

HARDWICK, MASSACHUSETTS
OPEN SPACE AND RECREATION PLAN



PREPARED BY THE
HARDWICK MASTER PLAN COMMITTEE
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Photo Credit: Rod Leehy, Open Space Committee

A. PLAN SUMMARY

The landscape in rural Worcester County has changed little over the last 100 years. The decline of manufacturing in the old mills has taken jobs and prospects for economic growth to technology frontiers of Boston, Routes 128 and 495, Worcester, and Springfield. With little pressure for housing and mercantile activity, the natural beauty of the region remains largely unaffected by suburban trends of large lot subdivisions and strip commercial development.

Hardwick is a town of uncommon beauty, characterized by sparkling brooks, scenic ridgelines, open fields, agricultural homesteads, and vast tracks of forests. Hardwick Center is a striking example of a classic New England Village with a pretty common, a memorial to a prominent citizen, fine residences, stately churches, and a distinctive Town Hall. With little demand for development, state agencies and non-profit land trusts have had the ability to acquire land or secure conservation restrictions to preserve it in a natural state. About one-third of Hardwick has permanent protection from development, and another 15% of the Town is privately managed for agriculture, forestry, or recreation purposes under state tax abatement programs.

Opportunities still remain for acquiring or preserving additional open space to protect scenic and natural resources. Land Trusts, notably the East Quabbin Land Trust and New England Forestry Foundation, work with willing landowners to preserve land for future generations. Many other important parcels deserve protection, including properties in the Dougal Range, along Muddy Brook and the Ware River, and land containing habitats for rare and endangered species. With low development pressure for the foreseeable future, Hardwick has time to preserve key parcels through cooperation among landowners, state agencies, land trusts, and the Town itself.

This large amount of open space provides abundant choices for enjoyment of nature's providence. Hiking, nature study, fishing, hunting, and snowmobiling are favorite pastimes for local residents. However, Hardwick has not done a very good job at maintaining its active recreation sites. Many of them do not comply with standards for handicapped accessibility, and the Town should take steps to correct this oversight. With scant resources for park maintenance, private recreation groups have stepped to the fore to maintain fields for children's sports programs, but the condition of facilities has declined. The Town will need to take action to reverse the effects of deferring maintenance for many years.

Hardwick has other terrific opportunities to improve the open space and recreation experience for residents. The Mass Central Rail Trail is currently under renovation by the EQLT and will be a vital part of the long distance hiking and bicycling trail connecting Boston and Northampton. The Ware River offers excellent canoeing, kayaking, and fishing adventures for outdoor enthusiasts. With large undeveloped tracts of land, countless potential trail routes may afford healthy exercise and pleasant encounters with wildlife. The Plan recommends working with private landowners to allow access over their woods and fields to connect to state properties and to develop a town-wide trail network.

Over the course of numerous public listening sessions, Hardwick residents have consistently voiced their desires to preserve the small-town way of life. They appreciate Hardwick's environmental quality, ecological diversity, and ready access to outdoor pursuits. Furthermore,

residents have a positive understanding of working the land to sustain the Town's scenic rural landscapes. There is every reason to believe that with sensible land stewardship practices the Hardwick of 2113 will be every bit as healthful and beautiful as the Hardwick of 2013. The Committee members hope that this Plan contains a helpful roadmap to accomplish this goal.

B. INTRODUCTION

B1. Statement of Purpose

Hardwick is a rural town with a rich New England heritage and outstanding natural resources. A large portion of the Town lies within the pristine watershed of the Quabbin Reservoir. Several working farms remain active, lending a picturesque quality to the landscape, yet they also contribute valuable agricultural commodities for local consumption. Large expanses of hillsides remain forested, providing shelter and habitat for native wildlife, while also allowing landowners to manage timber stands for wood fuel for personal consumption. Much of the population is concentrated in the former mill villages of Gilbertville and Wheelwright, where the Town provides most of the active recreational facilities for organized sports and informal play. The Ware River is one of the Town's major resources, and canoe activists have developed put-ins and take-outs to provide direct water access. The Mass Central Rail Trail passes through Hardwick and offers long distance bicycling and hiking activities.

It is partly due to Hardwick's distance from employment and population centers that has curtailed growth that might have altered this pleasant composition of bountiful natural resources, productive farmsteads, scenic views, and historic villages. Residents are well-aware that this heritage of careful land stewardship could change dramatically if growth pressures should emerge from the current economic doldrums and advance westward from the state's metropolises. Thus, the purpose of this document is to develop a sound rationale for preserving the best of what Hardwick has to offer. We recognize that growth has its benefits. Many residents make a living from the land's resources, and folks must have homes to live in and places to shop and work. It is the intent of this plan to identify preservation priorities, target parcels for acquisition, schedule improvements to recreational facilities, and recommend strategies for funding, volunteer assistance, and community engagement. In this manner we hope to bring about implementation of the plan's recommendations without causing financial hardship to residents.

This plan also has a valuable educational purpose. The Open Space Committee wishes for each household to review the plan and discuss its contents with friends, neighbors, and local officials. A sincere dialogue over the Town's future will strengthen residents' resolve to engage in town affairs to help preserve Hardwick as we know it today while allowing compatible growth to occur. Much work lies ahead if we are to bequeath to future citizens the same contentment we enjoy from living in this charming community.

B2. Planning Process and Public Participation

Hardwick completed its first Open Space and Recreation Plan in 1996. The plan set forth an ambitious agenda for improving accessibility to town facilities and programs, protecting key open space parcels, and adopting zoning strategies for protecting farmland and natural resources. After accomplishing many of the Action Plan items over the next several years, the Plan expired in 2000 according to state guidelines but continued to be a useful tool for addressing open space and recreation issues.

