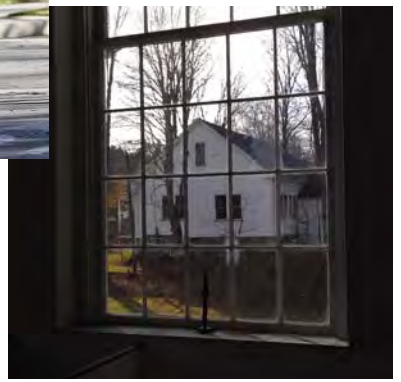
Figure 22: A snapshot of the MindMixer participants.

TOPICS:

In all the project team posted 86 topics (questions).
There were 1,495 interactions plus 336 comments on those interactions.
Twenty-one "Big Ideas" were posted (detailed descriptions and discussions on these ideas can be found in the MindMixer report files in the Planning & Community Development Department):

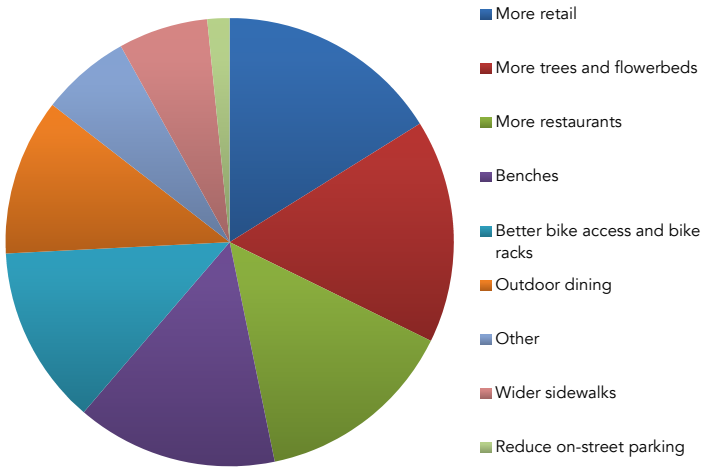
- Bustling shopping at the millyard with a few cafes
- Condos for 55+ residents
- Restore a sense of peace to the town!
- Recycling
- I like the idea of a revitalized downtown.
- I'd like to see us embrace the Community Preservation Act.
- Revive the Mill Yard!
- Finish the Bike Path!!
- Bridge and Downtown
- Areas that are "horse friendly" !
- Revitalize downtown and abutting streets
- Extend the sewer system.
- Ware runs its own Internet Provider Service (IPS).
- Roller Skating rink in one of the big Mill buildings!!
- Continuing education at WHS
- Ware will become the outdoor mecca for Massachusetts
- Sustainable Downtown with Useable Open Space
- My goal would be to continue to promote multi culture.
- Upgrading Town
- Install LED Streetlights!
- Construction of an Assisted Living facility.

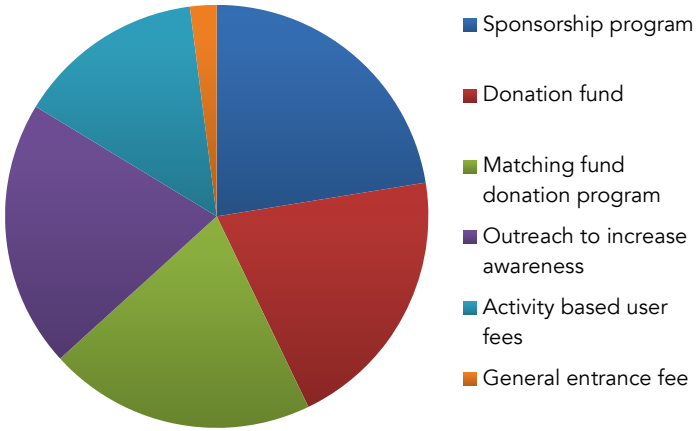


Category: Space Planning

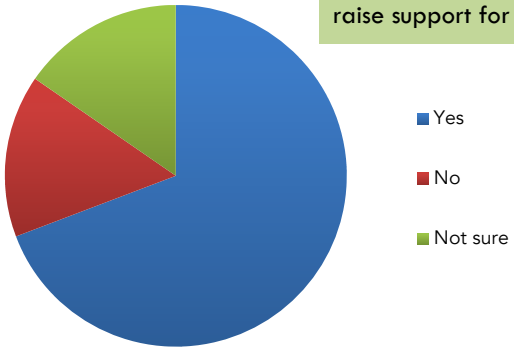
- There are 7 topics on space planning. with 36 ideas from participants including:
  - 2 ideas on the topic of open space.
  - 5 ideas on walking downtown.
  - 1 idea on the topic of unique downtown
  - 10 ideas on the topic of planting a garden.
  - 13 ideas on the topic of our community trails.
  - 3 ideas on the topic of creating open spaces.
  - 2 ideas on the topic of visioning Grenville parks future.



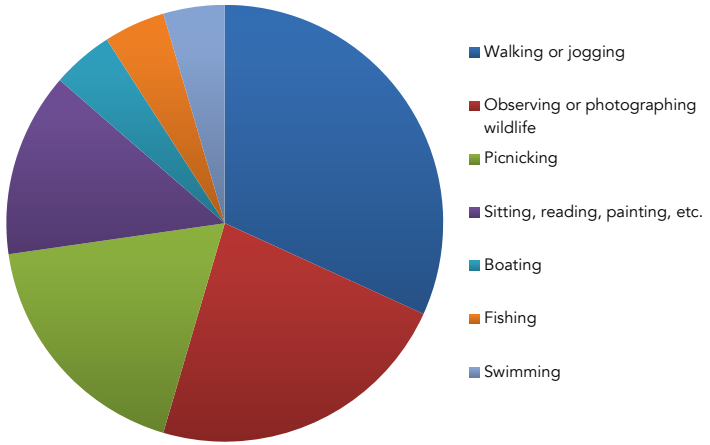
Revitalizing Downtown
Q: We are working to revitalize Downtown. In what area should we begin our efforts?



Supporting Ware's Parks
Q: In what way would you like to see the Parks Department raise support for the Town's parks?



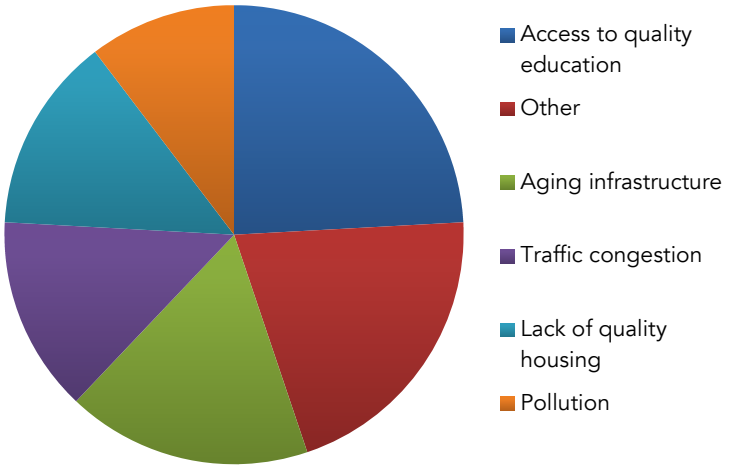
Funding Open Space
Q: Would you be in favor of adopting the Community Preservation Act to fund preservation of our environment?



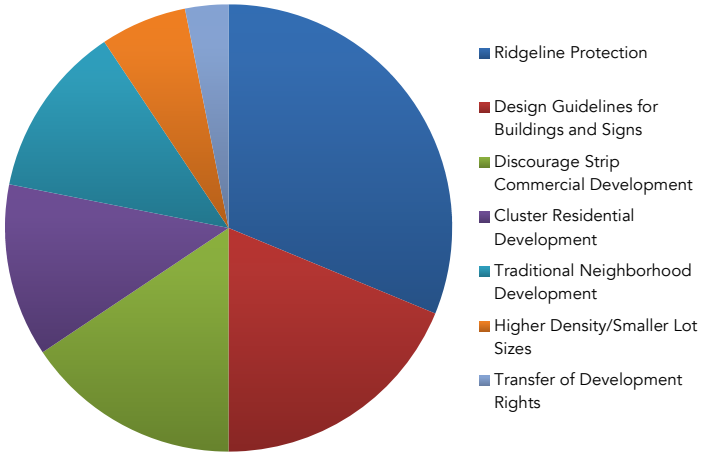
Favorite Park Activities
Q: How do you enjoy our parks? Pick your three favorite activities at Grenville, Reed, Memorial, and our other parks.

Category: Community and Attractions

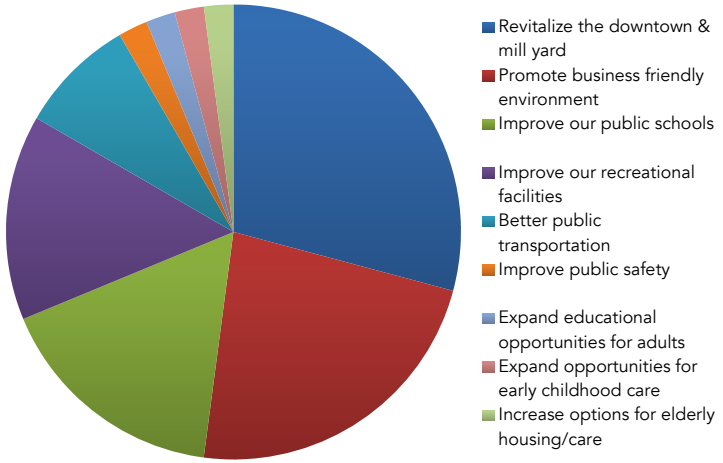
- There are 7 topics on community and attractions, with 45 ideas from participants including:
  - 4 ideas on the topic of keeping up with the times.
  - 9 ideas on the topic of one change.
  - 9 ideas on the topic of our community strengths.
  - 3 ideas on the topic of working together to create good.
  - 2 ideas on the topic of our beautiful community.
  - 12 ideas on the topic of can't miss attractions.
  - 6 ideas on the topic of favorite places.



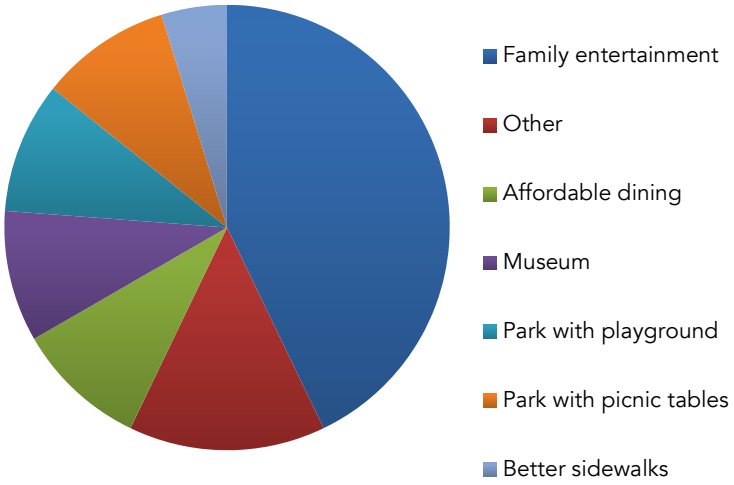
Creating a Better Community
Q: What are the two biggest obstacles to improving quality of life in Ware?



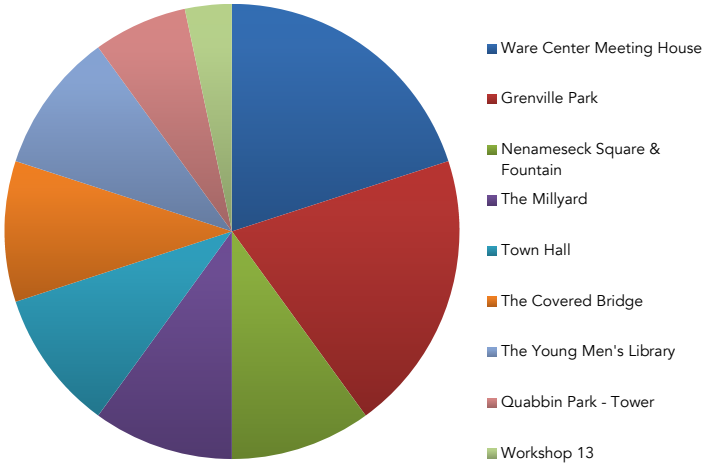
Preserving Ware's Character
Q: In order to preserve Ware's character, which of these regulatory initiatives would you support?



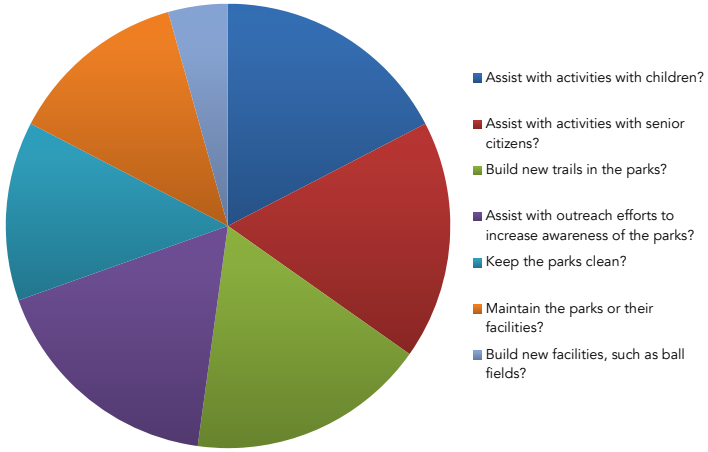
Calling Our Community Home
Q: How can we make Ware a better place to live, work and raise a family?



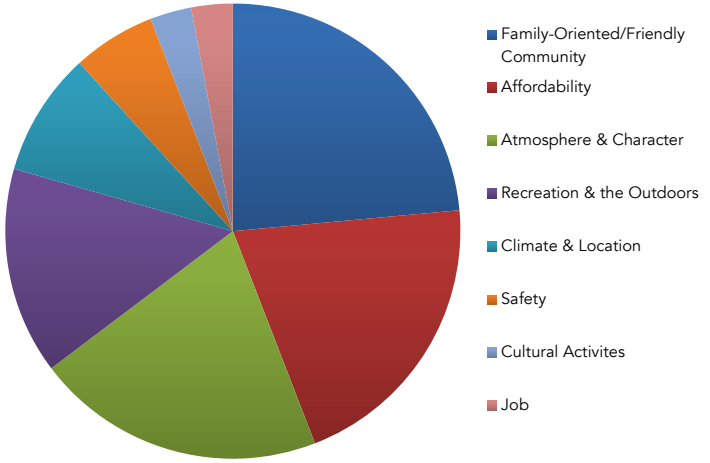
Family-Friendly Downtown
Q: How can we make Downtown more family-friendly? Pick two features you think would do the most to bring families downtown.



Your Favorite Landmark
Q: What are two of your favorite historic landmarks in our community?



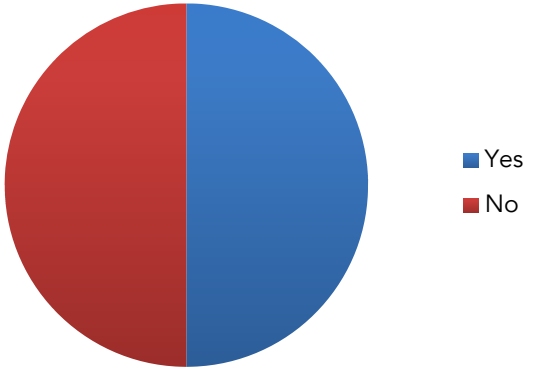
Volunteering
Q: Would you be interested in volunteering to ...?



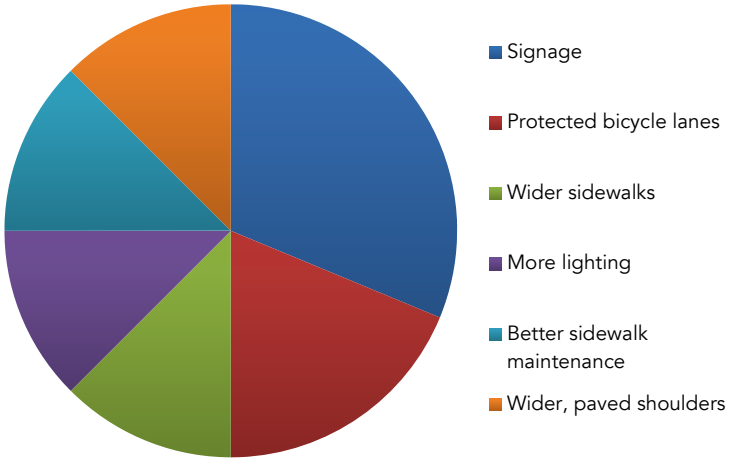
Living in Our Community
Q: What are your top three reasons for living in our community? Why is our home so great? What do you enjoy the most?

Category: Safety and Crime

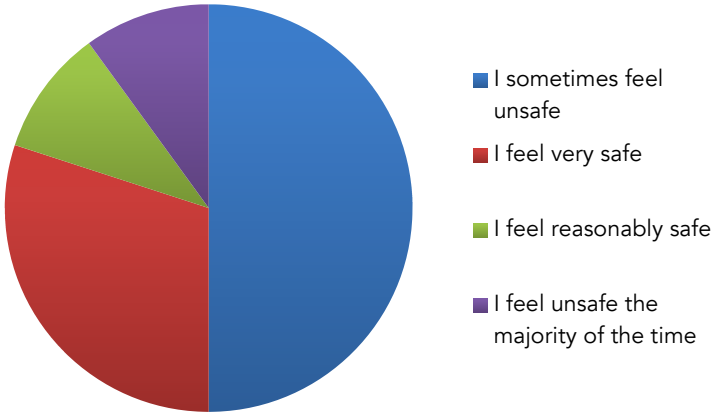
- There are 5 topics on these issues, with 19 ideas from participants including:
  - 5 ideas on the topic of crime in our neighborhoods.
  - 7 ideas on the topic of making one change in safety
  - 3 ideas on the topic of safety programs.
  - 2 ideas on the topic of congestive roads and safety concerns.
  - 2 ideas on the topic of pedestrian safety.



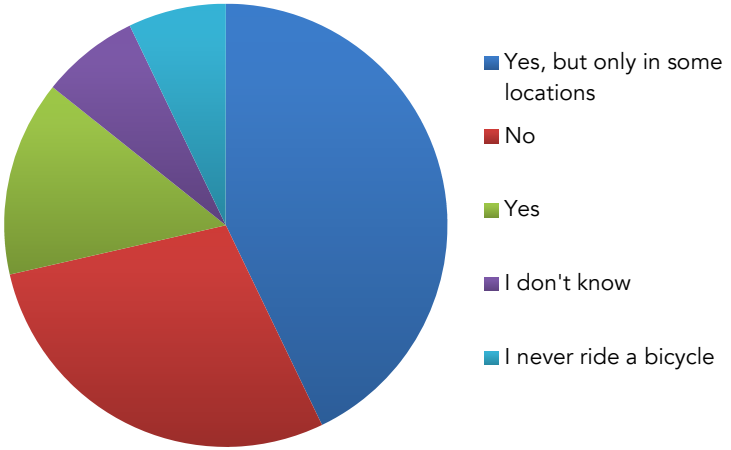
Avoiding Crime
Q: Are there any parts of our community that you avoid because of safety concerns? Have you stopped going to any areas of town that have begun to feel unsafe?



Staying Safe
Q: How can we improve pedestrian and bicycle safety? What features do you think would help?



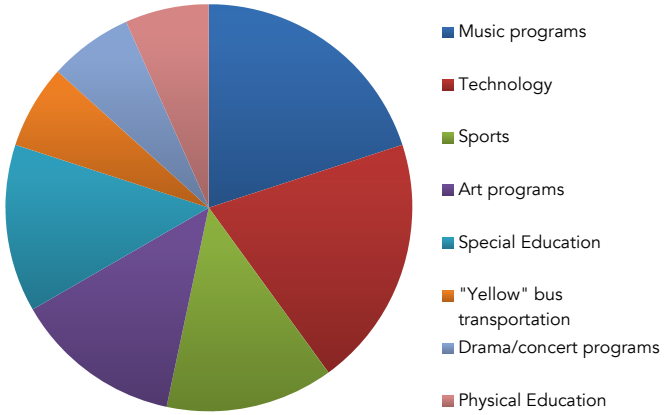
Your Sense of Safety
Q: How would you rate your feeling of safety in your neighborhood?



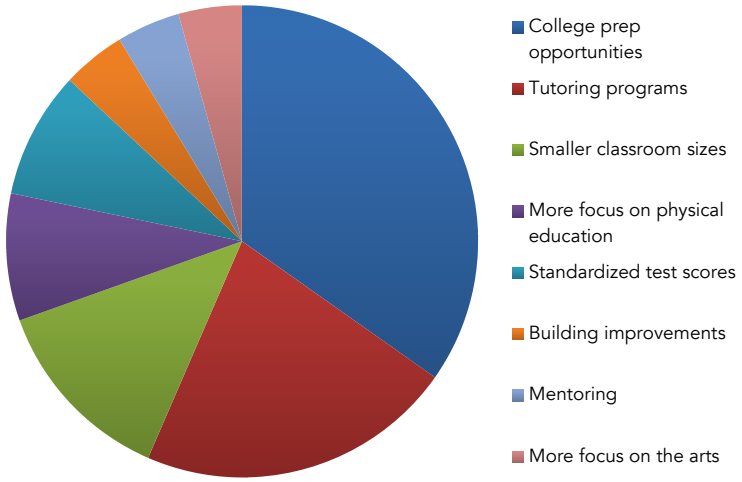
Bicycle Safety
Q: Is our Community safe for bicycle activity?

Category: Schools

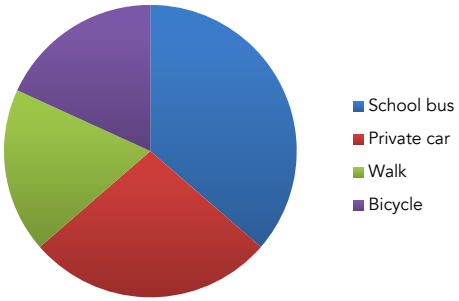
- There are 5 topics on schools, with 12 ideas from participants including:
  - 4 ideas on the topic of choosing your school.
  - 3 ideas on the topic of quality school quality education.
  - 2 ideas on the topic of schools: visioning the future.
  - 2 ideas on the topic of share your school pride!
  - 1 idea on the topic of using technology in the classroom.



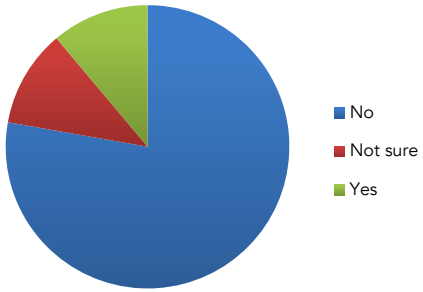
Budgeting for Public Schools
Q: What are your top three priorities for school spending, beyond the core costs of operating the school district?



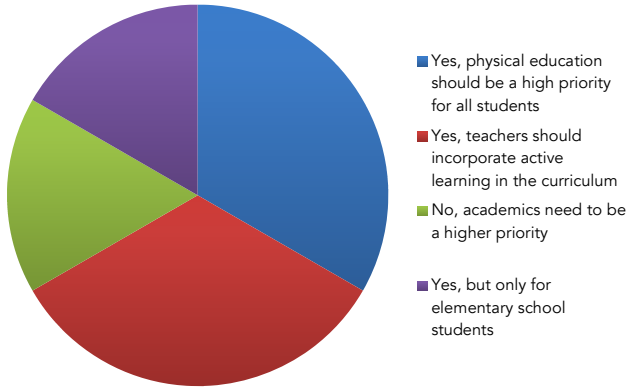
Prioritizing School Projects
Q: Help us set our priorities. What three improvements do you think the Ware public schools should tackle first?



Transit and School
Q: How does your child get to and from school?



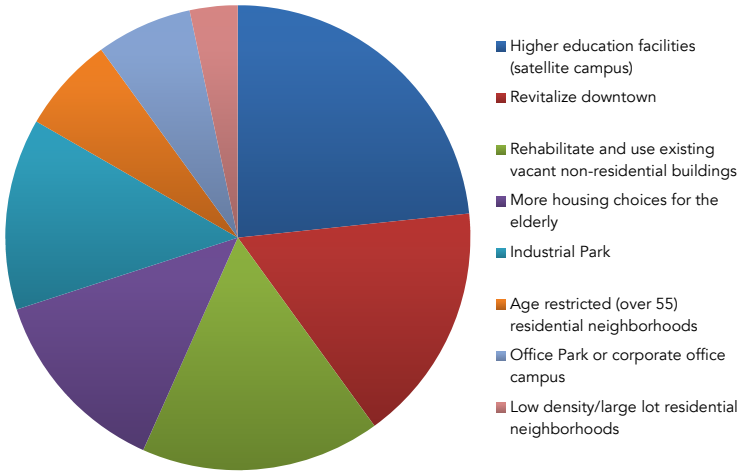
Continuous Learning
Q: Do you think there are enough adult education opportunities in our community?



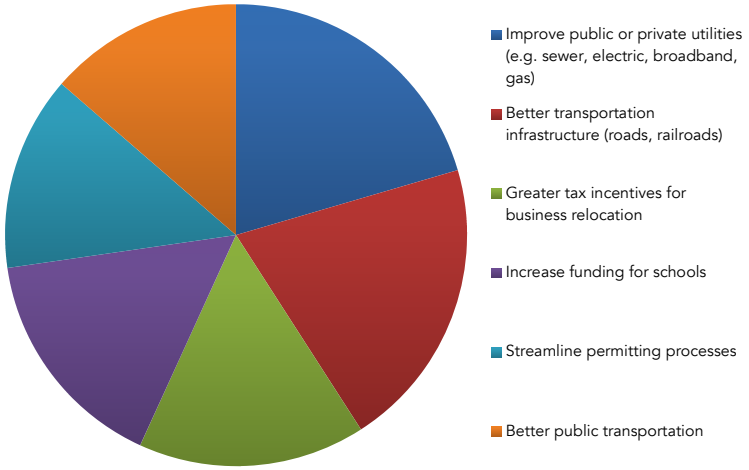
Physical Education
Q: Should our school district make physical education and active learning a priority in our children's school days?

Category: Preserving Ware's Past and Planning for the Future

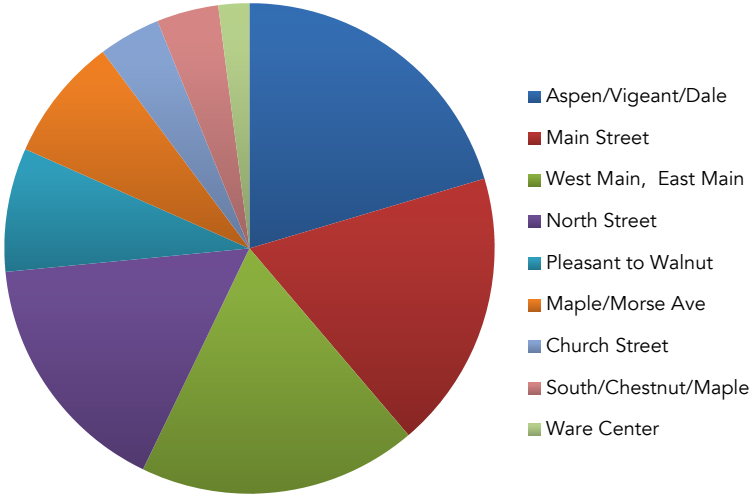
- There are 10 topics in this category, with 56 ideas from participants including:
  - 9 ideas on the topic of balancing development.
  - 2 ideas on the topic of transparency in local government.
  - 6 ideas on the topic of redeveloping the Route 32 corridor.
  - 4 ideas on the topic of visioning a green future.
  - 8 ideas on the topic of attracting business.
  - 8 ideas on the topic of increasing tourism.
  - 5 ideas on the topic of making history a priority.
  - 9 ideas on the topic of new business.
  - 3 ideas on the topic of preserving our history.
  - 2 ideas on the topic of branding our history.



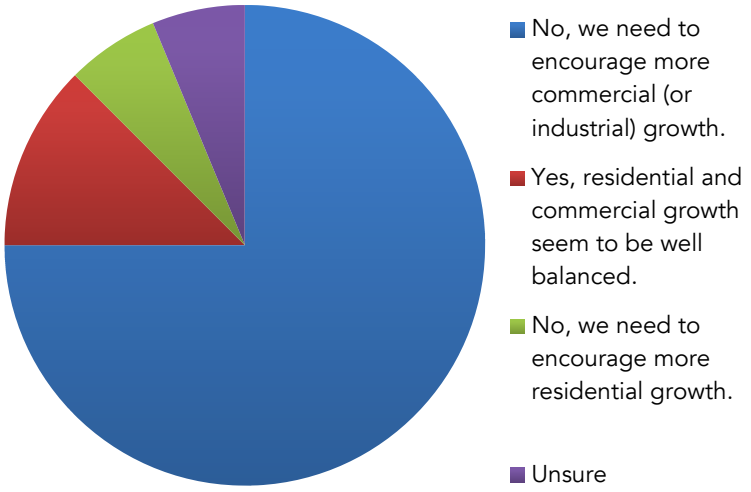
Future Development in Ware
Q: What types of development do you think Ware needs?



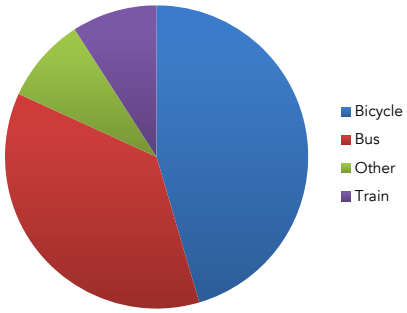
Making Ware More Competitive
Q: How can we make Ware an economically and globally competitive place to work and live?



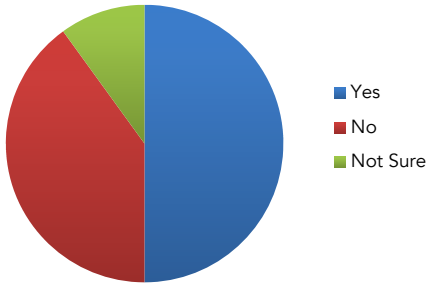
Losing Touch
Q: In which of the following neighborhoods has the historic character been lost?



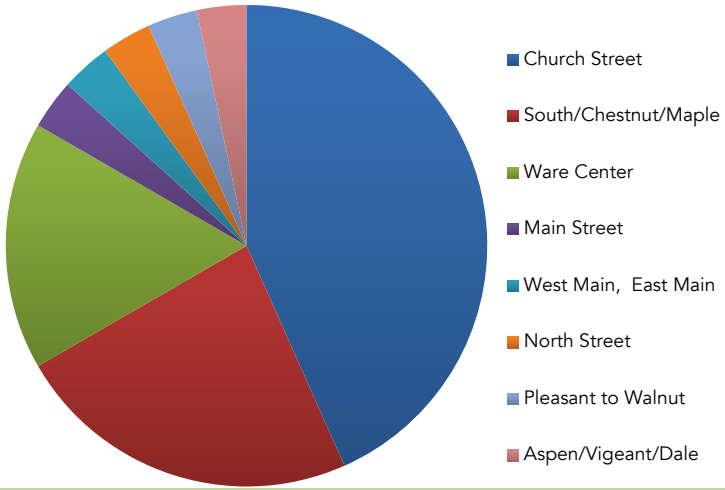
Balancing Growth
Q: Do you think there is a good balance between residential and commercial development?



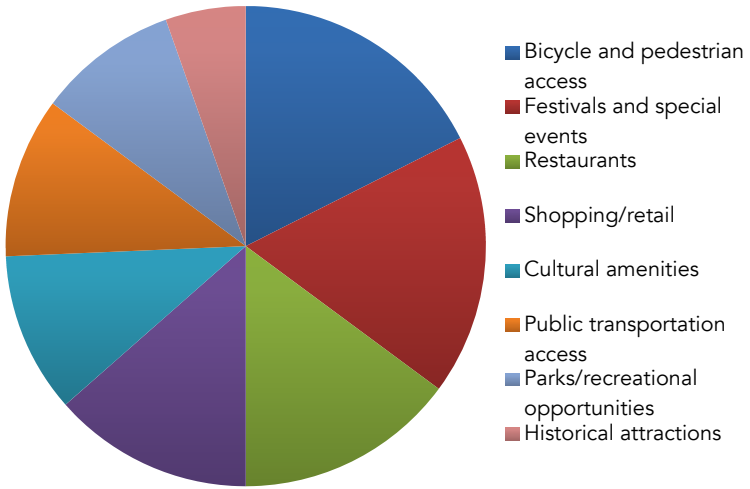
Getting From Here to There
Q: What transportation options do you think our community needs more of?



Regulating Redevelopment
Q: Would you be in favor of more strict regulations on redevelopment as a way to preserve our historic buildings?



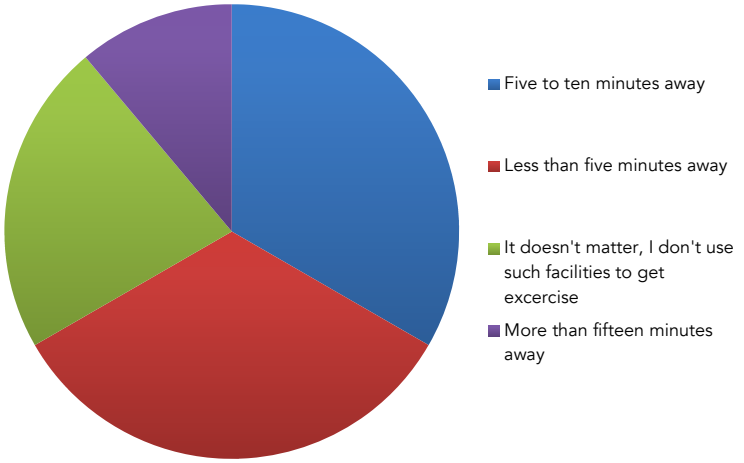
Preserving Our Past
Q: In which of the following neighborhoods has the historic character been best preserved?



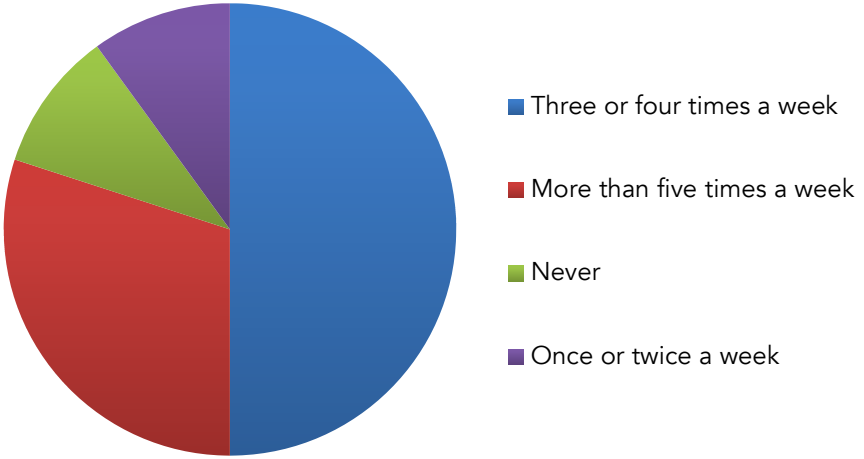
Attracting Visitors
Q: What feature would attract more visitors to our community?

Category: Health, Home, and the Environment

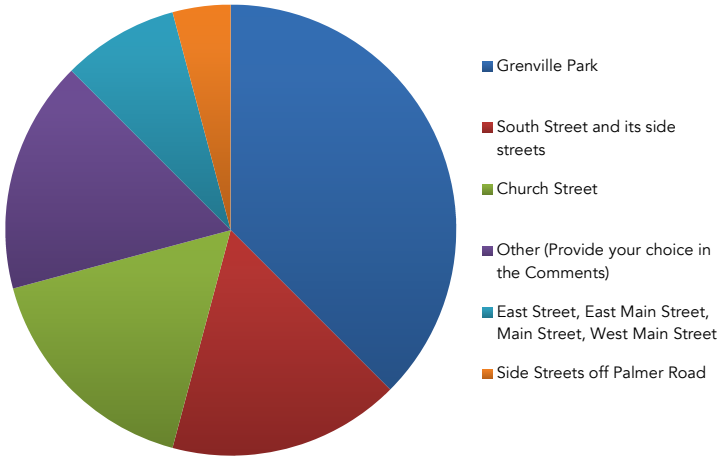
- There are 7 topics on these issues, with 39 ideas from participants including:
  - 7 ideas on the topic of eating right.
  - 5 ideas on the topic of access to good health care.
  - 5 ideas on the topic of diversifying housing.
  - 11 ideas on the topic of providing neighborhood amenities.
  - 2 ideas on the topic of defining sustainability.
  - 3 ideas on the topic of going green.
  - 6 ideas on the topic of recycling at home.



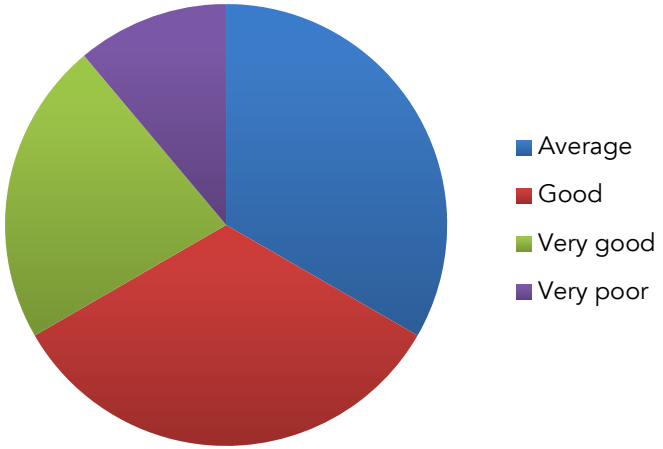
Getting to the Gym
Q: How close is the nearest gym or recreational center to your home?



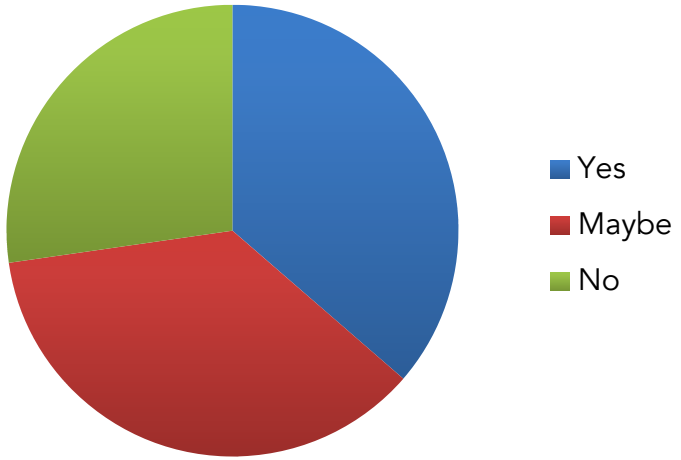
Running Near Home
Q: How often do you walk or run down the streets or sidewalks near your home?



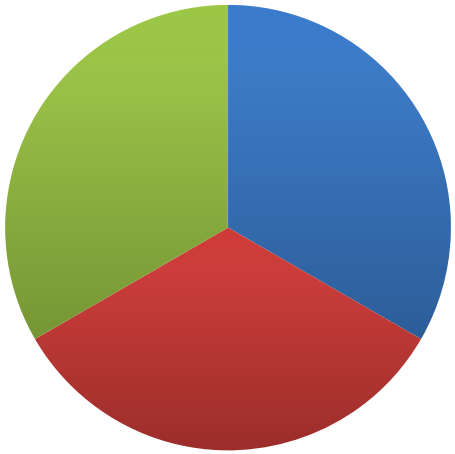
Pleasant Walking
Q: What's your favorite neighborhood to walk through?



Health Care Options
Q: How would you rate quality of health care options in Ware?



Community Garden
Q: Would you be interested in utilizing a community garden if one was available in your neighborhood? If it were possible to plant and cultivate a community garden near your home, would you take advantage of the opportunity?



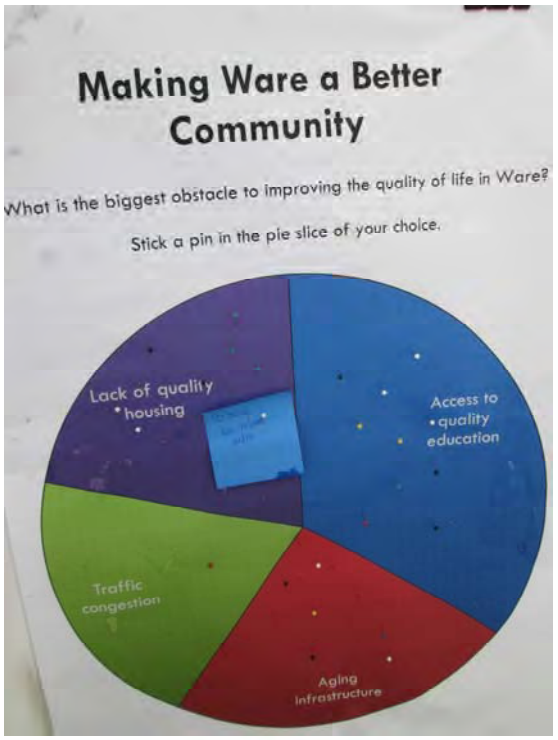
Rating Daycare
Q: How would you rate your access to affordable, quality daycare in our community?

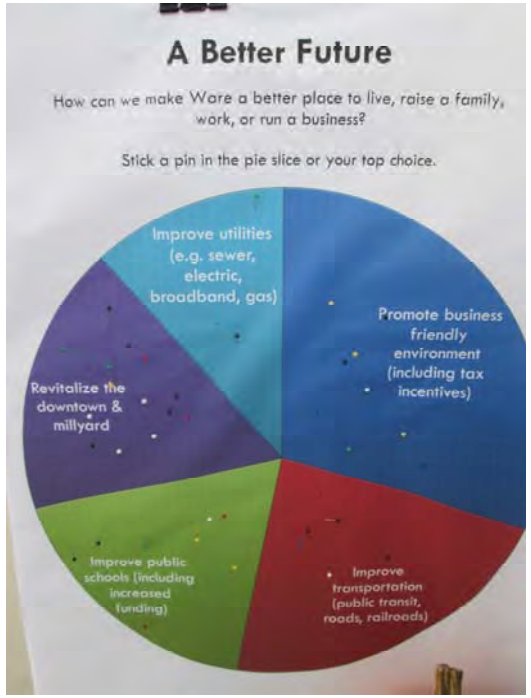
Ware 2014 Fall Fest

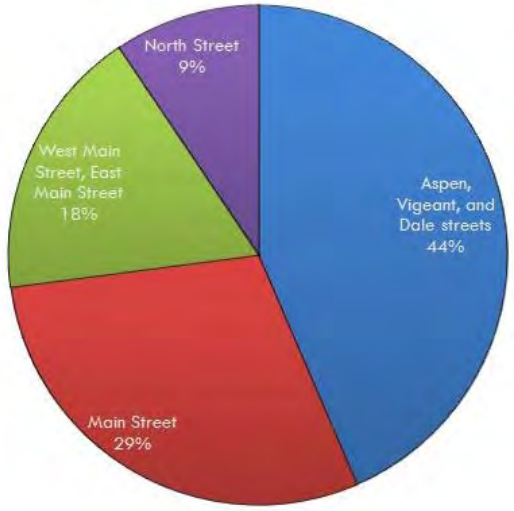
As a way to continue public outreach for this plan, the Master Plan Steering Committee had a booth at the Fall Fest in October 2014. In an effort to get further input on some of the more critical issues, pie chart posters were created showing the responses to six of the questions we had posted on MindMixer. Despite the inclement weather, we had a good turnout and in addition to getting more input on these particular issues, we had an opportunity to engage with many people to hear their desires for Ware's future. For the most part, what we heard echoed things we had seen in the data and heard through other outreach efforts.

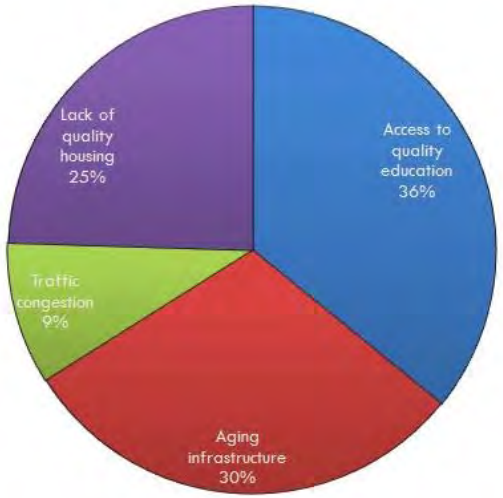
Figures 24 and 25 on the following pages show the pie chart posters at the Fall Fest along with the final results. The posters (photographs across the top of these figures) show the pie chart results from the MindMixer surveys; people were asked to stick a pin into the pie slice representing the answer of their choice. These were then tallied and the results added to the MindMixer results to create the final result pie charts shown across the bottom of figures 23 and 24. For the most part, the Fall Fest participants verified the results of the MindMixer surveys. Two questions yielded significant differences though: the question on historical character of neighborhoods and the question on various ways to support Ware's parks.

Figure 23: Photos from the 2014 Fall Fest. The master plan booth is shown above. Below, from left to right: the winner of the Chili Contest, young dancers performing for the crowd, and a magician entertains a group of girls.









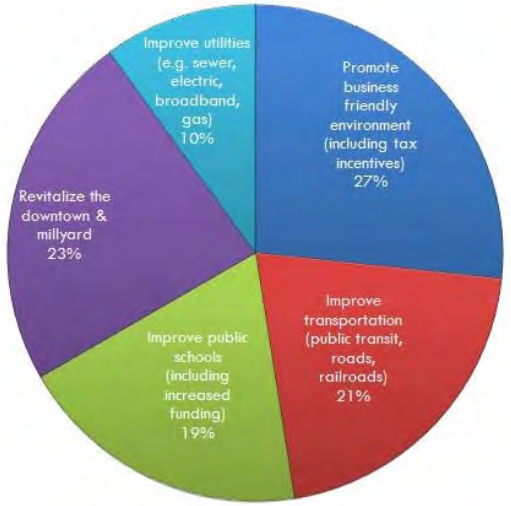
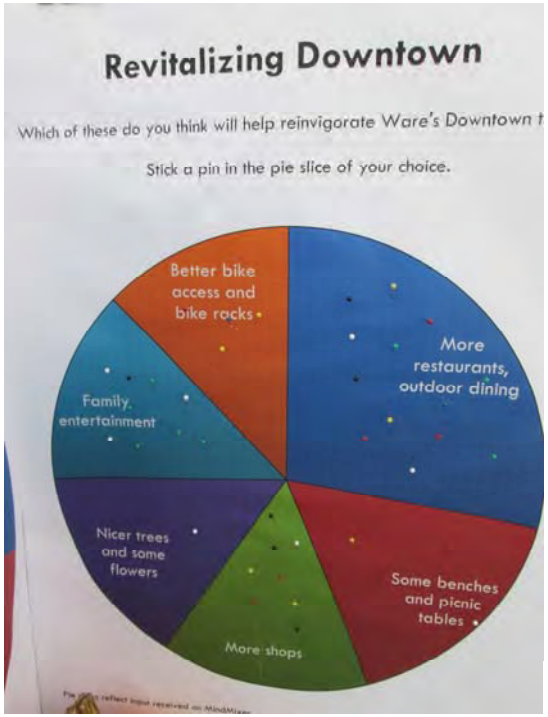
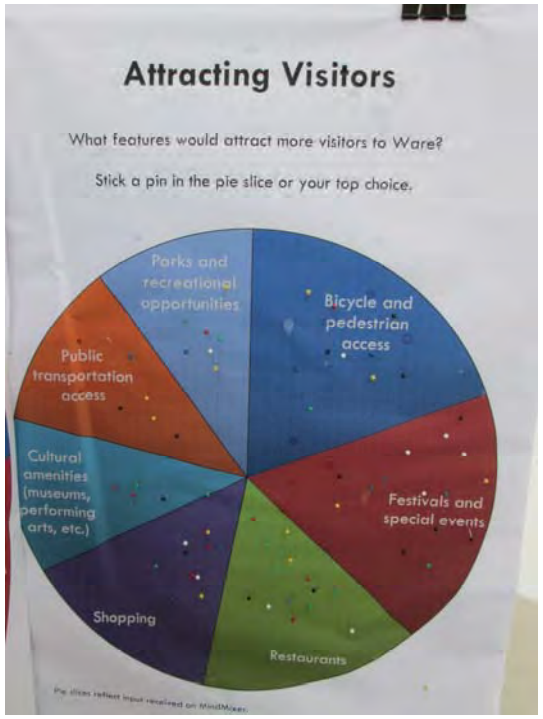
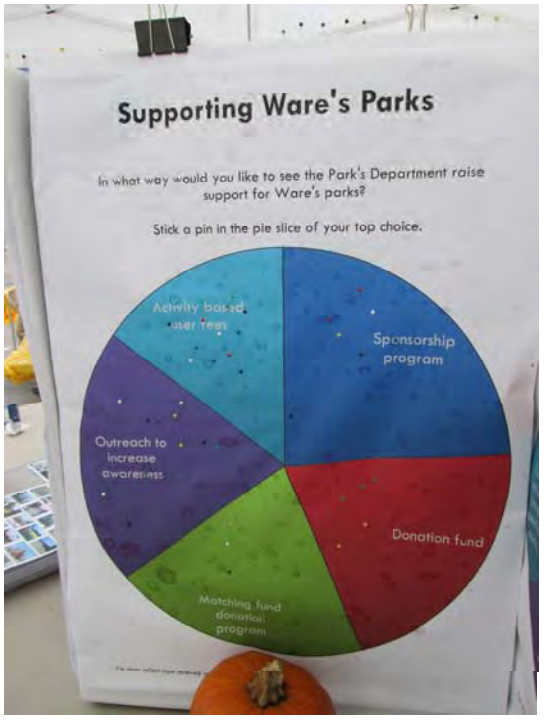
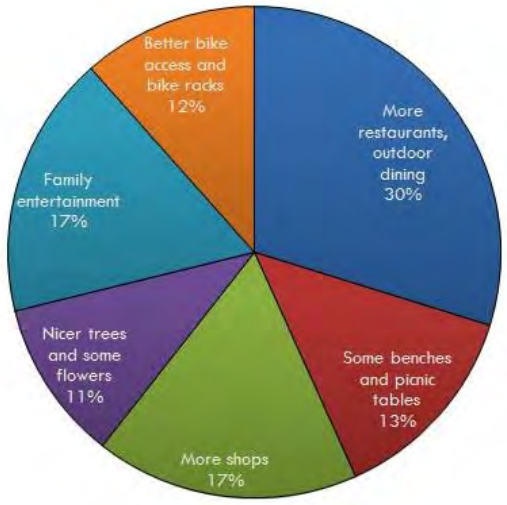


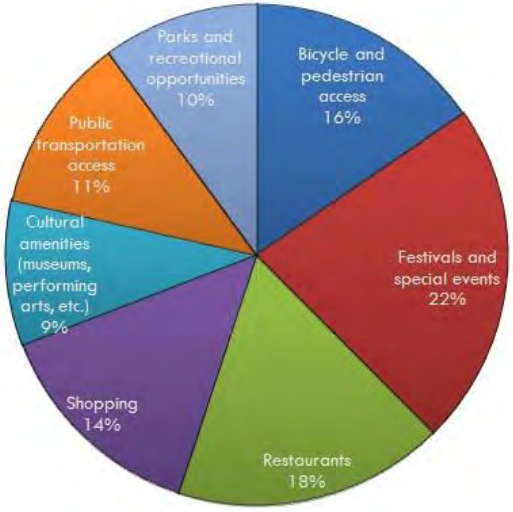
Figure 24: Poster questions at the 2014 Fall Fest (photos across top) and the final results including both the MindMixer and Fall Fest participant responses (across bottom). The distribution of people who believe the Aspen/Vigeant/Dale neighborhood needs more work changed significantly with the additional responses from Fall Fest. While there was some shifting in results for the other questions here, the Fall Fest responses verified the MindMixer responses.











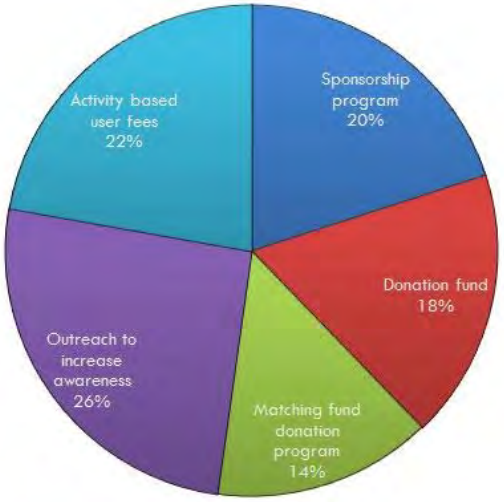


Figure 25: Responses to our questions about revitalizing downtown and attracting visitors did not change significantly with the addition of the Fall Fest participant responses. The result of the question on supporting Ware's parks did change significantly. More Fall Fest participants thought that activity based user fees were acceptable than the MindMixer respondents thought; this shifted the other answers accordingly.

2014 SOAR Exercise

During the summer of 2014, the Master Plan Steering Committee worked with other community stakeholders to do a Strengths, Opportunities, Aspirations, and Results (SOAR) exercise to identify key issues and opportunities in Ware. Using post-it notes, participants jotted down their immediate thoughts for each of the four categories, and these were then categorized.

Ware's strengths lie in our town's natural beauty, our New England mill town character and history, and our services (both private and public) which are driven to a certain extent by the fact that we are a regional hub.

Ware's opportunities lie in our economic development potential, especially in regard to reuse of existing buildings as well as in the potential to create a stronger tourist industry. Ware's people (residents, businesses, organizations, local government, etc.) working together to make those things happen is an opportunity not to be squandered. Ware aspires to be the best town around, both demographically and physically.

We see our town with an improved economic base and an improved community. To get there, it's clear we need to focus on economic development, particularly the millyard, and on strengthening the tourism industry.

Strengths	Opportunities	Aspirations	Results
Open space	Millyard revitalization	Housing for everyone	Tourist buses
Proximity to Quabbin	Converted industry space	Healthy mix of land uses	Increased diversity in shopping opportunities
Geographic beauty	Old Firehouse	Commercial sectors understand their interconnectedness	One new industry locates here
Outdoors/natural beauty/Quabbin	Mount Carmel old parking lot and land	Have a visual waterfront riverwalk	Use of QR smartcodes
Beautiful mountains surrounding Town	Senior living	Adaptive re-use	Mary Lane is still open
Rural qualities	Land for economic development	Solar fields to bring down cost of electricity	Tax breaks offered for architectural improvements
Natural environment	Millyard	Light industry	A job for everyone
Inexpensive	Millyard	Town offers internet at discount price	At least one manufacturer provides a lot of jobs
Rural character	Mixed use	Ware is an urban oasis in the middle of the forest	Partner with nearby university to lease space for business use and training
Small Community	Courthouse/South Street School	Ware is a walkable community	More industry
Traditional town layout	Rail line	Collaborative workspaces	Increased tax base
Downtown	Quabbin Reservoir	Vibrant business district which attracts residents and visitors	Increased tax base
Active agriculture	Quabbin Reservoir	Be recognized as a town where families want to live	Stable retail with 90% occupancy at market rates
Rich background and heritage	134,000 visitors to the Quabbin	Change Ware's image so it becomes a more desirable place to live	Increase in restaurants, business, amenities, and desirable residents
Lots of rich old architecture	Promote parks and rec	Best hospital and services in MA	Increased tax revenue from business sector
Mill history	Open land	Healthiest town in MA	Constant activity on Main Street
Rich culture and history	Outdoor mecca	Increase median income level of Ware residents	Workshop 13 is open
Hospital	Location, location, location	Be looked at as a middle to upper income community	Adopt CPA
Access to good hospital	WCBA (to identify and recruit business tenants)	More affluent community	Adopt complete street policy
Multiple town departments serving the citizens	Vibrant business community working together for the betterment of all	Population growth	Better schools
Great services	Anchor store (Cabela's or Bass Pro Outlet)	A little gentrification may be good	Schools are improving
Number of banks we have along with QVDC can be a magnet for business	Mary Lane Hospital and potential expansions	Have more baby boomers retire and launch businesses in Ware	Ware has a top notch school system
Volunteers on boards and in community	Increase in jobs (above minimum wage)	To see Ware flourish as a close knit group	Unemployment, obesity, and drug use all drop
People	Farmers market in Veterans Park	To improve perception of town by residents and neighbors	Population growth by 10%
Citizens willing to help out - just need guidance	Encourage business clusters to create synergy among historic, social, and recreation goals	School system that has a net positive school choice population	Population income increase
Cadre of engaged citizens	Youth programs to take advantage of open space	More activities for kids and families (like the library has now)	Covered Bridge reopened
Hub to surrounding towns	Promotion of Ware schools (reverse negative school choice trends)	Protect natural resources	Be looked at as a place to visit for various attractions
Economic retail center Eastern Hampshire County	Ware sells its own community	Have a variety of tourist attractions	Promoted as quaint village in the Valley
Accessibility to various parts of Western MA	Cheap housing in a strong town	Sportsmen's hub of MA	Changed perception of Ware
Ware is a hub for surrounding communities - hospital and medical offices, shopping, and dining			People interact socially more

Figure 26: The SOAR Analysis. The full results are shown at right, and the summary statistics and color coding are shown below.

Color Key and Summary Statistics:

Strengths	Opportunities	Aspirations	Results
Open space/Natural beauty 24%	Physical economic development 34%	Best town - physical and economic 42%	Improved economic development 57%
New England mill town character 20%	Tourism 28%	Best town - demographically 42%	Improved community development 30%
Heritage 13%	Economic development 24%	Best town - destination 14%	Not measurable 13%
Public and private services 17%	Improve community perception 14%		
Engaged citizens 13%			
Location (regional hub) 13%			

Visioning with Arnett Muldrow & Associates

As part of another planning project undertaken by the Town in 2014, the consulting firm Arnett Muldrow & Associates (AMA) conducted public outreach to help develop a vision statement for the community. This vision statement was presented in Chapter 3 of the plan; this section includes some of the input received and how it was received.

Throughout the project, key stakeholders in the community were engaged in one on one meetings with AMA, in group meetings with them, and at a booth at the 2014 Fall Fest, where the general public had an opportunity to participate. Key stakeholders included the project's steering committee, business leaders, partner agencies, area industries, tourism and recreation representatives, elected leaders, and community residents. It should be noted that there were differing viewpoints expressed among this diverse group. The following list of comments from stakeholders is from AMA's final report (Arnett Muldrow & Associates, *Visioning, Branding, Wayfinding, and Business Development Plan*, 2015).

- It was stated that Ware has growing social issues related to low income housing, lack of transportation, crime, drug use, and aging population.
- Some felt that the school system is declining through school choice, which affects Ware's quality of life, opportunities for new businesses, and ability to grow.
- Others stated strongly that this was a misconception, and particularly that the new administration at Ware Public Schools have done an excellent job of turning the tide and improving the school system.
- The current challenge is more with the perception of the school system, and people's lack of awareness in the quality of Ware's schools.
- Downtown Ware, the area generally along Main Street from its intersection with West Street to the Millyard, is declining with continued disinvestment, vacancy, and blight. This includes parking, and lack of maintenance in both public and private properties.
- Some felt that downtown was a lost cause, with the need for new investment to be pushed to West Street. However, the majority of stakeholders, while realizing downtown's current condition, felt strongly that the Ware community must refocus on downtown to improve quality of life, create a vibrant commercial environment, and build a destination for Ware citizens and visitors.
- Similar potential was seen for the Millyard district, and stakeholders felt that its unique architecture and layout offered an opportunity to redevelop the district in ways seen in nearby textile and mill sites within the region. Still, the Millyard has major infrastructure needs particularly with sewer, and some of the buildings in the lower Millyard may be deteriorated beyond repair.
- In terms of potential for Downtown and the Millyard, an opportunity may be to grow Ware's creative economy, using the success of Workshop 13 as an anchor. The town and region have a number of creative artists and artisans who need a place to both practice and sell their creative works.
- Similarly, there is a great opportunity to grow outdoor activity and recreation with the Quabbin Reservoir, the new Rail Trail, Grenville Park, and Ware's public parks. In doing so,

Figure 27: Public participation at the Fall Fest 2014.

the Town of Ware would become the foundation of the outdoor experience.

- As the largest town in the immediate region, Ware was historically and continues to be the economic center of a larger rural area. The market research included later in this report shows Ware's current geographic pull, and past commercial growth has seen national chains (Walmart, Lowe's) choose to invest in Ware.
- Still, while Ware has seen commercial investment, it has small town competitors in terms of character. Ware has a distinct industrial heritage and feel while other nearby communities have more of a traditional New England village character.
- Just like commerce, Ware has many services these nearby areas do not such as fire & safety, excellent health care system, financial services, and employment.
- Businesses appreciate the efforts of the Ware Business & Civic Association (WB&CA). The organization has built credibility among its partners, as well as a positive momentum.
- Still, while the WB&CA is a great grass-roots business organization, there is a lack of an economic and business recruitment entity in Ware. This is very common in communities like Ware. It was stated that the Town does not have the capacity to do this and regional entities such as the Quaboag Chamber may focus efforts elsewhere within the region.
- The Quaboag Valley Community Development Corporation (QVCDC) and Business Assistance Corporation currently provide technical assistance and loans to small businesses. Stakeholders mentioned this as a positive and also felt there may be an opportunity to grow other business support and development services.
- Similarly, the WB&CA, Town, and private sector have been responsible for some very positive changes in recent months. This includes Workshop 13, 250th anniversary celebration, Ware Fall Fest, restoration of the town fountain, construction of the new Fire Station, and a growing volunteer base.
- Still, some residents continue to be threatened by change. Or rather they have such a lack of self-esteem in the community, that they don't feel change is possible.
- Finally, there is a general lack of faith in this community in the Town government's ability to cause positive change. Many felt the Town:
    - Is "difficult" to do business in, making it a challenge to operate business with various fees and strict codes. Many felt that the Town discourages business and growth, is heavy handed in dealing with business, and is not willing to work with them.
    - Is lacking in proactive planning and foresight to move Ware into the future.
    - Lacks the understanding of a responsibility in investing in public infrastructure.
    - Provides limited input on key issues through the Town Meeting and committee representation. Departments are often not open or available to help citizens & business.

Also from the AMA report, the following needs, businesses and activities were mentioned by stakeholders as Broad Needs for Ware:

- Branch of Higher Education
- Industrial Park/ growth of industry
- Hotel and new lodging
- Senior housing, Nursing home
- Child care center
- Farmers Market downtown
- More hiking trails and recreation
- Downtown events
- Art galleries
- Organic grocery
- Variety of new restaurants, coffee shop
- Applebee's, Chili's
- Specialty shopping in downtown
- Motorcycle dealer/service
- Microbrewery
- Improved parking downtown
- Cabela's
- Small independent outfitter

Summary of Public Participation Results for this Master Plan

The following is a listing in priority order of the most often cited desirable attributes of Ware, taken from all of the public participation for this Master Plan:

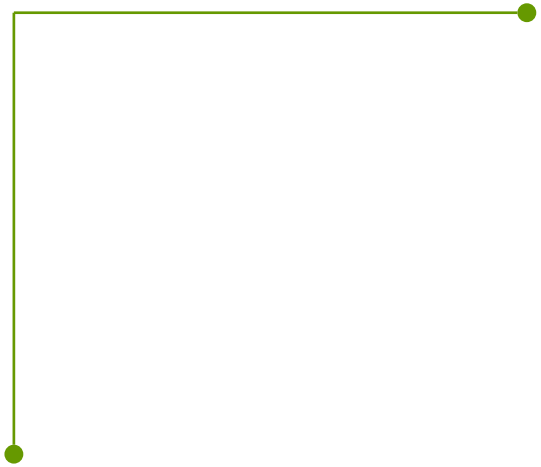
- Small town feel is very important
- Most important features include: Quabbin, Grenville Park, BSML Hospital, Gibbs Crossing, Nenameseck Sq, Ware Center Meeting House
- Good recreation opportunities
- Excellent access to outdoor activities
- Aspen/Vigeant/Dale neighborhood has lost its historic character the most
- Supportive of increasing funding for parks with sponsorship and donation programs
- People think positively about Ware
- Social capital is highly valued
- Family oriented, friendly
- Affordable
- Do not want more multi-family housing
- Do not want more low-mod income housing
- Church St. historic district has retained character the best
- People are split on adopting regs to protect historic structures
- Physical education is felt to be important
- We have good access to good quality health care

The following is a listing in priority order of the most often cited needs from all of the public participation for this Master Plan:

- Revitalize downtown
- Revitalize the millyard
- More/better bicycle facilities
- Provide more elderly housing choices
- Promote business friendly environment
- Expand/get utilities (water, sewer, internet, natural gas, etc.)
- Attract outdoor gear stores to make Ware regional mecca
- More/better pedestrian facilities
- More restaurants
- Improve the roads
- Establish an industrial park
- Market Ware as regional hub for retail & services
- A higher education facility
- Better/more frequent farmers market
- Preserve historical structures
- Institute recycling program for residents
- Establish neighborhood parks
- More transit options (PVTA busses)
- More college prep opportunities at HS
- More tutoring opportunities in schools
- More adult ed. opportunities (both academic and non-academic)
- More special events and festivals
- More shopping opportunities

The following had the lowest priority:

- Offer more tax incentives for businesses
- Increase school funding
- Ridgeline protection in zoning
- Design guidelines for downtown and millyard
- Discourage strip development
- Rehab existing vacant buildings
- More office type businesses
- Increase police presence
- Start a crime watch program
- Implement a wayfinding system
- Market Ware for tourism
- Create a business incubator space
- Create a dog park
- More variety in housing choices
- Improve downtown with trash cans, flowers, & dog waste stations
- Coffee shops & bakeries downtown
- Overhaul Main St. (surface, layout, signage, lighting)



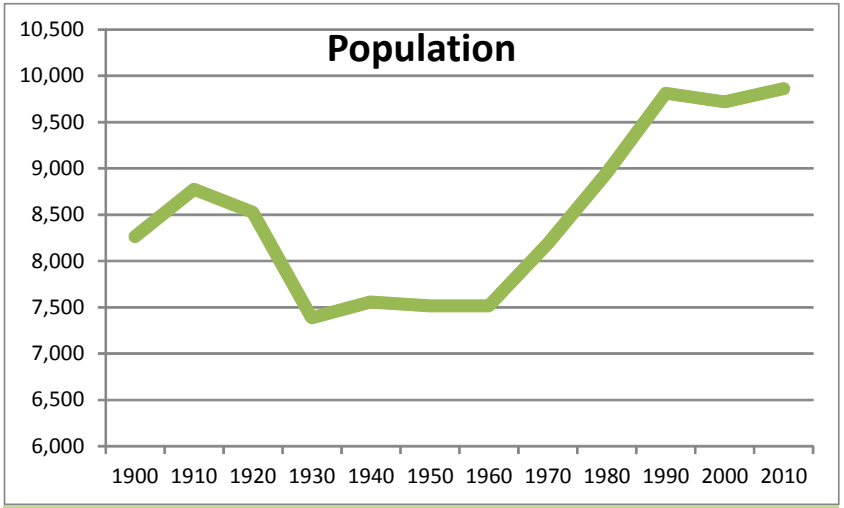


Figure 28: Population history of Ware. This graph clearly shows the decline in the population associated with the closing of the textile mills when that industry moved to the southern United States.

Each of these periods can be associated with financial events - the prosperity of the mills in the early 1900's, followed by the crash that occurred in mill towns throughout New England as textile mills moved to the southern United States where costs were lower. Despite the economic growth many towns experienced in the decades after World War II, Ware's economy was not greatly affected. It wasn't until the 1960's and 70's that the local and regional economy improved to the point where housing increased and along with it, the population of the town. Much of this growth was tied to increased automobile use which allowed people to work in towns and cities further from their homes. More recently, Ware's population has stagnated along with the economy since the "Great Recession" of 2007-2009.

Much of the demographics data in this section is drawn from the 2010 US Census. Ware has two census tracts, but also a Census Designated Place (CDP) developed with local officials to provide data for "settled concentrations of population". The Ware CDP data provides the most coherent assessment of the town's more densely settled areas but is not an official unit of measurement used for policy purposes.

In 2010, Ware's population reached it's highest point as counted in the decennial census, at 9,860 people. The last two decades have seen essentially no growth, after three decades of solid growth with nine to ten percent increases each year. Looking back further, the town had three decades of little to no growth once the population stabilized following the Depression and demise of the textile mill industries. The 1920's saw a decline in the population of 13.4 percent, when over eleven hundred people left town to seek their livelihood's elsewhere.

Table 1: Population of Ware, 1900 - 2010

Year	Population	Change	Percent Change
1900	8,263		
1910	8.774	511	6.2
1920	8,525	-249	-2.8
1930	7,385	-1140	-13.4
1940	7,557	172	2.3
1950	7,517	-40	-0.5
1960	7,517	0	0
1970	8,187	670	8.9
1980	8,953	766	9.4
1990	9,808	855	9.5
2000	9,715	-93	-0.9
2010	9,860	145	1.5

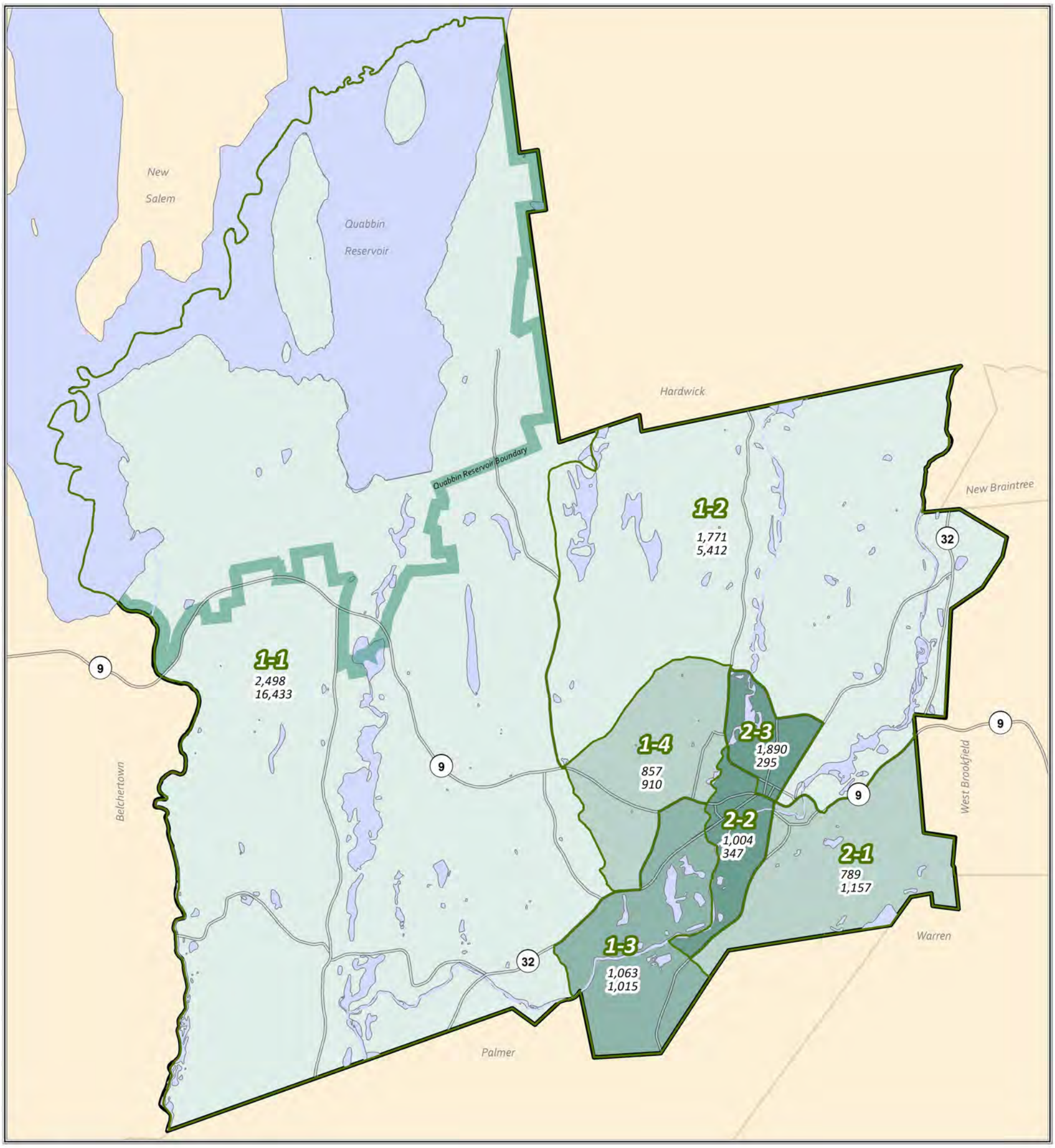
Previous plans created for Ware, including the 1987 *Ware Growth Management and Development Plan* and the 2004 *Community Development Plan*, projected strong growth and populations in excess of 11,000 people by 2012. The Town has yet to reach this level, and while new factors may cause a change in population size, no source of imminent population growth has been identified. However, it is still necessary to continue to adapt and plan for growth based on other demographic changes. For instance, average household size has decreased significantly: in the 1950s Ware's average household size was 3.09 people, now it is 2.39. Lower birth rates and a greater number of single-person households and single-parent households have contributed to this shift. With fewer people occupying each unit, it takes more units to house the same number of people. In addition, many of the housing units in town are old and in disrepair, and in many cases it is not economically feasible to rehabilitate the unit since the housing market remains so poor. In some cases units are in such bad shape they remain vacant for years; this disinvestment contributes to the poor housing market. These examples are just a couple of the reasons that, even though Ware's population is not poised to grow in size, there is a need for continual growth of new housing units.

As one would expect, the population of Ware is not evenly distributed but rather is concentrated in the area surrounding the downtown and millyard - simply because the millyard was the employment center and thus where the majority of people settled, after the earliest years when the area around the meetinghouse closer to the geographic center of the town served as the center of activity. Figure 29 shows the population in 2010 by block group, and clearly illustrates the point. The colors on the map represent population density in people per acre; the lighter the color the less dense the area is. It should be noted that census block groups are delineated partly on population, they are not based on geographic area - thus in Ware there are two large block groups with low populations, while the majority of the townspeople live in the smaller block groups around the town center. The most densely populated block group is 2-3, which includes the "Northside" neighborhood between Church and North Streets, with a density of 6.42 people per acre. This is not surprising given that this is where the majority of the old "mill housing" is located.

Figure 30 shows the population change between 1990 and 2010 by block group. This map is interesting in that it clearly shows a significant loss of population in the five block groups surrounding the town center (377 people), and significant gain in the two rural block groups (441 people). This may be due in part to the national trend of declining household sizes and the increased construction of new homes in subdivisions along rural roads.

Ethnicity and Race

Like many New England towns, Ware's ancestry is based largely on European immigration (Figure 31). Patterns of immigration are what formed the culture of central and western Massachusetts and current housing and settlement patterns are manifestations of those eras. Today, Ware's population continues to be predominantly Caucasian. In 2000 97.8% of Ware census respondents self-identified as white, 0.9% black, and 2.1% Hispanic or Latino. In 2010, 99.2 % of Ware was white, 0.5% black, 3.5% Latino, 0.8% American Indian and 0.4% Asian. It should be noted that the census now allows selection of multiple racial categories, resulting in a sum greater than 100%. In Ware's immediate region only Brookfield has a higher percentage of



Legend

Population Density

- 0.00 - 0.50
- 0.51 - 1.00
- 1.01 - 2.50
- 2.51 - 6.42

1-1 Tract # - Block Group #

1,234 Population
2,345 Acres

Note: Population Density is the population per acre.

1-1 includes part of the Quabbin Reservoir; if the area of the reservoir and DCR lands is excluded, the acreage is reduced to 8,872 and the population density is 0.28 people per acre.

Sources:
Demographic Data: US Census Bureau (via MassGIS)
Base Data (roads, water, towns): MassGIS

N W E S

0 0.5 1 2 Miles

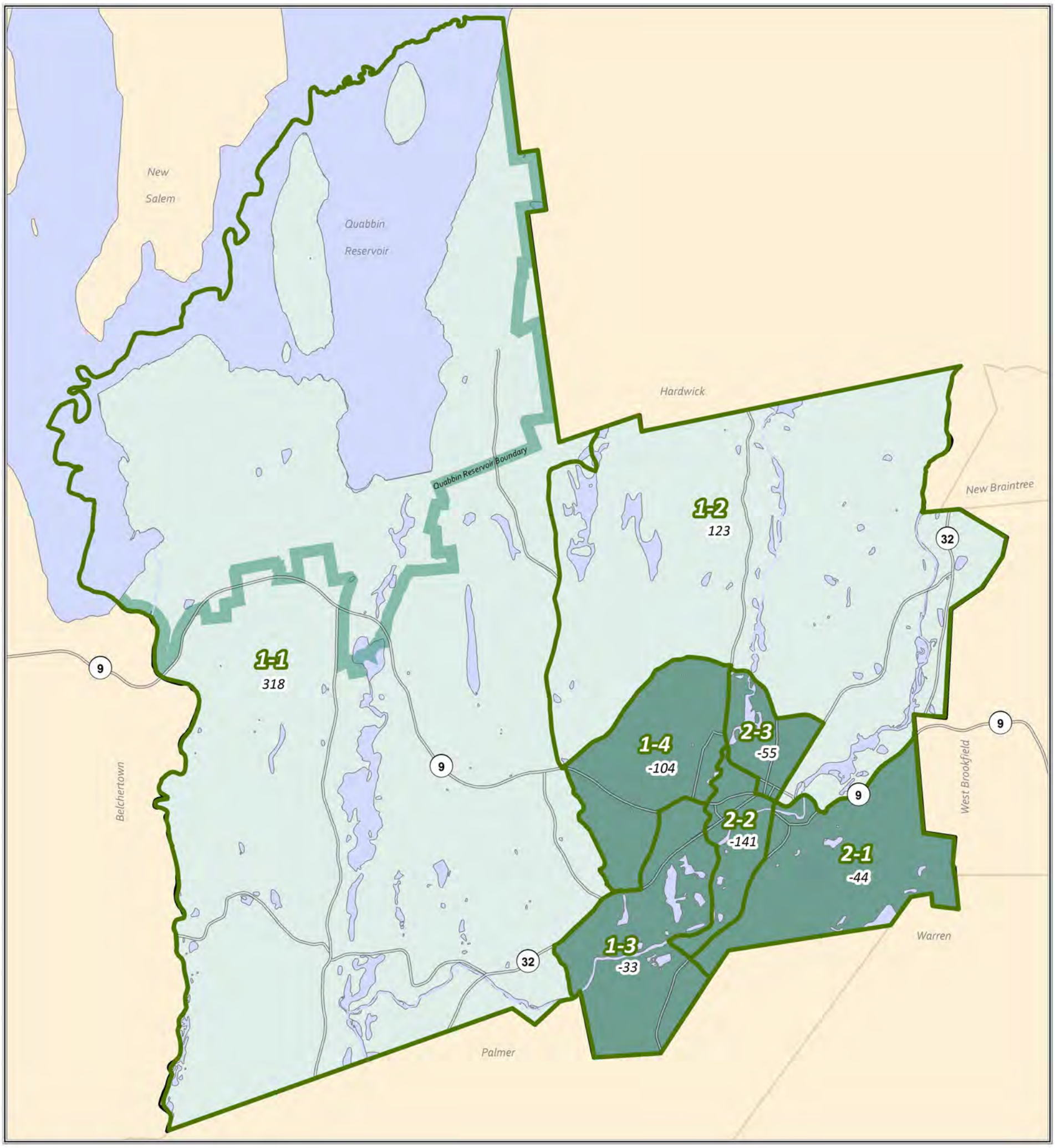
March 28, 2014

Demographics

Population by Block Group - 2010

Ware's Future - 2015 Master Plan

Planning & Community Development Department
Town Hall - 126 Main Street - Ware MA
www.townofware.com



Legend

Population Change 1990-2010

- Loss
- Gain
- 1-1 Tract # - Block Group # (2010)
- 123 Change in Population

Note: Differences in the boundaries of block groups between 1990 and 2010 were taken into account in the data analysis for this map.

Sources:

Demographic Data: US Census Bureau (via MassGIS)
Base Data (roads, water, towns): MassGIS

N W E S

0 0.5 1 2 Miles

March 28, 2014

Demographics

Population Change by Block Group - 1990 to 2010

Figure 31: Ware's ethnic heritage. Indicative of early immigration and economic patterns, most residents indicated French ancestry (3,010), Polish (2,803) and Irish (1,965).

single-race white residents. In 2010, Massachusetts was 81.7% white, the nation 74%. In the Pioneer Valley the 'white alone' population represents 81%, African American or Black 7%, and multi-racial 3%. The Hispanic or Latino population (of any race) is 15% of Pioneer Valley residents. Ware's ethnicity and ancestry is far more varied, with a population that reflects local and regional waves of immigration and economic shifts, such as the move from an agriculturally-based economy to water-powered industry in the nineteenth century.

Age Distribution and Household Composition

Although Ware is nearly the same size in population today as it was in 1990, the age composition has shifted and households have changed. There are fewer school-aged children and the number of single adult and single-parent households has grown. The needs for housing, schools, services, and infrastructure shift as the population evolves over time. The biggest change for Ware has been the age distribution of residents (Figure 32). Until now, the largest segment of the US population was the "Baby Boomers" born between 1946 and 1964. The US Census Bureau has projected that in 2015 the "Millennials," those born between 1981 and 1997, will overtake the Baby Boomers in number and proportion of the US population. This is largely due to immigration of people between 18 and 34 years of age (in 2015) and increasing deaths of people between 51 and 69. coupled with a lack of immigrants in this age group. [US Census Bureau, American Community Survey 2009-2013; and Pew Research Center, 1/2015]

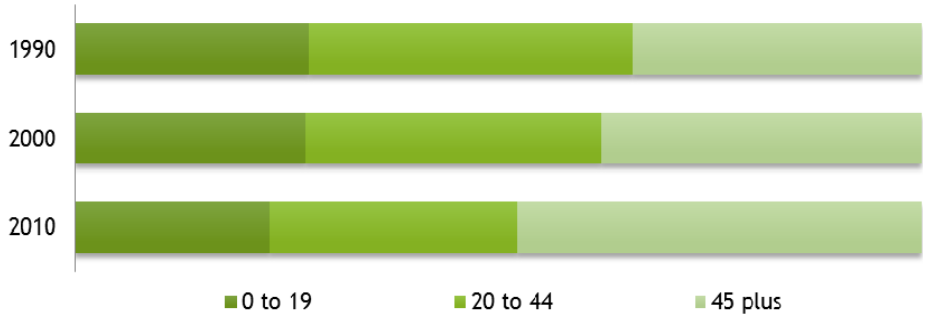


Figure 32: Population by age group, 1990 - 2010. This graph clearly shows how the proportion of these age groups has changed, with an increasing proportion in the older age bracket. Each bar represents 100% of the town's population.

Ware's median age is higher than the nation or state (median age in the US = 36.9, MA = 38.7, and Ware = 43.7). In 2010 the size of Ware's 45-54 cohort was higher than the national average (over 19%). If older residents choose to stay in Ware for the remainder of their lives, the proportion of residents age 65 and older will grow significantly and introduce new concerns or emphasize existing concerns. For instance, demand for housing designed to fit the needs of elderly residents will increase, as will demand for services to assist the elderly with daily living.

This is a very real concern as there are a number of reasons to expect that Ware residents might choose to age in place: at least one third of Ware households (35%) have been at the same address since before 1990. In nearby Belchertown only three percent of residents have been in their home since before 1970, but in Ware it is over fourteen percent. This remarkable stability reflects historic development patterns, distance from the colleges located 20-25 miles to the west, community characteristics, and is an important factor in Ware's "social capital". The sense of community is highly valued by residents according to surveys conducted around previous planning efforts, by the 2012 UMass Planning Studio, and by the visioning work conducted by Arnett Muldrow & Associates in 2014-15.

The number of households with a senior citizen has already begun to rise steadily over the past decade, and the town struggles to stay apace with housing and services to facilitate the health and independence of this demographic. Ware has a senior shuttle, hospital and senior center, but is short on assisted living and other necessary options for aging citizens. Moreover, Ware has just begun to see the potential opportunities in catering to the aging boomer demographic. Consumers of culture, fans of walkable communities, and the country's most entrepreneurial demographic, Ware's peak age cohort may be one of its best-hidden assets.

Changes were also noted in the shifts in household composition by size, age makeup, and family structure. For instance, since 1980 the number of households with 4 or more residents has decreased from 25% to just 18.8%. This is a contributing factor in reduced average household size. Today Ware's average household has 2.39 people, just below the Pioneer Valley average of 2.42 and the national average of 2.58. The trend to smaller household size is influenced by a number of factors, including smaller families. Ware has seen no increase in households with school-age children from 2000 to 2010 (about 1,200 of Ware's 4,120 occupied households) but during that same time Ware came to have 500 more households with a resident 65 or older (Figure 33). This is a 12% increase in households with someone 65 years or older (505 more).

The composition of Ware's 4,120 occupied households (Figure 34) varies widely, resembling the overall distribution of Hampshire County slightly more than Worcester County or neighboring Belchertown. Only 16% are 'traditional' family households (mother and father with children under

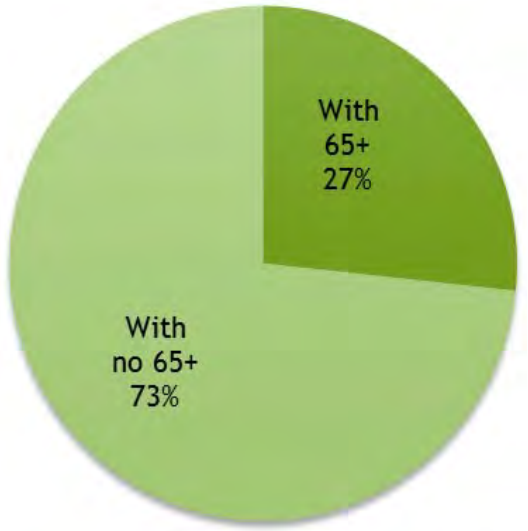


Figure 33: Households in 2010 with and without an occupant aged 65 or more. The national average is 24.9%.

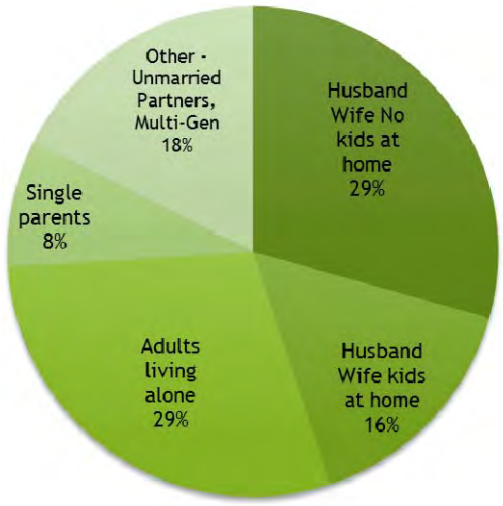


Figure 34: Household composition, 2010.

18 at home). Couples without children at home occupy 29% of Ware's housing units. Another 29% of Ware households have one adult living alone (up from 24% in 1980). Taken with single parents (8%) this means that over a third of Ware has just one adult in the home – this has major implications for income and resources. Also notably, in the 2013 *State of the People* Report produced by PVPC, nearly 70% of Ware's single parents are not economically independent.

Educational Attainment

The best data available for level of education of a population is from the US Census Bureau's American Community Survey[1] 2009-2013. Figure 35 shows the educational attainment for the population of two age groups - those 18-24 and those 25 and older. These two groups are addressed separately since the basic assumption is that those ages 18-24 are more likely to be in the process of gaining a higher education than those in the older age group, most of whom have achieved the highest level of education they are going to get.

The total population estimated for the age group 18-24 is 722. Of these people, 14%, or 100 people, have not graduated from high school or received the equivalency (General Educational Development, or GED). Thirty-six percent have graduated from high school; most of these appear to not be seeking higher education. Half of this population have some higher education or have received a bachelor's degree or higher; many of the 38% with some college are likely in the process of getting a college degree.

The total population estimated for the group age 25 and older is 7,049. Only one percent has less than a ninth grade education, but almost half of the 7,049 has achieved only a high school education. A full 72% of this population does not have a college degree. Of the 28% with a college degree, half have a bachelor's degree while the rest are split evenly between having an associate's degree or a graduate degree.

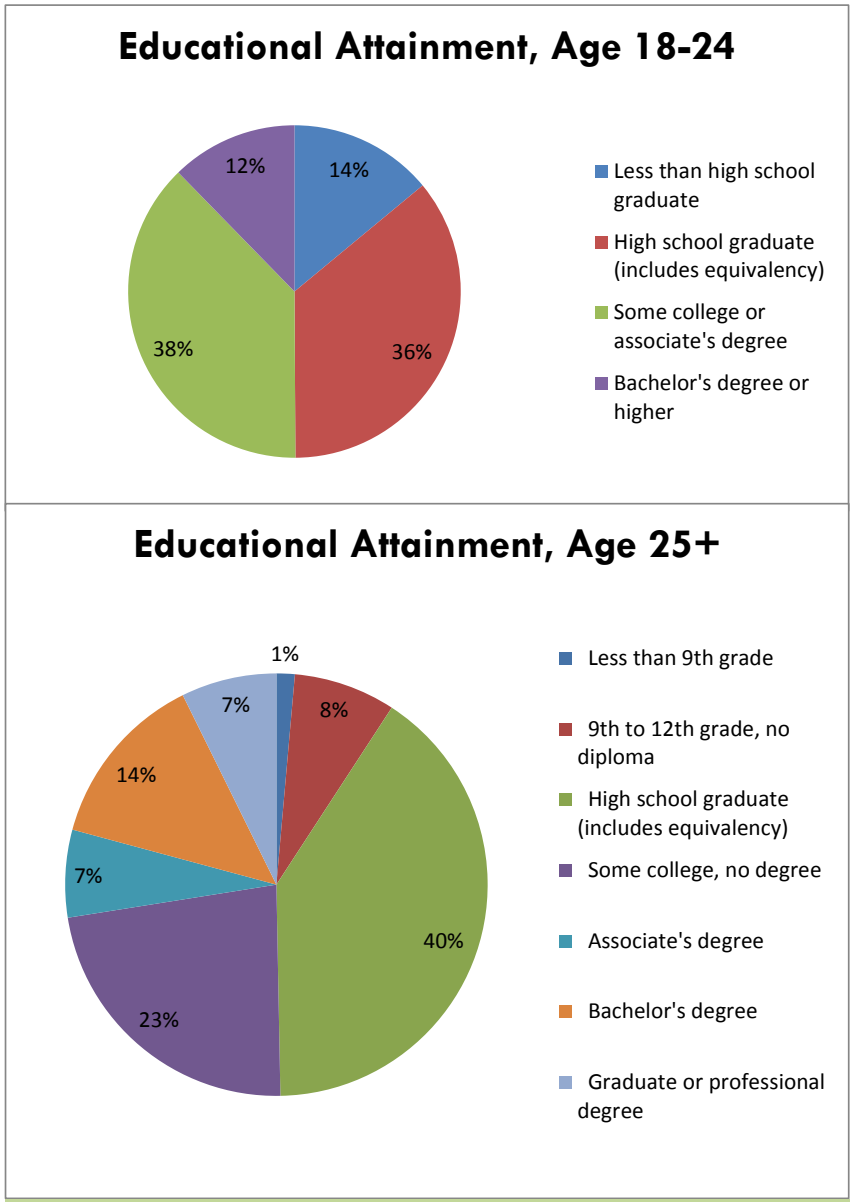


Figure 35: Educational attainment of Ware's population, 2013 estimates. US Census Bureau, American Community Survey 2009-2013.

[1] *The American Community Survey (ACS) is an ongoing data collection survey conducted by the US Census Bureau to gather information on population and housing that is more detailed than what is collected from every resident and household for the decennial census. It replaced the "long form" of the US Census in 2000.*

As a comparison, Ware's population of 18-24 year olds has a higher percentage without a high school education or with just a high school education than either Hampshire County or the state. For the population 25 years and older, the comparison is more interesting: Ware has a higher percentage than the county and a lower percentage than the state of people with less than a high school education, a higher percentage than either the county or the state of people with a high school education, and a lower percentage than either the county or the state of people with at least some college (includes those with degrees). It should be noted that Hampshire County is home to the University of Massachusetts as well as two private colleges, and while most students at these institutions are counted on the census as having a permanent address where their parents live, some are independent and are counted where they live. Most such students are presumed to live in Hampshire County, thus skewing data on the younger age group for the county.

The ACS also collects data on school enrollment, both public and private. This data is based on the town the student lives in, not the town the student attends school in, so is not comparable to local school district enrollment figures. As estimated for 2013, the population age 3 and over enrolled in school is estimated at 2,041: 79 percent are in nursery, preschool, kindergarten, or first through twelfth grade, and 21 percent are enrolled in college for an undergraduate, graduate, or professional degree. The population age 18 and over is estimated at 7,771 and 5.6 percent of them are enrolled in college or graduate school. Finally, 25.8% of the estimated 722 people age 18-24 are enrolled in college.

Employment

Ware is a classic New England mill town. With 9,860 residents it is only slightly larger in population today than it was at the height of the manufacturing boom. The textile mill companies at one time employed as many as 2,500 people, but today Ware's workers are more likely to work outside of town. From the total of Ware's 9,860 population in 2010, there were 8,064 residents age 16 years or over. From that population sub-group, 5,313 residents were considered part of the labor force while the remaining population was not in the labor force (2,751)[2].

Ware's labor force is represented in Figure 36. Employed residents number 4,711; 602 are identified as unemployed. Age composition of the employed population shows that the highest numbers are in the categories 25-44, 44-55 and 55-64. However, it is estimated that approximately 100 residents who are 65 years and over are also employed. The population that is younger than 16 or who are, for other various reasons excluded from the labor force, is represented in light green. The total employed residents include people who work *in* Ware and residents who travel *beyond* Ware to work.

This section summarizes some employment and unemployment characteristics, comparing different spatial levels to have a better idea of Ware's labor force. Looking at more specific information from the Local Area Unemployment Statistics (LAUS) from the Bureau of Labor Standards (BLS) shows that the unemployment rate for 2011 is still high. At 8.9% it is almost double the unemployment rate in 1986 as cited in the *1987 Growth Management and Development Plan* of the

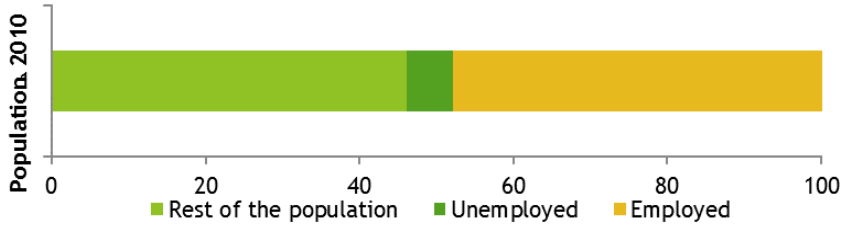


Figure 36: Labor force related to total population.

[2] *The Census Bureau defines, 'not in labor force' as "all people 16 years old and over who are not classified as members of the labor force. This category consists mainly of students, housewives, retired workers, seasonal workers interviewed in an off season who were not looking for work, institutionalized people, and people doing only incidental unpaid family work (less than 15 hours during the reference week)."*

town. A look at unemployment trends in the surrounding towns of the Quabbin Region (Figure 37) shows that Ware has one of the highest unemployment rates compared to Belchertown, Pelham, and New Salem. But Ware, along with most of the towns in the Quabbin Region, has seen a slow decrease in unemployment since 2010.

Upon initial examination of the employed population of Ware, there appears to be diversity in type of worker. For instance, looking at occupation by 2010 the highest percentage of workers are in Management, business, science and arts, followed by Sales and office occupations. In contrast, as the *1987 Ware Growth Management and Development Plan* describes, by 1980 the distribution of workers between "white collar" and "blue collar" jobs was more balanced (p. 28). At the beginning of the twentieth century, there was a predominance of agricultural work, as had long been the case in the region; and also manufacturing jobs because of the industrial and mill boom. As a consequence, the composition and characteristics of Ware's labor force have changed with each shift in the economy; moving to a more diverse representation of occupations with the addition of "white collar" jobs.

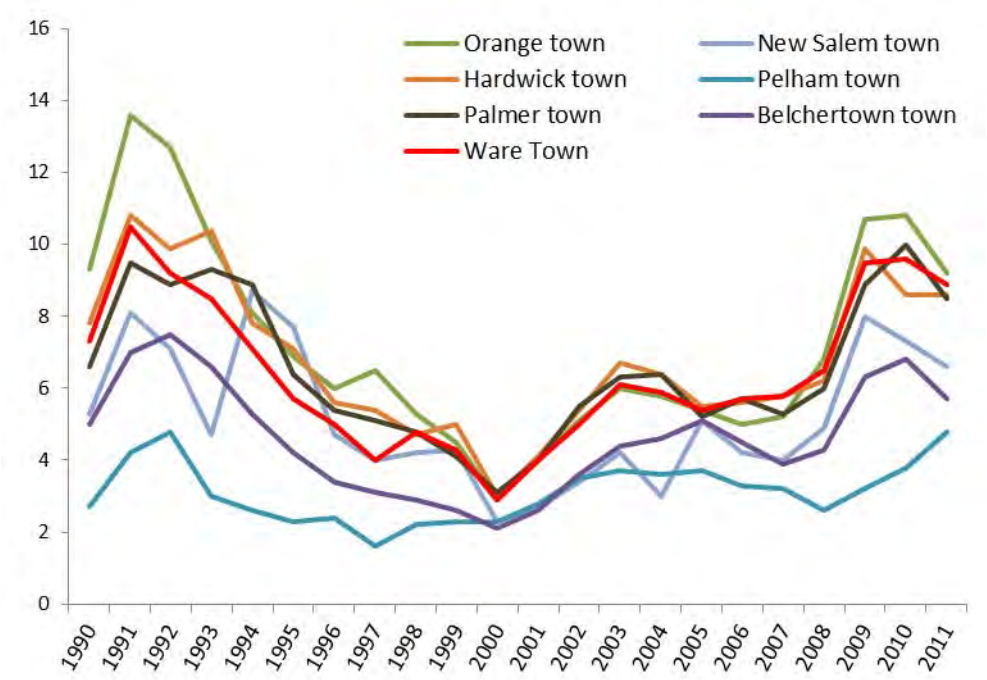


Figure 37: Annual unemployment rates in Ware and surrounding towns in the Quabbin region, 1990 - 2011.
Source: MA Executive Office of Labor and Workforce Development, Local Area Unemployment Statistics by Towns and Cities.