In 2008, a group of concerned citizens desired to create a new plan to provide the Town with updated recommendations for preserving the Town's key resources and strategically updating recreation facilities. The Board of Selectmen created the Open Space Committee with the charge of creating a new Open Space and Recreation Plan in conformance with state planning requirements. The Committee began with a great deal of enthusiasm. Individual members took responsibility for drafting different pieces of the plan based upon their own personal knowledge and areas of interest. Cynthia Henshaw, Director of the East Quabbin Land Trust (EQLT), provided technical assistance to the Committee. She prepared natural resource maps for inclusion in the plan and compiled the draft sections prepared by Committee members to produce an interim document. To finish the plan, the Quaboag Valley Community Development Corporation contracted with William Scanlan to work with the Committee to complete the unfinished sections and engage in a public participation process. Mr. Scanlan helped to develop consensus on the Needs, Goals, and Action Plan portions of the plan to guide municipal actions for improvements to the open space and recreation systems in Hardwick.

Residents had numerous opportunities to provide input into the plan. The Committee held many open public meetings and provided notice on the Town's web site. The Planning Board conducted a survey of Town residents in 2008. The survey netted 471 responses and provided valuable information on citizen aspirations concerning open space and recreation matters. In 2008, the Dept. of Conservation and Recreation conducted a Heritage Landscape Inventory program to identify significant heritage landscapes and recommend strategies for their preservation. Hardwick mobilized a large contingent of knowledgeable residents to assist in the effort. The outreach process included a well-attended public meeting as well as field reconnaissance to set priorities for classifying the Town's landscapes. Early in the process, on June 19th, 2008 the Committee held a public listening session to gather information on citizen aspirations concerning Hardwick's open space. Finally, the Open Space Committee sought public input by placing the draft Open Space and Recreation Plan on the Town web site and hosted a public meeting on _____, 2013. As a result, this plan fairly represents the views of a broad spectrum of Hardwick residents and provides a sound basis for meeting the needs and desires of its citizens for preserving open space and improving recreation facilities and programs.

C. COMMUNITY SETTING

C1. Regional Context

Hardwick contains a portion of the Quabbin Reservation along its northern and western borders. The state has preserved a large expanse of land in Hardwick and surrounding communities to limit development activities that could pose a threat to the quality of metropolitan Boston's water supply. Hardwick lies far removed from the large urban centers of Worcester and Springfield, which reduces development pressure for new home construction and use as a bedroom community. The Ware River Valley connects Hardwick with neighboring towns of Barre, New Braintree, and Ware. Small commercial areas in Barre, Gilbertville, and Ware provide most of the basic services for the Valley.

The population and economy are stable. Hardwick developed as a traditional 19th century mill community, with factories in Gilbertville and Wheelwright fueling the growth of the Town. Much of the old mill housing in these villages is intact and lends architectural diversity to the Town. The old brick mill buildings present an adaptive reuse challenge that will help define the future of the Town.

Hardwick's legacy of low population density has provided opportunities to protect large swaths of open space at reasonable prices over the years, but that may change. Hardwick's ample supply of developable land and extensive street frontage could one day lead to significant suburban-style development. The effect on the landscape could be dramatic. Landowners could easily create new house lots along miles of public ways forcing the town to make the transition from quiet country living to large lot housing developments. Fortunately, most current residents share a strong conservation ethic; folks live in Town for its pastoral qualities and are content to live in "the country" without maximizing the land's development potential.

As with most towns, demand for active recreation is high, but the Town has limited means to adequately meet this demand. With a low population, Hardwick has just a few active recreation areas, many of which need renovation. With a small municipal budget, the Town has difficulty performing necessary maintenance on these facilities.

An important open space initiative, to preserve and protect up to 2,000 acres of the scenic Dougal Range in southwest Hardwick, is a goal shared by many landowners in Hardwick and neighboring Ware. A large aquifer in the Muddy Brook watershed feeds the Zone 2 Wellhead Protection Area that serves Ware. Efforts to add to the protected lands in this area (some are part of the Dougal Range Initiative) are vital to a continued supply of clean water for Ware. Preservation of this unique and special place would greatly benefit people from surrounding communities as one of the largest natural reservations in central Massachusetts, complementing the Quabbin Watershed.

Hardwick holds a key link in the Mass Central Rail Trail Project, which will one day connect Northampton with Boston. The 3-mile section in Hardwick provides access to exceptional natural beauty and enhances active recreation opportunities to residents of the neighboring towns of Ware, New Braintree, and Barre, as well as residents of Central Massachusetts and the Pioneer Valley.

Given the rising costs of energy, demand for fresh food supplies, and concerns over land use policies that contribute to global climate change, Hardwick has taken steps to achieve the long-term sustainability of its rural lifestyle. Town Meeting adopted a comprehensive Zoning Bylaw package in 2012 that contains flexible options to develop land compactly without engaging in suburban-style sprawl. The many farmers and forestry landowners actively manage the land to increase its biodiversity and improve wildlife habitat. Residents are strongly supportive of acting to achieve goals of environmental health and long-term sustainability by preserving Hardwick's forests, agricultural lands, and natural resources for future generations.

C2. History of the Community

Encompassing 40.8 square miles, Hardwick is located near the geographical center of Massachusetts. Quabbin Reservoir forms the northern and western boundary of Hardwick; Ware lies to the south, Petersham to the north, Barre to the northeast, and New Braintree to the east.

Efforts to colonize the area began in 1686 when a group of colonial settlers from Roxbury purchased a parcel of land from four Indians. Wombemesscook was the Nipmuk Indian name for this area, which the colonists renamed Lambstown. Conflicts arose between settlers and Native Americans with the settlers eventually displacing the natives. The purchase price for approximately ninety-six square miles of land was twenty pounds. The purchasers of this land tried numerous times to get the General Court to recognize and legitimize their purchase so they could establish a settlement. They were finally successful in 1732, and a portion of the land, known as Lambstown, started as a plantation. Shares were granted in the enterprise, the land was surveyed, and a promise was made to the General Court that sixty families would be settled in the area within five years. Agriculture and animal husbandry were the means of existence for the settlers. The process of clearing the land for these pursuits was difficult but continued over time. The community established a meetinghouse and enticed a minister in an effort to encourage civil cooperation and to support the religious life of the settlers.