Based on 2010 data from the US Census American Community Survey, we see that more than half of the employed population (60%) works in the private sector, while 8% of the labor force are self-employed (3% in their own incorporated business and 5% in unincorporated business and unpaid family workers). While this data refers to all the people who are employed in the labor force regardless of job location, the last category mentioned gives a sense of small local businesses and residents that may work at home.

Combined with employment information, a representation of income by industry also shows the variety in the type of jobs that the population has. Again, evidence shows the loss of manufacturing jobs, with new jobs related to the service sector. This is the trend in the region, the state and the nation. Examining employment by income shows that more than half of Ware's employed population works in three main sectors: Educational services, and

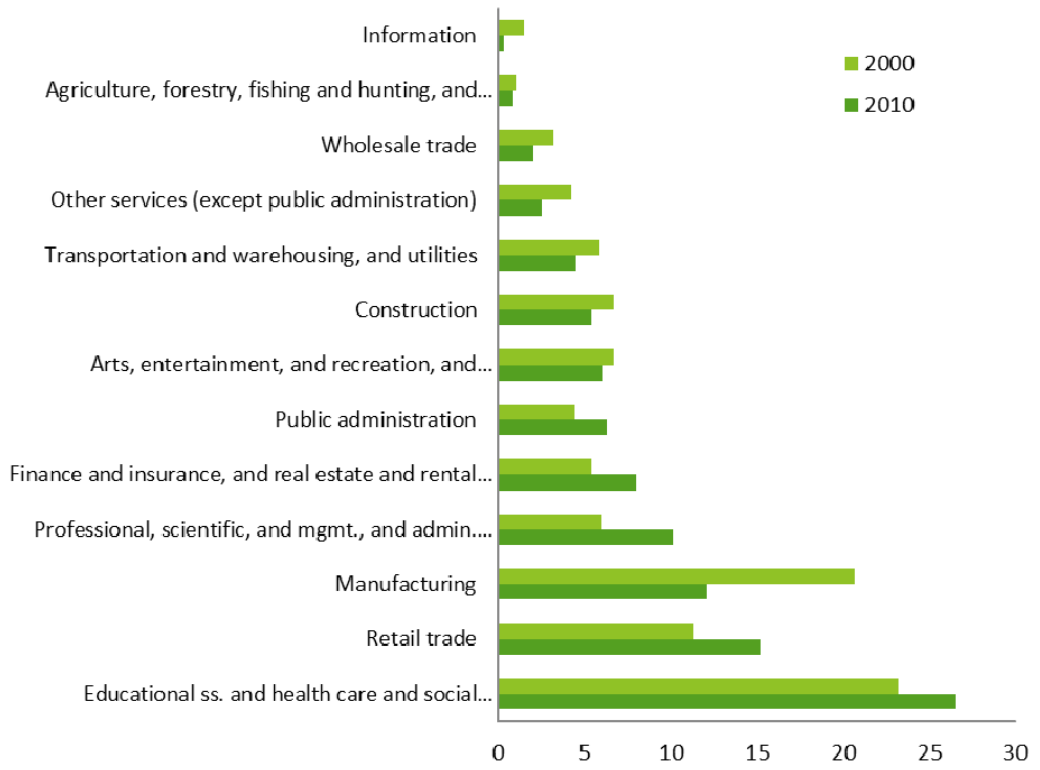


Figure 38: Employment by industry for Ware, 2000 and 2010.
Source: US Census Bureau, ACS 2010, 5-year estimate.

Household Income

A review of household income statistics (Figure 39) shows Ware residents earn less than the county, state, or national averages. However, from 1999 to 2010 the overall income has increased in Ware, unlike the county, state, or national averages. Figure 40 (next page) shows a comparison of income levels in Ware and in neighboring Belchertown, which has a higher median household income overall ($77,090 for 2010) than Ware has. This is partly because Ware has a high percentage of households in the middle range income, but it also has a high presence of poverty, borne out by comparing it to other places with some of the highest poverty rates in the region as noted in the Poverty and Public Health section below.

Health Care and Social Assistance (26.6%); Retail Trade (15.2%); and Manufacturing (12.1%). Figure 38 shows how this distribution has changed in the last decade. The industries which have gained a share of employment are educational services and health care and social Assistance; public administration; finance and insurance, and real estate and Rental and leasing; and retail trade.

This data confirms the economic transition that has been explained, not just in terms of what has been happening locally in Ware, but also in the region. Significantly, the industries with the most employees and the ones which are growing are not the ones that have the highest salary and benefits. This shift has had a major impact on household income. For instance, an average weekly wage in the Springfield Metropolitan Statistical Area (MSA) for Manufacturing is $1,021. The average weekly Retail wage is less than half that ($494).

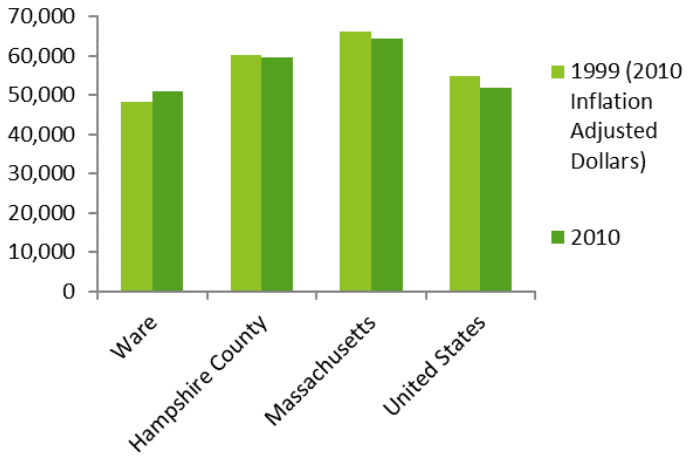


Figure 39: Income Comparisons for 1999 and 2010.
Source: US Census Bureau, Decennial Census 2010; ACS 2010, 5-year Estimate.

Considering Ware at the Census Tract level allows comparison of the median income in the two different sections of the town. As we mentioned earlier in this section, Tract 8201.01 exhibits a very low density and consists mostly of suburban and rural development. Conversely, Tract 8201.02 (which includes the downtown) exhibits characteristics of rural urban town centers in Massachusetts, and is where much of the housing is concentrated. Based on the history of this area, it contains many older homes and many two and three-family homes which include rental units. The majority of the households renting such units are not able to afford newer units elsewhere; thus the lower income in this census tract is not unexpected. Figure 41 shows the differences in median household income for the two census tracts for 1999 (from the 2000 census) and 2010. The mere fact that the income level in the rural area is significantly higher than in the downtown area is not surprising, given the differences in lot sizes, home sizes, and age of the homes. More alarming is the fact that between 1999 and 2010 the income level in the downtown area dropped by over $1,800 while the income level in the rural area increased by over $17,600. This is probably partially explained by the Great Recession of 2007-09, which had vastly different impacts on people with different income levels. For example, the unemployment rate at the end of 2009 for people in the lowest income group (household income of $12,500 or less) equaled Great Depression rates, while those with household incomes of $150,000 or more were unaffected by the recession. The same was true for underemployment rates.[3]

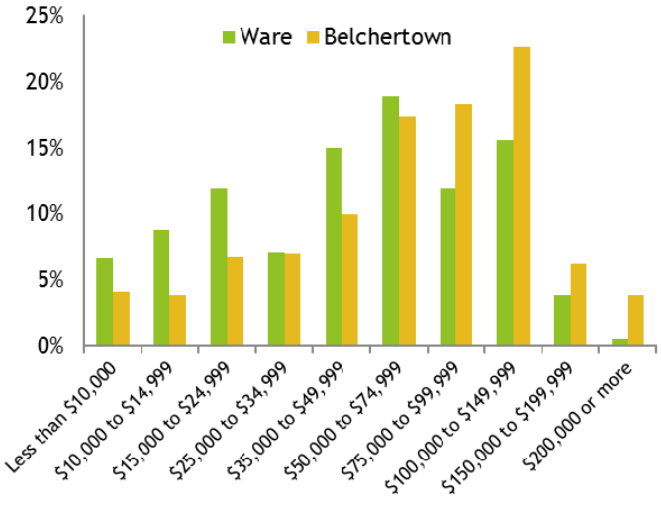


Figure 40: Income distribution comparison with Belchertown, 2010.

Figure 42 shows the distribution of income for each of the two census tracts. As expected, more households in the downtown area have lower incomes than those in the rural area, and conversely more households in the rural area

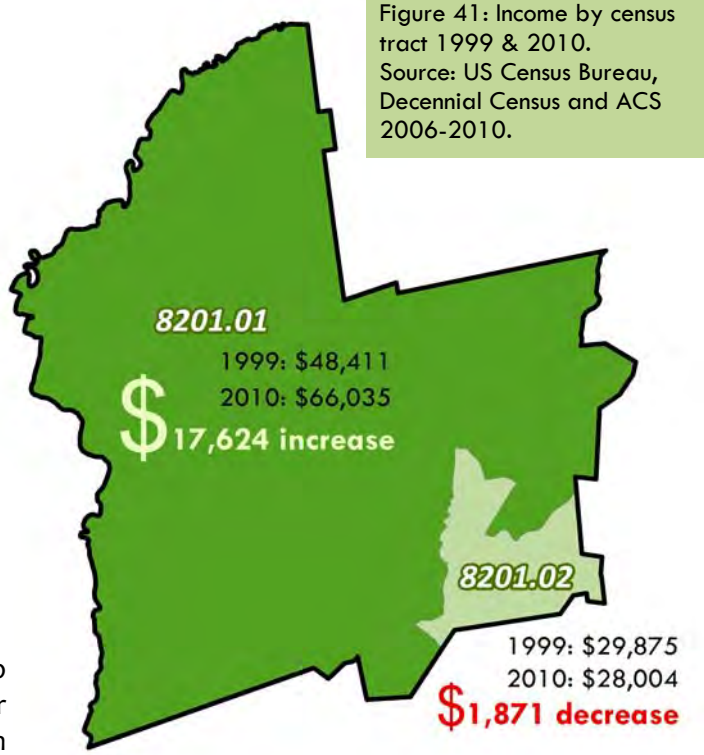


Figure 41: Income by census tract 1999 & 2010. Source: US Census Bureau, Decennial Census and ACS 2006-2010.

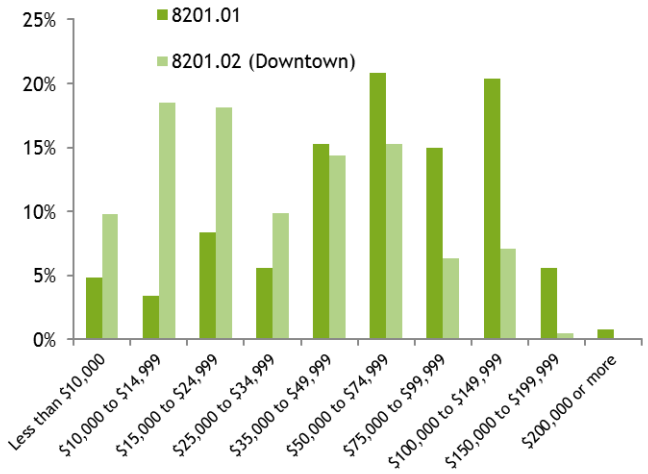


Figure 42: Income distribution in Ware by percentage of households, 2010.

[3] *Article by Andrew Sum, Professor of Economics and Director of the Center for Labor Market Studies at Northeastern University. April 12, 2010 (See references)*

have higher median incomes than those in the downtown. This income disparity shows that the older downtown neighborhoods and more densely populated areas of the town are similar to the region's more urban areas.

Poverty and Public Health

Ware's overall poverty rate in 2010 was 13.7%; higher than the state rate of 11.6%. The poverty rate is even higher in Census Tract 8201.02, at 23.3% (closer to Springfield's poverty level of 27.6%). Child poverty in Ware is 27.8% - more than a quarter of Ware's children live in households at or below the poverty line. Places in Hampshire, Hampden, and Franklin counties with rates above 20% are Greenfield, Heath, Montague, Chicopee, Holyoke, Springfield, and Cummington. Only Fitchburg and Worcester in Worcester County are above 20%. Recent national reports have highlighted an upwards trend in child poverty, with the US overall at 21% in 2011. Figure 43 shows poverty rates in 2010 for Ware and selected places.

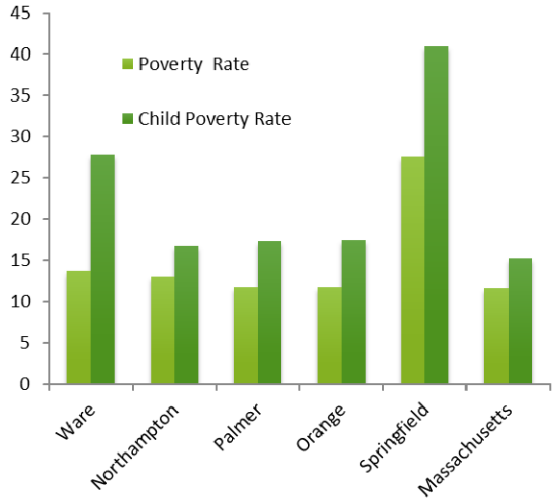


Figure 43: Poverty rates for Ware and benchmark areas.
Source: US Census Bureau, decennial census 2010.

Demographic Indicators like poverty are a large component of the state Department of Public Health's MassCHIP (Children's Health Insurance Program) which provides public health assessment information. Looking at access and medical statistics, Ware demonstrates positive access to healthcare, including Baystate Mary Lane Hospital and other regional medical centers, leading to positive maternal outcomes. However, MassCHIP reporting for Ware highlights high rates of children born to mothers living in poverty as a negative indicator for public health outcomes. Public Health issues highlighted in the MassCHIP reports on Ware centered upon substance abuse, children in poverty, and the elderly. For instance, Ware has high numbers of substantiated child abuse cases.

Among adults, Ware not only has an aging population and higher median age than the county and state, but cardiovascular disease related deaths occur at rates 50% above state levels. This figure is age-adjusted, so Ware's older population is less healthy than comparable populations elsewhere in the state. For example, in Ware alcohol and drug related hospital discharges are significantly higher than in the county overall, which are also above state levels. As reported by MassCHIP, child welfare and general public health (particularly of seniors), and substance abuse are of critical concern.

Regionally, the Pioneer Valley has a higher incidence of children ages 0-17 in the foster care system than the state (in 2012 Massachusetts had six children in the system per 1,000 people and the PV noted 7.4). Within the Valley, the highest rates of children in foster care (5 or more per 1,000) occurred in only 14 of the region's 69 communities; Ware had the third highest rate (11.9 per 1,000) behind only Springfield and Holyoke. Further, when compared to the region and the state, rates of purported child abuse and neglect are especially alarming in Ware. According to

What is Public Health?

Public health is the science of protecting and improving the health of families and communities through promotion of healthy lifestyles, research for disease and injury prevention and detection and control of infectious diseases.

the most recent data for each geography, Ware had 75 substantiated allegations of child abuse or neglect per 1,000 people. The PV reported 28.5 per 1,000 and the state reported 11.8. Although generally considered a rural community, these high incidences of child abuse are more indicative of inner-city populations.

Similarly, the Town exhibits some public health trends. Asthma is frequently used as an indicator of public health because it is so closely related to environmental quality, including everything from air quality to the presence of mold in older residential structures. This type of indicator is particularly important in a Town like Ware with older housing stock. In the *State of the People* report generated by PVPC in 2013, three years of data were averaged in order to compare trends across the municipalities in the Region. The number of hospital admissions as a result of asthma or asthma-related complications is represented by the number of hospitalizations per 1,000 people. An increase in asthma-related hospitalizations could indicate an increase in problematic environmental conditions.

Data from the report shows that annually there are 11.9 asthma-related hospitalizations per 1,000 people (1.19%). This is lower than regional trends, but higher than the state average. Asthma trends within Massachusetts are higher compared to 2013 CDC data which indicates 439,000 asthma hospitalizations for a rate of 1.4 per 1,000 in the United States average (0.14%). The number of asthma-related hospitalizations in the Pioneer Valley has steadily increased since 2000; reaching 13 hospitalizations per 1,000 people in 2008 (1.3%). Massachusetts saw an increase in asthma and asthma-related hospitalizations during that same time period, but state rates are consistently 20% lower than the Pioneer Valley at 10.9 per 1,000 people (1.09%). These high rates in Ware and other surrounding towns could be a result of mold or outdated building materials in older housing structures, or they could simply be a manifestation of high allergen levels in the region due to pollen and pollutants from surrounding areas settling in the lower altitudes of the Valley.

Diabetes is another health indicator. It helps determine whether residents have access to, and knowledge about, a healthy lifestyle. The risk for developing diabetes can often be reduced by diet and lifestyle choices. Diabetes also contributes to other serious diseases and sometimes death. More than 8% of Americans have diabetes, and the disease is already the nation's leading cause of kidney failure, non-traumatic limb amputation, and new cases of blindness. It is the seventh leading cause of death, and would likely rank higher if deaths from heart disease accelerated by underlying diabetes were included. In addition to the physical impacts this has on individuals, a high prevalence of diabetes creates a high financial burden to the broader community and health care system. Thus, tracking the trends in the frequency of diabetes indicates whether or not a community is succeeding in promoting healthy lifestyle choices and providing preventative care for diseases that are both physically and financially costly to the overall population.

Preventable disease is often associated with high concentrations of poverty in urban areas. However, the *State of the People* (PVPC, 2013) reports that Ware had 35 diabetes hospitalizations per 1,000 people (3.5%), compared to the Pioneer Valley at 31 (3.1%). Some Boston neighborhoods were under 5 per 1,000 (0.5%), and the state rate was less than 2 per 1,000 (0.2%). This shows that rural areas like Ware, not just urban communities, struggle with common public health concerns.

Rural areas often suffer from limited access to health care including to specialists. This is especially true in Ware which has a large number of people who do not own cars, as well as infrequent and restricted access to public transportation. Undereducated populations and minimal exposure to diabetes education also contribute to a lack of preventative care. Obesity and inactivity are primary causes for the disease and many rural areas cite limited access to safe sidewalks, exercise facilities, and grocery stores with affordable produce as causes for high rates.

Crime Rate and Perception of Crime

Crime (or the perception of crime) is a concern for Ware community members. Feedback solicited through the survey website "MindMixer" showed that most respondents felt unsafe in at least some parts of the community and that there should be a stronger police presence. Concerns voiced in this forum ranged from vandalism and trespassing to substance abuse. Referring to the *Natural Resources* section of this appendix shows that 19% of survey respondents at the 2012 Fall Festival indicated that the first action they would take as ruler of Ware would be to improve police or fire services. Data shows that crime rates in Ware are higher than average in some areas, but the overall crime rate index and annual crimes committed are lower than the state and nation. This implies that the issue may not be actual crime levels, but the public perception of crime in Town.

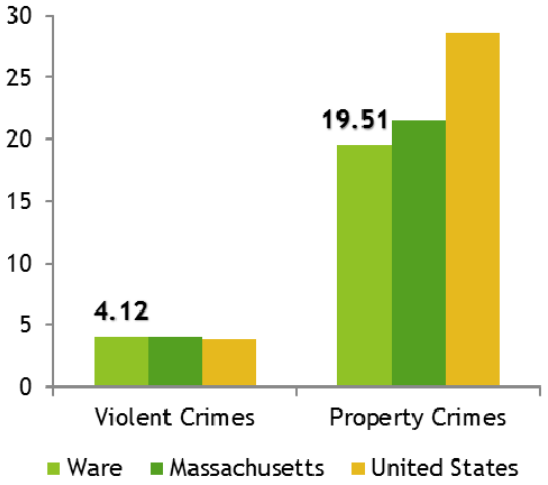


Figure 44: Violent and property crimes per thousand people.
Source: Ware MA Crime & Crime Rate, 2014

Most of the data in this section was collected from Neighborhood Scout, an online tool that compiles crime data and other statistics to create profiles for cities and towns across the country. The website's data on crime is based on the latest final, non-preliminary crime data. Currently, the most recent crime data with complete national coverage available is for 2012 (released November, 2013). The Neighborhood Scout crime report for Ware is based on raw crime data collected from all 17,000 law enforcement agencies in the United States. The reports show that Ware is slightly higher than the state and national statistics for violent crimes committed per 1,000 people. Ware is well below these benchmarks in regards to property crimes per 1,000 people (Figure 44).

In general, the crime index in Ware is lower than the state or nation and has consistently remained that way since 2005 (Figure 45). Crime indexes are based on current and historical datasets and modeling algorithms which estimate values when specific data is either

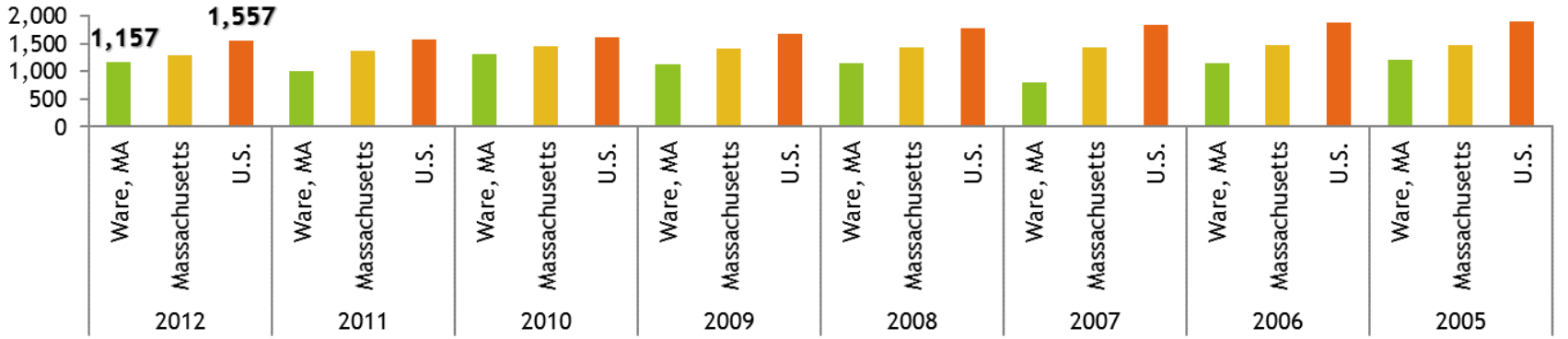


Figure 45: Annual crime index (crimes committed per thousand people) for 2005 through 2012.

unavailable or not feasible to collect. Therefore, these numbers are not always 100% accurate. Calculations for Ware may give higher crime numbers since crime indexes are calculated based on crimes per 100,000 people. Since Ware has a population of approximately 10,000, it is possible that the number of crimes committed in Ware are being multiplied nearly tenfold to accurately compare them to data from other geographies. This implies that if Ware had ten times as many residents, they would have ten times the crime and this is not necessarily the case.

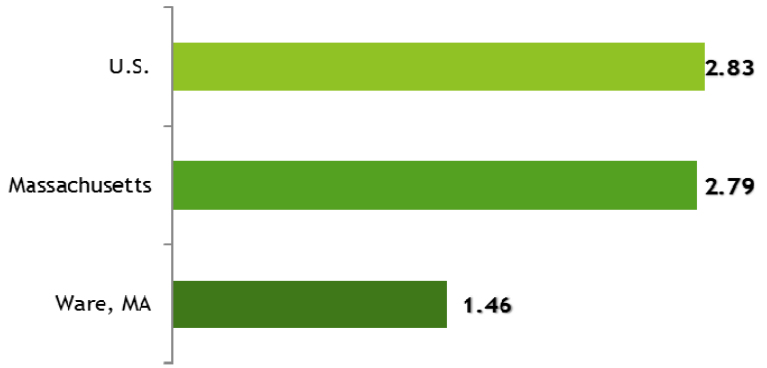


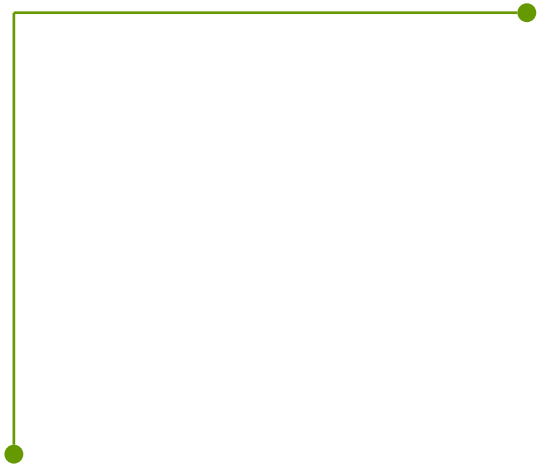
Figure 46: Police officers per thousand residents.

While public perception of crime in Ware seems skewed, respondents to "MindMixer" topics about crime and public safety seem to have a truthful awareness of police presence. The Ware police force notes a ratio of only 1.46 officers per 1,000 residents (Figure 46). This is slightly more than half the state proportion (2.79 officers per 1,000 people), and the national proportion (2.83). These numbers show that residents' concerns about the size of the police force may be warranted. Levels of crime in Ware do not appear to be abnormal based on statistics. Therefore, it is possible that residents' concerns about crime are partly derived from a police force that is too small to meet the needs of a community of Ware's size that has a history of urban issues such as drug use.

Social Challenges

In 2012, as part of an effort by Ware police to combat drug use, 36 residents were arrested on drug related charges. Chief of Police, Dennis Healy, released a statement indicating that nearly all of those arrested were addicts themselves and were dealing drugs to support their own drug habit. It is noteworthy, however, that the 2013 *State of the People* (PVPC) reported only 10.1 admissions of substance abuse and 10.8 mental health hospitalizations (including substance abuse or related issues) per 1,000 people in Ware. These numbers are much lower than other towns in the region; (Ludlow, Springfield, and Holyoke all noted more than 25 admissions) and the state has a rate of about 16 per 1,000.

Critics of the 2012 arrests stated that residents feel that they do not have access to proper support services needed to battle addiction. This may account for the low number of admissions and hospitalizations despite the local opinion that addiction is a concern here. However, right in Ware, the Carson Center at Valley Human Services provides counseling services to adults for a number of health issues including addiction; and the nearby Baystate Hospital in Springfield offers rehabilitation programs including two recovery homes. For individuals without transportation however, the commute to Springfield proves daunting. Increased access to support services may actually make drug use appear more prevalent since it would result in higher levels of admissions and treatments. Expanding support programs could help combat community concerns of substance abuse. Alcohol and drug use is not only harmful to individuals, but also to the larger community as a whole. Substance abuse is linked to higher rates of crime, poverty, poor health outcomes and individual patterns of abuse can lead to unemployment, legal problems, and negative effects on mental health and family life.



The Town of Ware has an array of diverse housing options; nearly as diverse as Springfield's (Figure 47). Residential options in Ware include older homes in mature neighborhoods, historic farms and contemporary large-lot housing developments in rural areas, multi-family homes and apartments in the CDP, and manufactured homes in a wide range of locations. Ware has long offered housing choices in a rural region; most of the multi-family homes here were built before 1939. Apartment buildings which were built to house factory workers are still in use decades later. There are special benefits to being in this small, rural community as well as challenges particular to the town's location.

As the local and regional economy changed, the agricultural and mill town character was augmented by a new 'bedroom community' component in the 1970s when a growing proportion of residents began commuting to jobs elsewhere in the region. In 1973 the town passed a bylaw allowing only single-family homes to be built. Subsequent revisions to the bylaw have ensured that a variety of housing types are currently permitted in Ware. Today, compared to neighboring towns Ware has the lowest proportion of single-family detached homes - 54% (compared to 59% in Palmer and 73% in Belchertown). Ware's peak housing production was in the 1970s, while Palmer's peak suburban growth occurred in the 1950s, and Belchertown's in the 1980s. The proportion of housing units that are manufactured homes is quite similar to national rates. Despite the development during this time, Ware is still one of only six towns in Hampshire and Worcester counties where 10% or less of the housing units were created after 1990.

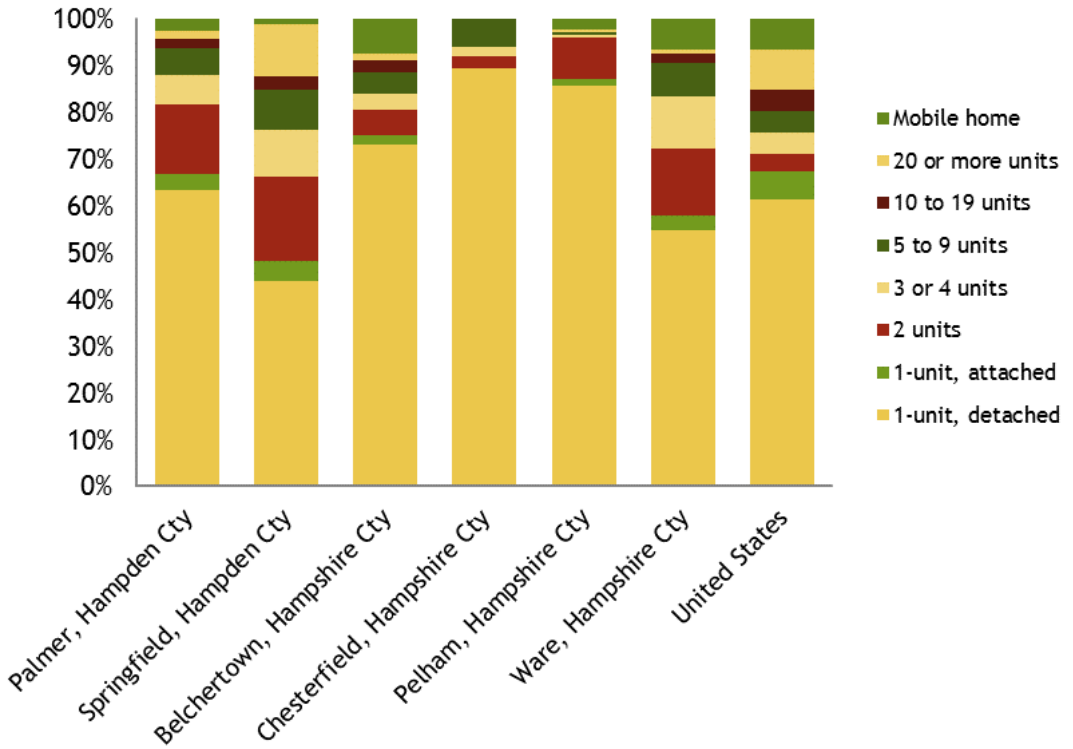


Figure 47: Housing type by percentage of total units.

Age and Location of Housing Stock

The age of Ware's housing stock can be examined in two ways: by a count of parcels and by a count of units. Looking at a count of parcels shows a fairly even split between three time periods: 1732 (the oldest structure in town) through 1949, 1950 through 1979, and 1980 through 2010. Figure 48 shows a map of the parcels by these periods, as well as a pie chart showing this split. Figure 48A shows a pie chart of the age of the housing stock based on a count of housing units. Table 2 shows this data in detail, with breakdowns by single family properties and those with two or more units, as well as breakdowns by century. A comparison of this information clearly shows that most of the multi-unit structures in town are older; 46% of the units, which are on 36% of the parcels, were built between 1732 and 1949.

An examination of data for the "downtown" census tract (8201.02) shows that the vast majority of the housing stock was built prior to 1950 (Table 3). This is not surprising, given the historic development patterns of the town. Note that the two largest multi-family complexes in Ware are located in this census tract: Highland Village, built in the 1970s, and Hillside Village, built in the early 2000s.

A Town's historic housing stock is a vital part of community character, especially in a quintessential New England town like Ware. These homes come with auxiliary challenges however. For example, older homes have a greater need for maintenance and repairs that sometimes leads to costly rehabilitations. Most older structures were built before the building guidelines set forth by the Americans with Disabilities Act (ADA). As such, they are unsuitable for people with mobility and other impairments without extensive renovations. Owners of older homes may struggle with higher utility costs as a result of poor insulation and outdated heating and cooling systems. Likewise, harmful construction materials like lead and asbestos may still be present in some structures.

Since rehabilitation is so costly, some homeowners are unable to make necessary repairs or improvements. Maintenance concerns can result in poor or unsafe housing for renters. Poorly maintained older housing stock can also inhibit fair housing goals. One illustration of how deteriorating older homes can affect fair housing is that many landlords will not rent to families with children due to the presence (real or perceived) of lead paint in the unit, therefore limiting the supply and availability of housing.

All Housing Types

Year Built	# of Parcels	Total # of Units	Mean # of Units	Mean Living Area per unit (sq. ft.)	Mean of Total Value (by Parcel)
1732-1949	1,193	2,047	1.7	1,494	$168,011
1950-1979	1,134	1,403	1.2	1,516	$182,694
1980-2010	995	1,053	1.1	1,849	$237,207
Breakdown by Century					
1732-1799	22	26	1.2	2,072	$254,640
1800-1899	652	1,250	1.9	1,488	$168,350
1900-1999	2,302	2,839	1.2	1,571	$188,500
2000-2010	306	388	1.3	2,076	$277,291

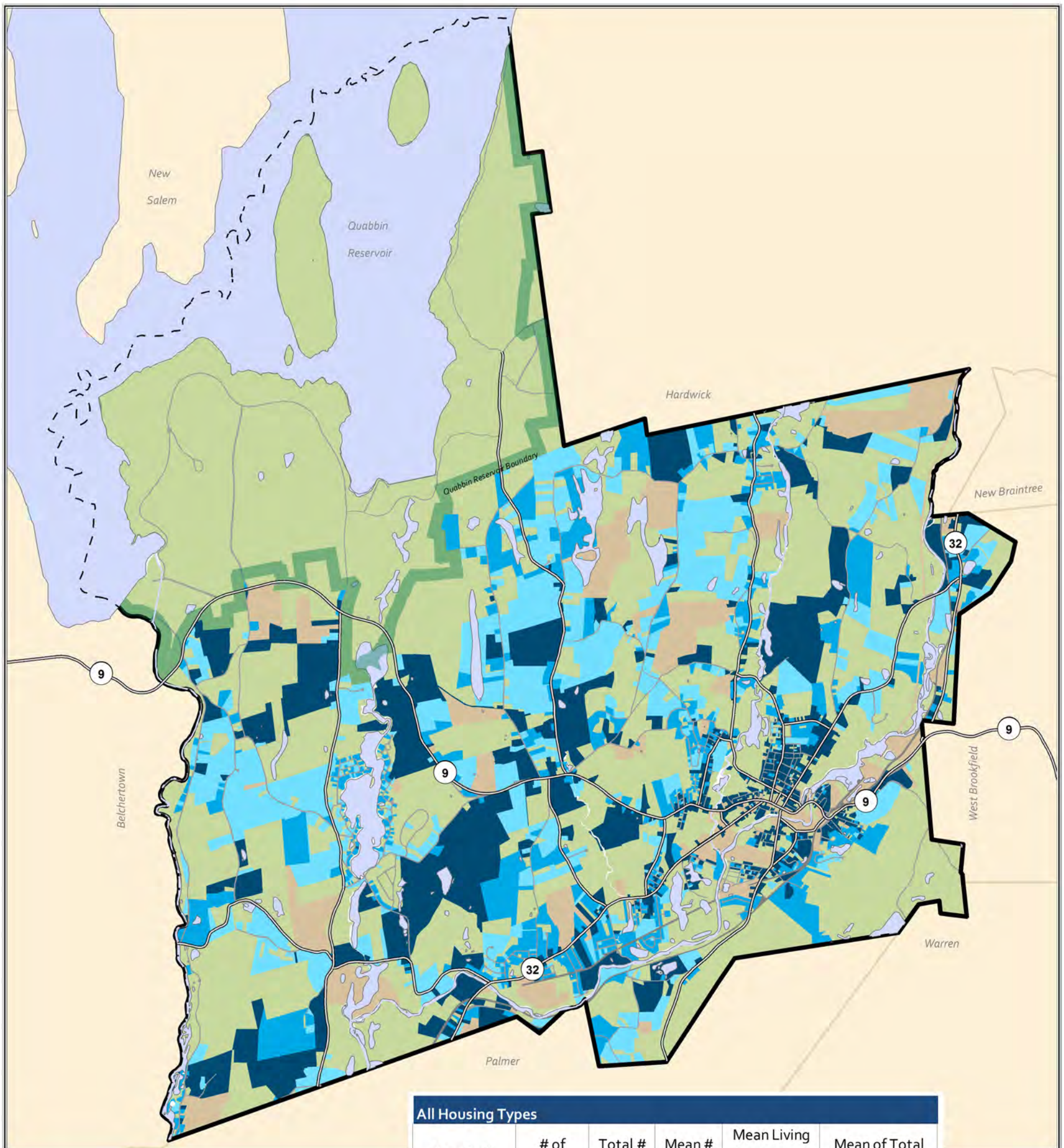
Single Family Properties Only

Year Built	# of Parcels	Total # of Units	Mean # of Units	Mean Living Area per unit (sq. ft.)	Mean of Total Value (by Parcel)
Breakdown by Typical Timeframes					
1732-1949	717	717	1	1,742	$162,916
1950-1979	1,090	1,090	1	1,533	$174,204
1980-2010	942	942	1	1,856	$232,357
Breakdown by Century					
1732-1799	18	18	1	2,245	$263,704
1800-1899	334	334	1	1,841	$160,546
1900-1999	2,094	2,094	1	1,614	$184,866
2000-2010	303	303	1	2,084	$264,342

Properties with 2 or More Units

Year Built	# of Parcels	Total # of Units	Mean # of Units	Mean Living Area per unit (sq. ft.)	Mean of Total Value (by Parcel)
Breakdown by Typical Timeframes					
1732-1949	476	1,330	2.8	1,120	$175,686
1950-1979	44	313	7.1	1,117	$393,013
1980-2010	13	111	8.5	1,341	$588,644
Breakdown by Century					
1732-1799	4	8	2.0	1,292	$175,686
1800-1899	318	916	2.9	1,116	$176,546
1900-1999	208	745	3.6	1,133	$225,091
2000-2010	3	85	28.3	1,294	$1,802,216

Table 2: Statistics for housing by age of structure.
Source: Ware Assessor data, 2012



All Housing Types					
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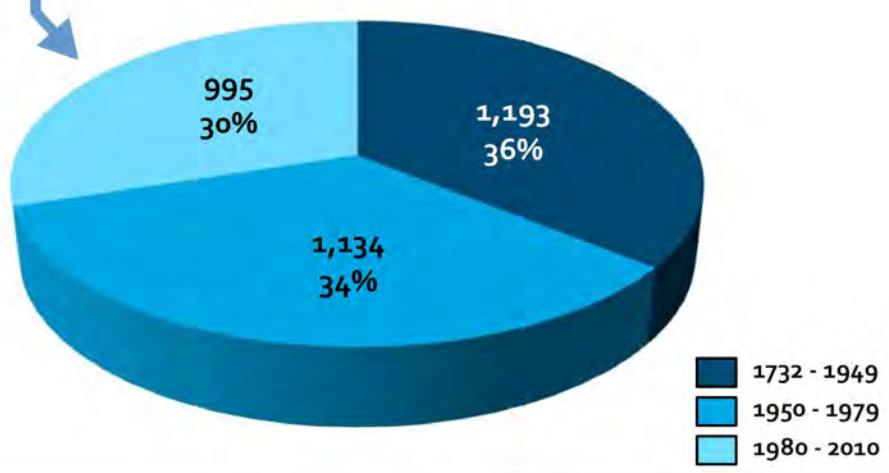


Legend

Residential; by Year Built

- *1732 - 1949*
- *1950 - 1979*
- *1980 - 2010*
- *Non-Residential Properties*
- *Undeveloped Properties*

Notes:
- *Parcel lines are not shown due to clarity issues with small lots.*
- *Non-Residential properties include agricultural uses.*

Sources:
Assessor Parcel Data
Base Data (roads, water, towns): MassGIS

N W E S 0 0.5 1 2 Miles

July 10, 2014

Housing

Age of Structure

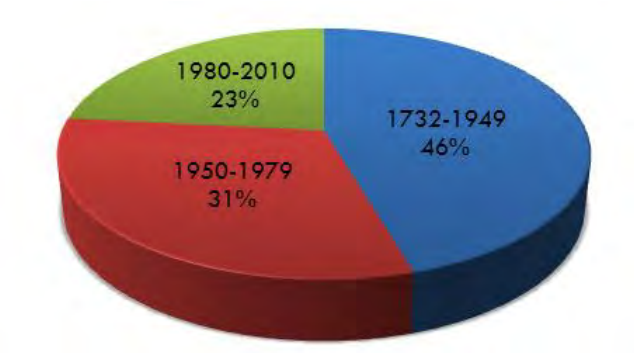


Figure 48A: Housing units in Ware by age of structure (time period in which the structure was built).

Table 3: Housing in Census Tract 8201.02 ("Downtown") by Age of Structure

Timeframe Built	# Parcels	% of Parcels	# Units	% of Units
1732-1949	722	79.4	1,369	77.2
1950-1979	134	14.7	265[1]	15.0
1980-2010	54	5.9	139[2]	7.8

[1] Includes Highland Village, with 107 units.
[2] Includes Hillside Village, with 81 units.
Source: US Census Bureau, Decennial Census 2010

Ware added newer units to its housing stock during a growth spurt in the early to mid 1970s as the mill town transitioned to a bedroom community. In 1970, the 80 unit Colonial Apartment complex was built on West Street, and in 1972 Highland Village was built with 107 units. A total of 589 housing units were built between 1970 and 1975, including 360 single family homes. Another spike occurred from 1986-1989, when 320 units were built including 301 single family homes. The most recent spike was in 2003 and 2004, when 201 units were built, 118 of which are single family homes; this period includes the construction of Hillside Village with 81 units. Figure 48B illustrates these spikes.

Since the 1970s the majority of new construction took place outside of the compact town center. The shift to suburban land use patterns typified by larger homes and commercial buildings, covering more land and usually constructed on undeveloped land, was typical of national growth patterns. Ware first adopted zoning regulations in 1971 but the Town did not regulate lot sizes or frontage amounts until 1985 when there was a "one size fits all" approach. In 1987 the zoning bylaw was replaced and eleven districts were created with varying dimensional requirements. This bylaw, typical of zoning regulations of the era, inadvertently discouraged infill development, which is redevelopment and investment in existing neighborhoods.

Figure 48B: Housing unit construction, 1970 - 2010.
Source: Ware Assessor data.

[1] *Analysis of 2010 Census block data, US Census Bureau.*
[2] *Analysis performed for Zoning rewrite in 2012, Ware Planning Department.*

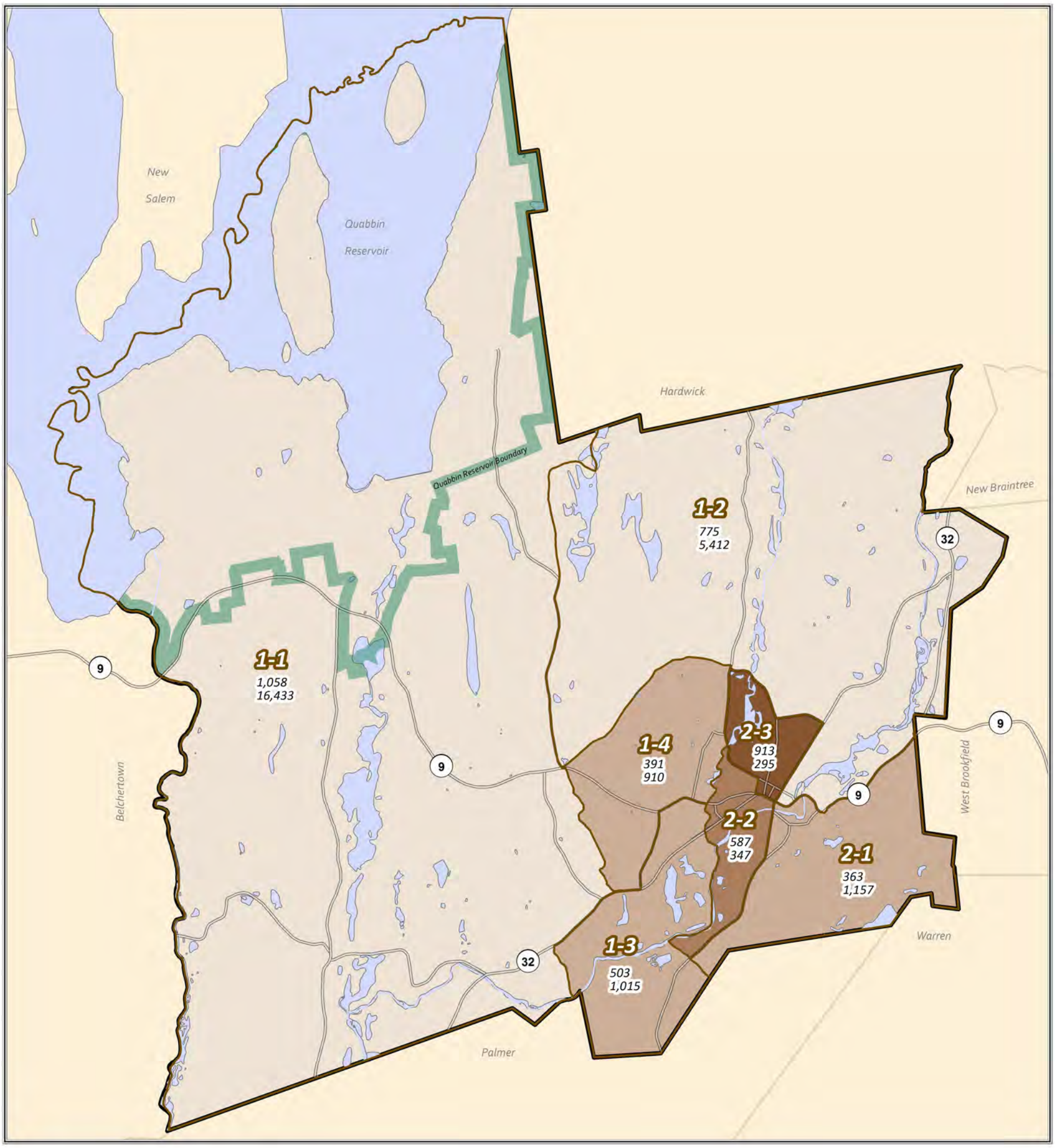
The *2004 Community Development Plan* (p. 77) showed 9,227 acres of land available for development (70.8% of total land in Ware). At that time, concerns were focused on the location of, capacity for, quality of, and quantity of home construction, particularly mitigating the impacts of construction on infrastructure and accelerating consumption of land and identifying locations for affordable housing units. Building activity has slowed during the recession, and recent zoning updates addressed many of concerns raised in the 2004 plan.

Forty percent of the housing stock in Ware is located in the rural area (block groups 1-1 and 1-2), one third is located in what could be termed the suburban area (block groups 1-3, 1-4, and 2-1), and the remaining twenty seven percent are located in what could be termed the central core (block groups 2-2 and 2-3). Figure 49 illustrates the density of housing in Ware by block group; not surprisingly block group 2-3, which includes the neighborhoods north of the downtown has the highest housing density at 3.10 units per acre. Honing in on the Northside neighborhood (between Main, North, Highland, and Church Streets), the housing density is 5.9 units per acre[1], and in the downtown commercial district the density is over 23 units per acre[2]. The two blocks that contain Highland and Hillside Villages have densities of 3.7 and 5.8 units per acre, while the block bounded by Pleasant, Aspen, Vigeant, and North Streets has a density of 17.3 units per acre and the block bounded by Park Avenue, Church, and Park Streets has 15.5 units per acre[1].

Figure 50 shows the numerical change in housing units by block group between 1990 and 2010. The rural areas (block groups 1-1 and 1-2) had 346 new housing units built during this time, or 73% of all new units in the town. Not including the decline of 4 units in block group 1-4, the remaining four block groups had a total increase of 129 units, or 27% of all new units. Notably, 81 of those 129 units (63%) are in Hillside Village, which was built in 2004. The reason for the decrease of four units in block group 1-4 is not known, but clearly there was very little new growth in housing in the central core of the town, with the exception of the Hillside Village complex (developed under MGL Chapter 40B, the "affordable housing" provision of state law that allows a developer to trump local zoning limits in exchange for units affordable to low-moderate income households).

The distribution of housing units throughout the town is shown at a finer scale in Figure 51. This map shows the number of units in each census block, the darker the color the higher the number of housing units in the block. Four blocks have over 100 units: Block 3014 includes Hillside Village and most of Highland Village, Block 4007 includes Warebrook Village, Block 3000 includes Colonial Village, and Block 1004, which is a relatively large land area, includes several neighborhoods including Glendale, Ross, and most of Morse and Maple Streets. In the core area of town (including the Northside neighborhood), the blocks are small and thus have fewer units - but as Figure 49 illustrated and as discussed, this neighborhood has the highest housing density in the town. Other notable information is the evidence that some of the rural areas of town have been developed with homes on lots created alongside existing roads, as seen in Blocks 1097 and 1099 in the southwest corner of Ware, and Blocks 1019 and 2018 in the north-central part of town. Block 1060, on the east side of Beaver Lake, has 81 housing units, most of which are on the lake shore. Blocks 1082, 1086, and 3012 are located off of Route 32 and include subdivisions developed between 1960 and 1990.