Mills were important to the settlement and arose on the banks of the Ware River, Muddy Brook, Danforth Brook, and Moose Brook. These sawmills, grist mills and fulling mills provided lumber, ground meal and grains, and cloth for the use of the townspeople. Gradually farms became larger. First sheep, then dairy cattle, provided prime sources of income. A blast furnace in operation before the War of Independence manufactured cannon and shot for the war; it continued to operate well into the 19th century in what we now call Old Furnace. As the Town grew, settlers other than farmers and millers made their home in Hardwick providing supportive and ancillary services such as mercantile stores, taverns, and schools.

As industry grew and changed, Hardwick developed into four distinct villages: Old Furnace, with saw, grist, and fulling mills and furnaces; Gilbertville, with its textile company that built company housing and mill buildings; Wheelwright, which grew to house and employ paper mill employees; and Hardwick Village. Wheelwright, Old Furnace, and Gilbertville grew along the banks of the Ware River for a source of power and convenient disposal of wastewater. In 1832, the iron foundry at Furnace Village used 180 tons of ore and 36,000 bushels of charcoal from Hardwick's forest to produce hollow ware castings. Others not employed in agriculture or iron works staffed a tannery and made palm leaf hats. Jobs and prosperity brought growth. Over 2,200 people lived in the community by the 1870's, many of them Irish and French Canadian

immigrants. By the beginning of the 20th century, there was a large Polish immigration, and the total foreign born population reached 44% of the residents.

The village of Gilbertville exists through the enterprise of George Gilbert who located a woolen mill on the Ware River in the early 1860's and built housing for his workers. The village contained four huge mills. Two of these mills still stand and are currently operating as warehouses. During peak production these mills employed 1,500 workers, mainly of French-Canadian, Irish, and Polish heritage. Residents and merchants built hotels, stores, churches, a school, social clubs, and other organizations to establish a tight-knit community. In the mid-twentieth century, economic forces caused textile manufacturing to shift to the South. The Hurricane of 1938 damaged two of the mill buildings so severely that they had to be demolished. The two remaining buildings have been idle for many years.

Also a company mill village, Wheelwright focused on the production of high quality rag paper in a factory built in 1866. As with most large mills of the period, the company provided housing and commercial business for its employees. Company fortunes later declined with ownership passing through several hands before becoming defunct in 1973.



Paige Memorial

By the middle of the 19th century, the center village of Hardwick very closely resembled what one can see today. With its broad common, Paige Memorial, Paige Memorial Library, and classic architecture, Hardwick Center remains an unusually intact example of an early 19th century highland meeting-house village. In the early 20th century, Boston's thirst for water created the Quabbin Reservoir by flooding the Swift River Valley, displacing the population of western upland areas of Hardwick and four entire communities.

Hardwick has always been an agricultural community. An excellent history of farming in the town is contained in History of Hardwick, Massachusetts 1865 – 1950 (2003) by Emily M. Bancroft. The history contains documented facts of the importance of the dairy industry, where Hardwick became well-known for its milk, cheese, and butter. Hardwick soils have produced a variety of vegetable crops, hay, wheat, and apples. Animal husbandry has also been important, with poultry, horses, oxen, and cattle important at various points of the Town's history.

With declining industrial activity, Hardwick retains a robust agricultural economy involved in poultry raising, market gardening, and dairying. Agriculture was the first source of livelihood for the original settlers; this legacy remains in the three remaining dairy farms in town today. Despite the fact that many residents work and spend their incomes elsewhere, townspeople treasure and appreciate the bucolic atmosphere of this central Massachusetts town.

Keeping in mind that change will occur, it is vital to remember the historical roots of the Town when planning for future growth. We call upon our fellow citizens to savor the architectural integrity of prominent structures and protect "open spaces" that are an important part of Hardwick's heritage.

C3. Population Characteristics

Table 1 displays the population growth in Hardwick and surrounding towns since 1860. The Town bucked regional growth trends from 1860 to 1920, roughly doubling in population during the period, while other towns' population declined, with the exception of Barre and Ware. Industrial growth in village centers accounted for the growth in Hardwick, Barre, and Ware. Hardwick's population declined steadily from 1920 to 1980, principally due to the reduction in industrial employment in the Town's mills. The 1990 Census showed a reversal of this trend, which has continued over three decades. From 1980 to 2010, Hardwick gained 718 people, for a 32% population increase, or about 1% per year.

Table 1:
Regional Population Growth

Town	1860	1920	1960	1980	1990	2000	2010
Barre	2,973	3,357	3,479	4,102	4,546	5,113	5,398
Hardwick	1,521	3,085	2,340	2,272	2,385	2,622	2,990
Hubbardston	1,621	1,045	1,217	1,719	2,797	3,909	4,382
New Braintree	805	393	509	617	881	927	999
Oakham	959	477	524	994	1,503	1,673	1,902
Petersham	1,465	642	890	1,024	1,131	1,180	1,234
West Brookfield	1,548	1,281	2,053	3,026	3,532	3,804	3,701
Ware	3,597	8,525	7,517	8,953	9,808	9,707	9,872
Total	14,489	18,805	18,529	22,707	26,583	28,935	30,478

Source: U.S. Census

Table 2 compares Hardwick's rate of growth with surrounding communities for the past three decades. The 1980's was a period of significant growth for the region, but Hardwick had the lowest growth rate, just 5% compared to the regional average of 17%. From 1990 to 2000, Hardwick's population grew by 9.8%, which exceeded slightly the regional average of 8.8%. In the first decade of the 21st Century, Hardwick had the highest growth rate among the comparison communities, 14%, which surpassed the regional average of 5.3%. It is somewhat surprising that one community should witness such a high growth rate when the region as a whole grew so slowly. If this trend continues, it could mean that Hardwick will experience significant development pressure on its farmland, forests, and rural roadsides in the years ahead.

**Table 2:
% Population Change**

	1980-1990	1990-2000	2000-2010
Barre	10.8%	12.5%	5.6%
Hardwick	5.0%	9.8%	14.0%
Hubbardston	62.7%	39.8%	12.1%
New Braintree	42.8%	5.2%	7.8%
Oakham	51.2%	11.3%	13.7%
Petersham	10.4%	4.3%	4.6%
West Brookfield	16.7%	7.7%	-2.7%
Ware	9.5%	-1.0%	1.7%
Total	17.1%	8.8%	5.3%

Table 3 compares the Town's age characteristics with the state as a whole. Hardwick has a smaller proportion of young adults (aged 18-24) and a larger proportion of older persons (aged 45-64 and over 64) than is typical for the state. The median age in Hardwick is 45.1 years, or 6.4 years older than the state median age. However, over the next ten years, much of the Town's population growth will be among the younger age cohorts. These trends indicate that there will be recreation needs for people of all ages, but especially for children, who tend to need more active recreation facilities for organized sports.

**Table 3:
Population by Age in 2010**

	Hardwick Population	Percent	Massachusetts Population	Percent
Total	2,990	100%	6,477,096	100%
Preschool (0 to 4)	156	5.8%	368,326	5.7%
School Age (5 to 17)	498	18.6%	1,063,622	16.4%
College Age (18 to 24)	175	6.0%	662,770	10.2%
Young Adult (25 to 44)	622	21.3%	1,758,100	27.1%
Older Adult(45 to 64)	1,000	34.2%	1,747,681	27.0%
Older (65 plus)	475	16.2%	876,597	13.5%
Median Age	45.1		38.7	

Source: American Community Survey, Five Year Estimates

Table 4 provides a racial profile. Hardwick's population is 96.4% white, compared to 81.7% throughout the state. Asians and blacks make up minor percentages of the population. Latinos

make up just 1.4 % of the population, with all reporting Puerto Rico as their place of origin. (Note: Latinos are not a separate race and are comprised largely of black and white races.)

Table 4:
Population by Race and Hispanic Origin

	Hardwick Population	Percent	Massachusetts Population	Percent
Total	2,926	100%	6,477,096	100%
American Ind. or Alaskan Native Alone	0	0.0%	12,584	0.2%
Asian Alone	14	0.5%	335,906	5.2%
Black Alone	68	2.3%	422,303	6.5%
Native Hawaiian and Other Pac. Isl. Alone	0	0.0%	2,281	0.0%
White Alone	2,822	96.4%	5,289,078	81.7%
Two or More Race Groups	22	0.8%	144,079	2.2%
Hispanic or Latino				
Total Hispanic or Latino	42	1.4%	584,975	9.0%
Mexican	0	0.0%	39,315	0.6%
Cuban	0	0.0%	10,267	0.2%
Puerto Rican	42	1.4%	253,668	3.9%
Other	0	0.0%	281,725	4.3%

Source: American Community Survey, Five Year Estimates

In 2010 Hardwick’s household makeup is quite similar to the state as a whole. 63.5 % of the households in Hardwick are family households and 36.5% are non-family households. Most family households are “married without children” (29.3%) while 15.3% of married households have children and 9.1% of family households consist of single parents. The greatest divergence with the state figures occurs in the “married with children” category; 15.3 % of Hardwick’s households fall into this category, compared to 20.8% statewide.

**Table 5:
Households in 2010**

	Hardwick Households	Percent	Massachusetts Households	Percent
Total Households	1,180	100.0%	2,512,552	100.0%
Family Households	749	63.5%	1,600,588	63.7%
Married with Children	180	15.3%	523,284	20.8%
Married without Children	346	29.3%	672,125	26.8%
Single Parents	95	8.1%	218,523	8.7%
Other	128	10.8%	186,656	7.4%
Non-family Households	431	36.5%	911,964	36.3%
Living Alone	325	27.5%	727,048	28.9%
Average Household Size	2.4		2.4	
Average Family Household Size	3.0		3.1	

Source: American Community Survey, Five Year Estimates

In housing tenure, Hardwick's percentage of owner-occupied v. renter-occupied units is quite similar to the state. The villages of Gilbertville and Wheelwright provide most of the rental units in the community and are likely a source of inexpensive housing for residents. In units per structure, Hardwick differs significantly from the state. The Town has a higher percentage of units in 2-9 unit structures, 29.9%, compared to the state 24.4%. Statewide, however, a much higher percentage of units are in structures of 10 or more units (12.8%) compared to only 2.1% in Hardwick. Hardwick simply does not have the demand for large apartment complexes that exist in the state's urban centers.

**Table 6:
Housing Units**

	Hardwick Units	Percent of Total	Massachusetts Units	Percent of Total
Total Housing Units	1,290	100.0%	2,786,077	100.0%
Owner Occupied	768	59.5%	1,608,474	57.7%
Renter Occupied	412	31.9%	904,078	32.4%
Vacant For Seasonal or Recreational Use	24	1.9%	110,481	4.0%
1-Unit (Attached or Detached)	761	59.0%	1,457,749	52.3%
2 - 9 Units	386	29.9%	678,927	24.4%
10 - 19 Units	0	0.0%	106,202	3.8%
20 or more Units	27	2.1%	249,430	9.0%
Built prior to 1940	662	51.3%	998,209	35.8%

Source: American Community Survey, Five Year Estimates

Table 7 identifies the occupations of residents in 2010. The employed population was 1,519 workers. Over one-third of the workers are in management and professional occupations. Service and office categories employ a roughly equal number of residents (257 and 244 respectively). Production and transportation occupations employ 203 residents. The data shows only six residents engaged in farming, fishing and forestry fields, may be low given the extensive areas in Hardwick devoted to these land uses.

**Table 7:
Resident Occupations in 2010**

	Hardwick	Percent of Total	Massachusetts	Percent of Total
Employed civilian pop. 16 years and over	1,519	100.0%	3,531,260	100.0%
Management, professional, and related	563	37.1%	1,400,638	39.7%
Service	257	16.9%	541,505	15.3%
Sales and office	244	16.1%	790,915	22.4%
Farming, fishing, and forestry	6	0.4%	7,085	0.2%
Construction, extraction, and maintenance	119	7.8%	234,233	6.6%
Production, transportation, and material moving	203	13.4%	297,159	8.4%

Source: American Community Survey, Five Year Estimates

Environmental Justice Neighborhoods

As of the most recent five-year American Community Survey (2007 – 2011) there are no Environmental Justice Neighborhoods in Hardwick.