While the maps in Figures 48 - 51 show data on the number of housing units, Figure 52 shows the vacancy rates for housing by Census Block. The darker the color, the higher the vacancy rate. Six census blocks have vacancy rates above fifty percent: Blocks 1078, 1092, and 2021 each have only one house which was vacant in 2010; Block 2040 has three housing units, two of which were vacant; Block 1023 has 15 units, 9 of which were vacant; and Block 1069 (on the west side of Beaver Lake) has 21 houses, 14 of which were vacant - one of which was for sale and the remaining thirteen were seasonal homes. Block 1060, on the east side of Beaver Lake, also has a high percentage of seasonal homes among the 18 vacant homes there. The town wide average vacancy rate in 2010 was 10.0 percent. Of the 42 blocks with vacancy rates between 15.1 and 50 percent, most have 25 or fewer housing units; in such cases just a few vacancies will cause the vacancy rate to be fairly high. The average vacancy rate



Legend

Housing Density

- 0.06 - 0.25
- 0.26 - 0.50
- 0.51 - 2.00
- 2.01 - 3.10

1-1 Tract # - Block Group #

1,234 Housing Units
2,345 Acres

Note: Housing Density is the number of housing units per acre.

1-1 includes part of the Quabbin Reservoir; if the area of the reservoir and DCR lands is excluded, the acreage is reduced to 8,872 and the housing density is 0.12 housing units per acre.

Sources:
Demographic Data: US Census Bureau (via MassGIS)
Base Data (roads, water, towns): MassGIS

N W E S

0 0.5 1 2 Miles

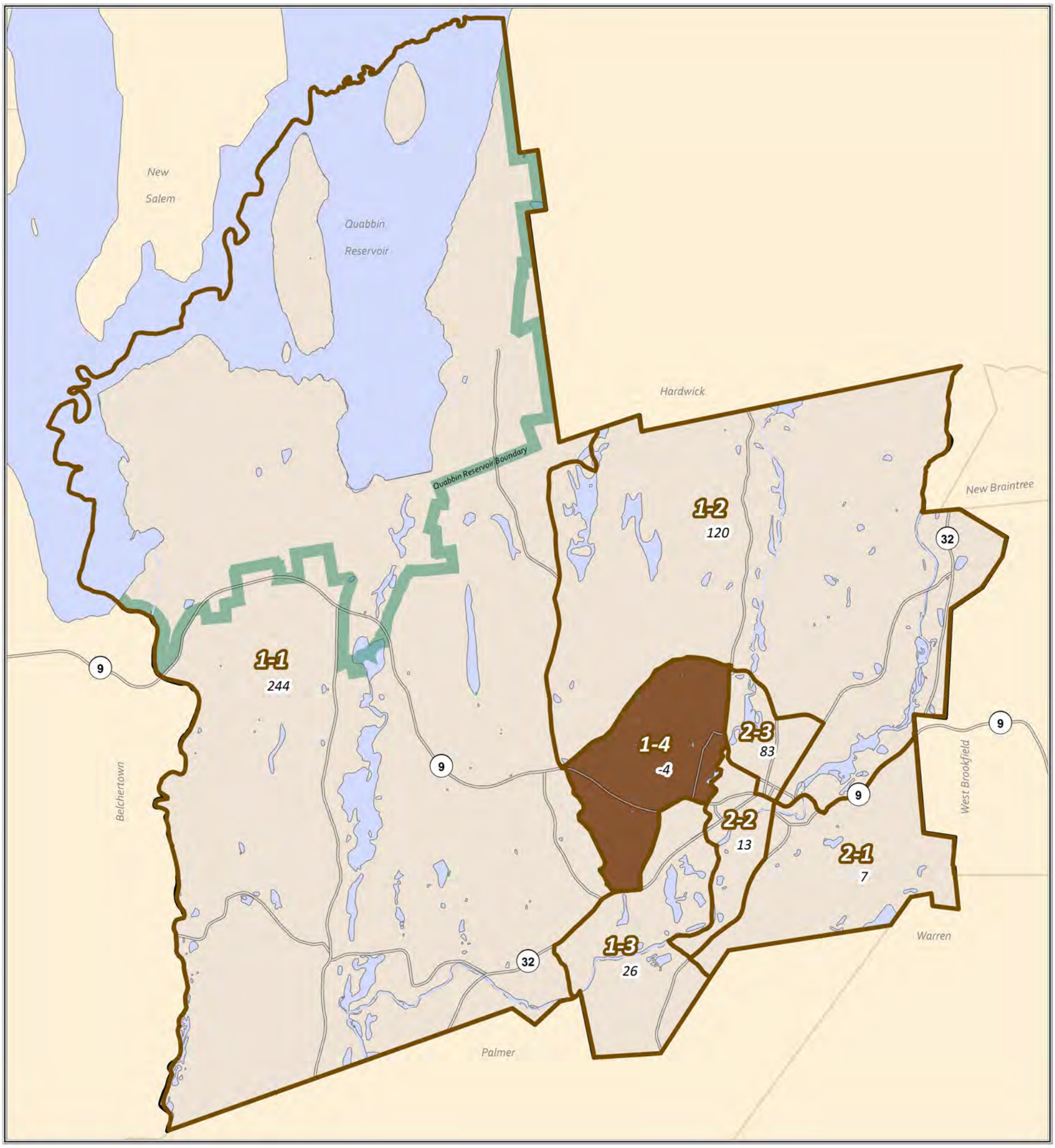
March 28, 2014

Housing

Housing by Block Group - 2010

Ware's Future - 2015 Master Plan

Planning & Community Development Department
Town Hall - 126 Main Street - Ware MA
www.townofware.com



Legend

Housing Change 1990-2010

- Loss
- Gain
- 1-1 Tract # - Block Group # (2010)
- 123 Change in Housing Units

Note: Differences in the boundaries of block groups between 1990 and 2010 were taken into account in the data analysis for this map.

Sources:
Demographic Data: US Census Bureau (via MassGIS)
Base Data (roads, water, towns): MassGIS

N W E S

0 0.5 1 2 Miles

March 28, 2014

Housing

Housing Change by Block Group - 1990 to 2010

Ware's Future - 2015 Master Plan

Planning & Community Development Department
Town Hall - 126 Main Street - Ware MA
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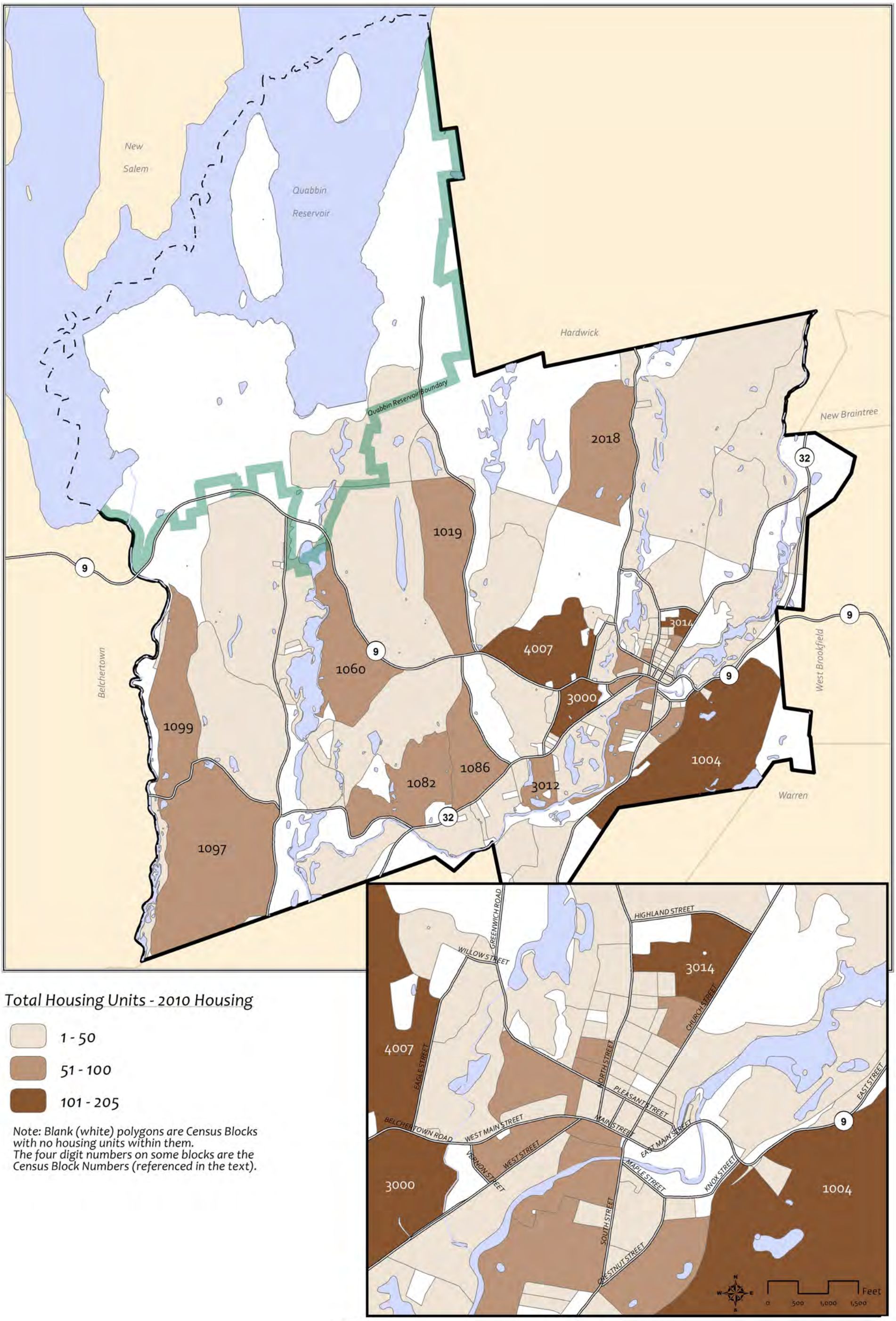


Total Housing Units - 2010 Housing

- 1 - 50
- 51 - 100
- 101 - 205

Note: Blank (white) polygons are Census Blocks with no housing units within them.
The four digit numbers on some blocks are the Census Block Numbers (referenced in the text).

April 22, 2014

Housing

Total Housing by Block - 2010

Sources:
Demographic Data: US Census Bureau (via MassGIS)
Base Data (roads, water, towns): MassGIS

N W E S
0 0.5 1 2 Miles

New Salem

Quabbin Reservoir

Hardwick

New Braintree

Quabbin Reservoir Boundary

Belchertown

Beaver Lake

West Brookfield

Warren

9

32

1069

1078

1092

1023

2021

2040

HIGHLAND STREET

PLEASANT STREET

EAGLE STREET

NORTH STREET

CHURCH STREET

WEST MAIN STREET

MAIN STREET

WEST STREET

SOUTH STREET

CHESTNUT STREET

KNOX STREET

EAST STREET

Note: numbers in polygons are the total number of housing units within that block.

Feet 0 500 1,000 1,500

Vacancy Rate - 2010 Housing

- 0.0% - 15.0%
- 15.1% - 50.0%
- 50.1% - 100.0%

Note: Blank (white) polygons are Census Blocks with no housing units within them.
The four digit numbers on some blocks are the Census Block numbers (referenced in the text).

Sources:

Demographic Data: US Census Bureau (via MassGIS)
Base Data (roads, water, towns): MassGIS

Note: housing data for Blocks 1062 and 1065 were adjusted to correct an error in the census data where units in one block were shown in the other.

Miles 0 0.5 1 2

April 22, 2014

Housing

Housing Vacancy Rate by Block - 2010

among this group was 22.8 percent. One block (3033, bounded by Main, North, Pleasant, and Bank Streets) had a rate of 44.4 percent. All but one of the blocks with vacancy rates of 25 percent or more in this group are located in the greater downtown area.

Tenure: Ownership and Renters

The 1975 Master Plan describes renters as young adults in the phase before purchasing their own home. The assumption was that everyone who was employable would eventually marry and buy a home. At that time, a major planning goal was to ensure conditions conducive to creating enough homes to supply the demand; homes appropriate to the desired community character.

The 1987 Comprehensive Plan focused on "growth management" which was balancing home construction with impacts on natural resources, traffic and infrastructure. By 2004 the *Community Development Plan* voiced strong concern for housing affordability. It mentioned fulfilling affordable housing requirements for residents at or below 80% of area median income (AMI), including how affordability was perceived to be impacting average families.

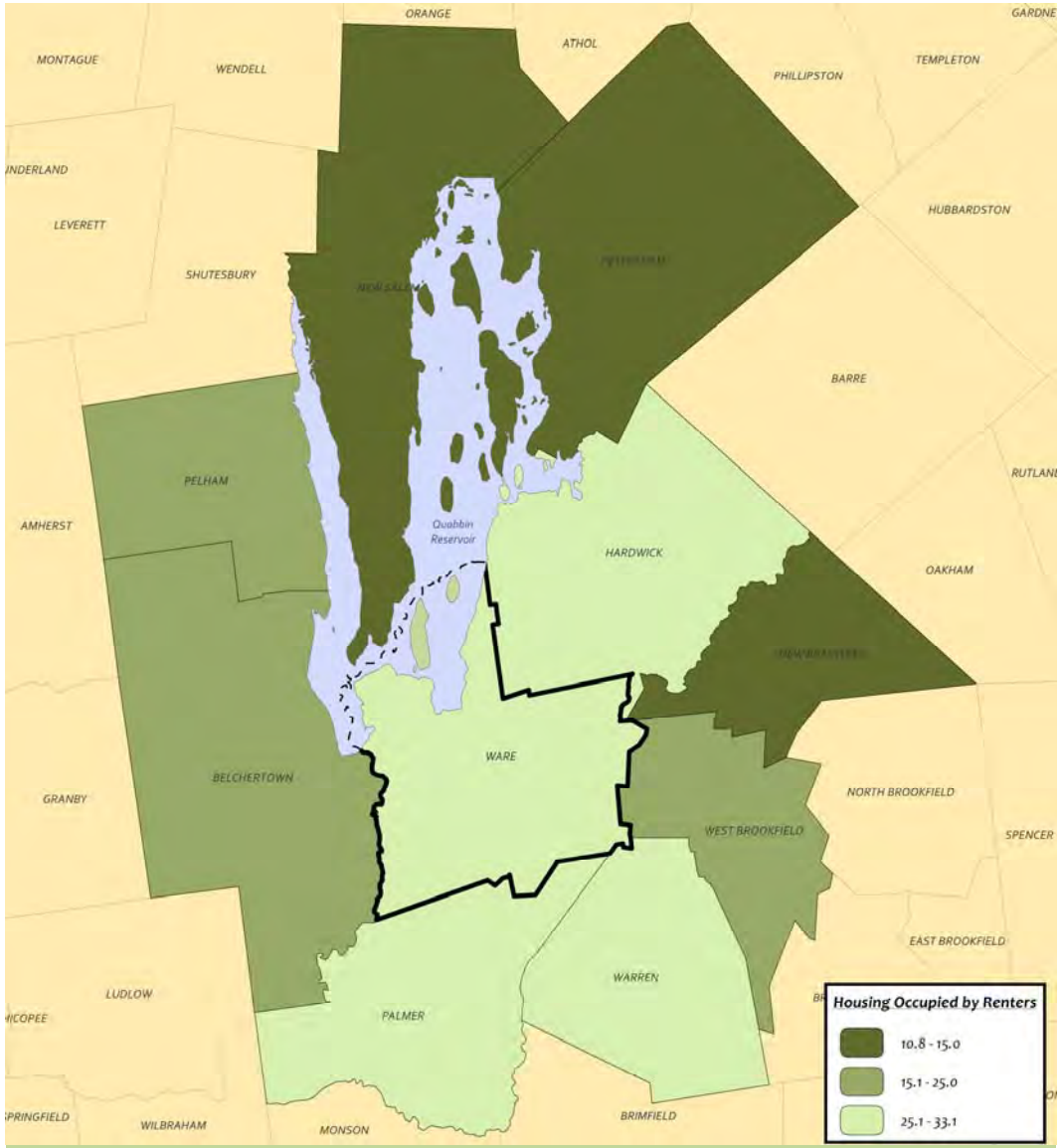


Figure 53: Renter occupied housing in the immediate region.

New issues are beginning to affect the 'starter home' market. A rise in overall housing costs relative to earnings is a national problem. The continuing effects of the 2007 subprime mortgage crisis, slow creation of housing stock due to the recession, along with more stringent criteria for credit, make it difficult for potential home buyers to purchase a home. Additional issues are shaping housing demand in the region including ongoing changes in household composition (smaller families and aging populations), evolving preferences such as the increasing value placed on walkable neighborhoods, and energy efficiency. Ware's current renter occupied rate is 29.7%, among the highest in the region. Warren and Palmer both have similar rates (27.9% and 27.6% respectively), while Hardwick has 36.9% of the occupied housing units occupied by renters. Belchertown is significantly lower at 18.9%. Figure 53 shows how the towns surrounding Ware compare on rental housing units.

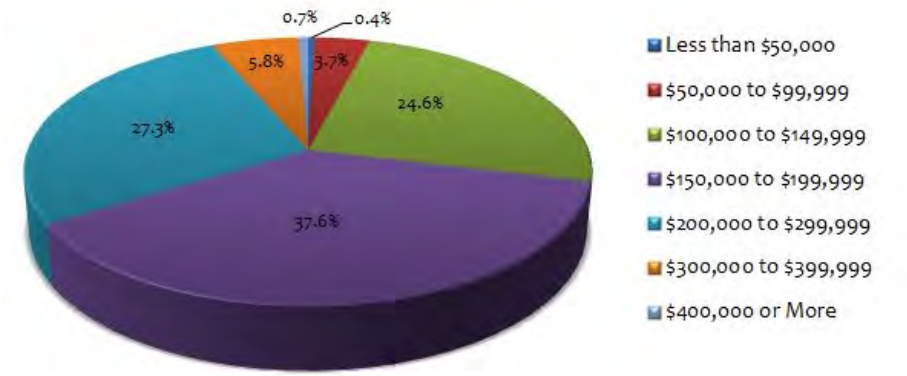


Figure 54: Assessed value of residential properties in Ware.
Source: Ware Assessor data, 2012

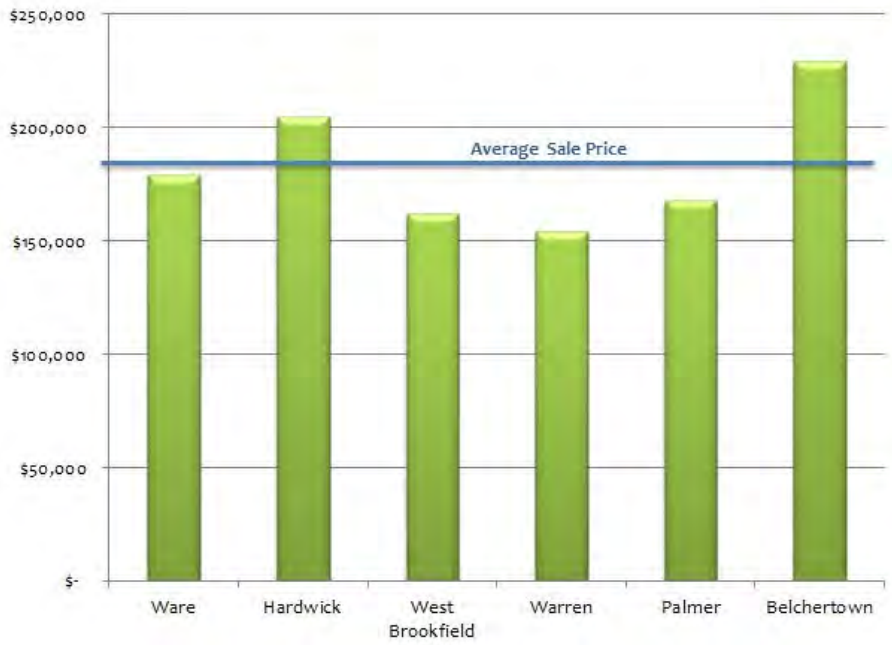


Figure 55: Home sale prices for Ware and abutting towns, 2013.
Source: The Warren Group; Boston Globe article 9/5/2013.

Cost of Housing

There are numerous ways to look at the cost of housing: assessed value, appraised value, sales price, listing price, and self-reported data on US Census Bureau surveys used to produce data in the American Community Survey which provides demographic estimates for the years between decennial census counts. For the purposes of this master plan, several sources are used and are not directly comparable.

Looking at just the town of Ware, and based on 2012 Assessor data, the mean assessed value of residential property (excluding multi-family, anything of three or more units) was $187,120. Figure 54 shows the distribution of property values in 2012. Values ranged from $36,900 to $624,500. Only one property was valued over $500,000, while thirteen were less than $50,000. Ware has 127 manufactured (a.k.a. mobile) homes, many of which have lower values than site built single family homes. Looking at total value, the mean value of a manufactured home property is just under $81,000; compare that to single family home properties which have a mean value of $195,000. However, looking only at building value the mean for manufactured homes is $34,500; for single family properties it is $130,225. An analysis of the data shows no correlation between building value and land value for manufactured home properties; in fact among the 127 parcels, the one with the fourth highest land value also has the lowest building value.

Comparing Ware to surrounding towns (Figure 55), it becomes evident from real estate sales price data that Ware is just below the average for these towns of $182,783. Warren has the lowest median sales price ($154,000) while Belchertown has the highest ($229,000).

Ware's housing niche serves three kinds of households: low, moderate, and higher-income. The 1975 master plan identified this niche and recognized that in-migration of bedroom community residents was drawing people from the region. These people found housing value in Ware due to less expensive homes than the metropolitan area suburbs like Hartford, Worcester and Springfield;

and a desirable setting in exchange for a slightly longer commute. In 1970 half of the heads of household were recent in-migrants to Ware (1975 Ware Master Plan, p. 28). Ware continues to provide a variety of housing options for both owners and renters in the moderate income bracket.

As of 2002, the Town of Ware adopted and supported the Quabbin Subregional Housing Plan. By endorsing this plan, the town is committed to "… make its best effort to create affordable housing units." To measure its success, the town will "… monitor the creation of affordable units on an annual basis." While the number of units to be created is not specific, the town will work to ensure that the number of affordable units created will "… be a reasonable share of the total created." Within the plan, the town identifies specific steps it will take toward implementing its affordable housing goals. These steps include: seek funding for housing rehabilitation; maintain and modernize public housing; identify and access resources to address housing safety and accessibility needs for elders; address the need for smaller units for older residents; and renew investment in multi-family properties.

Income Restricted Housing

Reserved for individuals and families with low to moderate incomes, income-restricted housing receives some manner of financial assistance to reduce the cost of owning or renting the unit. This is often either in the form of a government subsidy, or results from zoning relief for a housing developer in exchange for the income restricted unit. There are two forms of income-restricted housing: public and private. Public income restricted housing is managed by a public housing authority, established by state law to provide affordable housing for low income people. Private income restricted housing is owned and operated by either for-profit or nonprofit organizations which receive subsidies in exchange for renting to low and moderate income people.

Hillside Village apartment building; one example of affordable housing in Ware.

In Massachusetts, state law includes a provision that encourages all municipalities to maintain a minimum of ten percent of the total year round housing stock as units that are restricted to occupancy by households earning 80% or less of the area median income. Commonly referred to by the law's legal reference, Chapter 40B (the Comprehensive Permit Act), it is a state statute enabling the local Zoning Board of Appeals (ZBA) to approve housing developments under flexible rules through the issuance of a Comprehensive Permit. Typically a developer will construct a housing development at higher densities than otherwise permitted by zoning in exchange for a minimum of 25 percent of the units being restricted under long-term legally binding agreements, and those units are subject to affirmative marketing requirements to such households. If the ZBA denies a Comprehensive Permit and the community has less than ten percent of its housing consisting of income-restricted housing, then the developer has the right to appeal to the Massachusetts Housing Appeals Committee to override the local denial.

The Massachusetts Department of Housing and Community Development (DHCD) maintains a Subsidized Housing Inventory (SHI) that lists all income-restricted housing developments and their units for each municipality. The SHI also includes group homes, which are residences licensed or operated by the Department of Mental Health or the Department of Developmental Services for persons with certain disabilities and who do

not require continuous medical or nursing care. It should be noted that units or developments on the SHI are self-reported to DHCD, and the burden is on the municipality to verify that the listed number of subsidized units in their community is correct. As mentioned above the target for each municipality is ten percent of the total housing stock. This is calculated based on the most recent decennial census count of housing units.

The 2010 census reported 4,539 year round housing units, so Ware's target for income restricted housing units is 454. As of December 2014, Ware's SHI includes 421 units, or 9.3 percent. Of these units, 140 are restricted in perpetuity, including Valley View, Weir River, and the Church Street School Elderly Housing development. This leaves 281 units that have restrictions that will expire: 72 within the next six years, 111 in 2033, and another 80 in 2043. Most of the 72 units set to expire in the short term are owner occupied units that were included under older practices of DHCD, they are units that were part of the Community Development Block Grant Housing Rehabilitation Program and technically should not have been included. DHCD is no longer including such units but chose not to penalize communities by removing all such units at once, instead they are allowing the units to remain on the SHI until the end of the fifteen year period of the deferred payment loan for the unit.

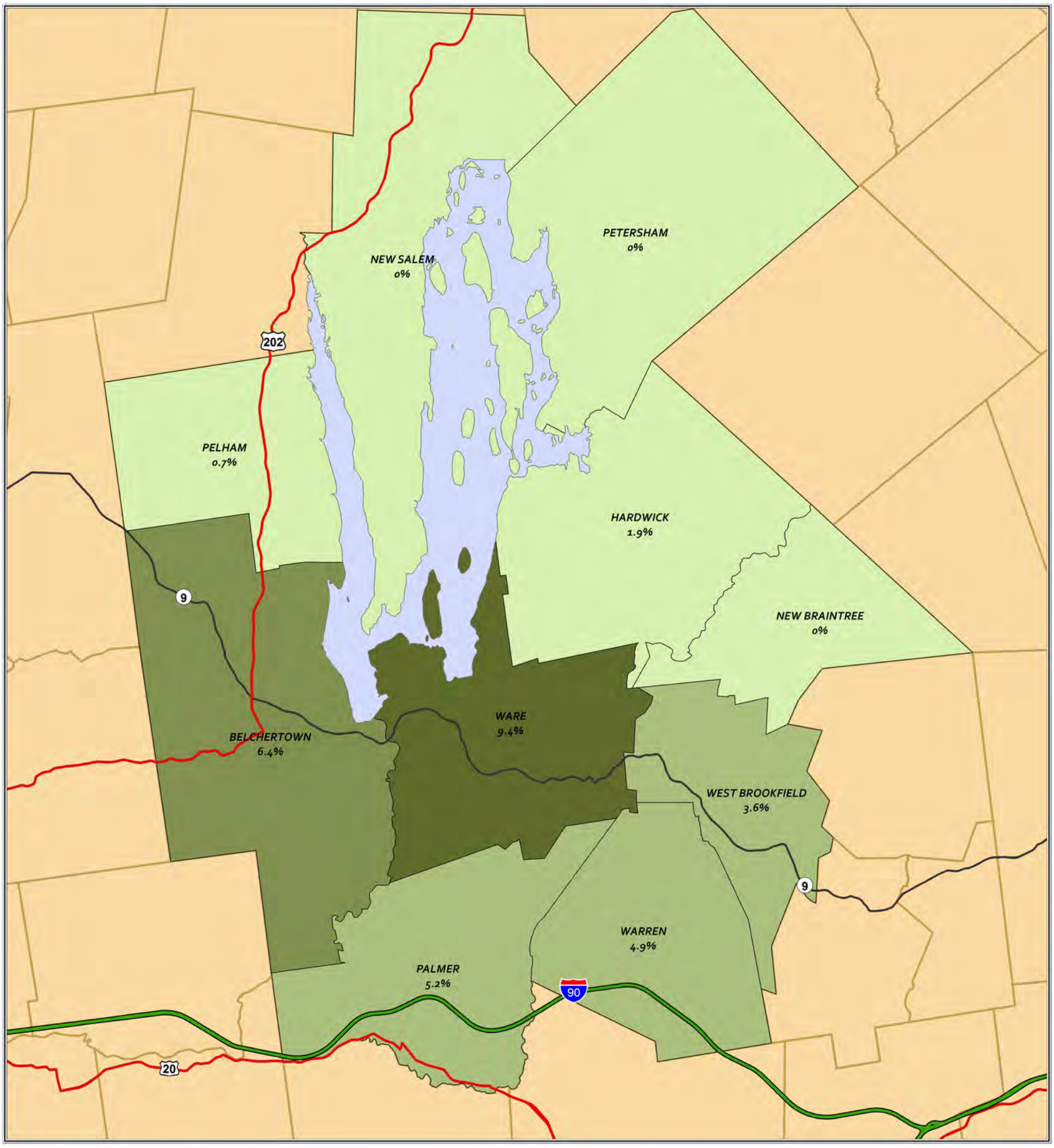
Thus, Ware's SHI percentage will continue to decline each year unless new restricted units are constructed. It is estimated that, without new units added, the percentage will be around 7.7 percent by 2021, 4.4 percent by 2033 and only 3.2 percent by 2043. Many people in Ware have expressed surprise at these figures, given the relatively high percentage of low to moderate income households as reported in the census data. The critical factor is whether the unit has a legally binding restriction which ensures that only households meeting the income limits can occupy the unit. While there are many housing units that appear to be affordable to low and moderate income households, most are not so restricted.

Among the units on the SHI, as of the end of 2014 39 are owner-occupied single-family units rehabilitated using the CDBG funded housing rehabilitation program, 13 are rental units rehabilitated through the same program, 18 are in group homes, 20 are "Section 8" units, and 331 units are in five housing developments: Valley View, Weir River, Highland, Hillside, and the Church Street School. Presumably, the rest of the households earning below 80% of AMI are able to find housing on the open market. If Ware desires to maintain control over land use decisions such as the location of higher density housing developments, then efforts need to be made to achieve and maintain ten percent of its housing stock as income restricted units .

In comparison with surrounding towns, Ware has the highest proportion of households (owners and renters) who are extremely 'cost burdened', paying 35% or more of their income for housing (over 18% of homeowners and over 45% of renters). Housing affordability, and housing insecurity, is a real concern as it likely undermines the self-sufficiency of a significant number of households. The situation is exacerbated by low levels of affordable housing stock in adjacent communities.

Looking at this from a regional perspective, Ware has the highest percentage of units on the SHI, as shown in the map and table in Figure 56. Belchertown, which has the highest number of year round units in these towns, has the second highest number and percentage of restricted units, followed by Palmer. Half of these towns have fewer than two percent of their housing stock as restricted units. Challenges faced by rural towns in Massachusetts in providing affordable housing include population shifts (more elderly, fewer young people), economic shifts and job losses, income stagnation, geographic isolation and lack of public transportation, lack of high speed internet access, and lack of water and sewer infrastructure[1]. While providing affordable housing on a regional basis would make sense from many points of view, under the Comprehensive Permit Act it is unrealistic since each municipality is judged on its own. Currently such collaborative efforts require special acts of the Legislature.

[1] *White Paper of Rural Housing Issues in Massachusetts, Dec. 2014; Massachusetts Housing Partnership.*



Subsidized Housing Inventory

- 0-3%
- 3-6%
- 6-9%
- Above 9%

The subsidized housing inventory (SHI) is a listing of the housing units in a municapality that have a long term or permanent affordability restriction that ensures occupancy by households which have an income at or below 80% of the area median income, as defined by the US Dept. of Housing & Urban Development (HUD) and adjusted for household size. MGL chapter 40B essentially requires that all municipalities have a minimum of 10% of the year round housing stock restricted for occupancy by low and moderate income households. To be counted on the SHI, a unit must meet a number of criteria, most importantly that there is an enforceable restriction which runs with the land and is on record at the registry of deeds.

Town	2010 Census Year Round Housing Units	Target to Reach 10%	SHI Units	Percentage (Target 10%)
Ware	4,539	454	425	9.4%
Hardwick	1,185	119	22	1.9%
New Braintree	386	39	0	0.0%
West Brookfield	1,578	158	57	3.6%
Warren	2,202	220	108	4.9%
Palmer	5,495	550	284	5.2%
Belchertown	5,771	577	372	6.4%
Pelham	564	56	4	0.7%
New Salem	433	43	0	0.0%
Petersham	525	53	0	0.0%

Source: MA Dept. of Housing & Community Development, SHI as of Dec. 5, 2014

Sources:
SHI: DHCD, Dec. 2014
Base Data (roads, water, towns): MassGIS

N W E S
0 0.5 1 2 3 Miles

February 24, 2015

Housing

Affordable Housing in the Immediate Region

Housing Authority: Serving Elderly, Disabled, and Low-Income Residents

Established in 1974, the Ware Housing Authority's mission is to "remain committed to working cooperatively with community, state, federal and local officials, to provide decent, safe, and affordable housing to the citizens of Ware, in an atmosphere of dignity and respect." Today, the 3-member Ware Housing Authority is overseen by an executive director. The Housing Authority utilizes the Massachusetts National Association of Housing and Redevelopment Officials (NAHRO) central state-wide list, while still giving preference to Ware residents. The Chapter 40B housing inventory in Ware consists of units for the elderly and disabled, a DMR group home, one homeownership unit and a variety of unrestricted housing types in various neighborhoods. Currently, they provide 86 units under the Chapter 667 program for elderly and disabled residents, 25 units under the Chapter 705 program for family housing, and 61 vouchers through the Section 8 program that provides rental assistance for eligible households renting non-subsidized units.

The 2012 American Community Survey reported 1,377 persons with disabilities in Ware (14% of the total population). The Town of Ware has an active and vocal ADA Commission. As a result of a 1994 ADA Self-Assessment and Transition Plan, they have worked tirelessly to make public facilities handicap accessible including Town Hall, schools, library, park facilities and restrooms, and the town pool. Residents with other disabilities (impaired hearing and vision for example) have been assisted through CDBG supported housing rehabilitation, adult education and fuel assistance programs. The Pioneer Valley Transit Authority (PVTA) contracts with Hulmes Transportation for paratransit services within the Town of Ware. Fourteen percent (14%) of the population may not seem like a large group, but this is higher than the national average of 12%. When one considers Ware's residents with disabilities as well as Ware's 2,066 senior citizens (age 60 and over, 2010 decennial census), the number of Chapter 667 units (86) is inadequate. Coupled with an acknowledged shortage of 55+ housing options in Ware, housing for these people is an aspect that demands further examination and action - the town needs more housing options and more units for this population.

Out of the population who may qualify for family or income-restricted housing, 15% falls below the poverty line. The 2012 American Community Survey recorded 2,718 families living in Ware of which just over 300 (11% of families) were below the poverty level. Considering there are only 25 Chapter 705 units and 61 existing rental-assistance units it would appear that there is also insufficient housing available for Ware's income-restricted population.

As stated in the 2014 Pioneer Valley Housing Plan, Ware has no facilities for Assisted Living, Supportive Housing, or Continuing Care. This is on par with a region that is largely lacking available affordable housing in general. In the entire Pioneer Valley, there are only 19 Assisted Living facilities, with a median of 8 units per town in the Valley. There are only two Supportive Housing facilities in the region, in Chicopee and Westfield. Generally, supportive housing provides tenants with access to affordable apartments and to the resources they need to stay housed and healthy. Residents pay a fraction (generally one-third) of their income toward rent and are provided on-site access to a support network of professionals to help them overcome challenges that left them homeless in the past. The median number of total public housing units in the region is 82; Ware is just above the median for communities in the Pioneer Valley, at 86 units.

In addition to the lack of Supportive Public Housing, Ware also does not have a homeless shelter. This, together with being a rural community without a staffed housing authority, makes it difficult to collect data on homelessness. However, according to past research, homelessness is an issue in the Pioneer Valley Region. In the 2010 Hunger in America Local Report prepared for the Food Bank of Western Massachusetts, 10% of those served by the Food Bank identified themselves as homeless.

Cluster Housing in Ware

Ware has made significant findings in the past decade assessing the housing needs of its residents, including that Ware must identify innovative methods to increase the affordability of its housing stock (Ware Community Action Plan 2009). Those housing initiatives should also help diversify the housing stock in order to serve individuals in all stages of life. One technique that could help to address these issues is clustered housing provisions where individual lot sizes and other dimensional standards may be reduced in exchange for the preservation of permanently protected open space, recreational land, forests, or farmland. Using land more efficiently can benefit both the economy and the environment. The main benefits of this tool are:

- *Protects open space:* Effective cluster zoning often results in the protection of 50% or more of a site as open space. The town can choose which types of open space it wishes to protect (farms, greenways, etc.), and use cluster zoning to help protect this land permanently through easements or other mechanisms.

- *Design flexibility:* Allowing for greater flexibility and creativity in the design of residential subdivisions results in developments that have fewer impacts on the land - cutting fewer trees, less earth grading, etc.

- *Saves money:* Site development costs for cluster developments can be 25-50% less than for conventional developments, depending on the site, design, and infrastructure needs. Where roads are accepted as public ways, costs to the town to maintain the public infrastructure is reduced because there is usually less to maintain.

- *Amenities:* Cluster zoning can be used to protect scenic vistas, augment regional conservation lands and natural habitats, provide land for new recreational facilities, or create a link in a town-wide trail system.

- *Environmental compatibility:* By using varied lot sizes and frontages, and by utilizing shared septic facilities, cluster development can be more compatible with the site's topographic, soil and vegetation characteristics.

- *Preserves local character:* Protects existing rural landscape and scenic views by preserving undeveloped frontage along existing roads and encouraging development that is out of view from the roads.

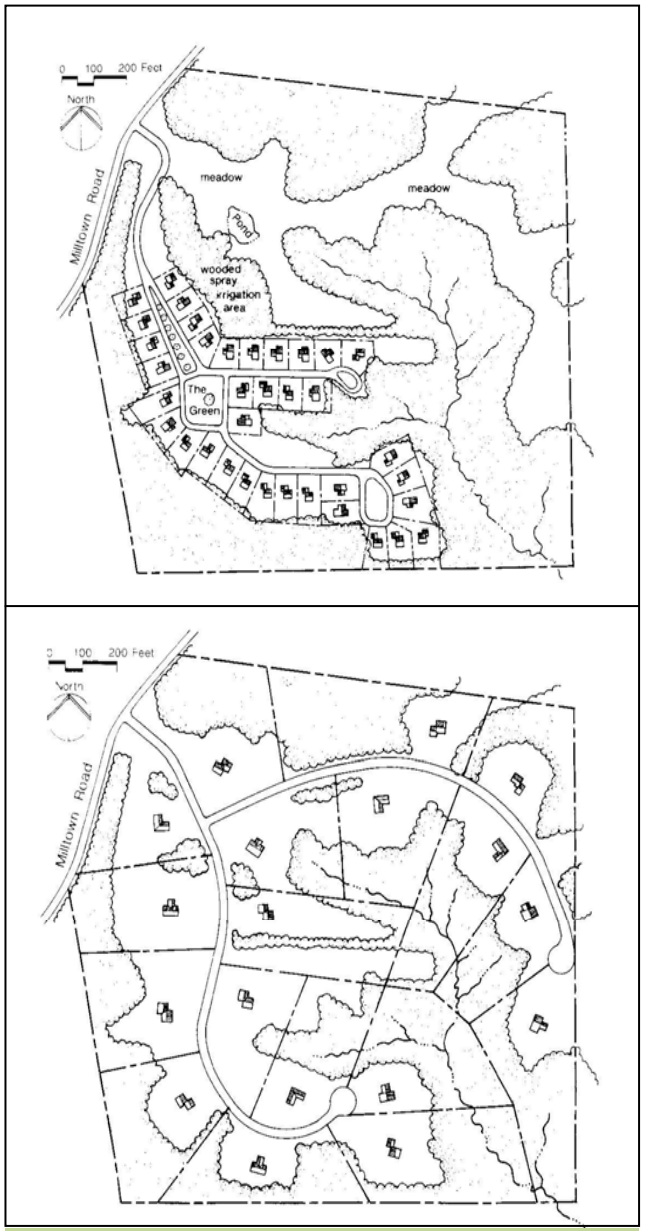


Figure 57: Cluster design (top diagram) allows the same number of housing units as a traditional subdivision on a tract of land, using significantly less land area for the housing and preserving more useable open space.

Ware adopted Flexible Residential Open Space Development (FROSD) in 2006 to provide an opportunity for developers to utilize clustered residential design (Section 4.8.1 of the current zoning bylaw). It is currently allowed by-right in the RR (Rural Residential), SR (Suburban Residential), DTR (Downtown Residential), and RB (Residential Business) districts. It is intended to provide an alternative to landowners who want to develop land for residential use more efficiently than a standard subdivision and preserve open space at the same time. The current FROSD provisions allow single and two-family dwellings, or, for residents aged fifty-five years or older, multi-family dwellings may be built. The number of allowable units is the same as what could be approved in a standard subdivision and varies depending on which zoning district it is located in. Recreational as well as agricultural and conservation uses are encouraged, and infrastructure elements may be located within common open space areas. Unlike a standard residential subdivision, the lot size is not related to the State Environmental Code Regulating Septic Systems (Title V) requirements, since wastewater management facilities are not required to be located on the same lot as the residential structure.

Ware's cluster zoning bylaw is written to permit flexible site use in order to maximize the area conserved and encourages "creative designs… that respect the natural features and topography of the tract." Ware's FROSD bylaw applies to a minimum tract of ten acres, with a minimum 100 feet of contiguous frontage; and setback/buffer of 40 feet from all property boundaries. There are no minimum lot sizes or setbacks within the development boundaries. These allowances provide much of the "flexible" component in the FROSD, allowing for design creativity that can maximize open space and reduce infrastructure costs and impacts.

Currently the bylaw requires 50% of the total tract to be preserved as open space, with a preference for this land to be contiguous. In order to preserve the open space created by the FROSD, or cluster development, the bylaw requires this portion of the land to be deed-restricted. The common open space may be owned by either a homeowners association, the Town of Ware Conservation Commission, or a land trust. The bylaw only requires that this land be accessible to all residents of the development.

Ware has many areas with large amounts of open space that have great potential to be developed using cluster design rather than traditional subdivision development. However, landowners have not yet taken advantage of the FROSD provisions, for several reasons:

- Ware's provisions do not allow any density bonuses; the maximum number of units achievable under FROSD is the same as allowed in a standard subdivision.
- The requirements may be viewed as complex, particularly since a developer is required to design a standard subdivision first in order to determine the number of allowable units.
- The minimum tract size is relatively large for the areas of town closer to the public water and sewer infrastructure.

The state's Smart Growth Toolkit provides examples of ways that the town's FROSD regulations might be improved. One example is reducing the current requirement of 50% of the property being preserved as open space. A successful example of cluster development in Amherst preserved only 35% of a 26 acre tract as open space, but created public access and trail connections which enhanced the value of the preserved land. Other bylaws have a low minimum open space requirement, but offer incentives such as a density-bonus for more land preserved.

Another improvement to the current Ware provision would be to reduce the minimum tract size (currently 10 acres). This would create possibilities for infill development in areas closer to the center of Ware, such as the Downtown Residential and Suburban Residential zoning districts. A reduced tract size might also encourage smaller development firms to utilize this tool.

One of the main disincentives to using Ware's current cluster regulations is that they do not offer increased densities for certain public benefits such as protection of more or better quality open space, public access to open space, trails, or rivers, provision of some housing units specifically for low to moderate income residents, or other similar benefits. By offering such density bonuses, developers may be able to increase the number of homes they can build to a point where the economics of the development make sense. Even though the linear footage of infrastructure such as roads and drainage systems are usually lower than for a conventional subdivision, the overall costs of cluster housing in rural areas without access to public water and sewer systems can still be high. By allowing more housing to be built, the town would be providing an economic incentive to using this more creative design tool.

In considering adjustments to the existing FROSD regulations, it is important to bear in mind the town's goals. For example, it has been noted through the public outreach that Ware does not have a great enough diversity in housing types - there is a need for smaller new single family detached homes on small lots, as well as for housing designed for elderly residents. Also, if the amount of required open space was reduced, it would be important to ensure that the quality of the land, or the resource it provides, is worth such a compromise. Any cluster zoning must allow the town to weigh quantity against quality, and provide tools to negotiate for maximum community benefit. Ware may potentially improve the quality of housing by using this kind of development. FROSD is a powerful tool to help the town further its goals of protecting open space and maintaining rural character, while still encouraging growth.

Future Build-out

In 2002, the Massachusetts Executive Office of Environmental Affairs (EOEA) sponsored the creation of build-out analyses for all municipalities in the Commonwealth. These were done by analyzing the developable land (i.e. land not constrained by steep slopes, floodplain, wetlands, already developed, permanently protected, etc.) in the municipality and applying the zoning in effect at the time. The assumption was made that all such land would be developed with the maximum number of housing units or non-residential structures allowed by the zoning. The build-out analysis provides a glimpse into current and potential future development in Ware (Table 4). At the time of the analysis, there were 13,025 acres of developable land in Ware. The EOEA analysis used Ware's population, housing units, and use of municipal services at the levels in the year 2000, and projected future levels if all of the developable land in town were to be developed. The analysis projected a total population of 27,848, nearly three times the current population, and more than 7,000 additional housing units. Total water use in gallons per day would double, and the analysis projected that 9,306 tons of solid waste would be produced per year. It also projected an additional 115 miles of new roadways. The analysis did not attempt to predict when this would happen; based on recent trends, clearly it would be a very long time. This analysis serves as a signal that the town has the opportunity to plan ahead to control it's future growth - the purpose of this master plan.

Table 4: Build-out Analysis

	2000	At Build-out	Difference
Population	9,727	27,868	18,141
Housing Units	3,800	10,886	7,086
Additional Commercial/Industrial space			904,365
Total Water Use (gpd)	1,149,449	2,645,691	1,496,242
Residential Water (gpd)		1,428,415	
Commercial/Industrial Water (gpd)		67,827	
Total Solid Waste (tons/yr)		9,306	
Non-Recyclable Waste (tons/yr)		6,618	
Recyclable Waste (tons/yr)		2,688	

Economic Development – Where We Work and Shop

5

Economic Development is an essential component of any community's plan for prosperity and growth. For many small New England communities, there is growing recognition that a single economic factor, like the introduction of a large new employer, may not materialize to dramatically transform the town. Instead, communities are looking to identify, and then market, their strongest assets for economic stabilization. This includes supporting their existing business communities, optimizing their infrastructure and strengthening their workforce with education and training. For Ware, this includes creating a vision for the future by capitalizing on natural resources and investing in the image that is projected to the public. It means establishing an identity that is uniquely Ware.

The business community in the town of Ware was once a thriving mill town, proud of its robust manufacturing industry. Although Ware is proud if its roots, business has shifted to a town comprised of many industries, none of which present an obvious symbol or unifying identity the way the mills once did. However, the town possesses all of the necessary components for economic revitalization:

- an established downtown with room for new businesses
- an underutilized mill yard complex
- Baystate Mary Lane Hospital
- Quabbin Reservoir and the Ware River
- hundreds of acres of protected green space
- an able and ready workforce, and
- Being a regional hub serving many of the retail and service needs for a much larger population.

Figure 58: Main Street in the early 1900s (left) and today (right).

Throughout the Master Plan process, it is critically important to establish a sense of place and to work with businesses and business institutions to construct a strategy that stabilizes and enriches a business community which is already so much a part of Ware's culture and character. Business owners whose families have maintained businesses in Ware for generations remember what their downtown looked like in the 1950s and 1960s. They believe that Ware is poised for growth that will help their businesses succeed, with the right planning, marketing, and support from the town.

Background

Ware's business community has shifted from a once thriving manufacturing hub, to a town with a variety of industries. Between 2000 and 2010, the manufacturing industry's share of employment in Ware (the percentage of townspeople the manufacturing industry employs) dropped from 20% to 12.1%. During this timeframe other industries in town have seen fluctuations in their employment share.

Two of the three major sectors that employ more than half of Ware's employed population - Educational Services/Health Care/ Social Assistance (26.6%); and Retail Trade (15.2%) - are also among the industries that have seen growth in their employment share: Educational Services/Health Care/Social Assistance; Public Administration; Finance and Insurance; Real Estate/ Rental/Leasing; and Retail Trade (Figure 59).

It is important to note that these industries with the fastest growing share of employment, are also the industries that pay the least in wages. Jobs in the retail trade industry pay a fraction of the average salary than the manufacturing industry. What this means, is that while "big box" stores, home improvement centers, and retail pharmacy chains continue to dot the landscape in Ware, they are not providing sustainable job creation that residents require. It also means that although the manufacturing industry has less of a presence here, the jobs it offers continue to be competitive.

In addition to the introduction of box stores, between 2001 and 2011, the town welcomed 42 other new businesses to the community; 15 of which opened at the height of the recession between 2008 and 2011. In 2010, 75 percent of businesses in

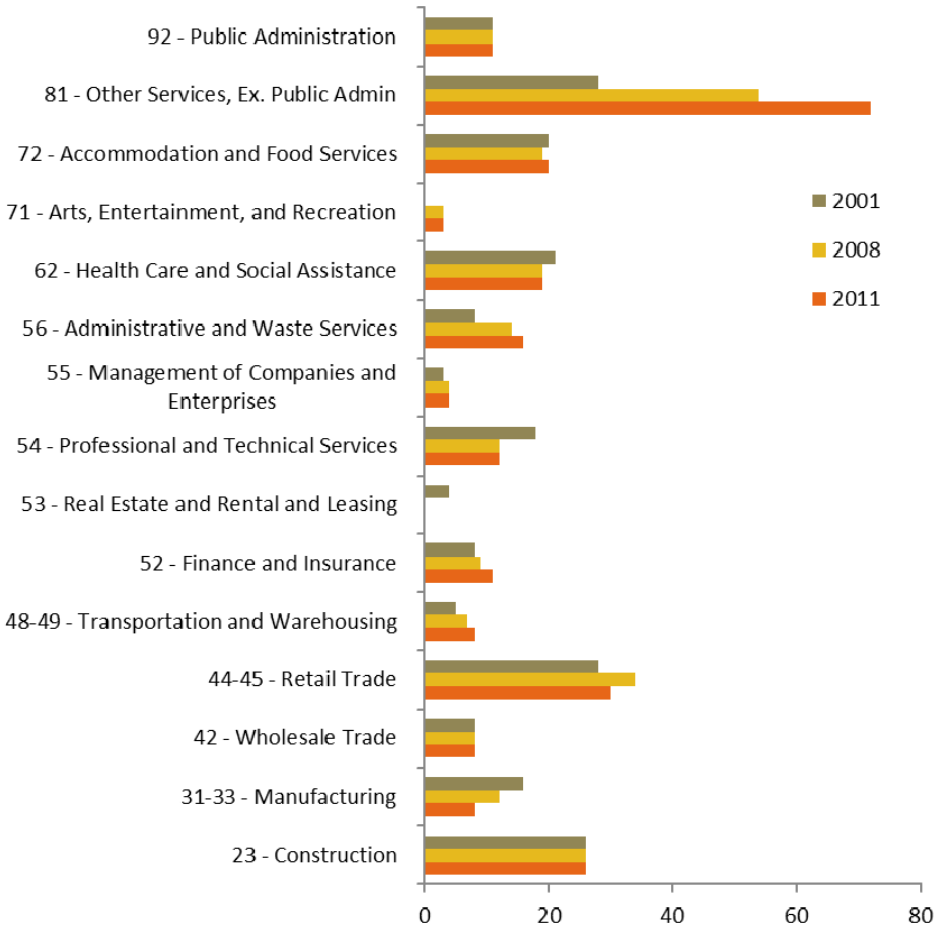


Figure 59: Number of establishments in Ware by industrial classification.

Ware employed between 1 and 9 people; 55 percent of those employed between 1 and 5 employees. Therefore, based on these data and anecdotal information from the business institutions that support them, it is inferred that the majority of businesses in Ware are small, family-owned and operated.

All of these factors contribute to a business community that has changed over the years as much as it has stayed the same. The town of Ware and the business community within it continue to be self-contained. Businesses continue to be opened by families and residents in town, and in some cases, the children and grandchildren of other local business owners. For the most part, the faces are the same, the process is the same, and the size of the businesses is the same: small businesses for a quintessential small New England town.

However, the industries that these small businesses represent are more varied than ever before. It remains unclear if the needs of local businesses have changed as a result, and if those needs are being met by the local and regional business institutions that exist to support them.

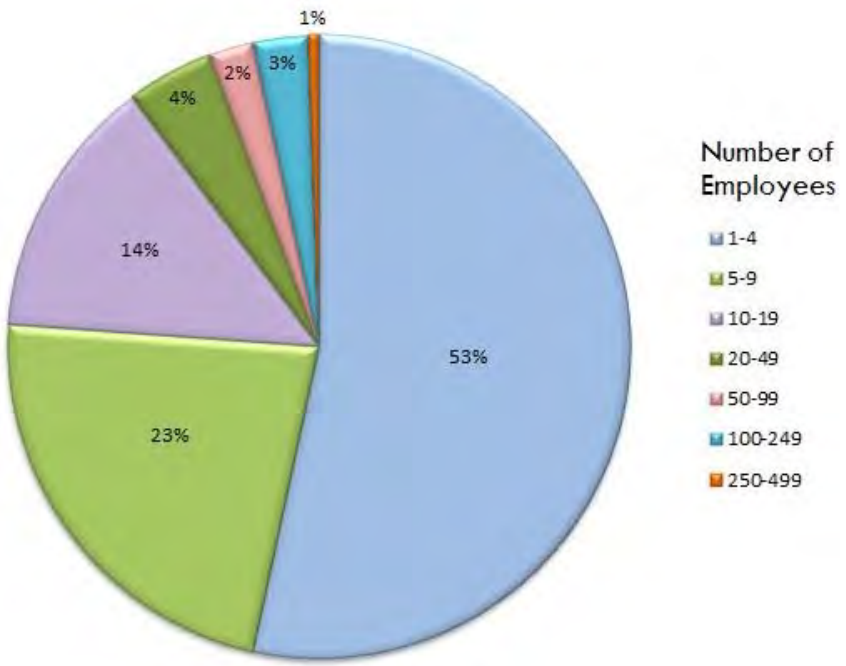


Figure 60: Number of FTE (full time equivalent) employees at Ware businesses, 2010. There are no employers with 500 or more employees in Ware.

Local Employment and Local Business Profile

Employment and Wages data from the Massachusetts Executive Office of Labor and Workforce Development (EOLWD) shows that the total number of establishments in all industries has increased in the last ten years. Ware has gone from 212 establishments in 2001, to 256 in 2011, which demonstrates a stable business base. Growth in the number of establishments does not necessarily mean growth in the economy, but it shows the capability of the local economy to face challenges during a recession, since from 2008 to 2011 fifteen (15) establishments were added to the local economic base.

Changes to industry classification shows an increase in the number of local establishments in industries such as Finance and Insurance; Transportation and Warehousing; Retail Trade, Management of companies and enterprises; Administrative and Waste Services; and Other Services (except Public Administration), following the trend in the region and the state, as already mentioned. Although there is not aggregated data to explore details about "Other Services", it is important to note which services are included such as: Repair and Maintenance; Personal and Laundry Services; Religious, Grantmaking, Civic, Professional, and Similar Organizations; and Private Households. Many of these services are small businesses, including self-employment, that have between 1 and 5 employees. In 2010, those small businesses represented 55% of the establishments in the local economy (based on data from the County Business Pattern, US Census Bureau).

According to the U.S. Census Bureau, only six percent (6%) of Ware businesses have 50 or more employees. Census data combined with EOLWD data on the town's largest employers, infers that most of those establishments are in industries such as Educational Services and Health Care and Social Assistance; Retail trade; Finance and Insurance, and Real Estate and Rental and Leasing; and the Large Manufacturing employer (Kanzaki Specialty Papers, Inc.).

Business and Customer Activity Downtown

In 2013, Ware's Main Street business climate was the subject of further study as an independent Masters project by Christina Mills, a UMass Department of Landscape Architecture and Regional Planning student. As part of the scope of this project, a downtown boundary (Figure 61) was drawn with help from local government and the Ware Business and Civic Association (WBCA). The agreed-upon boundary spanned the majority of the Downtown Commercial zone, and included parcels spanning from the Quaboag Valley Community Development Corporation at the western end to the Fitness Factory mill building at the eastern end.

The project collected comprehensive data on the commercial activity of downtown Ware and used three different surveys to gather said data: a business census, a commercial properties survey, and a customer survey.

Business Census and Survey

This research was used to provide a depiction of the existing business climate in Ware (2013). The Business Census designed by Mills sought to ascertain specific details about the businesses on Ware's Main Street including:

- business type
- services provided
- building ownership
- cost of rent
- square footage of space
- number of employees
- date of establishment
- customer base
- impacts of the economic downturn
- marketing efforts, and
- personal details of the business owner

At the time of the survey (2013), within the 60 parcels in the downtown there were 74 businesses, 8 vacant units, 4 parking lots, and 17 addresses which were unidentified in the course of the survey. The Census was initially distributed online after Mills collected email addresses from businesses in-person. After disappointing online results, it was discovered that most businesses in Ware do not use the internet or check email; those that did use the internet were still using a dial-up modem to connect. Mills then distributed paper copies to 58 businesses (81% of the downtown business) and 34 of these businesses completed the survey (47%). Later, the WBCA succeeded in getting three more businesses to respond to the survey, for a total of 37 of the 74 businesses. It should be noted that many of the respondents skipped at least one question.

At the time of the survey, the following collection of businesses made up downtown Ware: 2 banks, 3 storefront churches (and 1 parish), 4 social workers, 3 law offices, 2 liquor stores, 3 dance studios, 1 gym, numerous offices (including real estate, tax collection, insurance, accountants, medical and dental care and educational services, newspaper office, and Ware Community Television), 6 cosmetic/salon services (including 2 hair salons, a nail salon, 2 massage/spa services and an electrologist), 6 dining establishments (including 1 diner, 2 pizza parlors, 1

Figure 61: Downtown Ware study area.

bar, and 2 lunch/dinner restaurants, 1 with a liquor license), numerous retail (including a florist, a gift shop, a men's clothing store, a children's clothing store, and a jewelry store), and civic uses including Town Hall, the Young Men's Library Association, and the Police Station. In addition, there are two town-owned open spaces, Veterans Park on the west end of Main Street and Nenameseck Square with its fountain on the east end of Main Street.

The last part of the Business Census asked businesses how they felt commerce had been affected by the 2007/08 recession. More than half (55%) noted no discernable change and 32% actually felt their business was doing better. 13% felt that the downturn hurt business. Yet, when asked

about the economic status of their business today compared to what it was four years ago, 43% said it was worse, 21% said it was the same, and 36% said it was better. Many proprietors shared that they felt they had to lower prices in order keep their customer base and to stay in business.

Most of the survey respondents rent commercial space downtown (69%), but 31% own the property where they work. The businesses surveyed largely reported employing between 1 - 4 full time employees and 1 - 4 part time employees, which is consistent with the 2010 Census data (Figure 60, page 3).

The majority of the businesses that were surveyed are long standing businesses in Town, having been opened from between 10 and 70 years. Only 7 participating establishments had opened after 2008 (5 years at the time of the survey). The business community in downtown Ware is very established and entirely local. Respondents cited a variety of reasons for establishing a business in Ware, including they are from Ware (53%), affordability (23%), and proximity within the region (19%). Among their reasons for opening in the downtown specifically (as opposed to other areas in Ware) were accessibility (57%), desire for a store-front location (48%), and affordability (35%).

Survey results revealed that downtown Ware is primarily a weekday downtown. Of the 32 participants who responded to the question, almost all reported being open Monday through Friday. Only 53% of respondents have Saturday hours and only 38% reported being open on Sundays. Additionally, 37% of businesses were open in the evenings. Perhaps because most businesses are open during the mid-morning and afternoon, 56% of respondents stated that these were their busiest times. During this timeframe, 18% cited serving as many as 10 - 19 customers, and 21% cited serving as many as 20 - 29 customers .

Commercial Properties Survey

Thirty-six (36) individuals or entities own the 60 parcels in downtown Ware. Worth noting is that 33% of these parcels are owned by just five entities. Mills successfully contacted 44% of the owners who, between them, owned 63% of the downtown parcels. The WB&CA contacted the owners of an additional fourteen properties, covering a total of 36 of the 60 parcels, or 60%. Of these respondents, 62% indicated their property was occupied by office type establishments, 43% retail spaces, and 9% were restaurant spaces. Based on a separate GIS analysis, 63% of all of these 60 parcels are classified as commercial; they cover 68% of the land area in the downtown, and 71% of these commercial parcels are represented by a survey response. Seven percent of the parcels are a commercial/residential mix, and none of those owners responded to the survey. Parking lots occupy 12% of the parcels covering 9% of the land area, and 71% are represented by a survey response (including both public and private parking lots, but not including parking areas that are on the same parcel as a building).

Since most of the businesses in the downtown rent their commercial space, the survey also collected information on rental costs. 26% of commercial structures were rented for $400 - $600 per month, 21% were rented for $600 - $800 per month, 11% were rented for $800 - $1,200 per month, and 42% indicated rents of higher than $1,200 per month. Property owners ranked the factors which they considered when establishing a rental range; the two most important were square footage and property location, followed by availability of off-street parking, structural condition, and competing rents. The least considered factor was on-site amenities. When asked how they identify and attract tenants, 55% of the eleven commercial property owners who answered the question said they get their tenants through advertisements and referrals; 27% through networking, and 18% through real estate agents.

Customer Survey

The next component of the research was a Customer Survey. Using samples from the Massachusetts Downtown Initiative, Mills developed a survey which was available on the websites for the town and that of the Ware Business and Civic Association. It was also printed, distributed, and replaced weekly with blank surveys, at several downtown locations (D&D Fitness Factory, Wilton's Children's Outlet, Otto's Florist, Nat Falk Men's Clothing, Villa's Restaurant, Ware Café, the Young Men's Library Association, and Town Hall). It was also distributed at the Ware Senior Center outside of downtown. Over 300 Customer Surveys were collected; pinpointing consumers' shopping habits and preferences. The first portion of the survey focused on demographic information which identified existing local commercial trends related to age, sex, and household size. Not surprisingly, since more than two-thirds of consumers in the country are female, the study specifically focused on responses from female residents, aged 30-49, as they represented the largest population responding to the study.

Figure 62 shows sixty-four percent (64%) of resident respondents reported visiting the downtown at least once per week; 33% visited the downtown daily, and 41% said that they visited the downtown weekly. 7% reported visiting downtown once per month and 7% twice per month, and 13% reported visiting the downtown less than once per month.

Survey results also showed the frequency of visitors from out of town who access downtown Ware (Figure 63). 32% (only 1% less than Ware residents) reported accessing the downtown every day. 27% reported visiting the downtown every week, 18% reported visiting the downtown once per month, 13% reported visiting less than once per month and 10% reported visiting the downtown twice per month. According to this data, nearly 60% of the visitors to downtown Ware who participated in the study are consistent downtown consumers. This data also suggests that the downtown is serving a very specific population who access it for the same purposes daily or weekly and that it is accessed infrequently by everyone else.

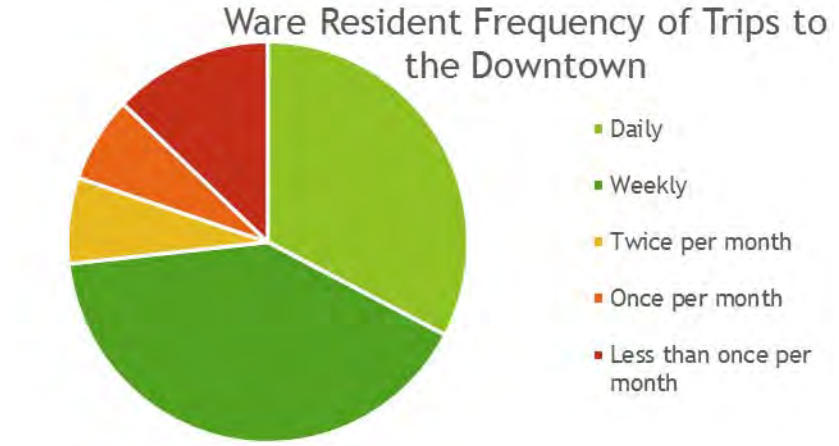


Figure 62: Residents' frequency of trips to Ware's downtown.

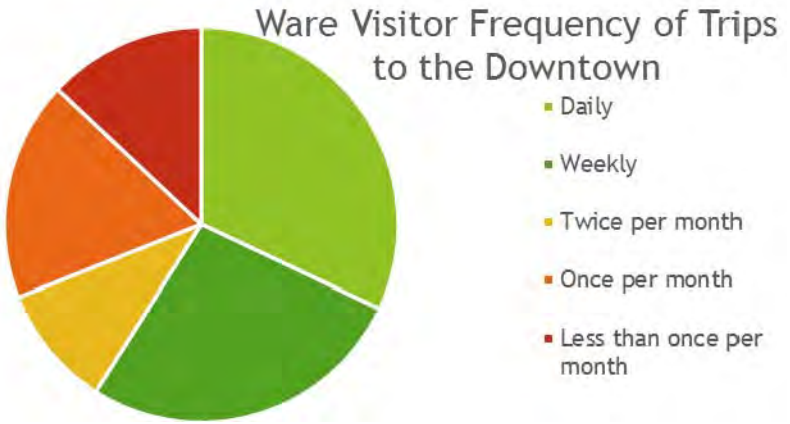


Figure 63: Visitors' Frequency of trips to Ware's downtown.

Of the 304 total respondents, 53% reported accessing the downtown for banking needs; 52% for dining; 8% for education; 18% for medical care; 27% for office visits; 17% for recreation; 13% for religious services; 39% for shopping; and 20% for salon services. According to the survey, both male

and female Ware residents access the downtown for similar purposes. In general, it appears that more women than men frequent downtown, but both genders access the area most frequently for banking, dining and shopping.

There was slightly more variation when the age distribution of resident respondents was examined. Excluding the 'Under 19' demographic, banking, dining and shopping continue to be the biggest attractors for every age group. Beyond these needs, younger demographics (20-34 year old residents) use Ware's downtown predominantly for recreation (22%). Respondents in the 30-49 year old age bracket reported mostly accessing the downtown for office visits (25%); 31% for respondents aged 50-54. 42% of resident respondents aged 50-54 also reported accessing downtown for salon services.

For residents between the ages of 55-65, downtown Ware seems to be providing many of the goods and services they utilize: 21% reported accessing the downtown for medical care; 25% for office visits. An additional 25% of resident respondents over the age of 65 reported accessing the downtown for office visits; 21% for medical care and recreation; and 43% for salon services.

An average of 27% of Ware residents, and 32% of visitors, reported accessing the downtown for office visits (Figure 64). This suggests that offices located in downtown Ware provide services to the broader Quabbin Region. The data collected emphasizes that downtown Ware is serving the needs of its aging population yet falling short of meeting the needs of younger residents.

When asked about how they access the downtown, respondents consistently reported that Ware does not have sufficient public transportation (data supported in the *Transportation* section). Therefore, it is not surprising to learn respondents reported using public transit or taxis. The primary method of accessing downtown was driving (94%). 4% of respondents reported riding a bicycle, most of whom also indicated at least one other mode of transportation (typically driving). 13% indicated walking, however, almost two-thirds of these respondents also indicated driving as another method.

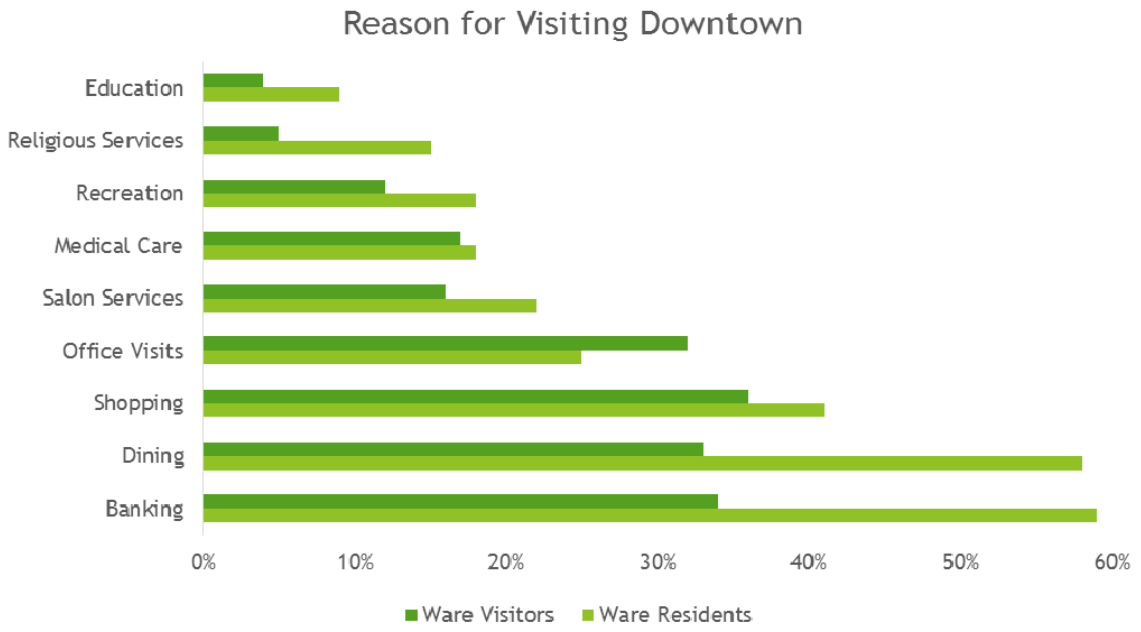


Figure 64: Reasons for accessing Downtown Ware.

When asked about the time of day they access the downtown, 25% reported visiting the downtown in the early morning; 47% in the mid-morning; 46% in the afternoon; 34% in the late afternoon; 43% in the evening and 14% at night. Based on this survey, women specifically tend to visit the downtown during the mid-morning (54%) more than men (37%). Men are more likely to visit the downtown in the late afternoon (39%) compared to women (31%).

The largest subgroup of respondents, residents aged 35 – 49, reported accessing the downtown in the evening more than any other group (57%). By contrast, resident respondents over the age of 65 reported accessing the downtown in the mid-morning, above any other subgroup (65%); resident respondents aged 55 - 65 reported accessing the downtown in the afternoon more than any other subgroup (55%).
Consumers were asked "what new stores would attract you to shop in the downtown area?" (Figure 65).

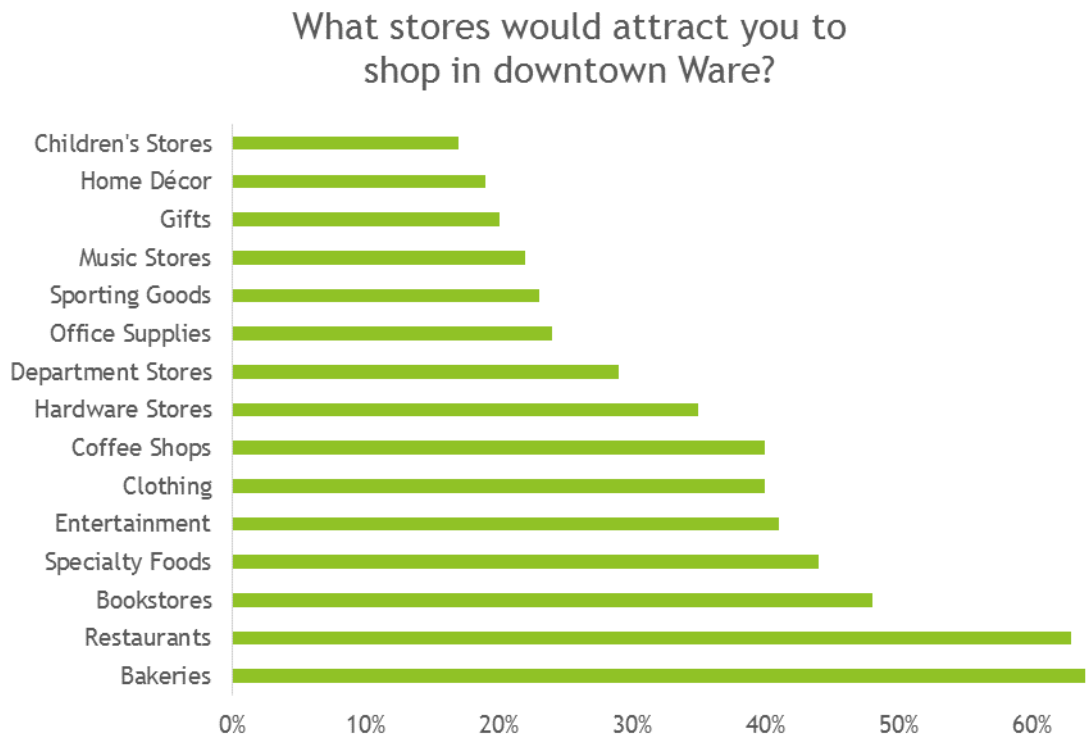


Figure 65: New businesses that would likely attract survey respondents to Downtown Ware.

The largest number of respondents (64%) indicated a desire for bakeries, restaurants (63%), and bookstores (48%). The least requested new businesses were music stores (22%), gift shops (20%), home décor (19%), and children's stores (17%). It is worth noting that every age and gender sub-group indicated the greatest preference for a bakery, a restaurant, a bookstore and a specialty food shop. The least requested business development was also shared across the demographics: gift shops, home decor, music stores, and office supplies.

The final questions of the Customer Survey had respondents rate statements on a scale of 1-5 (1 being strongly disagree, 5 being strongly agree). 48% of respondents strongly agreed or agreed with the statement "Businesses in the downtown are open during hours that are convenient for me." 18% disagreed or strongly disagreed; 34% were neutral.

Seventy-eight percent of respondents disagreed or strongly disagreed with the statement "There is enough variety of retail stores in downtown". Only 7% agreed and 14% were neutral. Half of the respondents disagreed or strongly disagreed with the statement "The quality of goods/services available is ideal." 19% strongly agreed or agreed and 32% were neutral.
Finally, respondents scaled their opinions on downtown parking. The first question, "Parking in the downtown is available and accessible", nearly half (48%) Strongly Disagreed or Disagreed with the statement 28% Strongly Agreed or Agreed with the statement, 24% remained neutral. The second question, "Parking impacts my decision about where to shop", 27% of respondents Strongly Disagreed or Disagreed, and 56% Strongly Agreed or Agreed with the statement and 17% remained neutral.

2004 Business Survey

As part of the Town's most recent Community Development Plan, a different survey of local business owners was conducted. Although this survey was completed in 2004, the downtown commercial area still struggles with similar challenges today. The 2004 survey gathered data in order to strategize about drawing and retaining adequate business in Ware. Based on survey results, the Ware Community Development Plan Committee determined that Town Center Revitalization Projects would improve the conditions of the central business district. Proposed improvements included façade enhancements and economic incentives to attract viable long-term commercial ventures to Ware's downtown. Other initiatives were to encourage infill development, reuse the abandoned mill complexes, and provide "incubator space" for start-up businesses.

The Community Development Plan Business Survey was conducted by phone in January 2004. Of the businesses surveyed, the majority defined themselves as a local or regional business. Two of the respondents served national and global customer needs. A significant number of these businesses had been established for more than 15 years. Four of the businesses surveyed had been established for 100 or more years. Respondents operated their businesses from a variety of venues including homes, commercial strip centers, office complexes, the downtown commercial district, industrial mill sites and along the roadside.

Then and now, employers in Ware supply a variety of employment opportunities for residents and the surrounding region. Ware businesses employ anywhere from 1 up to hundreds of workers. Several of the 2004 respondents had seasonal businesses and as a result employee counts varied. The majority of those surveyed said their employees live in Ware and neighboring towns. Two of the businesses interviewed indicated that their workers had trouble affording housing in Ware.

The survey asked if Ware business owners had difficulty hiring competent employees. Nine of the respondents did not have trouble hiring qualified employees. However, seven businesses answered that they did have difficulty hiring qualified employees and cited several reasons including: Employees with a poor work ethic; inadequate educational, professional or skill training; inability to compete with the pay scales of bigger businesses; difficulty maintaining a consistent employee base; and, in seasonal operations, employers often had to hire and re-train employees.

Nine business owners interviewed were unaware of workforce development programs in the area that might provide employee training. Six respondents knew of workforce development programs including: the Department of Employment and Training (although no center is located in Ware), Valley Human Services, Inc. (a program of the Carson Center that provides wellness and educational programs to individuals and families),

the Quaboag Chamber of Commerce (provides loans, constructive business advice and tools, and cross-training services), and Pathfinder (a regional technical school in Palmer).

Of the sixteen businesses surveyed in January 2004, 8 predicted that they would grow 25% in the next five years, 4 projected growth of 50% and 2 projected growth of 100% or more. Various expansion plans included capital projects such as expanding or renovating existing floor space, building structural additions, opening new businesses at other locations, and purchasing additional machinery.

Other expansion plans involved strategies to increase the number of customers and sales through advertising or expanding service offerings. When asked if they would remain in Ware if their business were to outgrow the present site, 6 of the respondents indicated they would relocate to a site outside of Town. Most of the surveyed businesses said they would not relocate to a central downtown business site. Businesses that indicated they might consider downtown sites, would relocate only if drive-by traffic and parking was sufficient to support them. Only one business thought that transportation of goods would become a problem if they expanded due to the large amount of trucking already employed by the company.

The surveyed respondents initially located their businesses in Ware for a variety of reasons including the incentive of purchasing inexpensive property with ample opportunity to develop, little direct same business competition, and buying existing and established businesses located in the community. When asked if they considered Ware a "business friendly" place a variety of responses were noted (Figure 66). Owners who felt the Town was business-friendly indicated these reasons:

- positive relationship with elected officials and public administrators
- available real estate in town
- available labor in town
- a noted resilience in poor economic times
- good area schools and hospitals
- central location between Springfield and Worcester

Figure 66: Assets which make Ware a business friendly community.
Source: 2004 Community Development Plan Business Survey

Business owners felt that local features such as rural qualities, recreational areas such as the Quabbin Reservoir and the Ware/Hardwick covered bridge, and historic features like the Millyard District were also assets. Despite a marked lack of public transport, most business owners felt that Ware was accessible due to access from multiple highways and a location proximate to railways.

Business owners who felt Ware was *not* business friendly indicated that they felt Town officials were adverse to certain businesses which had, in the past, created legal and financial hardship in some cases. Some respondents felt that Walmart had negatively impacted small businesses which struggle to compete with the buying power of large chain stores. Others suggested better management of economic development by

town government including advertising the Quabbin Reservoir and Ware's covered bridge as tourist attractions. Other limitations that respondents felt inhibited local business in Ware centered around what they viewed as a lack of cohesive long-term planning for economic development; in particular they cited legal issues around zoning. Employers stated that in spite of the available labor force, a lack of educated applicants made it difficult for them to hire employees. Infrastructure concerns over sewer, public transportation, and downtown parking rounded out the list.

In an assessment of needed technological and physical infrastructure improvements, new business start-up space, and parking in the Downtown Commercial District ranked highest with 10 or more respondents identifying them as a priority. Other important infrastructure improvements according to this survey were streetscape (sidewalks, streetlights, street trees and plantings), improved cell phone service, high-speed internet access, and traffic signals.

The business owners surveyed in 2004 provided the following suggestions for improving economic development, some are still relevant for the current Master Plan process:

- Maintenance for parks is under-funded
- Need better comprehensive land use/environmental planning (to assess impact of rapid housing development on municipal services and traffic)
- Professional Town Administrators should advise non-professional elected officials
- Political battles in town government are wearing on the community
- There is a need for the Town to pool resources for Ware's aid agencies, creating a collective team and primary funding source
- Respondents felt the amount of Section 8 and low-income housing was putting a strain on services and schools, even though the Town is actually below the government mandated level of affordable housing.

2014 - Business Development Plan

In 2014, the Edward and Barbara Urban Foundation awarded a grant to the Town of Ware for an extensive business development plan that included four elements: community visioning, community identity/branding, wayfinding, and a business development plan. The highlights of the business development plan are included here; the full document is available for review from the Town.

The research done for this plan was based on zip codes, which do not match town boundaries in this area (see Figure 67). Zip codes are a common way to analyze economic data, since it is a common geographic identifier that consumers have and is easily obtained by retailers. The US Census Bureau also analyzes data based on zip codes in addition to their own geographies (block, block group, and census tract). The reader is cautioned to keep in mind that the town names used in this section do not reflect the town geography, but rather the zip code geography.

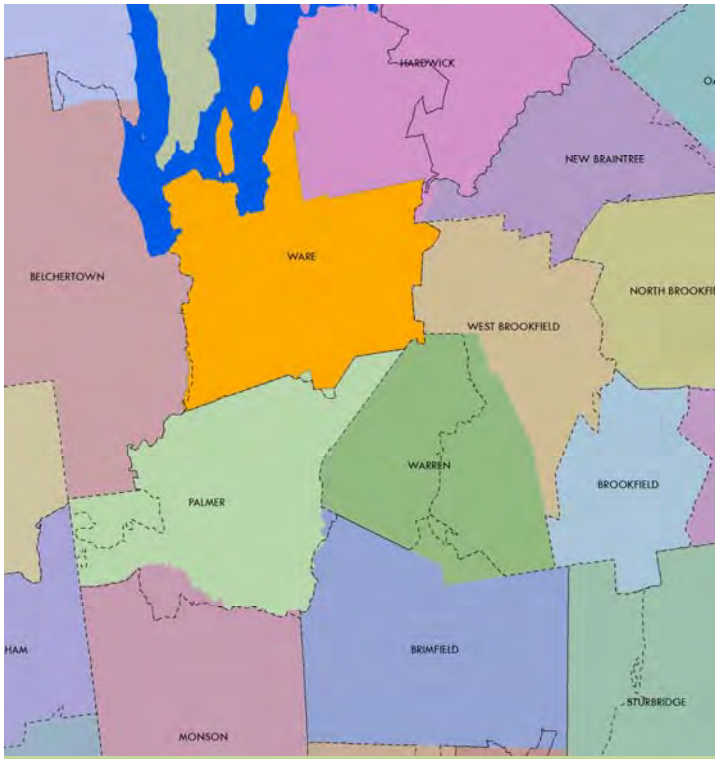


Figure 67: Zip Code boundaries (dashed lines) do not match the town boundaries (colored polygons) in many cases in this area. Note, the Zip Code boundaries shown on this map for Warren are incorrect (data source is ESRI & TomTom, 2013).

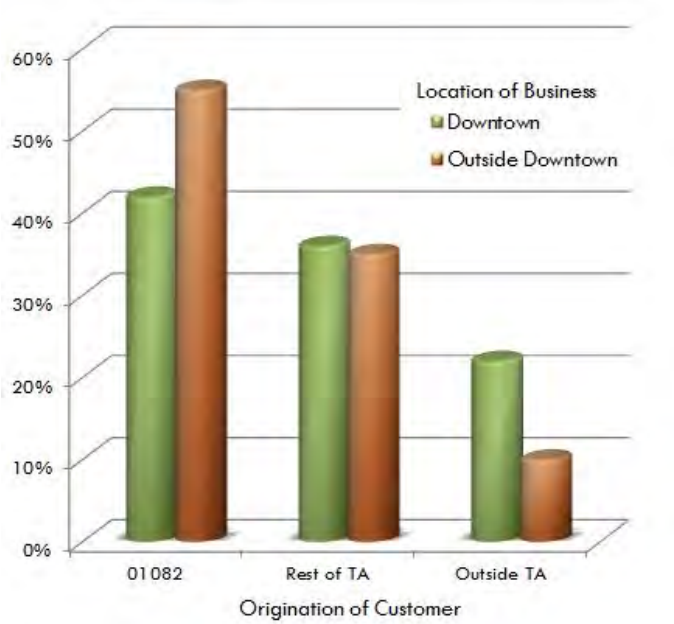


Figure 68: The relationship of the location of a business to the origination of their customers.
Source: Arnett Muldrow & Associates, 2014

This plan included a survey of customers of businesses in Ware who were willing to participate in a Zip Code Survey. The survey was held the week of October 16 through October 22, 2014. Thirty-three businesses participated and represented a cross section of those in Ware including restaurants, clothing, personal care, jewelry, auto service, auto dealer, textile outlet, appliance, antiques, banking, finance, sporting goods, general merchandise, pharmacy, electronics, and gift shop. A total of 3,593 individual customer transactions were recorded, for an average of 109 per business. These customers came from 137 unique zip codes in 14 different states.

An analysis of the data showed that 51% of the customer transactions were for customers who live in the 01082 zip code - all of Ware plus a portion of Hardwick. Outside of this zip code, market penetration is fairly evenly spread across the surrounding zip codes. In all, 84% of the transactions were with customers living in Ware and the surrounding towns. All but 2.3% of the transactions were from people in Hampshire, Hampden, and Worcester Counties.

Figure 68 shows that businesses located outside of Ware's downtown had more customers from the local zip code than those from other locations either within the trade area (TA) or elsewhere. Customers originating from outside the 01082 zip code conducted more business in downtown businesses than in businesses outside of the downtown, while customers originating within the local zip code seemed to prefer businesses located outside of the downtown. Ware's customer base varies by business type and location. Overall, retail establishments have the broadest overall market in terms of business type, whereby nearly a quarter of their customers come from outside of the immediate region. Similarly, downtown has a broader overall market than businesses outside of the downtown. Twenty-two percent of downtown customers live outside of the immediate region.

This study also identified a Primary Trade Area (PTA) and a Secondary Trade Area (STA); both are the locations where the majority of customers originated for the zip code survey. The PTA for Ware is the 01082 zip code, which again includes all of the town of Ware and a portion of the town of Hardwick. The STA includes six zip codes to the east, including Hardwick (01037), Gilbertville (01031, a village within Hardwick), New Braintree (01531), West Brookfield (01585), Warren (01083), and West Warren (01092, and is a part of the town of Warren). Customers from these six zip codes represented 23 percent of the total in the survey. There are four additional zip codes where enough customers originated to consider them together as a "tertiary" trade area. These include Belchertown (01007), Palmer (01069), Monson (01057), and Barre (01005). However, it must be noted that the major retailers located near the Palmer town line did not participate in this zip code survey, and it is likely that the number of customers from Palmer who visit Ware businesses is significantly higher than represented in this survey.

Conclusions of the market definition portion of this study:

- Ware has a local oriented market; 51% of customers live in the local zip code (01082), which is the primary trade area, and an additional 25% live in the secondary trade area.

- Ware's main trade areas reach out generally to the east, and serve a population base of approximately 27,000 residents.
- The configuration of the primary and secondary trade areas is somewhat out of the ordinary, where the trade areas cover a broad geographic area and a total of seven zip codes, with just the "local" zip code being the primary trade area.
- Ware's market is likely affected by the Quabbin Reservoir to the north and the Massachusetts Turnpike located in Palmer to the south which provides easy access to areas with more businesses such as the Springfield metro area.
- Ware does have decent penetration into nearby competitive markets of Palmer, Belchertown, Monson, and Barre. This tertiary trade area represents 13% of the market, and adds another 50,000 population that is relevant to Ware businesses.
- Just 2.3% of Ware's customers come from outside of the three counties of Hampshire, Hampden, and Worcester. This visitor base is extremely small and uncommon in similar communities, but also confirms Ware's strong local customer base.
- Downtown Ware, on the other hand, does see nearly a quarter of its customer base residing outside of the local trade areas.

Arnett Muldrow & Associates also completed a retail market analysis, in which they studied the "retail leakage," which refers to the difference between the retail expenditures by residents living in a particular area and the retail sales produced by the stores located in that same area. If desired products are not available within that area, consumers will travel to other places or use different methods to obtain those products. Consequently, the dollars spent outside the area are said to be "leaking." If a community is a major retail center with a variety of stores, it will be "gaining" rather than "leaking" retail sales.[1] Based on this analysis, it is clear that Ware's primary trade area (zip code 01082) gained $21 million in sales in 2013, while the secondary trade area (zip codes 01083, 01037, 01031, 01531, 01585, and 01092) leaked $185 million, for a combined trade area leakage of $163 million.

Based on this and other retail analyses done, Arnett Muldrow & Associates concluded that the data bears out what others have previously concluded: Ware truly is a retail center for this region, particularly for products in grocery, general merchandising, and home center stores. With 27,000 people in the primary and secondary trade areas and another 50,000 in the tertiary trade area, the analyses show there is significant demand for new businesses in select categories. Ware has an opportunity to capitalize on being the retail center of the area and increase the offerings in restaurants, hardware stores, lawn & garden centers, furniture and home furnishing stores, clothing stores (particularly family and women's clothing), and specialty stores such as electronics, jewelry, sporting goods, hobby, etc. In addition, there is demand for nearly 11,000 square feet of general merchandising coming from the secondary trade area and a new "dollar" store could do well here - or in one of the STA towns.

The Route 32 Corridor

Route 32 is a primary corridor between Ware and the adjacent communities of Palmer, New Braintree and Hardwick, and it provides connection to Route 90, the Massachusetts Turnpike for access to points both east and west such as Boston and Springfield. As such, it is a major transportation route for both commuters and transportation of goods and materials for businesses in town. The corridor is also included in the limited PVTA public transit service to Ware. It is also the location of the majority of commercial businesses in Ware. With these two purposes, the corridor (especially south of downtown) is critical to not only the transportation network but more importantly to the economic health of the town.

[1] *Arnett Muldrow & Associates LLC, Visioning, Branding, Wayfinding, & Business Development Plan, 2015 (page 18)*

Existing development along Route 32 includes a mix of residential and commercial properties. North of downtown, along Gilbertville Road, land uses are a mix of residential, small commercial businesses, a church, industrial uses (energy), and agricultural uses. Parcels are generally large, resulting in a rural quality to the corridor. South of downtown, the land uses are quite varied and include dense residential development, strip commercial development in the stretch from CVS to Cumberland Farms (Figure 69), the public school campus, and Gibbs Crossing (Walmart and Lowe's) shopping plazas toward the southernmost end of the corridor. Interspersed throughout are many single family homes as well as small businesses of various types.

Figure 69: Strip commercial development along Route 32.

Zoning along this corridor has proven somewhat problematic for many years, as there has been a desire to keep the residential uses yet allow commercial growth - in a corridor setting such as this, such a mix of land uses is a very difficult balance to maintain. Traffic on Route 32 presents problems for residents living along the road, including noise, air pollution, and difficulty getting in and out of their driveways safely. Current zoning, from north to south, includes the Rural Residential and Residential Business districts north of Route 9 and the downtown, and the Highway Commercial, Residential Business, and Commercial Industrial districts south of downtown. The biggest challenge in determining future land use (and zoning) along this corridor is reconciling the different goals and aesthetics of residential, small business, and highway commercial uses.

Several previous plans have targeted the Route 32 corridor as a focus area for various kinds of future development. For example, the 2001 plan *Guiding the Future of Ware* identified the corridor, along with Route 9, as a potential receiving area for transfer of development rights. Given the weak market today, transfer of development rights may not be an appropriate solution for Ware at this time, but it could be a useful tool if development interests increase. Furthermore, this suggestion indicates awareness among the community that Route 32 has certain attractive qualities for future commercial and high density residential growth. In particular, if a major resort or entertainment development were to locate in a nearby community (such as Palmer), the new Commercial/Industrial zone at the southern end of Route 32 is ideally situated to accommodate increased growth. Given the increasing commercial nature of the area surrounding the Gibbs Crossing Plaza on Route 32, there is the possibility that some adjacent residential uses will convert to commercial uses in the near future as homeowners may have strong incentives to sell their properties to commercial developers. This could lead to consolidation of parcels into large tracts more suited to commercial development.

In 1992 a limited scope study was done on the Route 32 corridor and while much of the data is outdated, some of the concerns and conclusions remain valid today. This study focused on the West Street/Palmer Road section from the downtown to the Palmer town line, and only examined traffic, water, and sewer infrastructure. At the time (pre-Gibbs Crossing), water service was provided throughout the corridor and was a concern town wide given capacity issues. Since then additional wells have been developed and the water system no longer poses any constraints to development within the corridor. The sewer system at the time stopped at the school campus and there was little support for extending it

south. However, with the development of the Lowe's store at Gibbs Crossing, the sewer system was extended with community support through a tax increment financing agreement with the owner. At that time, the existing Walmart store was connected and it's septic system abandoned. There is a need for extending the sewer system into the neighborhoods adjacent to Route 32, where many septic systems have failed over the years. However, at this time there is little interest of the general public for such extensions due to the cost.

The study suggested that traffic concerns could be adequately dealt with through mitigation requirements for high traffic generator developments, and recommended that site plan review be required for all commercial development in the corridor, and that traffic impact studies be required for all new development generating 100 trips per day or more. The town did require such a study when the Gibbs Crossing development was proposed, but the results of that study did not indicate any mitigation needed outside of the new entrance, where a traffic light was installed.

However vital to the sustained health of the downtown, an increase in development along Route 32 has the potential for significant negative impacts. The first are typical impacts of high traffic areas, including noise, exhaust, and congestion, which have already become a nuisance to residents along Route 32 south of downtown. The increase in large-scale commercial growth along Route 32 near Gibbs Crossing has caused concerns for the business community as well: the 2004 *Community Development Plan* stated that: "There is a continued interest in retail development and the recent arrival of a Walmart is spurring economic growth in the southern part of Town along the Route 32 corridor… Though the arrival of the Walmart has no doubt benefited many in the community, some small business owners are struggling to compete with the buying power of the superstore" (p 18).

Ware maintains a strong base of small businesses and in order to retain a diverse mix of employers and enhance the viability of the town's commercial areas, it is crucial to mitigate the impacts of large-scale commercial uses and create environments which support small businesses. Additionally, the neighborhoods near the Route 32 commercial district provide housing to many of Ware's residents. While increased commercial development is expected, there are ways to balance commercial growth with the preservation and strengthening of residential uses. Striking a balance will further the ideals of Ware's quiet, small-town community while accommodating greater growth to support economic development.

Potential Economic Revitalization Partners

Business institutions, particularly lending institutions and nonprofits, must be involved in any long-term strategic plan for economic revitalization in Ware. As part of the 2012 UMass project, interviews were conducted with stakeholders which confirmed that there are many local businesses, organizations, and regional partners that are committed to the effort. However, it became apparent that there is a disconnect between the way Ware's businesses perceive themselves, each other and the business institutions that exist to support them, and the way in which the business institutions perceive the business community.

Regional Entities

Ware and surrounding towns are served by three regional non-profit organizations which provide assistance to businesses and people starting new businesses: the Quaboag Hills Chamber of Commerce (QHCC), the Quaboag Valley Community Development Corporation (QVCDC), and the Quaboag Valley Business Assistance Corporation (QVBAC). Figure 70 shows a map of the area served by these three organizations.

The mission of the Quaboag Hills Chamber of Commerce (QHCC) is "to be an advocate for economic growth in the region through the development, promotion and advancement of business and to be the leading advocate for business and community development in the Quaboag Hills Region by providing members with a voice in political, social and economical issues" (QHCC, 2012). The organization has approximately 280 members and employs two full time staff. Eighty-five percent (85%) of their member businesses have between 1 and 5 employees. The three towns with the most involvement represent almost half of their member businesses: Ware (13%), Palmer (20%) and Monson (12.5%).

Member services include:

- Organized business networking events
- Meetings, seminars, forums and workshops for improved business performance and opportunity for members to share best practices/challenges/successes
- Business exposure
- Bi-monthly newsletter
- Annual Resource Directory (both alphabetical and subject listings)
- Searchable online member directory
- Business promotion (via online coupons) and eligibility to advertise job postings on the Chamber's website
- Quaboag Hills Home and Business Showcase: annual trade show held each spring that is open to the public
- Annual events including an Annual Meeting & Dinner, Quaboag Hills Expo, Golf Tournament, Awards Dinner, and Legislative Breakfasts
- Legislative support and advocacy.

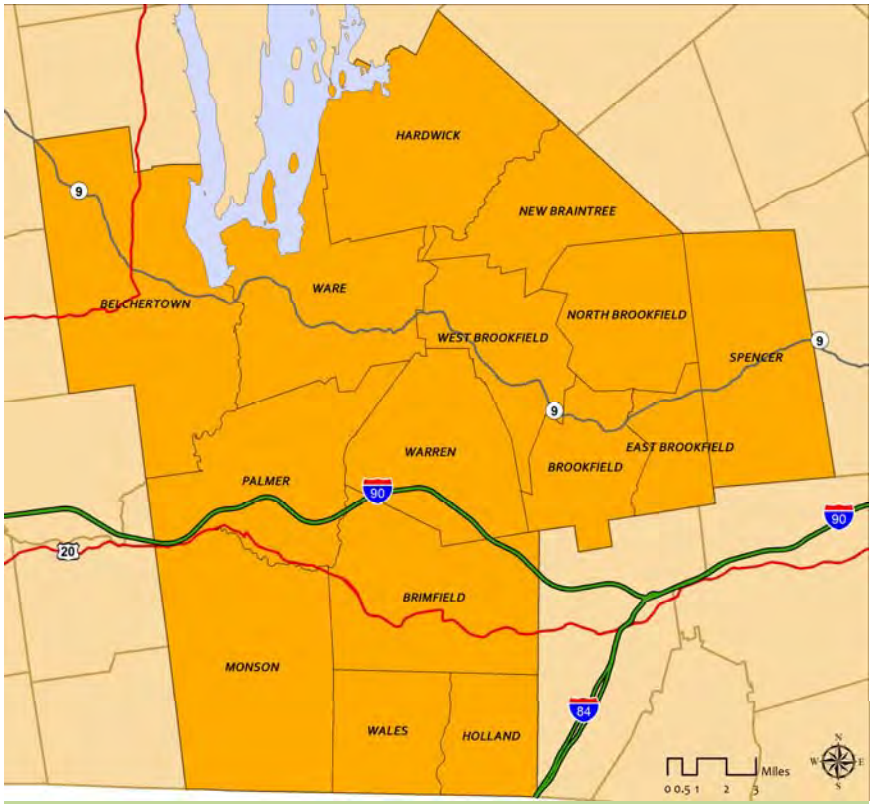


Figure 70: Towns served by the three regional organizations: QHCC, QVCDC, and QVBAC.

Based in downtown Ware, the Quaboag Valley Community Development Corporation (QVCDC), and Business Assistance Corporation (QVBAC) are nonprofit 501 (c) (3) organizations that serve the fifteen towns of the Quaboag Valley. The QVCDC mission is "to improve the quality of life in the Quaboag Valley by addressing the economic, environmental, and social needs of its residents while maintaining the integrity and character of each community in the region".

The goal of the QVCDC/BAC is to bring a regional approach to small business development in the Quaboag Valley. They have a special partnership with Ware as one of the region's economic hubs and have partnered with the Ware Community Development Authority to provide loans to small businesses. In addition, a Financial Fitness Center pilot program has been initiated for Ware residents, Ware small business owners, and employees of Ware businesses to increase financial capability and build assets.

QVCDC's economic development activities include:

- Loans to area microenterprise businesses or job creating small businesses
- Technical assistance to help small businesses Start, Stabilize or Grow
- Workforce development certified trainings for small business owners and employees
- Partnerships with public and private entities to redevelop blighted commercial areas

The QVCDC/BAC 's activities and revolving loan fund are funded by public and private funders including the local banks, federal, state and local government partners and generous private donations. Each year the CDC/BAC works closely with 50 to 60 businesses and has broader interactions with an estimated 80 – 100.