C4. Growth and Development Patterns

Patterns and Trends

Hardwick's early days as an agrarian community gradually evolved into a mixed manufacturing and farming based economy. By the late 19th century, consolidation of small farms as well as an expansion of transportation and population increases in nearby urban areas allowed Hardwick to grow. Hardwick's population peaked at 3,696 in 1915 due to the success of the Gilbertville and Wheelwright mills.

With the Great Depression and the slow decline of the Gilbertville mills, the Town's population ebbed to 2,116 in 1945. The number of farms shrank by one-third. Farmland quickly reverted to forest, and the appearance of Hardwick changed radically. As the economy revived in the late 20th century and as technology improved the efficiency of farming, agriculture in Hardwick began a new era. Upland pasturing fell by the wayside as prime farmland converted to growing silage and hay. Some large tracts lost family-owned operators and converted to forests. The remnants of previous fields are evident in the woods today from stone walls, barn foundations, and abandoned farming implements.

In the 1960's, rising home prices in eastern Massachusetts and low gas prices contributed to an infusion of new residents, many commuting to new employment centers along Routes 128 and 495. Roadside fields sprouted new homes on 2-3 acre lots instead of hay or corn. With increased dependence upon the automobile, new homes rose away from the compact village centers and into rural areas. State Route 32 was re-routed through Barre, shifting the Town's focus away from Hardwick Center. Increasingly residents began to leave the Town for employment, goods, and services.

The building boom of the 1980's brought a mere 5% increase to the population of Hardwick. This is an exception, as the surrounding towns of Barre, New Braintree, and Oakham saw a much greater population growth (see Table 2). With this modest growth, Hardwick saw the need to provide better schools and built a new elementary school on Lower Road. Today, the school district is facing declining enrollment as little new growth has occurred to generate new students above that provided by the existing population.

With a large land mass, it appears that growth in Hardwick is inevitable. While spared the population boom of the 1980's, the next building surge will certainly involve Hardwick to a greater degree. As city residents seek the open space and quiet lifestyle of a small town, Hardwick will face increasing demands for municipal services, challenging the very character the Town has known for decades.

Water and Sewer Infrastructure

Sewer System

Map 1 displays the sewer and water lines in the Town. Hardwick has limited public sewerage, leaving large areas of town dependent on soil suitability for on-site septic systems. Manufacturing facilities in Gilbertville and Wheelwright and the surrounding densely developed neighborhoods necessitated the development of public sewer systems. Both treatment plants discharge into the Ware River. The Gilbertville plant has a permitted flow of 230,000 gallons per day (gpd). In 2012, the plant treated an average of 96,900 gpd. The Wheelwright has a permitted flow of 43,000 gpd and treated an average of 16,100 gpd in 2012. The 2011 draft permits maintain these rates. The Gilbertville plant serves about 1,270 residents and has facilities for treating landfill leachate. The Wheelwright plant serves approximately 160 people. The Gilbertville plant had equipment upgrades in 2012, including a new influent pumping station. In 2013 an engineering firm will evaluate the 40-year old Gilbertville plant to identify upgrades to maintain compliance with discharge limits.

With limited sewer service areas and small plant capacities, it is unlikely that large areas of Hardwick will ever tie-in to public sewer systems. Some limited extensions may occur. Plans to extend the Gilbertville system to Hardwick Center and Eagle Hill School are now on hold. For the most part, therefore, new home construction will require suitable soils for septic systems to treat domestic flows. Hardwick has adopted 40,000 and 60,000 square foot minimum lot sizes outside of the village areas. While overall density will remain low, many areas could develop into large lot subdivisions and alter the Town's rural character. Town Meeting adopted zoning amendments in 2012 that seek to prevent that suburbanizing influence.

Water System

Hardwick contains four community water systems, the Gilbertville Water District, the Wheelwright Water District, the Hardwick Center Water District, and Eagle Hill School. Table 8 below provides data on these systems. These systems serve the areas of Hardwick with the highest concentrations of population. The systems serve 1,530 people, or 51.2% of the total population. With the infrastructure concentrated in the villages, it is unlikely that water mains will expand to serve large areas of town. Most new development outside of the villages will depend upon individual wells.

**Table 8:
Community Water Systems**

Water District	Population Served	Service Connections	Average Day Demand
Gilbertville	1,000	207	66,000
Wheelwright	300	84	18,000
Hardwick Center	80	18	3,000
Eagle Hill School	150	12	
Total	1,530	321	87,000

Long-Term Development Patterns

The 1996 Open Space Plan put in motion a comprehensive strategy for ‘Smart Growth’ to protect and preserve Hardwick’s natural resources and agricultural assets. A 2001 Build-Out Analysis demonstrated the risks and outcomes of lack of good planning and management.

Town Meeting adopted a comprehensive Zoning Bylaw revision in 2012 to manage future growth. Map 2 shows the current zoning scheme. With a large land area of the Town in private ownership, the potential exists for a great deal of development that could have profound consequences on the character of the Town. Conventional residential building lots now require 40,000 or 60,000 square feet throughout most of town and 20,000 square feet in the Village districts. New zoning amendments included ‘Smart Growth’ measures intended to accommodate new growth and preserve open space. These include Open Space Subdivisions, Residential Compounds and Common Driveways. By providing alternatives to conventional large lot housing, the Bylaw encourages landowners to develop creatively by preserving scenic and natural resources and developing on suitable areas more efficiently.