The QVCDC believes that Ware with its rich historical, cultural, and recreational resources is poised for growth. Further that Ware possesses the inherent capacity to grow, thrive and prosper based on our belief in the resiliency and core values of the Town's residents.

Local Entities

In 2010 a group of Ware business owners and citizens formed the Ware Business and Civic Association (WB&CA); a nonprofit organization with a mission to "maintain a vibrant and productive economic atmosphere that strengthens the community, better serve residents, and promote Ware as an appealing destination point". An example of their involvement is Fall Fest, an event hosted by the organization which provides a showcase for local businesses and is well attended by residents of Ware and surrounding towns.

Now in its' fifth year, the organization has 43 business members (nearly 60% of Ware's brick and mortar businesses) plus a group of interested citizens engaged in WB&CA activities. The organization's events are posted on their website, warebca.com, including invitations to the public encouraging broad participation in projects "to make Ware a better place to live, work and shop".

WB&CA President, Bill Braman and Founding Director, Joel Harder, were interviewed in 2012 and shared their perspectives of the potential for Ware to become a thriving economic hub again. Some of their comments to that end include:

- The Town should work to proactively create a business environment that encourages strategic business development.
- The WB&CA believes that properties should not be allowed to stand vacant and in neglect for as long as they currently do. Owners should work with local banks to make the properties viable again.
- Install brick sidewalks and extend the decorative lantern lights by the mill yard through the downtown.
- Residents love the seasonal holiday's decorations that are displayed every winter, they create a classic small town New England feel.
- The Board of Selectman make reactive decisions based on the needs of the moment and not in the long-term interest of the town (e.g. loss of parking spaces)
- Business feel taken advantage of by the town. They feel the town sees them as entities to get something from and not part of the community that needs to be supported to grow.

Since the interview in 2012 much has changed with the WB&CA and in the town in general. The WB&CA website provides a member list with links to each member's business. The organization holds monthly meetings and has subcommittees (or "teams") which meet separately to work on

specific projects. Instrumental in the broader array of WB&CA initiatives is Tracy Opalinski, Vice President and Director, who has brought organizational skills and bold new ideas that lead to the formation of these independent teams managing a variety of projects in support of the revitalization initiative. Current projects include:

- Clean Streets – Focus on Main Street
- Ware in Bloom – Creating a more welcoming Business District
- Streetscape - For visual impact and increasing movement and activity of Main Street
- Property Utilization - For reuse and recruitment of tenancy of vacant Main Street property
- Ware Bass Fishing Tournament - Identifying Ware as the destination to Quabbin Reservoir and enticing people outside our region to discover Ware's natural assets
- QR Code Educating public and visitors about notable and historic locations near Main Street
- Community Calendar – A common calendar for all businesses and organizations to input events and for the public to utilize.

Tracy Opalinski has brought non-profit and service organizations into the WB&CA, creating a forum for all parties to work together. The Quaboag Valley Community Development Corporation, Mary Lane Hospital, and Town of Ware are all members of the WB&CA. Together they are working with the WB&CA to bring higher education and workforce training options to Ware. The presidents of Greenfield Community College, Quinsigamond Community College, and Holyoke Community Collage are currently in preliminary conversation with this working group considering a range of options for improving access to higher education to residents of Ware and surrounding towns. The WB&CA has sought the participation of local and state representatives and were pleased to have representatives of Senators Rosenberg and Gobi engage in these meetings.

The WB&CA offers a public forum as a conduit for businesses, non-profits, and civic entities to educate WB&CA members and invited public about their initiatives and development plans. In 2014, the Ware Planning & Community Development Department obtained a Peer to Peer Grant to hire a consultant to work with the WB&CA to explore organizational models for successful downtown revitalization efforts. The WB&CA hosted a series of meeting where the consultant and representatives from successful initiatives around the Commonwealth came to Ware to share their experiences. These meetings were well attended and resulted in the initiatives outlined above. Business owners and public officials have been invited to make presentations at meetings, open to the public, to introduce and explain new plans and ideas and to solicit feedback. WB&CA was a key player on the town's Visioning/Wayfinding Steering Committee, which guided the town's consultant (Arnett Muldrow & Associates). The WB&CA did extensive outreach to community and business leaders for engagement in the implementation of a zip code survey, focus groups and attendance at public presentations for this important project. The WB&CA looks forward participating in the implementation phase of the recommendations from this project, especially for the business development plan.

Valuing Assets

Many economic development efforts over the years have identified the need to promote tourism through Ware's natural heritage (Figure 71), redeveloping the millyard, improving signage, and supporting small business growth. To date, progress has been slow. If Ware is to attract more business and secure varied funding, the community must be clear about its identity and what direction it intends to take for the future.
Numerous strategies presented in earlier plans are still relevant and important to overall economic development, including "identify, improve, and promote local tourism assets" (Ware, 2001). Ware has a beautiful meandering river which could be better utilized to contribute to the sense

of place. While much of the downtown is separated by the cement flood control walls which obscure the river's presence from daily life, the river could be a significant attractor to the millyard. The significance of the Ware River did not end with water-powered manufacturing (Figure 72); Ware needs to rediscover the value of its river by creating views and access.

In addition to the river, the town has a number of things going for it. Ware is a gateway to the Quabbin Reservoir. Every year thousands of tourists and outdoor enthusiasts visit the Quabbin to hike, fish, and bird watch or just to spend the day outside with family. Perhaps unbeknownst to them, many of their activities are taking place within the town of Ware; efforts to attract them to our businesses should be made. Planning is currently underway to host a bass tournament at the Quabbin, and the Massachusetts Division of Conservation & Recreation is cooperating with the WB&CA to make this a reality. Ware also still has working farms, which citizens have consistently identified as an important source of town identity as well as local food.

Other assets Ware can exploit include the downtown; while it clearly is in need of revitalization, it has good bones and with continued efforts of the WB&CA, property owners, business owners, and the Town, it could become a destination for visitors from all over the state. Both within and outside of the downtown, there are many historic structures and sites that could be the focus of tourism opportunities.

The Millyard

The Millyard serves as something of a metaphor for the town of Ware. During the Industrial Revolution, the mills were the center of the community and its identity. Later, as production moved first south and then overseas, the mills moved or went out of business. Today, the mill buildings are ripe for preservation or rehabilitation, and could contribute to reestablishing the role of the millyard as the town's symbol of vitality and community spirit.

The early history of Ware's mills began in 1729 with the grist industry. From the town website: "With the arrival of the Industrial Revolution, the center of commerce shifted to the factory village where it exists today. The upper dam of the Ware River was built in 1824 to run the manufacturing complex. Ware was home to three major manufacturers: Otis, Stevens and the Gilbert companies, who were noted for their production of textiles, clothing and shoes. Their demand for labor brought numerous immigrant families, primarily French, Irish and Polish, to this rich job market. By the early twentieth century the Ware mills employed almost 6,000 people.

"The Great Depression era nearly signaled the demise of the mills. But, the citizens of Ware banded together to buy shares in the struggling companies. The purchase was the first employee buy-out of a major manufacturer in America. Ware Industries was born, preserving the livelihood for hundreds of families. Ware's then-Chief of Police Bartholomew Buckley coined a new phrase for Ware, calling it "The Town that can't be licked!" Life Magazine heralded the event in their May 23, 1938 issue with an article entitled *Life Goes to a Party: Ware, Mass. Celebrates Comeback*.

By 1967, most manufacturing jobs moved south and many descendants of Ware immigrants found themselves unemployed. No longer being able to afford the shares at the empty site, the townspeople subdivided the site and sold off parcels to individual buyers. By the 1980s, the industry that had continued to occupy the mills during the middle part of the century was a fading memory. The complex's twenty-two parcels were now

Figure 71: Ware's natural heritage includes the Quabbin Reservoir (left) and vast tracts of pastureland (right).

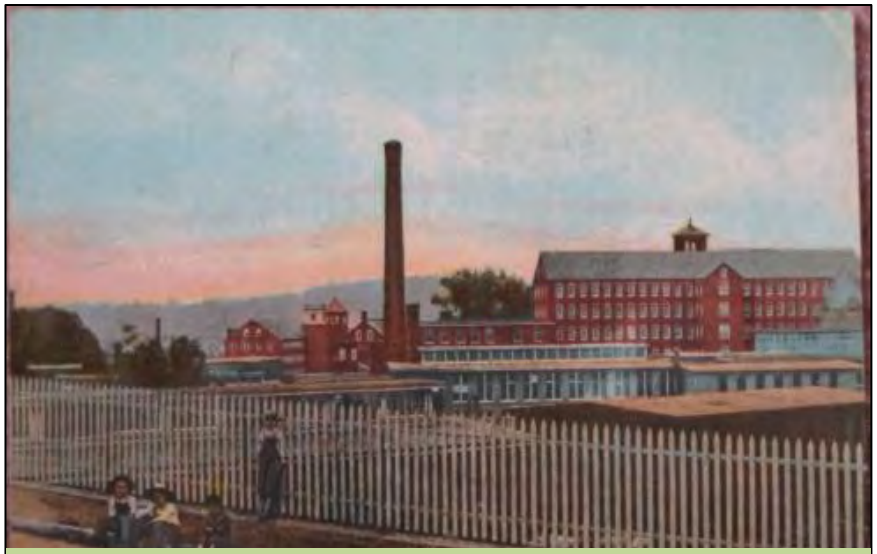


Figure 72: Historic postcard showing a portion of the mills in downtown Ware.

owned by a number of individuals whose services ranged from retail to light manufacturing. This proved to be a complicated arrangement as the tenants did not always see eye to eye with the town's administration. The situation was evaluated in 1987 by the Pioneer Valley Planning Commission which recognized the Millyard Complex in the *Planning Commission's Growth Management and Development Plan.* The document identified that most business leaders throughout Ware viewed the millyard complex as a possible source for increasing industry and commerce. It also noted the importance of an agreement between the tenants and the town. For years after, the reuse of the site was repeatedly addressed in meetings and publications, yet progress remained at an impasse (Pioneer Valley Planning Commission 1987, 4).

Today that unique individual parcel ownership continues. Consequently the lack of cohesion or singular ownership has led to deterioration of the infrastructure and historical integrity of the complex. As described in the *Ware Mill Yard Site Assessment and Economic Development Plan*, perception of the millyard can be described as "a deteriorating base of old mill properties with little impact to the region." (Lake Hitchcock Development Corporation 2001, 9).

In an era of limited space, suburban sprawl and declining economy, the millyard complex should be recognized for its potential to address these matters. While current owners have detached themselves from

issues facing the overall millyard, the town should take steps towards improved maintenance (interior and exterior) and community collaboration. The steps below focus on measures to accomplish these goals.

The Millyard complex (Figure 73) is located on the eastern boundary of downtown Ware, on Route 9. Upon first gaze, it appears to be a series of buildings with varying architectural styles along the waters of the Ware River. This mixture of stone and brick buildings was listed on the National Historic Register in 1982, and has served as a reminder of architectural and historical importance for the town. The complex itself consists of twenty-two parcels that align the banks of each side of the Ware River comprising of 31.9 acres of land.

An assortment of businesses provide different services scattered throughout the complex. As such, this does not lend to a singular identity and is a source of division among tenants. A poignant description of the circumstances were outlined in the 2001 *Ware Mill Yard Site Assessment and Economic Development Planning Project*:

> The existing manufacturing companies have very little in common with the other businesses in the complex as well as the downtown commercial district. Most of these businesses are stand-alone enterprises contributing little, if anything, to the commercial activity of the other non-manufacturing businesses. They have a different customer base, different appearances and different requirements. Their

Figure 73: Aerial view of the millyard.

operations are mostly on the edge of the core or the perimeter of the complex. They have their own access and parking area. To grow, they must expand on site or outside of the complex. An example, Quabbin Wire & Cable cannot expand on its site and is also unable to provide sufficient parking for their employees (Lake Hitchcock Development Corporation 2001, p. 24).

Many people believe that the millyard complex has great potential and further assessment for viable reuse is needed. A feasibility study could identify current infrastructure conditions, water and soil contamination, and architectural integrity. Such a study could encourage property owners to reinvest in their buildings to better utilize the space within them. In 2012, Ware restructured and passed new zoning regulations, which included a new district specifically for the millyard. This is a mixed-use district which allows many uses ranging from residential to industrial. The Town hopes that the new flexible regulatory measures will improve the strained relationship between owners of mill properties and town administrators, while encouraging a new sense of place and pride which would draw new investors to the complex.

Numerous opportunities exist for reuse of buildings in the millyard, including small residential units geared toward young workers or to elderly residents, a small hotel which could fill a need in this area (most visitors must stay in hotels located at least 30 minutes away), a shared-business space, incubator space for new industrial endeavors, co-op space for people in the creative industry, a satellite campus for higher education, a museum, etc. In order to bring such ideas to fruition, however, existing limitations such as lack of space for parking, outdated infrastructure, and lack of pedestrian oriented spaces need to be resolved.

The South Street School

Located about half a mile south of downtown Ware, the South Street School (Figure 74) was constructed in 1901. For 70 years, the building was a functioning school, but starting in the 1970s, the Town began leasing the property to other public agencies ranging from the Massachusetts Department of Employment and Training, to the most recent tenant of the Eastern Hampshire District Court. Since the District Court moved out of the building in 2005, it has remained vacant and the historic structure has begun to deteriorate. The Town has been unable to either lease or sell the property.

Figure 74: Postcard of the historic South Street School.

The property is located in the Suburban Residential (SR) zoning district, which allows a variety of uses by right or by special permit from the Ware Planning Board. The structure has four floors: a basement and three stories above grade for a total average height of about 48 feet. The historic schoolhouse does not have a sprinkler system or elevator, therefore it would need substantial renovations to meet current building code and be compliant with Americans with Disabilities Act (ADA) regulations. A 2007 report released by Clark & Green, Inc. predicted that the building

foundation, structure, interior bearing walls, major partitions, exterior masonry walls, roof, exterior trim, main stairways, and utilities could possibly remain; but that nearly everything else should be replaced. Other than the utility service, the building needs total replacement of its mechanical, plumbing, fire protection and electrical systems.

In addition to physical improvements, the report outlined a number of environmental concerns. Among them, the removal of oil and other hazardous materials, asbestos-containing materials, lead paint, and the mitigation of a substantial mold presence in the basement are all precursors to the structure being fit for any new developments. The report estimates that these environmental remediation measures would cost approximately $331,000 (in 2007 dollars).

Including the costs incurred for the removal of hazardous materials, Clark & Green, Inc. predicts a total estimated construction cost of $5,272,000 for the site: a cost of $148 per square foot. This assertion is based on a redevelopment plan that utilizes the South Street School for a combination of municipal and commercial offices. It is likely that the estimates were performed using construction costs for an office renovation. The most favored proposed use, according to one survey of local businesses, showed 70% of respondents voting for a relocated Town Hall or another municipal use for the site. Other potential uses for the building are listed in Table 5.

In 2012 the Town tried to market the property for sale, but met resistance to the only proposal submitted which was for affordable multi-family housing - the neighbors did not want such an increase in activity at the site and many others objected to "attracting more low income people" to Ware. More recently a proposal was considered that would have created a non-family accommodation use, for the members of the Motor Sports Club that will be visiting their track on Whiskey Hill. That proposal fell through when the potential buyers determined the cost to rehabilitate the building was too high. The property is currently on the market, but it is becoming more and more apparent that the rehabilitation costs make it economically unfeasible for any use. Since the Town is unwilling to pay the costs to maintain the building, it will continue to deteriorate and is at risk of being lost.

If the townspeople do not want this outcome, then serious consideration should be given to determining what an acceptable and appropriate use of the building is. Once that is determined, then grants could be sought for the renovation of the building. The argument for moving the Town Offices to this location has merit but begs the question of what uses the Town Hall would be put to, and whether such uses would be sustainable without placing an unacceptable financial burden on the town.

Table 5: Examples of uses allowed in the Suburban Residential district

By Right	By Special Permit
Community Center Government Facilities	Multi-Family Residential Adult Daycare Center Nursing Home Hospital Health Care Offices Professional Offices Laboratory Research Facility Inn, Bed & Breakfast Non-Family Accommodations Private Membership Club or Lodge Private/Nonprofit Library or Museum Small-Scale Retail Businesses

The East Main Street Fire Station

At the end of 2013, the Fire Department moved into its new 22,000 square foot, $7 million building (the federal

government paid $5 million while the town and the state paid $1 million each). The old station located on East Main Street (Figure 75) became vacant and the town began the arduous process of deciding what to do with the property. The building has 11,800 gross square feet in two stories; the lower level is garage space and one office, and the upper story is divided into multiple rooms. The building has a half bath downstairs and a multi-stall bathroom including showers on the upper level, along with a kitchen area. The building frame is wooden, the floors are concrete, and the exterior is brick, typical of a historic New England firehouse. The heat source at the station is oil-fueled steam heat. There is also a detached garage with storage above on the site.

Figure 75: The East Main Street Fire Station.

Built in 1939, the building requires extensive and costly work to be of use to the town or other potential developers. The Town released a Request for Proposals (RFP) to gauge interest in the property. When bids came in below what town officials thought the 74-year-old building was worth, it was taken off the market while officials tried to decide what to do - move one or more Town departments into it or put it back on the market. According to Town Manager Stuart Beckley, the East Main Street fire station is assessed at $431,300, but responses to the town's invitation to bid did not even reach 10% of the assessed value. One potential buyer bid $25,000 to use the building to house trucks; another offered $30,000 to use the space as an automobile repair shop; and the high bidder offered to pay $40,000 to use it as a repair shop. After disagreements among the Selectmen as to the worth of the building, none of the bids were accepted and discussions continued regarding future use and ownership.

The property was once again put on the market in 2014 and this time the high bid, of $71,000, was accepted. However, that bidder pulled out and the property has been offered to the next highest bidder for $61,000. The new use will be industrial, related to hydropower electric generation.

Other Considerations for Economic Development

The East Main Street fire station is a part of the Mill Yard Historic District. As mentioned in an earlier section, this district does not offer any design guidelines or protection. A next step that the Town could take toward preserving historic building stock and the existing sense of place in districts such as this is to implement a Local Historic District. Local Historic Districts include regulatory measures for historic areas, such as design guidelines approved by the community and overseen by the municipality's Historical Commission. Typically, the legislation includes treatments of buildings and landscape within the district. A Local Historic District also strengthens the town's ability to respond to demolition proposals.

Adopting the MA Community Preservation Act (CPA) could prove vital to redevelopment. Per the Community Preservation Coalition website, once a community has adopted the CPA, it is required to establish a local Community Preservation Committee to administer the CPA program

locally. "Community preservation monies are raised locally through the imposition of a surcharge of not more than 3% of the tax levy against real property, and municipalities must adopt CPA by ballot referendum." (Community Preservation Coalition). MA General Law chapter 44 B includes provisions allowing municipalities to exempt certain properties, or exempt the first $100,000 of the assed value of all residential property, from the assessment. The local Community Preservation Fund is a smart growth tool to preserve open space, provide affordable housing, and provide recreational facilities, and has been used successfully to preserve historic structures in many towns. Ware had examined the possibility of adopting the CPA a number of years ago, but the proposal was rejected. It has not been raised since.

In November 2014, Ware took an important step toward preservation by approving a Demolition Delay bylaw. In 2011, the town lost a historically important structure, the Casino Theatre, after many months of failed attempts to get the property owner to take action on what had become an unsafe structure. A Demolition Delay bylaw could have postponed, and possibly prevented, that loss. With a Demolition Delay bylaw now in place, the Ware Historical Commission can determine whether a structure is important to the architectural and historical integrity of the town, and enforce the bylaw before demolition. The Demolition Delay bylaw provides a period of time during which the building's owner works with the Historical Commission and Building Commissioner to find mutually-agreeable alternatives to demolition. Ware's bylaw allows for a nine-month delay period. It gives the Historical Commission an opportunity to work with owners of historical properties and guide them in making informed decisions about historical structures.

Ware benefits from an abundance of open space and recreational areas. Generally, open space refers to any undeveloped land which is used for agriculture, forestry, wildlife management, recreation, or is protected from development with deed restrictions. It includes wetlands, waterbodies, and scenic vistas in addition to the more obvious and accessible lands listed in Figure 76. These very attributes, combined with its location, make the town desirable for new development which could eventually alter its unique rural character. Preserving and maintaining existing open space is crucial to the identity of the town.

Figure 76: Recreational opportunities in Ware include parks, fields, farms, forests, and waterfront areas.

In 2013 the Town began preparing an update to the Open Space & Recreation Plan with assistance from the Pioneer Valley Planning Commission. This plan is set to be approved by the State and adopted by the Town in 2015. It provides a thorough review of the town, it's population, and its open space and recreational opportunities. This section is intended to provide an abbreviated discussion of open space and recreation issues. The reader is directed to the Open Space & Recreation Plan for additional information.

Currently, there are several factors which could significantly change the character and environment of Ware. These factors include: economic trends in Massachusetts and the nation, including a shift in the economy toward service and information businesses and away from assembly and manufacturing, although as the global economy continues to evolve, there may be an increase in manufacturing; a nationwide demise of the family farm in favor of large economies of scale, although as more people become concerned about food production this trend may start to reverse; large-scale flight from cities and large towns in favor of rural settings, although some cities are experiencing a resurgence in young people wanting to live in the city; and development pressures on undeveloped agricultural and forest land by the development community.

Preserving Ware's existing open space in the face of these challenges is vital to Ware's character, and to protecting the areas where existing residents choose to escape urban challenges and pursue recreational activities. Natural attributes and open spaces which are important for their outdoor recreation potential or contribution to the rural visual character of the town include the Ware River and Swift River, Beaver Lake (which, although it is private, the 300 or so households that own property there benefit directly from it, and there are scenic vistas of the lake from public roadways), the Quabbin Reservoir and its watershed, the Town forest parcels, various farm and pasture lands, and many undeveloped hillsides in town.

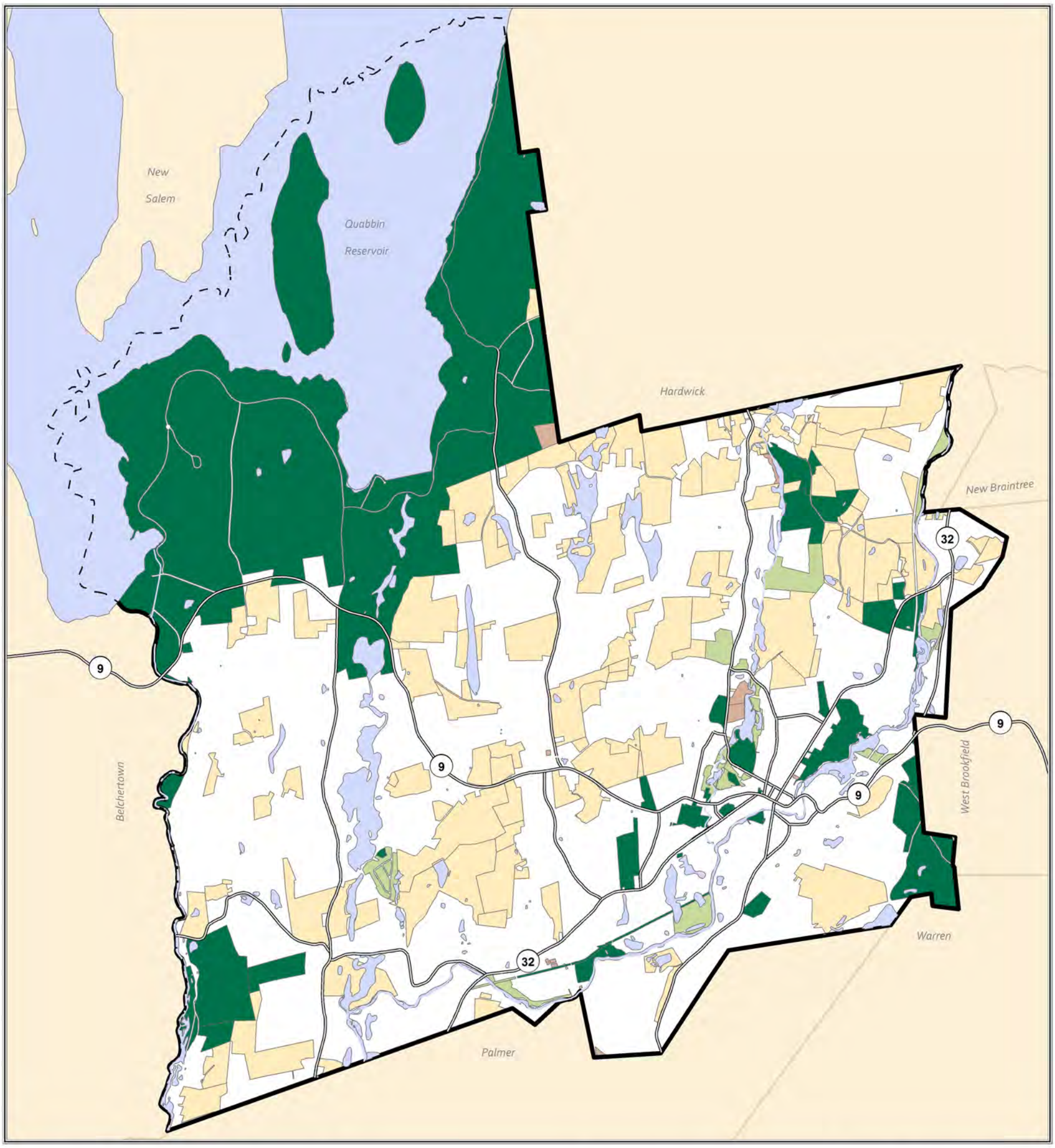
Open Space and Greenways

Ware owns 233 acres of permanently protected land including Grenville Park, the Town Forest parcels, several cemeteries, and several small parcels deeded to the Conservation Commission. Another 68.9 acres owned by the Town are not permanently protected but since they are part of the towns water supply system, are not considered to be subject to sale for other purposes. Another 228.7 acres are owned by the Town and have no permanent protection nor uses that preclude them from being sold for other purposes. In all, there are 28 parcels in these 297.6 acres that are owned by the Town that are not protected (and these figures do not include parcels such as the East Main Street Fire Station or the South Street School). Some of these parcels could be significant recreational areas, such as the "old Pennybrook" property at the southern end of Beaver Lake, and should be permanently protected to ensure they are available for future generations.

The Commonwealth of Massachusetts owns 8,641.7 acres of permanently protected land in Ware, including land under the Quabbin Reservoir. Of this, 7,931 acres are within Quabbin and its watershed, 116.2 are within the Quabbin Cemetery, 48.1 acres are in two parcels along the Ware River, evidently for river access, and the remaining 546.4 acres are in the Coy Hill and Herman Covey Wildlife Management Areas.

The Ware River Greenway is a rail trail that is located partially along the old Boston & Maine railroad line, and is partially completed. The trail is divided into two segments: in the north it is planned to extend from Grenville Park to the Ware-Hardwick covered bridge, and in the south it extends from Robbins Road southerly to the Walmart/Lowe's development. The middle section will be on roadways from Robbins Road to Grenville Park, through downtown; if a pedestrian bridge were built across the Ware River somewhere in the vicinity of the Town owned Banas Farm property at the end of Robbins Road, there might be potential for the rail trail to continue off-road. Given the expense of such a bridge, it is not expected that such a route will be considered. At this point, no planning has taken place to connect this rail trail with other trails in Palmer or Hardwick, and the southern section of trail is not currently planned to extend to the town line. Currently, no bike paths or other formal bicycle accommodations exist in town, although street reconstruction projects now consider all modes of transportation including bicycles and pedestrians. In 2003, the Pioneer Valley Regional Greenways Plan, published by the PVPC, identified some prospective river-oriented greenways including areas along the Ware River, Swift River and Flat Brook.

Figure 77 shows the location of land in Ware under some sort of protection from development, whether permanent or temporary (e.g. in the Chapter 61 tax reduction program). The parcels are colored based on their potential for recreational use (passive or active); "none" means the parcel is either not accessible to the public (e.g. agricultural land) or is only accessible on a short term basis (e.g. in Chapter 61 program). Nearly a quarter of the town is classified as land currently accessible for public recreation, the vast majority of which is in the Quabbin Reservation. Parcels listed as having a high recreational potential that are not already under permanent protection should be targeted for such protection; these include the old Pennybrook subdivision at the southern end of Beaver Lake, several parcels around Snow's Pond, several parcels in the



Open Space by Recreational Potential

- *Existing*
- *High*
- *Low*
- *None*

Recreational Potential	Acreage	Percent of Total	Percent of Town
Existing	5,782	54%	23%
High	320	3%	1%
Low	61	1%	0%
None	4,586	43%	18%
Total:	10,749	100%	42%

Note: The acreage of the water area in the Quabbin Reservoir (3,368.9 ac) is not included in these figures.

Sources:
Open Space: MassGIS, Ware Assessors Records
Base Data (roads, water, towns): MassGIS

N W E S
0 0.5 1 2 Miles

March 3, 2015

Recreation & Open Space

Recreational Potential of Open Space Lands

Ware's Future - 2015 Master Plan

Planning & Community Development Department
Town Hall - 126 Main Street - Ware MA
www.townofware.com

vicinity of the Pines water supply (Reed Pool and Kubinski Field), several parcels along the Ware River, and the Banas Farm property at the end of Robbins Road. There are several parcels that are listed as having a high potential for recreation that are already permanently protected, including a parcel owned by the state presumably for access to the Ware River, but is undeveloped as such, and the town forest parcels which are open to the public and have some trails, but could be better utilized for such recreational use.

Water Resources

In addition to the substantial presence of the Quabbin Reservoir there are many ponds and lakes scattered across the landscape in Ware, chiefly located along streams and in wooded areas. The Quabbin Reservoir makes up most of the 3722 acres of open water in Ware, with the remainder comprised of these small ponds and lakes. These water bodies offer valuable wildlife habitats, unique natural environments, and provide benefits to Ware's residents in the form of prime recreational opportunities and water supply.

Ware lies within the Ware River and Swift River sub-watersheds of the Chicopee River watershed. There are 3,900 acres of land within MassGIS riparian corridors in Ware. The River Protection Act (RPA) was passed with the goal of keeping water clean, preserving wildlife habitat, and controlling flooding. It protects nearly 9,000 miles of riverbanks in the state. The law created a 200-foot riverfront area which extends on both sides of rivers and streams. In Ware, the Act protects the Ware River, Swift River, Flat Brook, Muddy Brook, King Brook, Penny Brook, and Beaver Brook, encompassing 1,322 acres of land within the 200 foot buffer area.

Figure 78: Wildlife species commonly found in various types of wetlands.

The Wetlands Protection Act (WPA) offers additional protection of lands in the area between 100 feet and 200 feet of the mean high water mark of a qualifying stream or river. At times, this outer riparian zone is vulnerable to limited development in certain instances. Development activity within the innermost 100 feet is limited by the WPA and RPA. Ware currently has no local rivers protection bylaw or local wetlands bylaw; either or both could provide additional protections to these resource areas, but given the relatively low development pressures in this region of the state, neither is likely to result in significant changes.

There are at least 1,157 acres of wetlands in Ware (wetlands mapped by the state and included in the MassGIS data layer). Wetlands include bogs, deep marshes, shallow marsh meadows, shrub swamps, and wooded swamps. Wetland areas are home to frogs, fish, freshwater clams and mussels, beaver, muskrats, great blue herons, waterfowl, and bitterns, among other wildlife (Figure 78). Wetland habitats in town are most often found

along the streams and rivers as well as in lands proximate to major ponds in Ware. If open waters are included in this accounting, the total acreage of wetlands in Ware increases to 1,646 acres (excluding Quabbin Reservoir).

Wetlands provide critical wildlife habitat and maintain water quality by serving as natural filters for nutrients, toxins, and sediment which would otherwise move directly into surface and ground waters. Wetlands also serve as temporary storage areas for flood waters allowing floodwater to percolate slowly into the ground rather than run off into streams and rivers quickly and violently.

Wildlife Habitat

The Natural Heritage & Endangered Species Program (NHESP) has identified various plants, animals, and insects that are dependent upon habitat provided by wetland, forest, and riparian resources. Riparian areas are vegetated lands adjacent to water resources. This juncture of land and water attracts a range of species and serves as a transition zone between habitats. A great diversity of species is dependent upon the wetlands and riparian areas in Ware.

Another important wetland habitat is a vernal pool. Vernal pools are wildlife habitats best known for the amphibians and invertebrates that populate them during breeding season (Figure 79). Vernal pools typically fill with water in the autumn or winter due to rising ground water and rainfall, and remain ponded through the spring and into summer. They dry completely by the middle or end of summer, or at least every few years. Some vernal pools are protected in Massachusetts under the Wetlands Protection Act regulations, as well as several other federal and state regulations.

Figure 79: A vernal pool (top) and a wood frog (bottom) in a vernal pool.

It is also the official role of NHESP to officially certify vernal pools that are documented by citizens. Finding vernal pools is the first step for protection. The Massachusetts Aerial Photo Survey of Potential Vernal Pools has been produced by the NHESP to help locate likely vernal pools across the state. According to NHESP, there are currently fifty *certified* vernal pools in Ware; and 145 acres of *potential* vernal pools dispersed throughout the town. Maintaining the integrity of wetlands and riparian corridors with vegetated cover is vital to the health of many of Ware's diverse wildlife species. These special habitats provide:

- shelter for various species
- protected corridors for movement between other nearby habitats
- a source for food
- sources of moving water
- nesting and breeding grounds

NHESP has developed a BioMap identifying the habitats most in need of protection in order to protect the native biodiversity of the state, and as such focuses on state listed rare species. The map includes *Core Habitat* and *Critical Natural Landscape* areas. Core Habitat identifies key areas to ensure the long-term persistence of species of conservation concern, exemplary natural communities, and intact ecosystems. Critical Natural Landscape identifies larger landscape areas that are better able to support ecological processes, disturbances, and wide-ranging species. According to the BioMap, key areas of concern are the entire Quabbin Reservoir shoreline, the Ware Center/Flat Brook area, the upper Muddy Brook area, the Swift River, and the Ware River with the exception of the section flowing through the downtown. A total of 6,294 acres are identified as Core Habitats for these threatened and endangered species and 7,892 acres of Critical Natural Landscape.

It is important to note that most species must occupy more than one type of land during its day, year, or lifetime in order to survive. Additionally, many species require overland migration routes to hunt, forage, shelter and propagate. Major natural corridors are important. Recreation trails or undeveloped floodplains and riverfronts often successfully serve as wildlife migration corridors.

Within the Core Habitat and beyond, Ware is home to many endangered, threatened, and species of special concern. Preventing the extinction of these species is critical to maintaining bio-diversity; a biologically diverse native ecosystem is important to ensure stability of all plant and animal species. On a global scale, it is essential for human health as well. As the number of species within an ecosystem decline the remaining species become more dependent upon fewer resources for survival. In many cases, the elimination of one species leads to the demise of another, or many others, when such species cannot adapt to the reduction and change in their environment.

There are eight species of vertebrates in Ware that are listed as rare species; six are species of concern, one is threatened and one is endangered. There are seven species of invertebrates in Ware listed as rare species; four are species of concern, two are threatened, and one is endangered. The presence of these species in their various habitats confirms the importance of maintaining the clean, flowing waters; for all species that rely on the habitat. Habitats of particular concern are Muddy Brook and the Ware River. A more thorough discussion of these species can be found in the Open Space & Recreation Plan.

Recreational Facilities and Opportunities

Ware has several active recreational facilities which serve both youths and adults. In addition to Grenville Park, the town's largest and most significant facility, there are two main locations where the majority of sports activities occur in town: Memorial Field and Kubinski Field. In general, there are not enough fields to support the many sports teams and practices, which include baseball, softball, soccer, and football, all for many age groups. Therefore, there is competition over when and where each team gets to practice and play.

Traditionally, Memorial Field has been the primary sports field for the town. Several years ago the town used FY2011 Community Development Block Grant funds to make improvements to this multi-use facility, including a new state-of-the-art lighting system, general improvements to the fields, handicap parking, and a new path around the perimeter of the fields. These improvements were completed in 2014. This park also has the town's best lit sports fields (Kubinski Field is also lit), so there is a high demand for use of these facilities (Town of Ware, 2007; Piechota 2012). The two fields accommodate baseball, soccer, and football, although there is overlap and thus two sports cannot be played simultaneously. This facility also includes a small basketball court, a field house for changing and bathroom facilities, and bleachers for spectators. Currently, parking is mostly at a privately owned lot abutting the field; eventually the Town expects to construct a parking lot on a brownfield adjacent to the field.

Figure 80: Sports are popular in Ware and fields are heavily used. Memorial field (above) is now lit, allowing more games to be played on this multi-use field.

This brownfield site is the location of a former gasification plant which produced natural gas from coal to supply a gas source of energy to the downtown area many years ago. The site has long since been abandoned, and is now owned by the Town through a tax taking. The Town has been working with MA Department of Environmental Protection and the PVPC over the last few years to assess the property to determine if the site can be cleaned and capped in place with a parking lot. One area of the site may be clean enough that it can be used for additional recreational facilities, such as a basketball court, playground, benches, and picnic tables. Conceptual plans for a parking lot here were drawn up several years ago and indicate that around 80 spaces could be accommodated in a parking lot here. Access from the parking lot to the field would be provided via a ramp and staircase, and might also include a "concrete bleacher" configuration on the hillside as part of the cap in place closure of the brownfield site. The addition of this parking lot would be very beneficial to this recreational facility and the neighborhood, given the increase in usage and the popularity of this field for regional tournaments which draw a lot of spectators.

The James Kubinski Memorial Field is a sports field named after former Select Board member and Ware Baseball Board member, Jim Kubinski. The lighted field is part of the DPW Water Department's pumping station property yet maintained by the Parks & Recreation Department. It serves as overflow from activities at Memorial Field including: youth baseball and football, and adult softball.

Grenville Park, located between Church Street and the Ware River, provides space for general recreational activities (Figure 81). This park comprises over 100 acres and was the only substantial park in the town before the Quabbin Reservoir was created. Grenville Park is included in the Church Street Historic District, which is recognized as a historic location under the National Register of Historic Places. Previous plans have acknowledged that the Church Street Historic District is in need of a new road, sidewalks, and wall repair at the Park which could make the site more appealing.

Grenville Park was a gift to the Town of Ware from J.H. Grenville Gilbert and his wife Grace in memory of their son, Grenville Gilbert, Jr., and was accepted by the Town in 1907. The park includes several sports fields and courts, picnic areas, a playground, a bandstand, various walking trails, skiing, sledding, wildlife observation opportunities, boat access, and handicap accessible fishing piers. The park is a valuable asset of the town and is enjoyed by many residents and visitors. The town has addressed several safety issues regarding the park, which included constructing a better fence around a baseball field and planting higher quality grass. The town received a grant to restore the bandstand and make improvements to bring it into compliance with ADA regulations; this project was completed in 2014.

The park faces some issues as the town tries to maintain quality on a very limited budget. Due to budget cuts, the Parks and Recreation Department does not have a long-term program for landscape maintenance that extends beyond minimal mowing and leaf raking. There has also been illegal waste dumping into the trash cans (household trash), as well as the river and dumping in remote areas, which is difficult to deter, monitor and stop (Town of Ware 2009; Piechota 2012).

Figure 81: Grenville Park and it's proximity to downtown Ware. Memorial Field shows in the lower left of this aerial image as well.

In addition to the river access points in Grenville Park, there are several other water-based recreational opportunities in town. Reed Municipal Swimming Pool at the Barnes Street Recreation Area offers swimming lessons as well as open swim times and is popular in the hot summer months. Fishing is available at a number of locations in Ware, including the Swift River and Ware River, and limited access at Gate 43 of the Quabbin Reservoir. There is also a private beach at Beaver Lake, although access is limited to members of the Beaver Lake Club Association. Town residents have identified a need for a new boat launch on the Ware River. One possibility is near the Gibbs Crossing Plaza on Route 32. This could be linked with the future Ware River Rail Trail. In addition, there is a parcel of land on the Ware River owned by the MA Division of Fish & Wildlife which could provide river access if it was accessible. This 20.5 acre parcel is about 0.4 miles south of the covered bridge between Ware and Gilbertville, and has nearly a mile of river frontage. The parcel has no road access but is bounded on the west by a segment of the old railroad bed now owned by Massachusetts Electric Company; if this segment becomes part of the Ware River Greenway, then pedestrians and cyclists could potentially access the river at this parcel.

As mentioned earlier, the Ware River Greenway (rail trail) project can potentially provide high-quality recreational opportunities to residents and visitors. The town continues to work to complete the trail, both on construction on the town-owned southern section and in discussions with private property owners in the northern section. Once completed, the trail will follow the Ware River on the east side of town, linking Ware and it's downtown and Grenville Park to Hardwick. There is also the potential to connect with trails from Palmer to the south. The rail trail is something residents desire, especially since there are currently no official bike paths in Ware (Town of Ware 2007; Henshaw 2012).

Table 6 lists the primary activities available at the various recreational areas owned by Ware. As mentioned, potential to expand activities exists. And the Quabbin Park, which is located within the town, has many opportunities for passive recreation.

There are a few unmaintained trails in the Town Forest and trailhead signs are poor. There is also limited parking, making it difficult for people who live elsewhere in town to access the forest (Figure 82). The town's Open Space & Recreation Plan identified the Town Forest and other properties under conservation protection as "potential gold mines" for trails and passive recreation. There is clearly a lack of quality hiking trails accessible to Ware residents. The town is currently addressing the need for an increase of public awareness and overall signage. In 2014, in collaboration with the Edward and Barbara Urban Foundation, the town hired a consultant for a visioning and wayfinding project for the entire town, which will provide new signage for numerous sites in Ware.

Figure 82: One of the Town Forest parcels has no place to park along the road.

There are hiking opportunities in other areas of town, such as at Grenville Park and the Quabbin Reservoir. The Quabbin is managed by the Massachusetts Department of Conservation and Recreation (DCR) which has strict guidelines allowing and restricting certain public uses. Such public access guidelines are important to consider, since part of the Quabbin Reservoir and Park lie within Ware. Activities allowed within the Quabbin include walking and hiking, biking, geocaching, sledding, wildlife observation, and boat fishing. Prohibited activities include snowmobiling, ATVs, hunting/trapping, canoeing or kayaking, dog walking, horseback riding, and camping (DCR, 2006). There are also hiking and off-roading trails near Coffey Hill Road, Cummings Road, Gilbertville Road, Old Belchertown Road, Old Stagecoach Road and Osborne Road.

When planning for new recreational facilities, the age breakdown of the population should be considered. Ware has recognized that there are multiple needs for the town's recreational facilities including youth and senior populations. The Parks and Recreation Director stated that the town is currently discussing this as it decides on which improvements to make in the parks. In addition to creating more parks and fields aimed at youth needs, the town should consider providing alternate recreational activities to support an older population such as hiking trails and bird watching opportunities. The town should not abandon efforts to provide recreation opportunities to youth. However, it should also plan for an aging population and provide appropriate recreation opportunities.

The 2015 Open Space & Recreation Plan lists the five top needs for recreational enhancement as: bike paths, nature trails, parks, arts & cultural events, and picnic areas. That plan includes an action plan which lists specific actions that the town can take to improve recreational facilities and access to recreational opportunities. In addition, there is a need for improved marketing to inform the public about these opportunities.

Table 6: Recreational Uses at Ware Facilities							
	Church Street Tank Field	Grenville Park	Kubinski Field	Memorial Field	Old Pennybrook	The Pines	Veterans Park
Baseball	✓	✓	✓	✓			
Basketball		✓		✓			
Biking		✓					
Boating		✓					
Bocce		✓					
Fall Fest Exhibitor tents							✓
Family Fun Day Fair		✓					
Fishing		✓				✓	
Football		✓	✓	✓			
Hiking		✓					
Horseshoe pits		✓					
Independence Day fireworks		✓					
Municipal ceremony site							✓
Picnic areas		✓					
Playground		✓					
Registration for town sports		✓					
Scenic outlooks		✓					
Sledding		✓					
Soccer	✓	✓		✓	✓		
Softball		✓	✓				
Summer concerts/movies		✓					
Tennis		✓					
Town Christmas Tree							✓
Walking/Hiking Trails		✓		✓	✓		
Weddings		✓					

Funding Assistance

Residents of Ware have repeatedly expressed the need for expansion and improvement of recreational facilities. While the town has taken steps towards making improvements at Grenville Park and for the rail trail, efforts in other recreational facilities have stalled or halted due to lack of funding (except for the federally funded improvements at Memorial Field). Recreational opportunities are important for all age groups and it is something the town should consider as a priority for satisfying the needs of its residents (Piechota 2012).

Ware should continue applying to the Parkland Acquisitions and Renovations for Communities (PARC) grant program, funded by the MA Executive Office of Energy and Environmental Affairs. This grant program helps cities and towns to acquire and develop lands for parks and other outdoor recreation purposes. It provides between 52% and 70% reimbursement for the total cost of the project. Projects considered for this program include the purchase of land for parks, development of a new park, or renovation of an existing park. Properties that receive the grant award must be open to the public and maintained as protected open space, and dedicated to recreation. The eligibility requirements for the PARC funding include the following:

- eligible towns must have an approved Open Space and Recreation Plan filed with the Division of Conservation Services
- towns with fewer than 35,000 residents (like Ware) may receive a maximum of $50,000
- towns with less than 35,000 residents and whose project will be accessible by public transportation or have parking space for more than 100 cars are eligible to receive a $400,000 grant award
- the same town can submit multiple applications for unrelated renovations or submit a single application for similar renovations in multiple parks

Ware received a PARC grant in 2012 and was eligible to apply again in 2014; after denial of an application for $270,000, the Town will apply again in 2015 with a more streamlined application. Based on Ware's equalized valuation per capita ranking, in 2014 the town was eligible to receive reimbursement of up to seventy percent of the total amount spent on the improvement project. This grant program could be an important way for Ware to improve its recreational facilities and accomplish many of the goals outlined in the Open Space Plan (PARC 2012).

A number of other state funding opportunities are available for the town to acquire more conservation and passive recreation land, including the Local Acquisitions for Natural Diversity (LAND) program. Like PARC, this is a program offered by the Massachusetts Department of Energy and Environmental Affairs. Adding to Ware's inventory of town-owned lands may be desirable in order to achieve specific goals. For instance, if Ware's Master Plan places completion of the local trail system high on the list of priorities, it is likely to require a combination of agreements with private landowners and land acquisition.

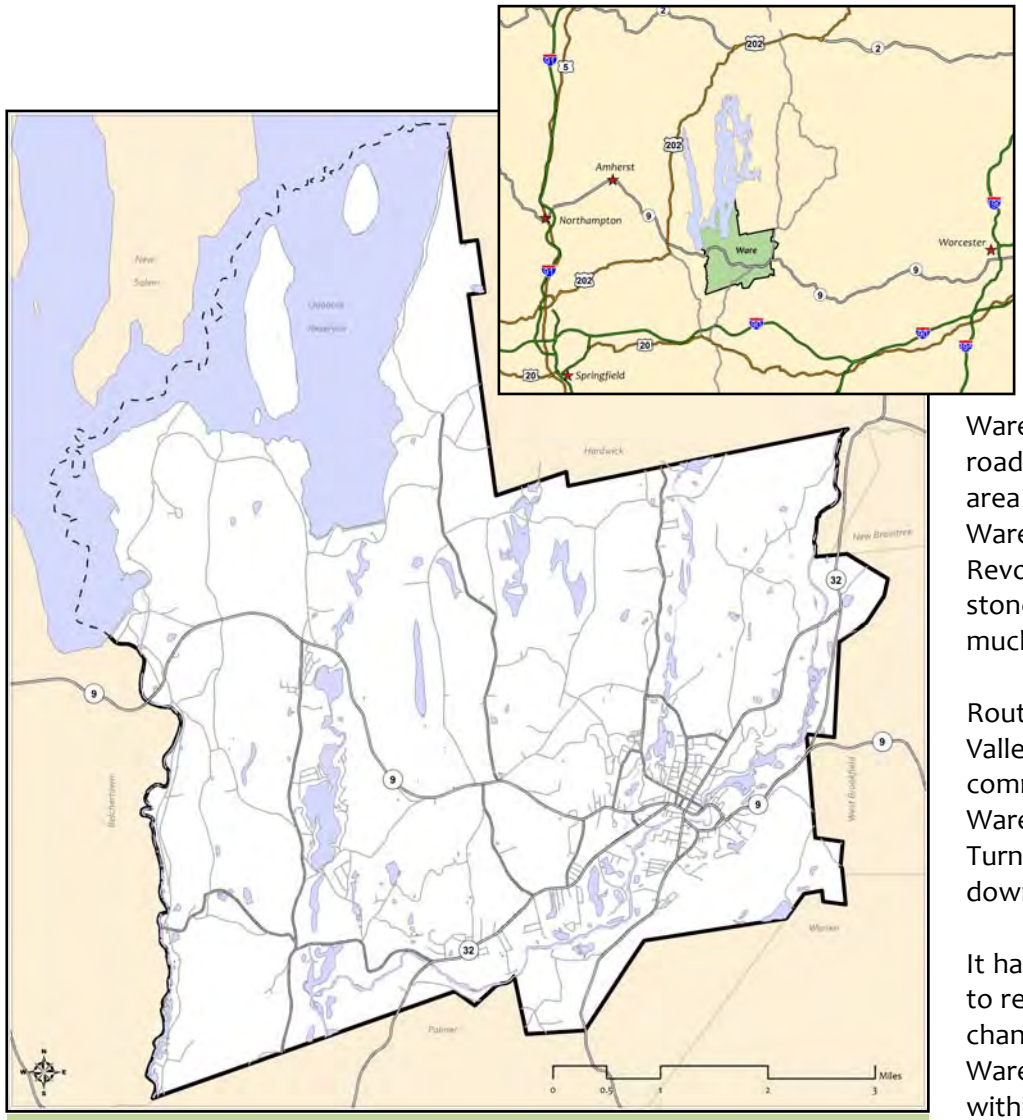


Figure 83: Roads in Ware. The inset shows the towns relationship to the major roads in the region.

Ware has 121.1 miles of road, most of which are town-owned and maintained. Figure 83 shows the town's roads as well as the relationship to the major roads connecting Ware to the region and beyond. Two major routes provide convenient access to neighboring towns and employment and larger cultural centers like Worcester, Springfield, Amherst, and Northampton.

Route 9 is the major east-west connector, running from downtown Ware east to Worcester, and west to Amherst and Northampton (where I-91 can be accessed). One of Ware's historic districts is located along a mile long stretch of this road, roughly centered on the Ware Center Meetinghouse. This area was the original town center, before the water power of the Ware River was tapped for mill development during the Industrial Revolution. Farmhouses, agricultural buildings and fields, and stone walls make for a traditional New England landscape along much of Route 9 heading west from downtown.

Route 32 runs northeast to southwest, following the Ware River Valley through town. The route has become a magnet for commercial development, including "strip" development. Beyond Ware, Route 32 extends into Palmer where the Massachusetts Turnpike (I-90) can be accessed; it is a 16 minute drive from Ware's downtown to the entrance to the Turnpike.

It has repeatedly been demonstrated that the shift from mill town to residential community has caused many changes in Ware. These changes are especially apparent in the way people get around. Ware was once a town where one worked, lived and shopped within several blocks. Today, a vehicle is necessary to fulfill almost every need as economic activity has slowly shifted away from the

center. Most residents commute out of town for work and shopping via a personal automobile. Despite sprawling development patterns and a high level of carless households in Ware, public transportation is extremely limited.

The vast majority of Ware's workforce commutes by car, most as single-occupancy. Many of these residents purchased their home when favorable price and quality of life offset the negative aspects of commuting. However, increasing transportation costs now accompany this kind of housing choice. Today transportation costs disproportionately affect low, moderate and middle-income households (most of Ware's population). The impact is even greater when one also considers housing and energy costs (Center for Neighborhood Technology 2012). When planning for transportation, Ware needs to include a truly multi-modal approach for several reasons:

- changing economics of housing costs
- changing economics of transportation
- shifting attitudes about public transportation among young people and the aging Baby Boomer generation
- potential funding for sustainability efforts that incorporate housing, transportation and energy.

As a regional hub, the Town must consider how similar areas have incorporated transportation nodes into mixed-use redevelopment and downtown revitalization.

History of Transportation in Ware

Prior to the introduction of railroad service to this part of the state, residents, business people, and visitors moved about the town and region on foot or other non-motorized transportation on a gradually evolving network of dirt roads, many of which started as little more than cleared pathways through the woods. Travel on these roads was often unpleasant or even hazardous due to rocks, roots, mud, and ruts in the roadway. Between 1790 and 1820, turnpikes were being built by private companies to facilitate travel through towns with poor roadways. Monson Turnpike through Ware is a typical example; much of it remains today as Monson Turnpike Road. Roads were to be built and maintained by the towns, but poor understanding of road design and construction coupled with poor maintenance of these dirt and gravel roads left many people without decent access to town centers and markets.

One of the primary concerns at the time was the high cost of transporting goods from inland farms to larger markets. Driven partially by the need for better and cheaper overland transportation routes, railroads started to be built across the state by 1840. Here in Ware, construction of the Ware River Railroad

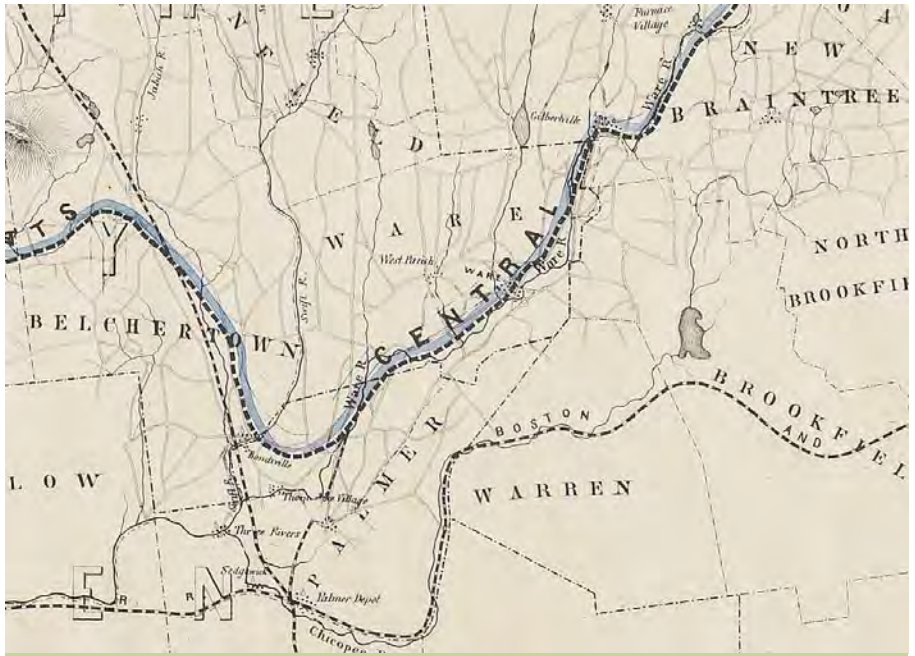


Figure 84: Map of Massachusetts Central Railroad, 1871, showing Ware and surrounding towns. (Source: Massachusetts State Library)

began in 1868 after the railroad received its second charter from the Commonwealth. By 1870, 16 miles of track between Palmer and Gilbertville were opened (Figure 84). Facing bankruptcy, the railroad was leased to the New London Northern for the next 18 years. Concerned that a new line would fall under the control of its competitors, the Boston and Albany Railroad soon took control of the line. Boston and Albany wanted to develop north-south traffic between Concord, New Hampshire and Palmer, and connect to the Monadnock line farther north. However, the Monadnock line did not provide enough traffic to make it a profitable acquisition for the Boston and Albany.

Typical of the times, competition between railroad companies left most of Southern New England overbuilt with railroads in the last half of the nineteenth century. The Central Massachusetts Railroad constructed its own parallel line between Barre Junction and Forest Lake. During the Great Depression in the early 1930s the Central Massachusetts Line was abandoned in favor of trackage rights on the Ware River Line (negotiated by the Boston and Maine Lines).

The Boston and Albany Railroad operated the Ware River line as a branch off from the main line in Palmer. Passenger service remained until World War II and the line was not formally merged into the parent New York Central until 1961. In 1968, the New York Central merged with the Pennsylvania railroad creating Penn Central. Around that time the northern-most portion of the line between South Barre and Winchendon was abandoned.

Figure 85: Logos of the railroad companies with a history in Ware.


Figure 86: The Mass Central train in Ware.
Photo by Gary Senecal, 11/8/2013

In the 1970s, several large rail carriers including Penn Central, were slowly going bankrupt. One contributing factor was complex regulations which prevented railroad companies from reducing costs by abandoning unprofitable branch lines. In order to salvage viable freight operations and other failing railroads, Congress passed the Regional Rail Reorganization Act in 1973 ("3Rs Act"). Realizing the threat of economic calamity if the national railroads completely failed, the Federal government seized, reorganized and created the Consolidated Rail Corporation (Conrail) in 1976. During the creation of Conrail, 9,600 miles of light density track was considered for abandonment or sale to states, including the Ware River Secondary Track (~~WRSC~~). Until 1979, Conrail served as the designated operator for the ~~WRSC~~. In December 1979, Massachusetts Central Railroad became the designated operator and remains in that position today (Figure 86).

The 3Rs Act provided funding and a mechanism for state transportation departments to acquire railroad property, and fund operating subsidies and rehabilitation programs. Using state and federal funds, a $1,599,000 rehabilitation program was completed in 1979. The MA Executive Office of Transportation and Construction (EOTC) acquired the line in 1982. Further rehabilitation of the entire line began in 1992 with a goal of reaching FRA Class 2 track status for freight service. This program included major tie replacement, ballasting, resurfacing, brush clearance and drainage improvements and was completed in 1999.

Several industrial operations in Ware depend heavily on the railroad for transportation of materials and products, and given other constraints such as lack of natural gas, if the railroad ceased operation in Ware, it is conceivable these businesses would seek more favorable locations outside of Ware. The Town should support the continued operation of the rail line for freight transportation.

Current Commuting Behavior

As mentioned in the *Demographics* section, a high percentage of Ware's employed population travels out of Ware to work. Roughly 39% of Ware's employed residents work in Ware, while 51% commute to another town. This commuting behavior shows that the town has become an exporter of employment. Based on Journey to Work data from the Census Bureau, 55.5% of Ware's working residents (16 years and over) commute to work outside the county of residence (Hampshire County). Although there is no specific information on where those commuters are employed, census data on travel time to work shows that 40% of these workers have a travel time between 30 and 59 minutes (Figure 87), which provides some sense of destination. Within that timeframe workers can travel to large regional employment centers including Springfield, Holyoke, Worcester, and northern Connecticut.

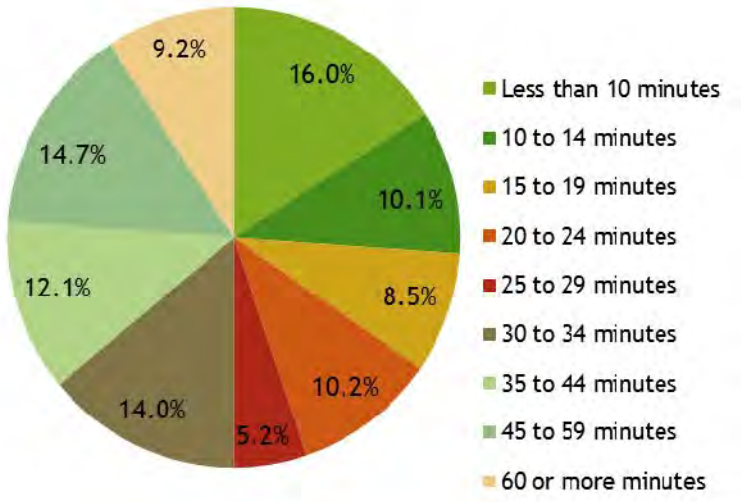


Figure 87: Commuting times for Ware residents.
Source: 2010 US Census Bureau. American Community Survey 2010, 5-year estimates.

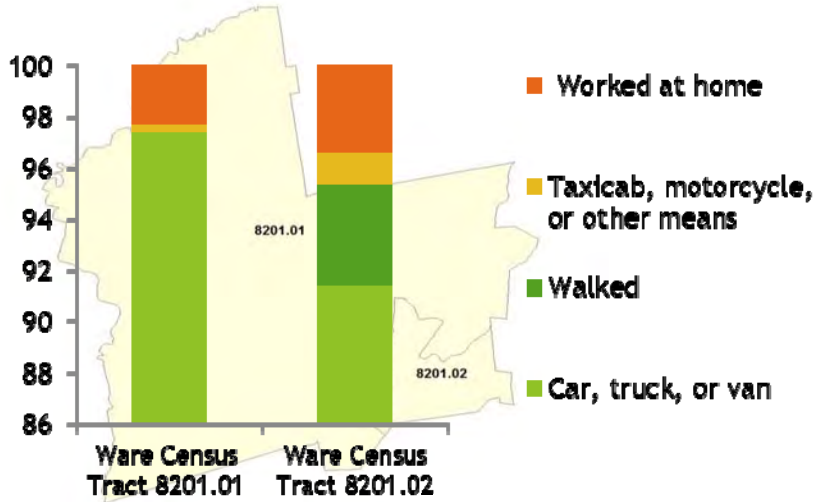


Figure 88: Means of transportation to work by census tract.
Source: 2010 US Census Bureau. American Community Survey 2010, 5-year estimates.

Within the employed population, 120 people in Ware reported that they worked at home in 2010 (45 in Census Tract 8201.02, which covers most of the downtown, and 75 in Census Tract 8201.01). Those people who work at home represent 2.8% of the total workers that are 16 years and over in the town, according to the U.S. American Community Survey's 5-year estimates. The data on "means of transportation to work" shows that most people travel to work by car, truck, or van. This percentage (97.4%) is higher in the "rural" census tract (8201.01) than in the "downtown" census tract (91.4%) where a higher percentage of residents tend to use other means of transportation (Figure 88).

Among the workers who commute by car, truck or van, most of them commute alone (2,888 people - 91.1% in Census tract 8201.01, and 1031 workers - 85.8% in Census tract 8201.02) and the remaining carpool. Public policy analysts across the country are paying greater attention to commuting behavior. Current development patterns generally focus on the cost of housing and do not account for the cost of transportation. In most cases, more affordable housing is built on less expensive land that is far from job centers. This permits homeowners to purchase larger or newer homes that they may not have been able to afford in more a metropolitan area. Unfortunately, many homeowners do not take transportation costs into consideration, which can create additional burdens since transportation costs can be a significant household expense. They include a combination of distance travelled, gas prices, miles per gallon ratio of the automobile, annual automobile maintenance costs, tolls, and parking expenses.

Rising transportation costs and longer commutes have actually caused the Center for Neighborhood Technology (CNT) to propose a "new standard of housing affordability" which states that the combined cost of housing and transportation should consume no more than 45 percent of a household's income. In the conventional standard, a home is considered to be within budget if the mortgage or rent cost is no more than 30 percent of household income. CNT's proposed new standard suggests that households are cost-burdened by transportation if they spend more than *15 percent* of household income on transportation-related costs. Using this new standard, an estimated 95 percent of households living in Hampshire County spent more than 45 percent of their income on housing and transportation-related costs and therefore were cost-burdened[1]. Areas with households that spent the most were located outside of the region's major urban areas.

Public Transportation and Access to Regional Opportunities

Compared to surrounding towns, Ware has the highest number of households without a car or with no access to a car: 544 out of 4,352 (12.5%, compared to the next highest in Palmer at 9.5%). Despite this high percentage, Ware has a higher percentage of workers who commute via a personal vehicle than the state or nation, and a much lower percentage of workers than the state or nation who utilize public transportation (Table 7). This is clear evidence of the limited options for public transportation in Ware.

In Ware, there is only one public transit option available: the Pioneer Valley Transit Authority (PVTA) bus (Figure 89). This route only has seven runs per day, and only runs on weekdays.

Table 7: Percentage of Workers Commuting by Various Modes of Transportation in Ware, the State, and the Nation

Mode of Transport	Ware	Massachusetts	United States
Car, Truck, Van	94.61%	81.92%	87.32%
Public Transportation	0.37%	8.66%	4.44%
Other	3.16%	5.43%	1.00%
Work at Home	1.86%	3.99%	4.24%

[1] *Commuting cost estimates based on the following assumptions: (1) an average of 21 work days/month; (2) average of 26 MPG; (3) $0.054/mile for maintenance and tires; and (4) $16.75/day as the cost per day for insurance, financing, and depreciation.*

For a transit rider to reach Springfield, it takes two hours one-way; as comparison, the same trip by private automobile takes less than 40 minutes. For someone living in or near downtown Ware and working in downtown Springfield, they would first have to get to the Walmart bus stop (perhaps walking) to catch the 7:40 am bus, then change buses at the Palmer Big Y stop, then change again at the Eastfield Mall stop, and finally arrive at the Main Street Springfield stop at 9:45 am. For the return trip, the worker would need to leave Springfield by 2:00 pm to arrive at the Palmer Big Y stop in time to catch the last bus to Ware at 4:45, which would drop them at the Ware CVS stop at 5:25. For an estimated 10.5 hour day, this worker would get no more than 4 hours of work time. It is doubtful that a part time position would provide enough benefit or wages to make this daily commute worthwhile.

People living in Ware wishing to pursue a college degree at any of the community colleges or four-year colleges in the Pioneer Valley are likewise limited by the public transit currently in place. For example, a student at Holyoke Community College would spend 3.5 to 4 hours one way to get to the campus, and would only be able to attend classes between 11:00 am and 1:30 pm in order to catch the bus back to Ware. Obviously this is unrealistic; one cannot get an associate's degree attending whatever classes are held during that timeframe. Similarly, students attending UMass in Amherst would have to travel on five buses, changing in Palmer, Eastfield Mall, Springfield, and Holyoke. The trip is estimated to be at least five hours long one way; obviously not an option for students.

Figure 89: Map of the PVTA Shuttle bus through Ware; the shuttle connects to the Palmer route at Walmart.

Ware Shuttle Schedule

7 Trips Per Weekday

~ Hourly – 9:00 AM to 11:02 AM

~ Every 1 ½ hrs – 11:02 AM to 12:37 PM

~ Hourly – 12:37 PM to 1:40 PM

~ Every 1 ½ hrs – 1:40 PM to 3:09 PM

~ Hourly – 3:09 PM to 4:00 PM

No service on weekends or major holidays.

Neighboring towns have frequent and direct bus service to centers of employment and higher education; Palmer has service to Springfield and Belchertown is on the Five College route to Amherst. A bus commute to Worcester is possible from neighboring West Brookfield. The 2012 PVTA transportation plan shows a 'low priority' project to enhance linkage between Ware and Palmer (Pioneer Valley Planning Commission 2012 Transportation Plan, Chapter 14). Use of the Ware shuttle has remained relatively steady over the past four years with between 10,039 and 10,886 riders annually (Figure 90).

The proportion of carless households in Ware is similar to highly urbanized areas, but low transit mobility is consistent with the town's rural context. Ware has a

"split personality" in this regard; while most of the town is rural and auto-dependent, a significant population in the downtown area cannot afford their own car and thus depends on public transit. Improving transportation to connect with regional opportunities would yield significant benefits. One such example is education. The level of education in Ware's CDP is significantly lower than the rest of Ware or the overall region. The greatest disparity is in the 25-34 year-old group, which in Ware overall is the most highly educated age group (25% have bachelor's degrees or higher, which is comparable to Hampshire County overall). However, in the CDP only 14% in this age group have a Bachelor's or Graduate Degree. Despite abundant educational opportunities in the region, Ware residents without a vehicle cannot reliably access post-secondary education.

In 2014 a group of concerned citizens, community leaders, and business people met with the PVTA to discuss the poor transit service to Ware and potential ways to improve access to other areas, particularly Belchertown via Route 9. Reinstating such service would allow riders to reach UMass and other colleges, the Hampshire County court system, various service providers, and employment opportunities. The PVTA said they cannot reinstate that route until ridership on the existing route increased, and added that a Route 9 route is very expensive since it passes through a large area with low population, thus diminishing passenger pick up potential. Public education and signage about the current route was also discussed; PVTA said they will not install more signs but will do more public outreach. The group noted that many residents and business people in Ware have little or no knowledge of the existence of the bus, the location of stops, or the schedule. Compounding this is the fact that the public bus is the same size and design and has similar appearance as the paratransit bus.

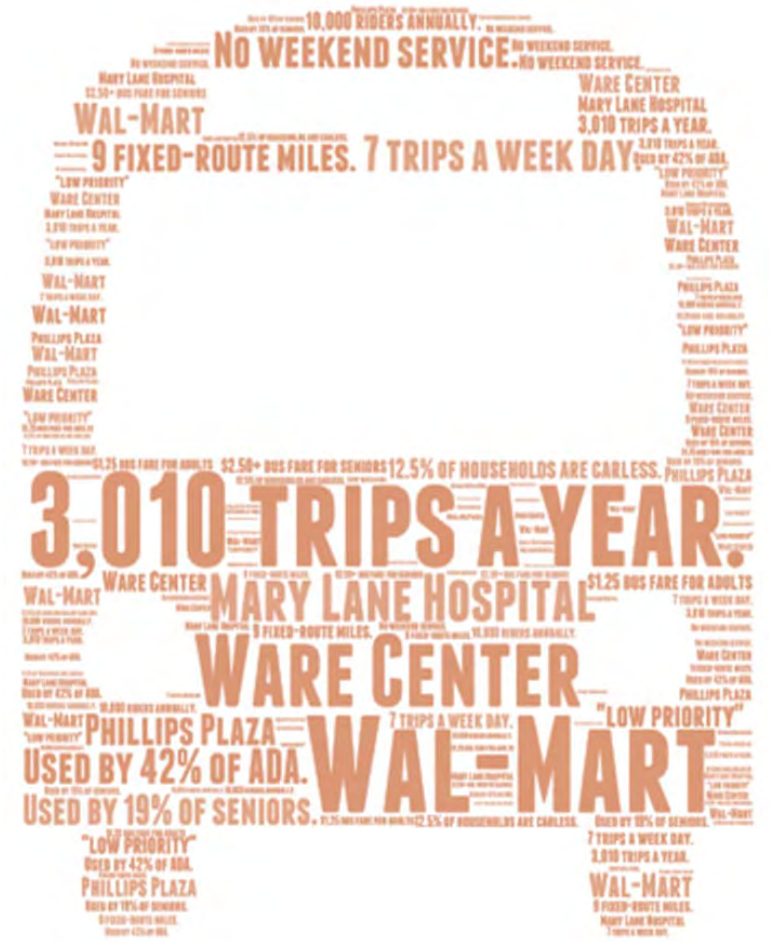


Figure 90: Ware's public transit statistics. Stops on the fixed-route service include destinations such as Baystate Mary Lane Hospital, Gibbs Crossing, Phillips Plaza, and downtown Ware.

The PVTA offers shuttle services for seniors and also has some paratransit options; these operate weekdays on a call basis throughout the 24 communities the transit authority serves. In addition, the Ware Senior Center operates a van to transport senior citizens to and from appointments and shopping within the town of Ware, and operates on a call basis Monday through Friday. It is unclear whether these limited resources can support Ware's aging population and their transportation needs in the future.

Understanding the wants and needs of community members is essential to providing any public service, and proficient public transit is no exception. Bearing this in mind, in 2013 the PVTA conducted a survey of the existing perception and current and future use of available public transit services in Ware. The survey focused on non-riders of the PVTA so that the town and the transit authority could improve their

Figure 91: Results from PVTA survey of non-riders, 2013.

understanding of potential riders' needs and what types of services would better serve them. A total of 1,133 surveys were collected through Ware's January 2013 Town Census mailing. The census survey findings highlight how poorly publicized public transportation is in Ware. Ninety-one percent (91%) of respondents indicated that they have never used the Ware Shuttle and 23% of respondents stated that they were not even aware that the shuttle existed – many of whom live on the shuttle route (Figure 91).

Despite being unaware of the existing route, there was interest among non-riders, with 40% of respondents claiming that they are interested in using public transit to commute to surrounding towns. Of the respondents who are PVTA riders, the most frequent destinations in Ware were Walmart—Gibbs Crossing Plaza (54%), and Big Y—Philip's Plaza (28%). Among survey respondents, the three communities most traveled to are Springfield, Belchertown and Palmer.

Along with the survey, the PVTA analyzed the paratransit and senior Dial-A-Ride services they operate within Ware from January 2010 to January 2012. Of the 50 eligible ADA residents, 21 (42%) were utilizing the paratransit bus service. Of the 204 residents eligible for the PVTA senior service, only 38 respondents (19%) had used the Dial-A-Ride service. Twenty-five percent of all paratransit trips originating in Ware had a destination within Ware. All respondent destinations from paratransit and ADA trips were within close proximity to the existing Ware Shuttle route. Similar to the results of the survey, the most popular locations beyond Ware included Palmer, Springfield, Belchertown and Holyoke. The most frequent users of this service reside in northern and western Ware. These residents could possibly benefit from increased access to public transportation. (*Ware Shuttle and Paratransit Ridership Study,* 2013).

From this discussion, it is clearly evident that Ware has a significant population in need of public transportation, and that the existing services are unrealistic for people to access most locations outside of town, whether for employment, education, or to access medical or social services. The Town should work with stakeholders such as the PVTA, major employers outside of Ware, educational institutions, and other regional entities to improve public transit for Ware's residents. There are options for how this might be done, including adding service to connect Ware to the Five College bus system in Belchertown, the Worcester Regional Transit Authority in West Brookfield, and increasing the existing service to Ware.

In addition, many Ware residents work at the UMass campus in Amherst, and currently must travel there by car. If a commuter parking lot was established in Belchertown on the Five College bus line, then commuters to UMass from Ware and surrounding towns could drive to Belchertown and then ride the bus to campus. This would benefit not only Ware residents - both workers and students - but also residents of surrounding towns and would reduce traffic in Amherst and parking demand at UMass. The Town should work with area towns, UMass, and the transit authority to study and implement this idea.

Current Traffic Issues

In 2011, a traffic study was conducted of the downtown area in Ware. Since Route 9 and Route 32 run concurrently at Ware's Main Street, it is no surprise that traffic issues are a predominant concern in the downtown. These roadways reinforce Ware's position as a regional hub, providing direct connections to Palmer, Amherst, and Belchertown and to Worcester County. The volumes passing through downtown create both challenges and opportunities; challenges in regards to safe and efficient circulation for vehicles, cyclists, and pedestrians, and opportunities in regard to potential customers for downtown businesses. Two-way traffic volume on Main Street in October 2014 was over 13,000 vehicles per day.

South Street serves as the main access route to several major employers in Ware including Country Bank for Savings, Baystate Mary Lane Hospital, and Kanzaki Specialty Papers. It also serves as a commuting route for people traveling to and from Warren, Brimfield, Sturbridge, and points beyond. As a result, a high volume of commuter traffic travels through the complex intersection at Main, East Main, South, and Church streets (Figure 92). This intersection is signalized and includes a pedestrian signal across East Main Street and crosswalks on Church and South Streets and the unnamed way. There is a fifth crosswalk across Main Street about 100 feet west of the intersection, just west of the intersection of Main Street and the unnamed way. In addition, there are crosswalks on Pulaski Street and South Street some 130 feet south of the signalized intersection. The majority of traffic travels east-west on Route 9 (Main Street and East Main Street) but a significant volume of traffic also travels through the intersection to and from South Street (especially at peak times) and to a lesser degree to and from Church Street.

Nenameseck Square sits in the middle of this confluence of streets, and within this small park stands the Nenameseck Fountain, a historically significant icon in the downtown. The square itself is the last remaining bit of what was originally a town green extending all the way to the Town Hall; the majority of this area was given up for development many decades ago. Thus, it is simply not an option at this point to further encroach on this park to accommodate traffic on South Street.

Level of Service (LOS) grades are a qualitative measure used to communicate the quality of traffic service. LOS analyzes roadways by categorizing traffic

Figure 92: The roads and intersections at Nenameseck Square, 2014. This green space once extended from here to Town Hall; this small park is all that remains and includes an important icon - the fountain (photo below). The upper portion of the Square was further encroached in 2011 to accommodate tractor trailer trucks turning right onto South Street. Further encroachment to accommodate traffic on South Street is not an option.

flow. It assigns traffic quality levels based on performance measures like speed and density. Based on the results of an analysis conducted by the PVPC in 2011, the delays during the peak afternoon hours noted at Main Street along with Church Street and South Street are the worst in town. The intersection was calculated to operate with an overall delay of 45 seconds and was given a LOS grade of D. South Street experiences the longest delays with long vehicle queues and was given an LOS grade of F (the worst). Traffic on Main Street does not always flow uniformly and vehicle queues can often interfere with turning movements and parking maneuvers. There are ways to alleviate the problems causing such poor LOS results, but they often include widening roadways or constructing alternative routes. Between Nenameseck Square on one side and a historic building up against the sidewalk on the other side, there is no possibility for widening the South Street leg of this intersection.
The town is currently addressing some of the traffic problems on Main Street though planning and design for a Traffic Improvement Program (TIP) project using Chapter 90 funds. This federally funded project will include installation of new traffic signals that are able to communicate

Downtown Traffic

As part of the UMass Regional Planning Studio Project in 2012, a downtown traffic and parking assessment was done to address concerns about parking and traffic in relation to economic development. Research began with several visits to the downtown area in order to observe traffic flow, parking patterns, safety concerns, and existing infrastructure conditions. Although downtown Ware has experienced economic decline, the busy traffic patterns continue. The area is a high traffic area through Main Street due to its location along two major connecting Routes: 9 and 32. Main Street features two traffic signals and numerous crosswalks but the traffic seems to flow with minimal interference. Pedestrian traffic is active for a town of fewer than 10,000 people. It appeared at first glance that the busy traffic patterns didn't correlate with the relatively few cars parked on Main Street.

Figure 93: Vantage point at the northwest corner of Main and Bank Streets.

The team analyzed two studies: the *Ware Street Traffic Operations Study* (STO) prepared by PVPC (March 2005), and the *Downtown Signal Coordination and Safety Study* (DSC) prepared by PVPC (January 2011). While the STO provided statistics and recommendations on traffic patterns in and along Route 32, the DSC provided information on the downtown corridor, including traffic counts. Since the DSC study used modern technology to count traffic patterns in and around Main Street, the team decided to conduct an analysis using a micro-approach to distinguish what kind of vehicles were using the area and at what frequency, and to count pedestrian traffic. The overall area studied was a 1,700 foot long area between West Main Street to the west and Church Street to the east. The study area contains 37 available parking spots located on the north and south sides of Main Street.

For further analysis and recommendations, the team focused on one particularly high traffic area within the study boundaries. They decided on a centralized vantage point (Figure 93) that used the parking assessment boundaries in order to incorporate the two assessments. They selected the Bank Street crosswalk on Main Street as the vantage point.

Assessment Methodology

The team decided on individual and random traffic counts throughout the course of the Fall of 2012. On numerous occasions, a team member accounted for all traffic that passed by during a thirty-minute span within the target area. Observations were divided into east moving vehicles, west-moving vehicles, and finally totaled by east and west for each subgroup of vehicles. This method gave each subgroup three different datasets for further analysis. The subgroups are: Vehicles (private automobiles, motorcycles, trucks); Work Trucks (commercial, trucks with large toolboxes); Buses (public school or public transportation); Tractor-Trailers (18+ wheels); and Pedestrians (on foot, bicycle, skateboard, etc.).

During the traffic count, each team member also counted the number of vehicles utilizing the 37 parking spaces in the study area. For every traffic count, first each student counted the total number of occupied spaces prior to starting. Once the traffic count reached its midway point (15 minutes), a second parking count was taken. Finally, after the traffic count was completed, a final parking count was taken. All results were entered into a central database for later analysis.

In order to garner input from local stakeholders, the team included a brief survey for Main Street businesses as part of the assessment. This allowed them to gather qualitative data collected from public input and compare those results with the quantitative data from the traffic and parking counts. The team decided to administer the surveys only to businesses that were located within the study area. The surveys included only two questions, and included a list of answers (one or more could be chosen) and space for additional comments. The questions were: *On an average day, what is the overall feel of traffic that passes by your business?* and *How are public parking options on Main Street?*

This section provides the major findings of the UMass Regional Planning Studio Downtown Traffic Assessment. A total of eight counts were administered randomly between September 20 and November 20, 2012. Data from each vehicle subgroup (Cars, Work Trucks, Buses, Tractor Trailers) indicated that during any given hour, an average of 932 total vehicles and 81 pedestrians were traveling in Downtown Ware. However, during that time, only 14 parking spaces or 37% of the total street spaces within the study area were being occupied.

A major finding was that significantly fewer vehicles were travelling eastbound on Main Street than were travelling westbound (average of 370 vehicles per hour eastbound and 570 westbound). A large rate of tractor-trailers (regardless of direction) was observed in the study area (12 per hour). Most of the buses observed — less than two per hour — were small shuttles or school buses. Additional data on weekday and weekend averages, parking deviation rates, and further comparisons of eastbound and westbound traffic patterns was also collected.

Target Area Business Survey responses were collected from a total of fifteen businesses. Of the businesses surveyed, 88% agreed that busy traffic is good, and the statistics show the area as being particularly busy for a town with fewer than 10,000 people. Conversely, 87% of the sample surveyed responded that parking availability was a problem on Main Street. This response is contradictory to the quantitative findings which indicated that only 37% of the spaces within the study area were occupied at any given time. Businesses however responded overwhelmingly that installing parking meters would be bad for business. Given the low occupancy of the on-street parking spaces during this study, it seems that the consumer demand for parking is low at this time. It can be assumed however, that if the downtown becomes busier with more businesses, then on-street parking will be more in demand and an overall downtown parking management plan would be an appropriate step to deal with parking needs throughout the downtown.

The final traffic data from the 2012 survey is shown in the tables on the following pages; each page has one vehicle category (except the table below which provides a summary). Each data set is organized by the observation date and time while accounting for eastbound and westbound traffic flow. Each observation period was one-half hour in length; the hourly averages in these tables are the 30 minute averages doubled, the assumption being that the volume rate during the counted half-hour would remain steady throughout an hour long period.

Table 8: Summary of Traffic Count Data from UMass Survey, 2012

TOTAL VEHICLES

Date	Day	Time	Eastbound	Westbound	Total
9/20/2012	Thurs	4:30 PM	228	305	533
9/25/2012	Tues	11:45 AM	161	280	441
10/3/2012	Weds	1:40 PM	179	262	441
10/20/2012	Sat	2:20 PM	225	323	548
10/26/2012	Fri	9:10 AM	146	255	401
10/30/2012	Tues	2:40 PM	188	249	437
11/2/2012	Fri	11:10 AM	176	305	481
11/18/2012	Sun	12:40 PM	183	264	447

This data shows some interesting things. During the 9/20/2012 period (4:30 to 5:00 PM) which coincides with the PM peak period, 57 percent of the traffic is traveling westbound. This could be an indication of the workers leaving the major employers on South Street and returning home to points south and west of downtown. The highest volume observed was on a Saturday afternoon, when again more vehicles were traveling westbound than eastbound. In fact, there were more westbound vehicles in every time slot observed. This is undoubtedly because many drivers are using Pulaski Street to avoid driving through downtown when traveling from West Street to South Street. Reviewing turning movement data from a variety of traffic studies reveals most people turn right from Pulaski onto South Street in a southbound direction. Personal observation indicates a number of people then turn left onto Maple Street, presumably in an effort to avoid Route 9 as long as possible; rejoining it just before the railroad underpass.

30 Minute Averages	
Eastbound Total Average	186
Westbound Total Average	280
Total Assessment Per 1/2 HR	466
Total WEEKDAY Per 1/2 HR	456
Total WEEKEND Per 1/2 HR	498

Hourly Averages	
Eastbound Total Average	372
Westbound Total Average	560
Total Assessment Per HR	932
Total WEEKDAY Per HR	911
Total WEEKEND Per HR	995

The highest percentage of westbound traffic was observed on 10/26/2012, a Friday, during the morning peak period. One might conclude this is a reflection of people traveling to the Amherst area to the west or southerly to the MA Pike to get to the Springfield metro area for work or higher education.

CARS

Table 9: Traffic Count Data from UMass Survey, 2012

Date	Day	Time	Eastbound	Westbound	Total
9/20/2012	Thurs	4:30 PM	211	282	493
9/25/2012	Tues	11:45 AM	143	275	400
10/3/2012	Weds	1:40 PM	154	229	383
10/20/2012	Sat	2:20 PM	211	313	524
10/26/2012	Fri	9:10 AM	119	220	339
10/30/2012	Tues	2:40 PM	159	224	383
11/2/2012	Fri	11:10 AM	142	266	408
11/18/2012	Sun	12:40 PM	171	254	425

As can be expected based on the Total data on the previous page, more cars were observed traveling westbound than eastbound in all time periods. Examining the percentages of west-bound Cars (of Total Cars) and westbound Total Vehicles (of Total Vehicles, previous page), it can be seen that a higher percentage of cars are traveling westbound; once can surmise from this that the traffic on Pulaski Street is predominantly cars - i.e. trucks are less likely to use Pulaski Street than cars are.

As expected, most of the traffic in downtown is cars, ranging from 85% to 96% of the Total Vehicles. The highest percentages were seen on weekends, which is a reflection of the lack of tractor-trailer truck and bus traffic on weekends, along with a reduction in work truck traffic.

Interestingly, more cars travel through downtown on weekends than on weekdays - or more precisely, more cars traveled through downtown on the weekend days observed than on the weekdays observed.

30 Minute Averages	
Eastbound Total Average	164
Westbound Total Average	256
Total Assessment Per 1/2 HR	419
Total WEEKDAY Per 1/2 HR	401
Total WEEKEND Per 1/2 HR	475

Hourly Averages	
Eastbound Total Average	328
Westbound Total Average	512
Total Assessment Per HR	839
Total WEEKDAY Per HR	802
Total WEEKEND Per HR	949

WORK TRUCKS

As one would expect, more work trucks were observed on weekdays than on weekends. Unlike the data on cars, there is not much disparity between east and west bound traffic for work trucks, another indication that most of them stay on Route 9 rather than using Pulaski Street as an alternative route. Three of the eight assessment periods had more work trucks going eastbound than westbound, and two of these were on weekends.

Work trucks comprised 8.4 percent of all vehicles counted.

Table 9: Traffic Count Data from UMass Survey, 2012 (cont.)

Date	Day	Time	Eastbound	Westbound	Total
9/20/2012	Thurs	4:30 PM	15	19	34
9/25/2012	Tues	11:45 AM	13	16	29
10/3/2012	Weds	1:40 PM	17	24	41
10/20/2012	Sat	2:20 PM	14	10	24
10/26/2012	Fri	9:10 AM	23	30	53
10/30/2012	Tues	2:40 PM	26	23	49
11/2/2012	Fri	11:10 AM	26	36	62
11/18/2012	Sun	12:40 PM	12	10	22

30 Minute Averages	
Eastbound Total Average	18
Westbound Total Average	21
Total Assessment Per 1/2 HR	39
Total WEEKDAY Per 1/2 HR	45
Total WEEKEND Per 1/2 HR	23

Hourly Averages	
Eastbound Total Average	36
Westbound Total Average	42
Total Assessment Per HR	78
Total WEEKDAY Per HR	89
Total WEEKEND Per HR	46

Table 9: Traffic Count Data from UMass Survey, 2012 (cont.)

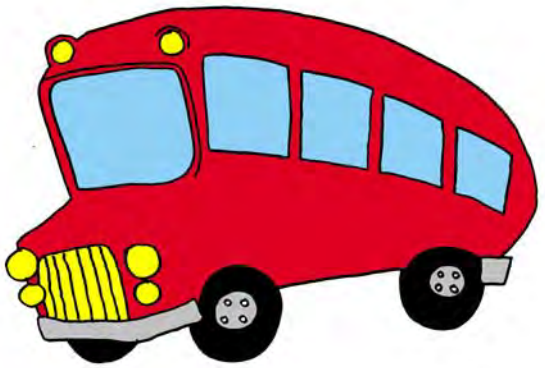
BUSES

Date	Day	Time	Eastbound	Westbound	Total
9/20/2012	Thurs	4:30 PM	1	2	3
9/25/2012	Tues	11:45 AM	1	0	1
10/3/2012	Weds	1:40 PM	3	1	4
10/20/2012	Sat	2:20 PM	0	0	0
10/26/2012	Fri	9:10 AM	1	1	2
10/30/2012	Tues	2:40 PM	0	0	0
11/2/2012	Fri	11:10 AM	2	1	3
11/18/2012	Sun	12:40 PM	0	0	0

No buses were observed on weekends, which is not surprising given that there is no public transit service in Ware on weekends, and obviously school buses don't operate on weekends either.

The observation of three buses traveling eastbound during a 30 minute period on a Wednesday before school was dismissed for the day is odd, but without knowing what buses they were (school, PVTA, Senior Center, or private), no conclusions can be made from this anomaly in this data set.

Generally speaking, there is so little bus traffic that it is insignificant.



30 Minute Averages	
Eastbound Total Average	1
Westbound Total Average	.6
Total Assessment Per 1/2 HR	2
Total WEEKDAY Per 1/2 HR	2
Total WEEKEND Per 1/2 HR	0

Hourly Averages	
Eastbound Total Average	2
Westbound Total Average	1
Total Assessment Per HR	3
Total WEEKDAY Per HR	4
Total WEEKEND Per HR	0

TRACTOR TRAILER TRUCKS

Table 9: Traffic Count Data from UMass Survey, 2012 (cont.)

Date	Day	Time	Eastbound	Westbound	Total
9/20/2012	Thurs	4:30 PM	1	2	3
9/25/2012	Tues	11:45 AM	4	7	11
10/3/2012	Weds	1:40 PM	5	8	13
10/20/2012	Sat	2:20 PM	0	0	0
10/26/2012	Fri	9:10 AM	3	4	7
10/30/2012	Tues	2:40 PM	3	2	5
11/2/2012	Fri	11:10 AM	6	2	8
11/18/2012	Sun	12:40 PM	0	0	0

Tractor trailer trucks accounted for an average of 1.3 percent of all vehicles counted, but there were none observed on the two weekend days assessments were done.

Most assessment periods had more tractor trailer trucks traveling westbound than eastbound. However, on 11/2/2012, a Friday, there were six eastbound and only two westbound; this might be a reflection of a large delivery going to a single industry or some other non-daily event.

On Wednesday 10/3/2012 the highest number of tractor trailer trucks were observed, at 13, which is nearly three percent of the Total Vehicles counted that day.

30 Minute Averages	
Eastbound Total Average	3
Westbound Total Average	3
Total Assessment Per 1/2 HR	6
Total WEEKDAY Per 1/2 HR	8
Total WEEKEND Per 1/2 HR	0

Hourly Averages	
Eastbound Total Average	6
Westbound Total Average	6
Total Assessment Per HR	12
Total WEEKDAY Per HR	16
Total WEEKEND Per HR	0

PEDESTRIANS

Pedestrian traffic varied from a low of 21 to a high of 60 counted during the half-hour assessment periods. The lowest count was on a Sunday at mid-day, and the highest was on a Tuesday in the middle of the afternoon. The weather for all periods was dry and seasonable - there were no snowy or rainy days and none of the assessments were done in particularly cold weather which might discourage people from venturing out on foot.

As the graph below shows, the volume of pedestrian traffic increased throughout the day but dropped off in the late afternoon.

While this data is interesting, a more thorough study would need to be done before any conclusions can be drawn that would lead to useful recommendations.

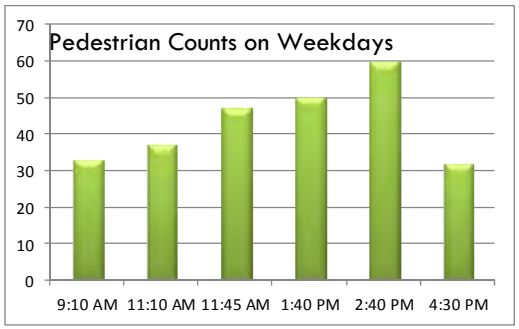


Table 9: Traffic Count Data from UMass Survey, 2012 (cont.)

Date	Day	Time	Eastbound	Westbound	Total
9/20/2012	Thurs	4:30 PM	10	22	32
9/25/2012	Tues	11:45 AM	19	28	47
10/3/2012	Weds	1:40 PM	25	25	50
10/20/2012	Sat	2:20 PM	21	21	42
10/26/2012	Fri	9:10 AM	19	14	33
10/30/2012	Tues	2:40 PM	27	33	60
11/2/2012	Fri	11:10 AM	22	15	37
11/18/2012	Sun	12:40 PM	12	9	21

30 Minute Averages	
Eastbound Total Average	19
Westbound Total Average	21
Total Assessment Per 1/2 HR	40
Total WEEKDAY Per 1/2 HR	43
Total WEEKEND Per 1/2 HR	32

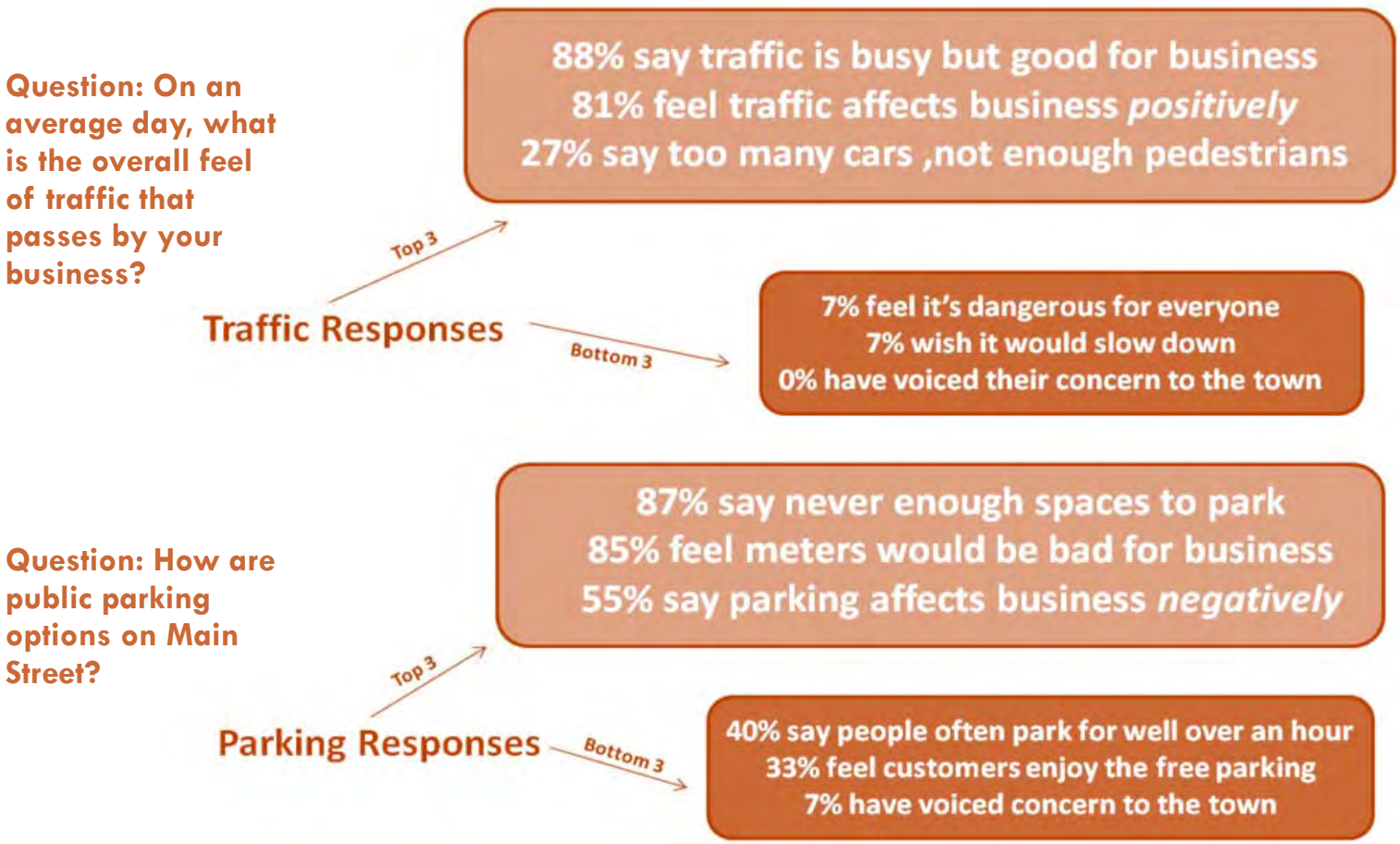
Hourly Averages	
Eastbound Total Average	39
Westbound Total Average	42
Total Assessment Per HR	81
Total WEEKDAY Per HR	86
Total WEEKEND Per HR	63

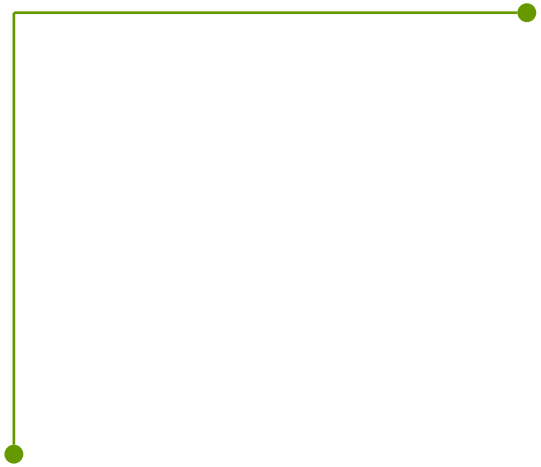
The table below shows the final parking statistics for the on-street spaces within the study area, organized by date and time. While this represents only eight dates and varying times of day, it nonetheless gives an indication of the level of parking being utilized on Main Street. The average occupancy rate at any time was 37%; on weekdays it was 38% and on weekends it was 34%.