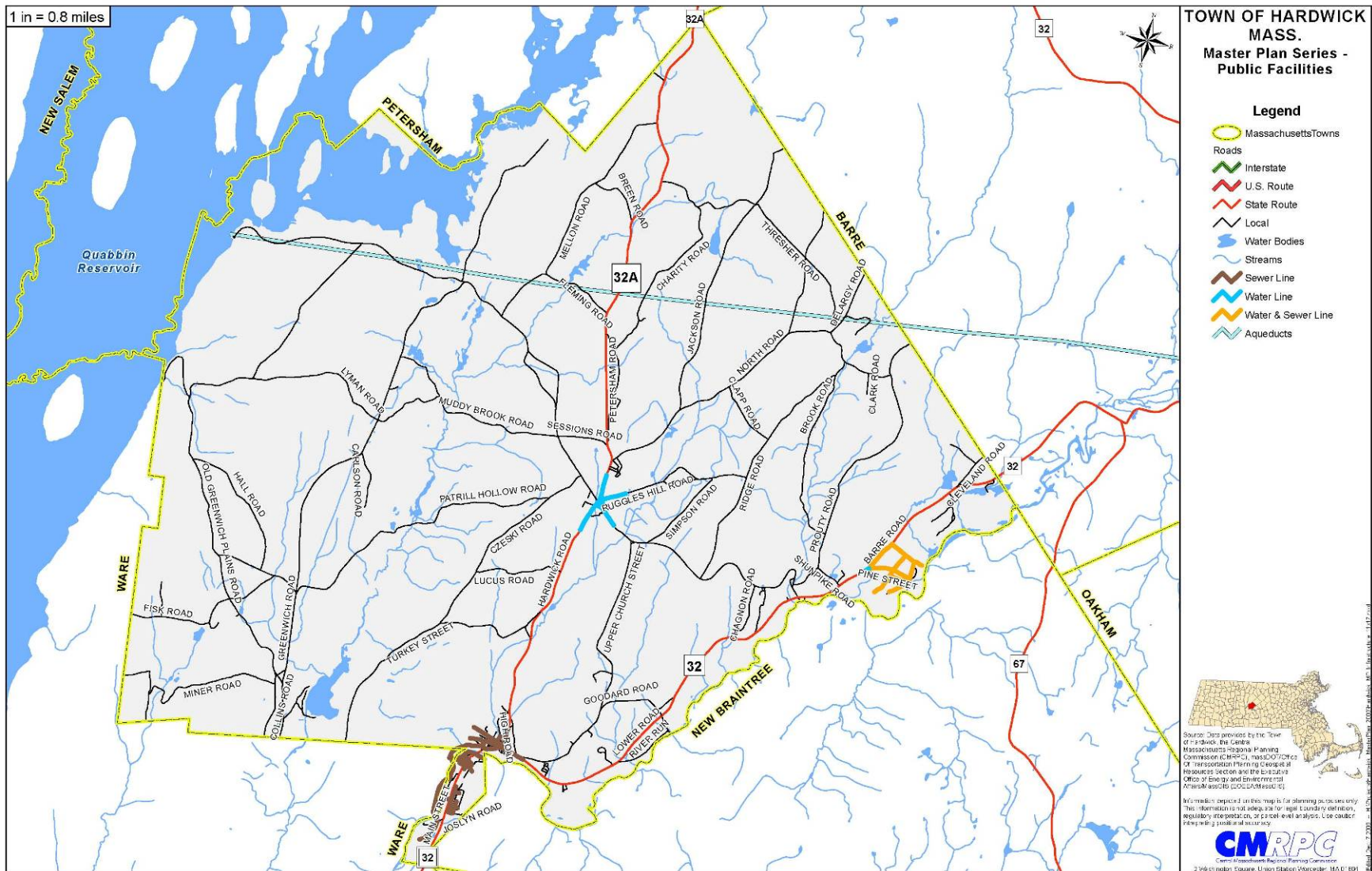
In the near term, Hardwick should experience slow but steady residential development. Its location far removed from large employment centers will discourage new home construction due to the long commute. The water and sewer districts have concentrated their systems in the villages of Gilbertville and Wheelwright. New growth is appropriate here, and the villages can accommodate some of the housing demand by infill development on vacant lots and redevelopment of lots at a greater intensity.

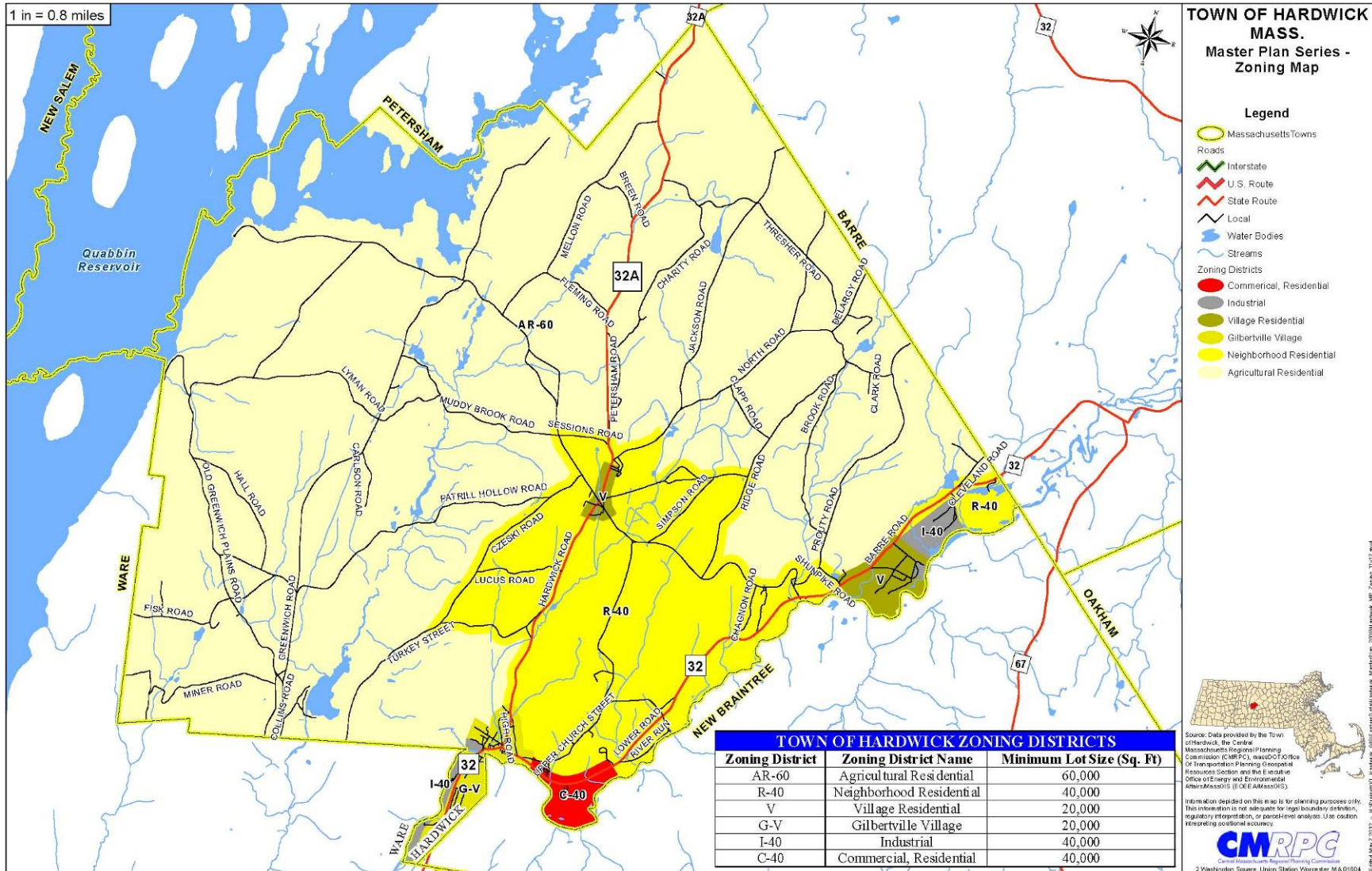
Commercial development will depend upon residential growth. The Town’s current population cannot support more shops and services. Some older commercial properties may give way to redevelopment of small, but modern retail and office buildings. As the population increases, commercial growth will follow, but it is unlikely that developers will perceive a market in Hardwick for large-scale commercial services until the Town’s population at least doubles.