Table 10: On-Street Parking Data from UMass Study, 2012

Date	Day	Time	Occupied Spaces	Total Spaces	% Occupied	Daily Occupancy Rate
9/20/2012	Thursday	4:30 PM	14	37	38%	37%
		4:45 PM	13	37	35	
		5:00 PM	14	37	38	
9/25/2012	Tuesday	11:45 AM	20	37	54	49
		12:00 PM	19	37	51	
		12:15 PM	15	37	41	
10/3/2012	Wednesday	1:40 PM	10	37	27	30
		1:55 PM	15	37	41	
		2:10 PM	8	37	22	
10/20/2012	Saturday	2:20 PM	12	37	32	32
		2:35 PM	11	37	30	
		2:50 PM	12	37	32	
10/26/2012	Friday	9:10 AM	9	37	24	25
		9:25 AM	7	37	19	
		9:40 AM	12	37	32	
10/30/2012	Tuesday	2:40 PM	12	37	32	45
		2:55 PM	20	37	54	
		3:10 PM	18	37	49	
11/2/2012	Friday	11:10 AM	12	37	32	41
		11:25 AM	12	37	32	
		11:40 AM	22	37	59	
11/18/2012	Sunday	12:40 PM	14	37	38	35
		12:55 PM	11	37	30	
		1:10 PM	14	37	38	

This diagram shows the top and bottom three responses from the survey of businesses in the study area. A total of fifteen businesses were surveyed and asked a general question about traffic, and a general question about parking. The majority of responses demonstrate that businesses enjoy the busy outside traffic but feel that parking is an issue. Given the data from this study, some of these responses indicate that perceptions do not match reality - for example, thirteen respondents said there are never enough parking spaces, yet the occupancy rate was an average of only 37%. This may be a matter of where the empty spaces were - if more than a few hundred feet from the business, it is likely that people would perceive there to be a lack of spaces. Most businesses believe the amount of traffic is good for their business, but some recognize that getting people out of their cars and on foot would be better. While there are concerns about traffic flow, safety and speed do not appear to be major concerns.





Water Infrastructure

Ware's current public water system consists of approximately 40 miles of water main (Figure 94), 2,250 service connections, and provides water to 344 public and 59 private hydrants (Town of Ware Annual Report, 2011). The town is divided into seven zones and has a range of water pipe sizes including 12, 10, 8, 6, and 4 or fewer inches (Water and Wastewater, Tata & Howard, 2011).

There are currently two water supply sources, the Barnes Street Well close to the center of town and the Dismal Swamp well on the east side of town near the West Brookfield border. These two sources have a combined capacity of 2.5 million gallons of water (Town of Ware Annual Report, 2011) and as of 2011, there is as 1.3 million gallon surplus (Public Water Supply Verification, 2011). This water surplus is projected to continue through the year 2020, decreasing slightly to .93 mgd in 2020, based on projected population growth. The most recent estimates of municipal water use show approximately 70% or 6,900 of Ware's residents rely on the public water system for their daily water needs, while the rest of the population has their water needs met by private wells.

All Ware residents and businesses on the public water system have their water usage tracked via water meters (Martens, 2012). As of December 2012, the water fee schedule amounted to $30 per quarter base rate including the first 500 cubic feet of water and $3.73 per hundred cubic feet for all subsequent water use (Ware Department of Public Works, 2012).

According to the DPW, the main issue facing the current water infrastructure is the aging facilities and equipment and the lack of funds to repair and replace them. Figure 95 shows the results of many decades of buildup of minerals inside water pipes; as the inside diameter of the pipe is reduced, the pressure available at the tap or hydrant is likewise reduced and in extreme cases is completely blocked. The majority of piping infrastructure repair and replacement completed has occurred in older neighborhoods near the downtown through Massachusetts' Department of Housing and Community Development's (DHCD) Community Development Block Grant (CDBG) program (Figure 96). The Town is about midway through a series of infrastructure improvements on the streets in the Northside Neighborhood, between North and Church Streets north of Main Street. While there are not any serious outstanding issues, continual work is needed on the lines

Figure 95: Tuberculated water pipes. Tuberculated pipes reduce household water pressure, and affect fire hydrant flows and water quality. Some of Ware's infrastructure is over 100 years old. Bottom photo shows a water pipe from 1899 which was replaced in 2013.

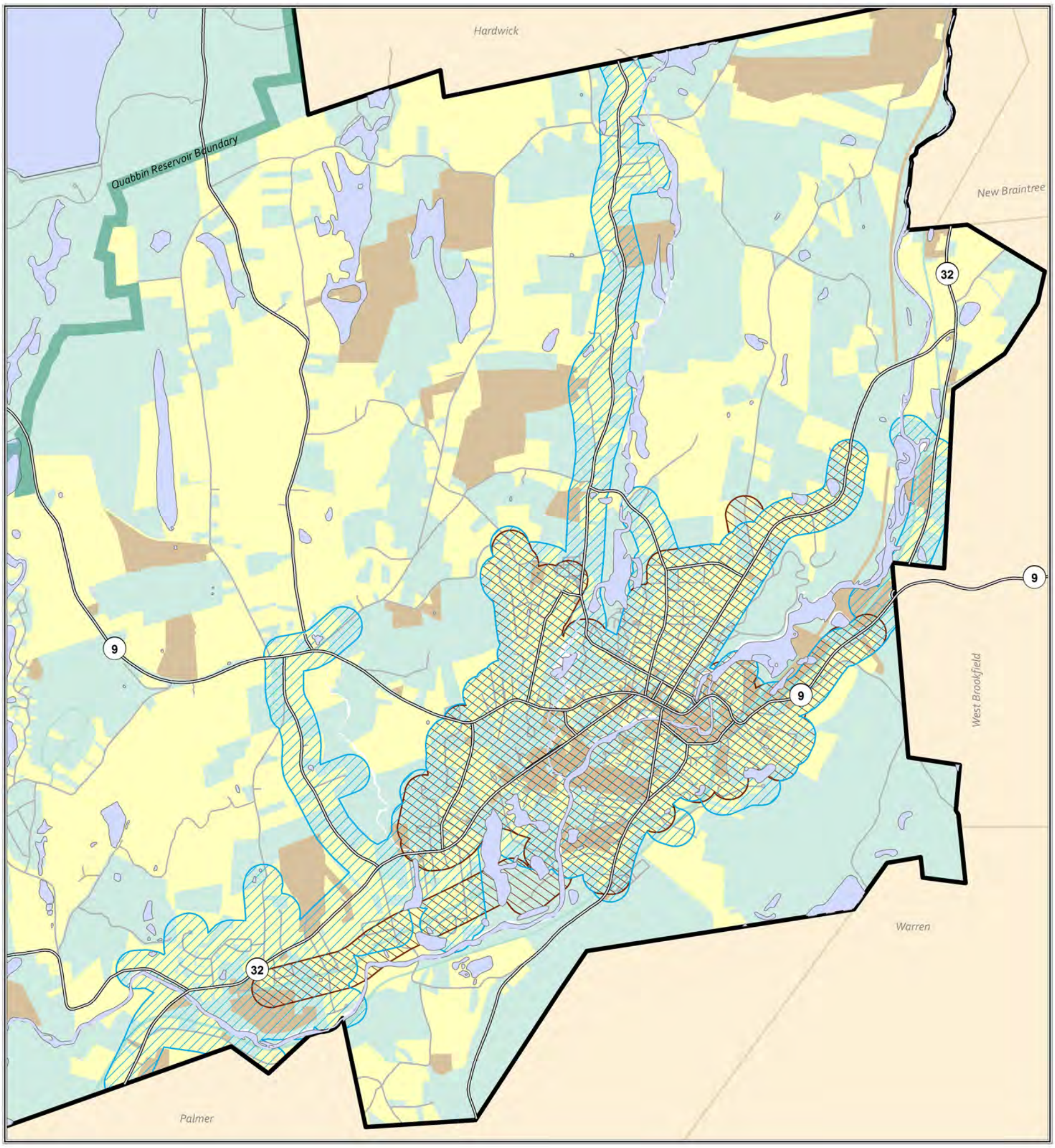
(Martens, 2012). Most recently, DPW staff completed a flush of the entire system (Town of Ware Annual Report, 2011).

To address the aging water infrastructure, a variety of trenchless technologies are available that are both cost-saving and allow for less connection disruption during repair. First, PipePatch allows for in-house repairs and addresses problem areas before they become more costly. This option is used by the supervisor of the Amherst wastewater treatment plant, Jim Jordan. Mr Jordan has effectively used PipePatch (from SourceOne Environmental) to repair minor cracks and holes in water and wastewater infrastructure. This product uses a styrene-free resin (Jordan, 2012). This product requires the investment of a closed circuit pipe camera to locate damaged infrastructure.

Figure 96: Infrastructure improvements on School Street. Recent improvements included new water and drainage lines among other improvements; funded by DHCD's CDBG program, 2013.

Second, trenchless technologies can be used for larger repairs requiring replacement of a few hundred feet of infrastructure. Trenchless technologies allow for repair while minimizing disruption to businesses and residents. Lining, sliplining, and pipe bursting are three trenchless technologies used by many municipal departments and contractors to repair water and wastewater infrastructure depending on the deterioration of the pipes. Cured in Place Pipe (CIPP) lining is often used when long lengths of infrastructure need repair and are not too badly deteriorated. Similar to the PipePatch tool, CIPP lining uses a hardening resin to repair the water or wastewater infrastructure. Sliplining is a cost effective mechanism that can be used when infrastructure is more severely deteriorated by pulling a new, often PVC, pipe through the old lines. Sliplining reduces the interior diameter of the pipe, therefore is more suitable for areas in which there is excess flow capacity. Slipline repairs first require laser profiling.

Finally, pipe bursting is another trenchless technology for repairing heavily damaged infrastructure. Pipe bursting is performed by pushing through a new pipe that simultaneous destroys and replaces the old infrastructure. This technique is advantageous because the condition of the old infrastructure does not matter and the flow diameter of the pipe can be increased. Two disadvantage are that 1.) any connecting infrastructure must be excavated and re-plumbed and 2.) the manhole is partially destroyed and must be repaired (Trenchless Pipe Lining). Ware could possibly pursue a combination of all three techniques depending on specific conditions of water and wastewater infrastructure. Trenchless technologies offer many benefits over conventional excavation including cost savings and reduced disruption to resident and business connections.



Legend

- *Water Service Area **
- *Sewer Service Area **
- *Streets*
- *Non-Residential Properties*
- *Residential Properties*
- *Undeveloped Properties*

** The water and sewer service areas are approximations only, based on the best available data, and are not an accurate representation of the properties in Ware that are connected to the public water or sewer systems. These service areas do represent areas where connection to the municipal systems are possible; e.g. the residential neighborhoods off Route 32 between the road and the Walmart/Lowes shopping center.*

Note: The Non-Residential Properties shown on this map include agricultural uses.

Sources:
Water & Sewer Lines - PVPC
Water & Sewer Service Areas - Town of Ware
Base Data (roads, water, towns): MassGIS

N W E S

0 0.25 0.5 1 Miles

July 9, 2014

Public Utilities

Municipal Water & Sewer Service Areas

Ware's Future - 2015 Master Plan

Planning & Community Development Department
Town Hall - 126 Main Street - Ware MA
www.townofware.com

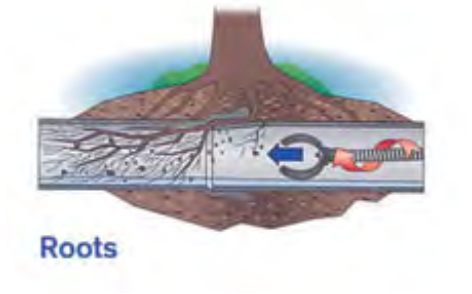


Figure 97: Older sewer pipes can get clogged by tree roots (upper left) when roots begin to grow into seams between pipe sections. When the root growth has not damaged the pipes too severely, the roots can be removed mechanically (lower left). For moderately damaged pipes, a new lining can be put inside the existing pipe (above).

Wastewater Infrastructure

Ware's residents rely less on the municipal sewer system than its water system. An estimated 55-60% of the population, or approximately 5,400 persons (Martens 2012) are connected to the sewer system. The rest of the community uses private septic systems to dispose of wastewater. Ware's 2011 Annual Report described having 32 miles of public sewer infrastructure installed. Problems identified with the wastewater infrastructure include the wastewater treatment plant (WWTP) and the influent pumps. Sewer hookup fees, as of December 2012, amount to $38.50 per quarter base rate which includes the first 500 cubic feet and $3.93 per hundred cubic feet of subsequent water use (Water and Sewer Fee Schedule). The WWTP operates as a secondary treatment facility via an extended aeration process. The last major upgrade on the facility was in 1987, approximately 25 years ago and had an expected mechanical operational lifetime of 20 years. The Department of Public Works has not identified any capacity issues with the WWTP and there is room for increased usage of the municipal system (Martens, 2012).

The WWTP and influent pumps use a significant amount of energy and DPW management is working with the electric utility provider to obtain rebates for recent energy efficiency improvements (Town of Ware Annual Report, 2011). In 2012, the town was awarded a $2.5 million MassWorks grant to upgrade the plant with a tertiary treatment process. This would have allowed the town to continue to treat wastewater from Kanzaki Specialty Papers (a heavy user of the municipal system) as well as meet anticipated future requirements for the removal of phosphorous from the wastewater. The town anticipated sharing the design and construction costs with Kanzaki. Unfortunately, protracted negotiations with Kanzaki prevented the project from being bid and collaboration stalled. Ultimately, the town was unable to meet the terms of the grant. and the grant was forfeited. In 2014, Kanzaki plans to build their own treatment facility to pre-treat their wastewater before it enters the municipal system. The town still plans to upgrade its facility. Future upgrades to improve the energy, efficiency of the wastewater facilities there may be potential for state funding through Green Communities Act grants. In order to take advantage of this funding source, Ware must first meet the 5 criteria for designation as a Green Community through the MA office of Energy and Environmental Affairs (EOEEA).

A significant management method to eliminating water contamination in sustainable water and wastewater is treating effluent pollution at its source. To reduce strain on the WWTP and allow for increased waste detention time, mandatory residential, commercial, or industrial wastewater reduction programs could have a significant impact on improving the effectiveness of the current system. Countries such as Sweden have implemented effective solutions to wastewater treatment problems such as using educational outreach to citizens and industrial regulatory standards. In the first case, the town of Alekulla educated their residents about the harms of chemical products discharged down the drain.

Samples of low-phosphate cleaners and detergents were distributed freely and the same products were made available at the local store. Residents began to make the switch to low-phosphate cleaners and detergents when the products were made available. In the second case, Stockholm set regulatory standards for their industrial polluters forcing them to develop new technology to treat their wastewater at the source (Roseland 2005).

Improving the use and reuse of wastewater is also central to sustainability efforts and vital to ensuring Ware enters the 21st century ready to tackle environmental challenges. Reusing nutrient rich wastewater at parks and agricultural areas could be accomplished through the DPW in order to reduce the amount of treated effluent sent into Ware's water resources and reduce the need for chemical fertilizers (Roseland 2005). With a blend of investment, sustainable wastewater practices, and effective management of the wastewater system Ware can leverage their current infrastructure to be an excellent asset for the future growth of the town.

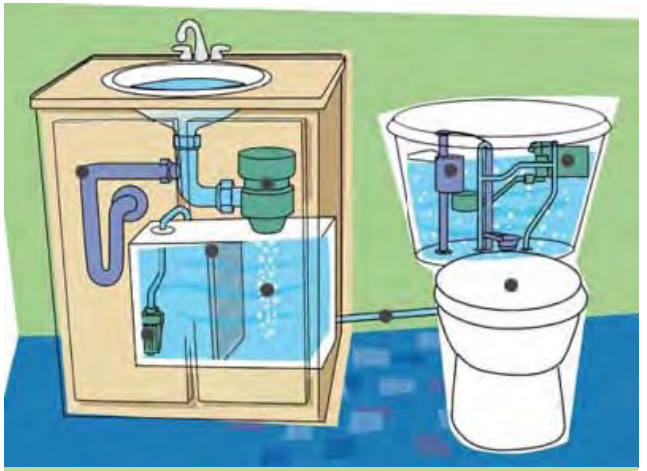


Figure 98: Example of potential wastewater reuse. The AQUS® system takes wastewater from a bathroom sink and diverts it through a filtration system to the toilet to be used for flushing the toilet.

Currently, the Massachusetts Department of Environmental Protection (MassDEP) allows the reuse of wastewater for cooling water, toilet and urinal flushing (Figure 98) , boiler feed, industrial process water and irrigation to golf courses, parks, agricultural fields, landscaped areas and cemeteries (314 CMR 20.00). Uses in other states that are being evaluated by MassDEP for use here include irrigation of parks and playgrounds, landscaping in nonresidential developments and cemeteries, highway landscaping, and cooling water.

Targeted Growth

Crucial to Ware's growth is the effective use of water and wastewater infrastructure to incentivize development in targeted areas. Through cooperative and coordinated efforts between the Planning and Community Development Department (PCD) and the Department of Public Works, public outreach and organization programs can guide future residential, commercial, and industrial growth in areas where residents would most like to see development. A combination of the above recommendations to improve sustainability and continued investment to enhance Ware's water and wastewater infrastructure can help Ware grow in a thoughtfully planned way.

Using existing infrastructure effectively and efficiently by encouraging development and redevelopment will help curtail infrastructure building and maintenance costs as well as provide revenue for the town through sewer and water fees. Ware’s current excess capacity of the water supply and wastewater plant provides the town with a valuable asset to encourage infill development of existing areas. This could be especially effective in the older areas of town. Investment and reuse of older buildings should be encouraged as well as targeted growth areas such as the Route 32 corridor.

Water Supply Protection

Maintaining the safety of the water supply is a major public health interest. Protecting Ware’s aquifer recharging areas is vital to Ware's public

water system. In 2003, MassDEP completed a Source Water Assessment Protection (SWAP) Report for Ware's water department. Then, in 2005, a Source Water Protection Plan (SWPP) was completed through the combined effort of a steering committee of local residents and the Massachusetts Rural Water Association. The completed SWPP describes the current water supply situation, analyzes threats to the public water supply from pollution and current land uses, and makes a number of recommendations. Ware has been very active in protecting the public water supply system by taking action recommended in the SWPP such as removing storage equipment and installing "No Parking" signs within the Zone I area of the Barnes Street well, as reported in the Drinking Water Quality Report in 2010. The majority of this report's work did not address protection of the public water supply, since the SWPP was completed only five years previous. In addition, many of the recommendations of the SWPP were implemented through adoption of a groundwater protection overlay district in the zoning bylaw.

Water Supply Assessment

Protecting water resources is a key factor in any long-range municipal planning effort that, at the same time, ensures the long-term environmental and economic health of a community. The following planning concepts outline a responsible approach to community water resources:

- Use water efficiently
- Protect current and future water supplies
- Protect natural water resource areas
- Develop a single plan for meeting water, wastewater and storm water needs
- Use appropriate treatment for water, wastewater, and non-point source pollution
- Emphasize pollution prevention

Some water quality issues affect Ware's water supply system. The Barnes Street wells have experienced elevated coliform counts from unknown sources, and the town now chlorinates that supply. Groundwater is high in iron and manganese at Ware's wells resulting in corrosion problems and household staining. The town is investigating possible solutions, including building a filtration plant. There is some concern about the multiple gas stations located down-gradient from the Barnes Street wells, which may be using gasoline additives such as MBTE. However, the Town does not expect the aquifer in that area to ever be tapped for municipal water supply, given the land uses in the area including not only the gas stations, but also the municipal landfills, wastewater treatment plant, and various automotive or industrial uses.

Water Quality

Ware's DPW has been treating its two wells with potassium hydroxide for corrosion control, and the Barnes Street well with sodium hypochlorite, a disinfectant (Annual Town Report of the Town of Ware, 2011). Due to human and animal activity, tap water may collect a number of contaminants such as microbial contaminants, inorganic contaminants, pesticides and herbicides, organic chemical contaminants, and radioactive contaminants. The Environmental Protection Agency (EPA) establishes regulations that set the levels of allowable contaminants in the public drinking water system and that are determined safe for human consumption (Drinking Water Quality Report, 2010). Identified contaminants in the public water system that are above allowable levels include iron and manganese. However, this does not indicate definite health hazards. Potential causes of these contaminants could include the corrosion of cast iron pipes and erosion of natural deposits (Drinking Water Quality Report, 2010).

Combined Sewer Overflows (CSOs), according to MassDEP, "were built as part of sewer collection systems that were designed to carry both sewage and storm water in the same pipe. When there is not a lot of storm water, this mix is transported to a wastewater treatment plant where it is processed. However, after heavy rainfall or snowmelt, storm water and sewage overload the system. Without CSOs, the mix would back up into homes, businesses, and public streets."

The regulating structures in these overflow systems divert extra wastewater into rivers, lakes and coastal areas, effectively compromising the area's water quality. In the Pioneer Valley Region CSOs primarily dump overflow waste into the Connecticut, Chicopee, Mill, Quaboag, Swift, and Ware rivers (Figure 99), and Stony Brook and Buttery Brook. Twenty-four municipalities in MA have been issued CSO permits by federal and state environmental agencies. Most of these communities are older urbanized communities, like Springfield and Holyoke. Those towns with permits must adhere to several different regulations that ensure safe use of CSOs. Throughout the Pioneer Valley, the total number of CSO sites on the Connecticut River has decreased from 76 to 69 between 2009 and 2011, representing a 9.2 percent reduction (http://www.stateofthepioneervalley.org/). The Town of Palmer is one of the CSO permit holders; their permit covers 20 outfalls into the Quaboag, Swift, and Ware Rivers. There are no CSO's in the Town of Ware.

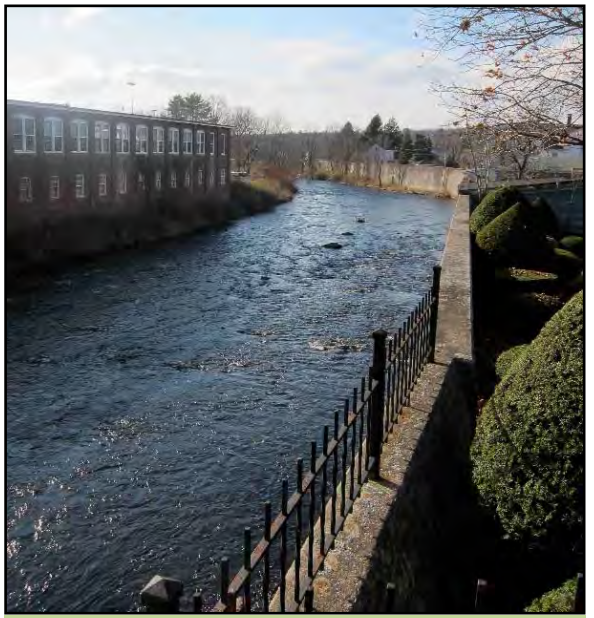


Figure 99: The Ware River near downtown. There are no combined sewer outfalls into the Ware River.

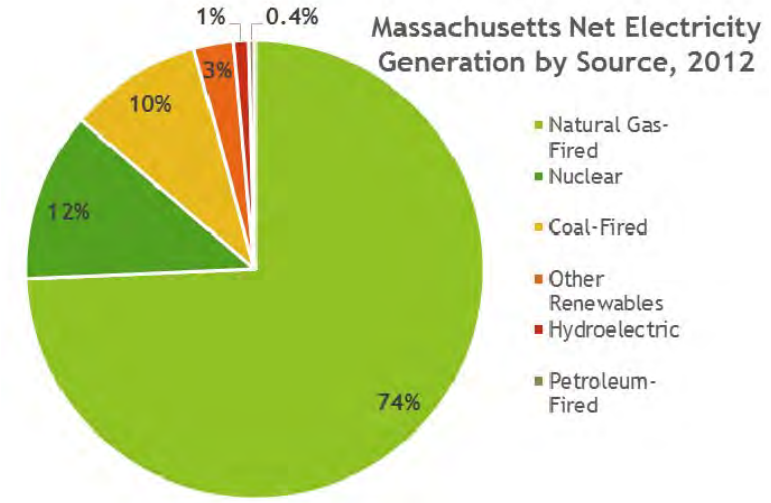


Figure 100: Massachusetts net electricity generation.
Source: Energy Information Administration, Electric Power Monthly.

Energy Creation & Consumption in Massachusetts

Massachusetts is a comparatively small state with limited resources to generate its own power. Massachusetts imports most of its energy sources, which are primarily coal and natural gas (US Energy Administration, 2011). However, it does have a wide variety of power generation plants, including natural gas, solar, wind, biomass, coal, and nuclear (Figure 100). The state's rate of adopting renewable resources for its power has been slow. As of 2013 nine percent of the state's total electricity generation came from renewable sources (US Energy Information Administration). Offshore wind projects have been approved by the Federal government and will be moving forward in the near future. "Cape Wind is currently in its financing and final commercial contracting stage. Cape Wind will complete its financing during the second half of 2014" (http://www.capewind.org). The Commonwealth has several programs in place to encourage energy efficiency in residential, industrial, and municipal settings. These include MassSave, a collaboration between the State and private utility companies; Green Communities, a municipal scale grant program; and various initiatives to provide clean energy subsidies and incentives.

Massachusetts has significant opportunities to place itself at the forefront of renewable and clean energy initiatives. The state's size and relatively stable population allow for existing infrastructure upgrades without inhibiting growth. An innovative culture and a thriving educational institutions provide the base for a transition to a more sustainable economy. Additionally, Massachusetts ranks 45th out of all states in energy consumption - its focus on public/private partnerships is successful. Continuing with this model may require more stringent regulations that will allow renewable generation to become more economically competitive.

The state's heavy reliance on natural gas could be a liability; as of 2014 62 percent of the state's electricity generation was fueled by natural gas. Although it is a less expensive, cleaner burning alternative to petroleum, it is not renewable. The price will most likely rise with limited supply or changes in global demand. Massachusetts has spent a considerable amount of money building a natural gas pipeline through the southern part of the state and international import terminals in the Massachusetts Bay. Small towns like Ware, which do not have access to the pipeline, can help the state diversify its energy production capacity.

Energy Creation & Consumption in Ware

Energy usage in Ware has several dimensions; residential, industrial/ commercial, and municipal. Residential heating cost is a significant concern, because roughly two-thirds of Ware's homes rely on fuel oil (Figure 101), and 46% of its total housing stock was built prior to 1950 (US Census, 2010). As of October 2012, home heating oil near Ware cost $3.72 (Sherman Oil) per gallon; approximately $3,000/year (800 gallons) for the average household. Direct figures on the percentage of residents receiving heating assistance is not available, but given that the downtown census tract is comprised of 58% renters, has the lowest median incomes, and the oldest housing stock, one can conclude that heating a home with fuel oil places many of Ware's residents in a vulnerable position.

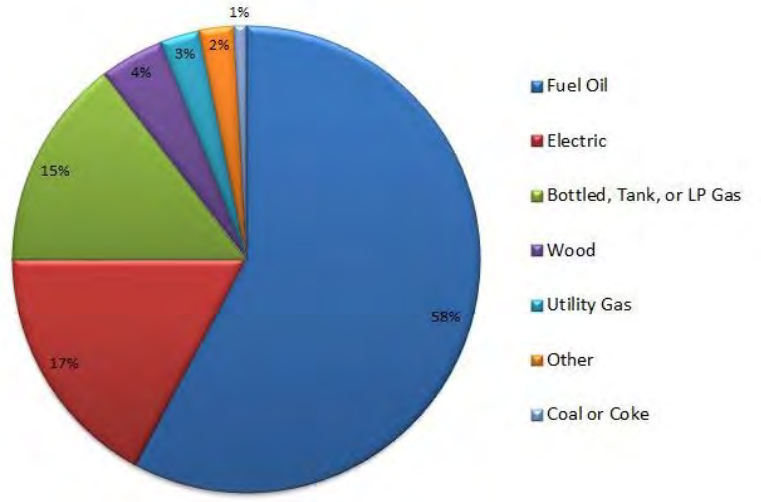


Figure 101: Home Heating Fuels in Ware. More than half of Ware's households use fuel oil to heat their homes.
Source: US Census Bureau, American Community Survey, 2013.

Another priority for Ware is the costly burden of supplying its municipal buildings with heat and electricity. The high cost is partly due to: the older historic town hall and library; the aging wastewater facility; and the high cost of providing public works and services to a rural town. Although pursuing energy efficiency has not been Ware's highest priority, the long term benefits of doing so can positively impact the town's budget as well as its valuable rural and agricultural landscape. Reducing energy expenses may allow the town to reallocate funds for other high priority pursuits such as upgrading its WWTP. If Ware relied on clean renewables for its municipal energy, it could also reduce carbon emissions, helping to protect its local environment and beyond.

Ware has several opportunities for creating its own power: low impact hydroelectric dam (albeit privately owned), hills that could be used for wind turbines, Town-owned open space for solar panels, and wooded areas for supplying biomass fuel. The town has recently examined some of these alternatives including: responding to an RFP as part of the Hampshire Council of Governments for solar facilities in 2012; conducting a feasibility study for biomass heating of its pubic schools in 2010; updating its zoning bylaw to accommodate solar and wind development in 2011,

and installing solar panels on the fire station in 2014. The following sections outline how Ware can integrate renewable energy and municipal needs; Figure 102 shows the locations where renewable energy facilities might be developed.

Climate Change and Clean Energy

Under former Governor Deval Patrick, the State has taken important and innovative steps to address climate change, including the legislation of several acts. Of particular interest to Ware is the Green Communities Act. Legislated in 2008, the Green Communities Act encompasses the following:

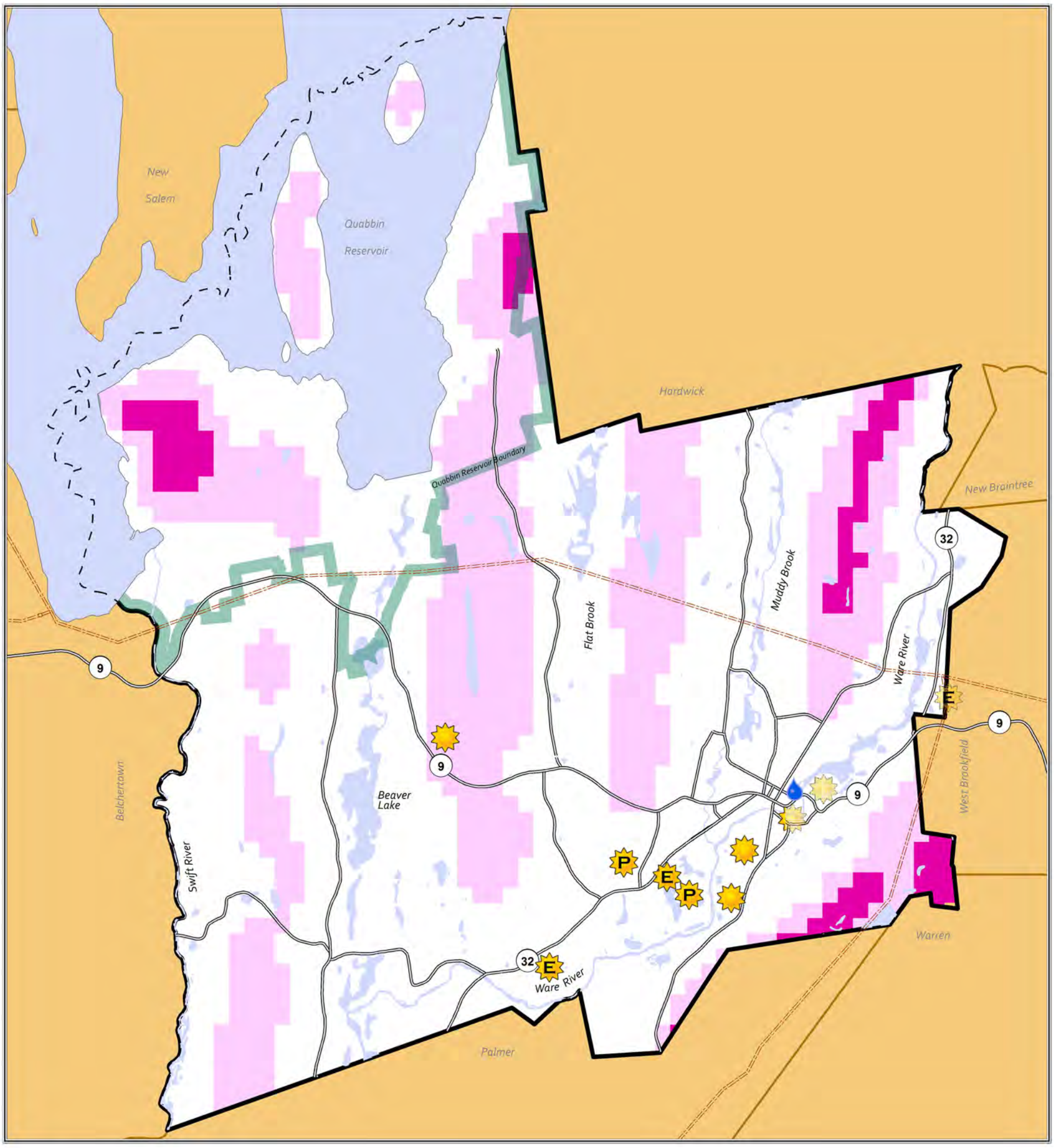
- requires utilities to pursue all energy efficiency investments which are less expensive than purchasing additional power
- strengthens the state's Renewable Portfolio Standard (requires percentage of electricity to come from renewable sources)
- requires utilities to enter into long-term contracts with renewable energy generating facilities
- established the Green Communities Program
- other provisions which support and increase net metering (a policy allowing customers to receive credit at retail rates for electricity they generate onsite)
- encourages buildings that are LEED certified (Leadership in Energy and Environmental Design).

Ware can apply to be a Green Community. The program is administered by the Massachusetts Executive Office of Energy and Environmental Affairs and provides grants for energy efficient projects in individual towns. Towns similar to Ware have received an average of $150,000 in grants for high priority infrastructure projects. Many of the projects funded have been for municipal upgrades. For example, Montague received $227,000 toward the cost of a performance contract for its municipal buildings, as well as for energy efficiency measures for its Water Pollution Control Facility.

In to qualify as a Green Community, towns must meet five criteria:

- Provide as-of-right siting in designated locations for renewable/alternative energy generation, research & 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 (20%) within five (5) years;
- Purchase only fuel-efficient vehicles (exceptions allowed); and
- Set requirements to minimize life-cycle energy costs for new construction (this can be done by adopting the Board of Building Regulations and Standards (BBRS) Stretch Code.

Although these requirements may seem onerous at first, Ware has already worked towards achieving several of them. First, Ware has updated its zoning bylaw to allow by right siting of solar and wind facilities in some areas of town. To fully achieve the first two criteria, the town would need to streamline its permitting process in its regulations; in reality the land use boards typically approve any application well within the timeframe established as "streamlined" (90 days). The Third criterion would require the most work, as it requires a comprehensive inventory of town energy usage, although the town has been monitoring energy usage in many of its buildings for several years. As of the end of 2014, 136 communities statewide have applied for and received Green Community status, and there is a wealth of information about how to navigate this process.



Legend

Transmission Lines

Potential for Commercial Wind Energy Generation

- Moderate; 13.4 - 14.5 mph Wind Speeds
- Moderate; 14.5 - 15.7 mph Wind Speeds

Based on mean sustained wind speeds measured at 100 meters above the ground surface. The best sites have wind speeds over 19 mph; such sites do not exist in Ware.

Potential for Solar Energy Generation

- E — Existing Facility
- P — Potential Public Facility
- Potential Private Facility

Hydro Power Generation

- Existing Facility

Note that this map does not include small residential generation of any type of renewable energy. In addition, some facilities shown may be soley for the use of the building occupants.

Sources:
Transmission Lines: MassGIS
Wind Data: MassGIS (Truewind Solutions, LLC)
Solar Data: Town of Ware
Hydro Power Data: Town of Ware
Base Data (roads, water, towns): MassGIS

N W E S

0 0.5 1 2 Miles

March 4, 2015

Public Utilities

Renewable Energy

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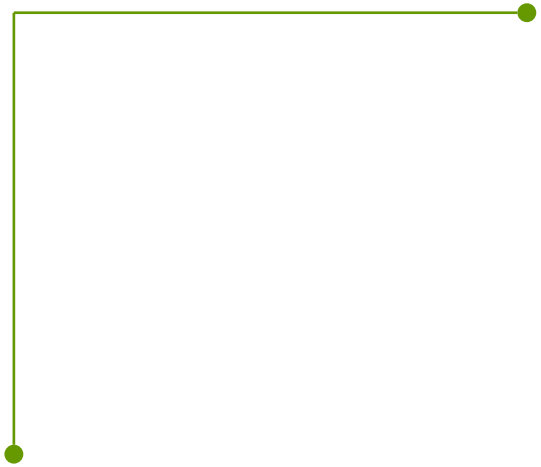
There are a number of ways that Ware can incorporate more energy efficient power sources into the community. In addition to power generation using renewable fuel sources, there is a growing body of research suggesting that retrofitting older buildings for energy efficiency and building new buildings to high efficiency standards is good for economic development. Investments in green infrastructure can mitigate the environmental impact of buildings, saving property owner and taxpayer money in the long term (Vandermuellen, 2011). To that end, the EPA has been funding green infrastructure projects across New England, including a $50,000 grant to Franklin, MA for developing a "Green Infrastructure Implementation Strategy". With the Ware River snaking through the center of town, subject to storm water runoff from heavily paved areas, Ware could partner with the EPA as well.

Energy efficiency does not just fall under LEED certification for individual buildings. It is also a result of integrative policies to regulate land use, to conserve forest and open space, minimize pavement, and condense development to an administrable area. For example, retrofitting Ware's mills would save businesses money on utilities. Upgrading Ware's housing stock would encourage investment in housing. Individual owners could pursue housing upgrades with funding from the MassSave program (http://www.masssave.com). Ware could lead a campaign to inform residents of available funding.



Past Plans

9

The Town of Ware has had fourteen different planning documents dealing with some sort of master planning prepared over the last several decades. Most of these addressed one topic, for example Millyard redevelopment or open space & recreation. Four fall into the category of master planning:

- Comprehensive Plan; 1975, LARP, UMass
- Growth Management and Development Plan; Fall 1987, Landuse Inc.
- Ware Community Development Plan; 2004, PVPC
- Guiding the Future of Ware – A Strategic Plan for the Next Five Years; June 2002, PVPC

Each of these plans had it's own purpose and each was driven by a slightly different motivation. Nonetheless, there are a number of themes and issues that have repeatedly been addressed over the years. This chapter provides a summary of the goals, objectives, and recommendations of these past plans.

Goals from previous plans

Goals & Objectives Related to Land Use & Economic Development		
Goal: Strengthen land use administration.		1987
1	Improve communication between the boards and departments	1987
2	Maintain active land use boards	1987
3	Promote efficient and effective administration of land use regulations	1987
Goal: Encourage economic growth that fits within the context of the town's ability to absorb it.		1987
4	Encourage reuse of the millyard	1987
5	Strengthen commerce in downtown	1987
6	Link downtown and millyard	1987
7	Encourage signage that aids the growth of downtown	1987
Goal: Use land use regulations to encourage a mixture of residential, industrial, and commercial development.		1987
8	Provide adequate land for industrial development	1987
9	Maintain viability of highway commercial zones for increased commercial development	1987
10	Encourage a mixture of businesses for a diversity of employment opportunities	1987
11	Maintain small town, rural character including personal safety and availability of services	2002

Goals & Objectives Related to Housing		
Goal: Provide a range of housing choices for the entire community.		1987
12	Promote coordination between public and private entities to improve development and application of zoning and subdivision regulations	1987
13	Improve housing quality	1987
14	Promote a range of homeownership and rental costs	1987
15	Ensure adequate supply of housing for people with special needs	1987
16	Encourage housing in the downtown	1987
17	Preserve housing character	1987
Goals & Objectives Related to Services & Facilities		
Goal: Plan infrastructure development to accommodate growth.		1987
18	Ensure adequate infrastructure for existing and future housing	1987
19	Ensure the town has an adequate road system for new and in the future	1987
20	Pursue infrastructure planning projects	1987
21	Ensure that upgrading and maintenance requirements of present services are ongoing and adequate	1987
22	Plan infrastructure development to meet future industrial and commercial needs	1987
23	Ensure adequate parking in the downtown	1987
24	Promote efficient and safe traffic flow in downtown and highway commercial areas	1987
Goal: Educational and recreational facilities, programs and activities for young people need attention to improve the livability of Ware.		2002
25	Establish a major focus on safe homes, safe schools, and a safe public environment for our youth	2002
26	Create opportunities to increase self-esteem and pride in the community	2002
Goal: Citizens have expressed concern over the adequacy of the current government structure to accomplish the goals of the community.		2002
27	Decrease dependence on State aid	2002
28	Retain residents and students by improving the image of our community schools	2002
29	All Town departments should participate in setting goals for the community	2002
30	Strengthen Ware's tourist economy	1987

Goals & Objectives Related to Natural, Cultural, & Recreational Resources		
Goal: Protect natural and historic resources.		1987
31	Protect Ware's historic areas	1987
32	Protect Ware's scenic vistas and roads	1987
33	Ensure that sensitive environmental areas are protected	1987
34	Protect Ware's existing and future water supply	1987
35	Protect Ware's water bodies	1987
36	Ensure that natural limitations of Ware are not exceeded in future development	1987
37	Open space and resource protection	2004
38	Conserve land	2002
Goal: Recreation.		2002
39	Improve and maintain Grenville Park	2002
40	Provide a broad range of high quality recreational programs	2002
41	Manage open space and recreation cohesively and effectively	2002
42	Acquire new lands for recreation and open space	2002
43	Increase public awareness of open space and recreation resources	2002
Goal: Educational and recreational facilities, programs and activities for young people need attention to improve the livability of Ware.		2002
44	Increase recreational activities for students particularly activities outside school	2002

In all, there were 228 recommendations made in the 1987, 2002, and 2004 plans, although many of them are essentially the same in two or all three of the plans. Of the 228, 160 recommended actions were identified as not having been done as of the writing of this plan. Based on feedback from public outreach, the Master Plan Steering Committee has identified the actions listed below as continuing to be very important to achieving the vision for the future. These eleven recommended actions are composites of similar recommendations made in the plans cited (year column).

#	Action	Year
Recommended Actions Related to Land Use & Economic Development		
1	Design and implement a wayfinding system for the downtown area to help people navigate through the downtown, find parking areas, locate various places of interest, and learn about upcoming events.	1987, 2002
2	Create a formal downtown economic development organization to advance downtown revitalization while preserving the historic character of various buildings and the Millyard.	1987, 2002, 2004
Recommended Actions Related to Housing		
3	Investigate potential for developing affordable housing, especially for the elderly, on Town owned land; if feasible, implement plans to create such housing using partnerships with non-governmental entities.	1987, 2004
4	Design and implement a Transfer of Development Rights program to protect important resource areas such as farmland while allowing housing at appropriate densities in areas of town with adequate infrastructure to support it.	2002
5	Amend the Flexible Residential Open Space Development zoning regulations to encourage more sustainable designs in new housing developments.	2002
Recommended Actions Related to Services & Facilities		
6	Provide alternative ways for citizens to participate in local government using new techniques and technologies and by providing the educational materials necessary for citizens to understand how local government works and how they can effectuate change.	2002
7	Work toward improving the town's image through collaboration and cooperation among the town's departments as well as within departments, especially the schools.	2002
8	Design and implement extensions to the water and sewer infrastructure to allow higher density development in appropriate residential, commercial, and industrial areas.	1987

Recommended Actions Related to Natural, Cultural, & Recreational Resources		
9	Create and implement a tourism plan which identifies recreational, natural, cultural, and historic resources of the town and includes marketing materials and techniques to increase tourism.	2002, 2004
10	Investigate the potential for protection of strategic parcels for recreation, waterfront access, scenic views, and open space; acquire such lands or easements when feasible.	1987, 2002, 2004
11	Improve both passive and active recreational opportunities as recommended in the Open Space & Recreation Plan, develop and implement an outreach and signage program to inform the public of such opportunities, and include non-sports youth activities in the overall recreation/activity program.	2002

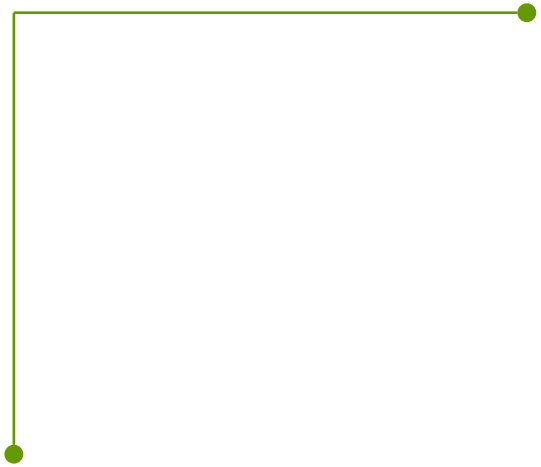
The Town of Ware has not stood still over the past 30+ years, nor has it ignored the recommendations of previous plans. In fact, of the 228 recommended actions from the previous master plans, the following 53 have been partially or fully implemented. That's nearly a quarter of the recommendations, which is a reasonable implementation rate given the difficulty and expense of many of the recommendations included in past plans.

Recommended Actions Related to Land Use & Economic Development		
#	*Action*	*Year*
1	Establish a full time building inspector/zoning enforcement officer.	1987
2	Create a part time building & planning secretary.	1987
3	Adopt site plan approval (zoning).	2007
4	Adopt site design and performance standards for commercial uses in the HC (Highway Commercial District).	2002
5	Include requirement for a traffic impact study for proposed uses generating 100 or more new vehicle trips a day.	2002
6	Add provisions for infill development (zoning).	2004
7	Adaptive reuse of older buildings (zoning).	2004
8	Mixed use development (zoning).	2004
9	Encourage housing in downtown by allowing mixed use and multi-family dwellings.	1987
10	Establish a Downtown/Town Center Overlay District to include 'by-right' mixed uses and design standards.	2002
11	Encourage use of upper floors by allowing mixed use and off-site parking.	1987
12	Allow off-site parking for new businesses.	1987
13	Provide flexible use of the spaces in the millyard through zoning.	1987
14	Limit commercial uses in residential zoning districts to enhance viability of downtown commercial neighborhoods	2002
15	Encourage expansion of the downtown commercial area along Route 9 west through the creation of a zoning district extending west to Eagle Street.	1987
16	Rezone targeted parcels for business or industrial use.	2004
17	Allow flexible commercial uses through zoning.	1987
18	Increase amount of potential commercial and industrial land through flexible zoning.	1987
19	Encourage development, where feasible, along the rail line by keeping zoning districts along the line flexible.	1987
20	Create more restrictive home business/ cottage industry regulations (zoning).	2004

Recommended Actions Related to Housing		
#	***Action***	***Year***
21	Promote concept of land trust to assist in housing and open space planning.	1987
22	Continue support for housing authority actions to develop elderly and low/moderate income housing.	1987
23	Ensure that density of area is in keeping with available infrastructure.	1987
24	Separate uses through zoning where non-residential uses would negatively impact housing.	1987
25	Keep lot sizes as small as possible to reduce housing costs.	1987
26	Continue to provide option for mobile homes through mobile home park regulations in zoning.	1987
27	Encourage duplexes by allowing them in certain districts.	1987
28	Encourage tri- and quad-plexes, condos, and other multi-family housing by allowing in certain districts by special permit to ensure compatibility.	1987
29	Lower minimum lot sizes and increase units per acre in the Main Street area.	1987
30	Allow mixed use and allow conversions by special permit (if adequate parking is provided), to encourage use of upper floors and revitalization of existing buildings.	1987
31	Allow conversions of older housing stock to allow more units (higher density) in the downtown area, and to mixed uses in residential-commercial districts.	1987
32	Adopt zoning for congregate care and assisted living facilities.	2004

Recommended Actions Related to Services & Facilities		
#	***Action***	***Year***
33	Create a town website.	2004
34	Institute new user fees - and increase current fees - for public amenities.	2002
35	Create a local Department of Public Works (two similar recommendations).	1987
36	Implement water supply protection district to protect the well fields.	1987
37	Review existing Water Supply Protection and Groundwater Protection Bylaws for possible improvements to strengthen protection of town water resources.	2002
38	Prepare updated study on traffic lights and pedestrian walks in downtown.	1987
39	Meeting of Board of Selectmen with Police and Fire chiefs to discuss joint police and fire facilities in the future.	1987
40	Require report on long term continuation of landfill or creation of alternative from the board of health.	1987
41	Develop detailed program or facility plans for a limited and manageable number of recreational projects based on the priorities of the Task Force and the Ware Open Space and Recreation Plan. Examples of projects might include: development of new or enhanced after school activities; development of amenities to the Ware River Valley Greenway Trails; construction or reconstruction of improved facilities at Grenville Park.	2002

Recommended Actions Related to Natural, Cultural, & Recreational Resources		
#	**Action**	**Year**
42	Encourage development of bed & breakfast establishments through zoning.	1987
43	Encourage start-up of businesses to service visitors through expansion of commercial area in downtown and through limited commercial uses in outlying areas.	1987
44	Establish local historic districts (although Ware does not have regulatory powers for the historic districts at this point).	1987
45	Enforce the conservation commission regulations; the selectmen should reactivate the conservation commission, train town employees to assist in wetland violation identification.	1987
46	Enforce the Board of Health regulations; examine feasibility of full time health inspector.	1987
47	Adopt and enforce zoning regulations that match density with town services and soil limitations; periodically adjust to reflect sewer and water service extensions, work with BoH regarding lot size adequacy for septic systems.	1987
48	Protect wetlands through zoning; establish a water supply protection district; study the aquifer to determine the exact location of the groundwater supply.	1987
49	Organize a local land trust.	2002
50	Create an Open Space Committee comprised of individuals representing town boards and other public and private organizations concerned with open space and recreation to provide citizen input into management of existing open space areas as well as acquisition of potential town open space areas.	2002
51	Adopt a back-lot development zoning provision to provide an alternative to development along the road frontage.	1987
52	Upgrade the existing facilities at Grenville Park, including picnic areas, band stand (and field for audience), tennis courts, playground, and ball fields.	2002
53	Install more waste containers and distribute them evenly around Grenville Park.	2002



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