Industrial development is less dependent upon population growth, but does require good transportation access, presence of a skilled labor force within easy travel distances, and public water and sewer systems with capacity to accept process flows. Hardwick fares well on these criteria, and it is possible that the Town could receive some much needed economic development to provide jobs for residents and boost the tax base. Hardwick has a small amount of industrially zoned land, which will limit opportunities for new industrial growth.

An important asset that Hardwick does possess for commercial and industrial development is the availability of old mills in Gilbertville and Wheelwright. The new Zoning Bylaw includes a 'Mill Conversion Overlay District', which encourages mill owners to redevelop these properties into a mix of residential, commercial, industrial, and institutional uses. Redevelopment here is very appropriate given the land use history and surrounding pattern of development. While several mills have remained vacant for many years, numerous examples in other communities of mill redevelopment projects afford hope that the local mills may also once again contribute to the Town's economy.

Rural areas of Hardwick will probably remain unchanged for the next decade or two. Residents are rightly proud of the Town's beauty, which is due to a confluence of topography and private land use management. Farmers maintain large tracts of land for agricultural businesses, but need to adapt to changes in markets and consumer preferences. Similarly, many owners of large wooded tracts manage their woodlands for wildlife and timber production. Residents are comfortable living in a rural setting without close access to modern conveniences. They accept the tradeoff of living on large lots that afford privacy, access to natural areas, and the ability to grow crops and harvest firewood for personal use.





D. ENVIRONMENTAL INVENTORY AND ANALYSIS

D1. Geology, Soils and Topography

The landscape of Hardwick has played a significant role in defining the character of the Town. Glaciers receded about 12,000 years ago carving valleys, rounding hillsides, depositing drift in all its variations throughout the area. Irregular hills with variable slopes are typical. Metamorphic rock generally strikes from N.E. to S.W. Bedrock is exposed generally on the east and south sides of hills.



View of Ware River from Rail Truss Bridge

The Ware River, Muddy Brook and Moose Brook provided power sources that fueled early industry. Today they provide significant recreational opportunities and scenic and ecological resources for residents. The former Mass Central Rail Trail, which ran along the low-lying Ware River in Hardwick, is the focus of a comprehensive effort for a long distance rails-to-trails project, spearheaded in this area by the EQLT.

Approximately 10% of the soils are prime farmland soils or of state and local importance. Prime farmland soils have the best characteristic for producing crops. Farmland soils of state or local importance are nearly prime agricultural soils, but fail to meet one or more requirements. Current agricultural fields are an important resource to maintain, because they provide scenic vistas, a link to Hardwick's past and currently support local agricultural businesses.

Soils are a primary determinant of the most suitable uses for a particular piece of land. For example, soil composition affects the land's suitability for farming, forestry, recreation, construction, and subsurface wastewater disposal. For this reason, soils information is very useful in land use, conservation, and recreation planning.

Hardwick's soils are mostly comprised of the following soil series. More detailed information on the distribution of these soil types is available from the U.S. Department of Agriculture Natural Resources Conservation Service website with soil surveys of Massachusetts counties, http://soils.usda.gov/survey/online_surveys/massachusetts/#worchester1985. This website also provides information on the soils' suitability for agriculture, recreational facilities, construction, and subsurface wastewater disposal.

Canton Series: These are well drained soils that have developed a fine sandy loam mantle, 20 to 30 inches thick, over a gravelly loamy sand glacial till derived mainly from granite and gneiss. They usually have a fine sandy loam surface soil and subsoil and a gravelly loamy sandy substratum. They are on nearly level to very steep glaciated plains, hills, and ridges. They are crumbly to a depth of 40 inches or more. The permeability is moderately rapid or rapid in the surface soil and subsoils and rapid in the substratum. In places, the permeability in the substratum may be slower. The Canton soils are usually very stony and may have boulders on the surface.

Hinckley Series: These are excessively drained soils developed in thick deposits of sand and gravel mainly from granite and gneiss. They are very sandy and gravelly. They commonly have a gravelly loamy sand surface soil and a sandy and gravelly subsoil underlain by gravel. Hinckley soils are loose throughout and water moves rapidly through them. They are usually free of large stones but may contain cobblestones. In a few places the surface may be stony. They occur on level to very steep slopes on terraces, outwash plains, deltas, kames, and eskers.

Marlow Series: The Marlow series consists of well drained soils that formed in loamy till on drumlins and glaciated uplands. They are moderately deep to a densic contact and very deep to bedrock. Permeability is moderate in the solum and moderately slow or slow in the densic materials. Slope ranges from 0 to 60 percent.

Merrimack Series: The Merrimack series consists of very deep, somewhat excessively drained soils on glacial outwash plains, kames, eskers, and stream terraces. The soils formed in glacial outwash. Slopes range from 0 to 25 percent.

Paxton Series: The Paxton series consists of well drained loamy soils formed in sub-glacial till. The soils are very deep to bedrock and moderately deep to a densic contact. They are nearly level to steep soils on till plains, hills, and drumlins. Slope ranges from 0 to 45 percent. Permeability is moderate in the surface layer and subsoil and slow or very slow in the dense substratum.

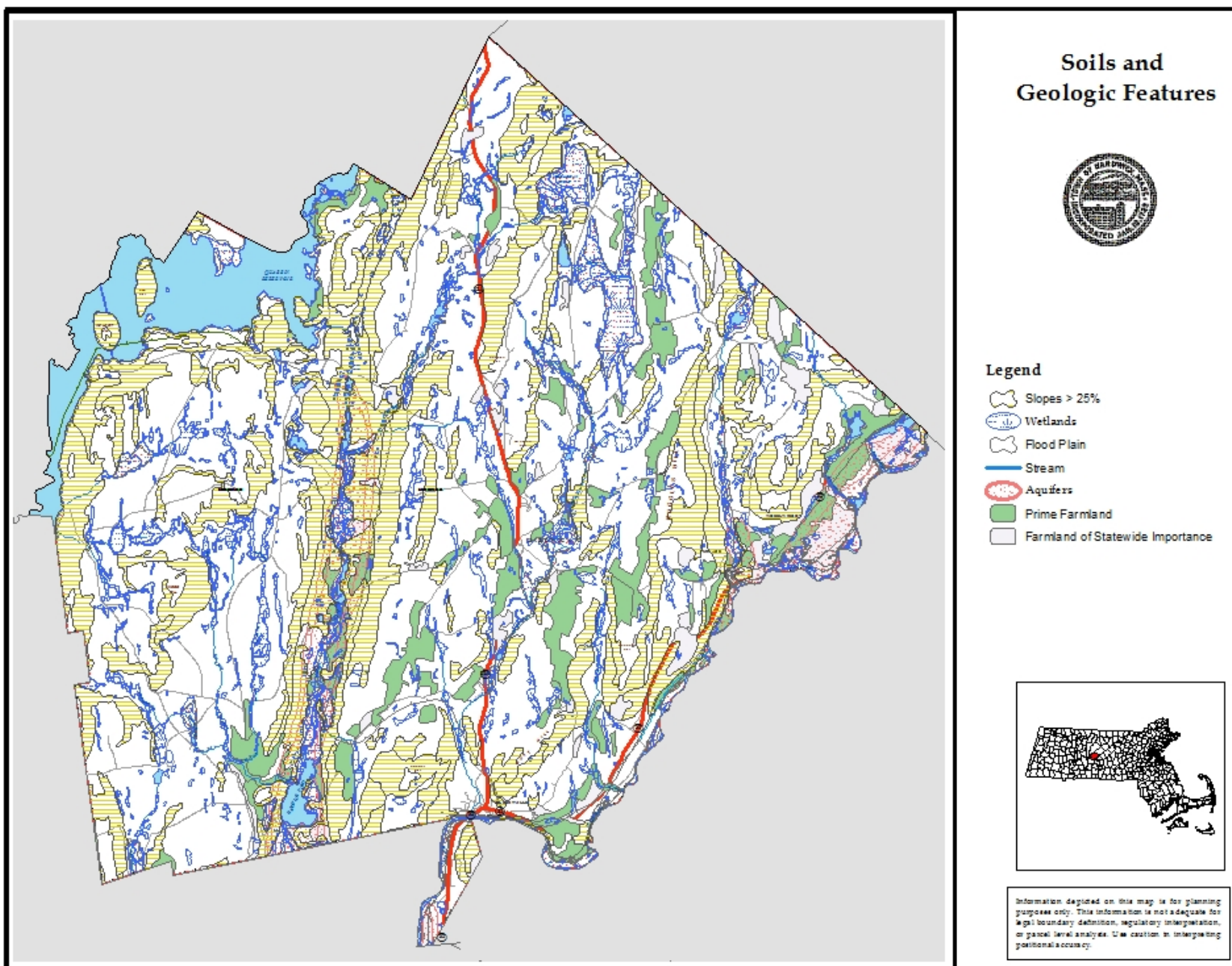
Peru Series: The Peru series consists of very deep, moderately well drained soils that formed in dense, loamy glacial till. Permeability is moderate in the solum, and moderately slow to slow in the dense substratum. Slope ranges from 0 to 35 percent.

Walpole Series: These soils consist of very deep, poorly drained soils on low-lying areas on outwash plains and stream terraces. The soils formed in glacial outwash. Slopes range from 0 to 3 percent.

Woodbridge Series: The Woodbridge series consists of very deep, moderately well drained soils on glacial till uplands. The soils formed in firm glacial till. Slopes range from 0 to 15 percent.

Muck: These are very poorly drained bog soils formed in accumulations of organic deposits that are underlain by mineral soil materials. The upper portion of the organic material is generally black and has decomposed to such a degree that plant remains cannot easily be identified. Decomposition of the materials in the lower part of the deep muck soils varies from this condition to one of practically no decomposition in which plant remains are readily identifiable. Muck soils occur in depressions and potholes. The water table in these soils is at or near the surface most of the year. Shallow muck soils have only 1 to 2½ feet of organic matter over mineral soil materials. In deep muck soils, the organic deposits are many feet thick.

The Ware River is a distinctive scenic feature that defines the edge of Hardwick along the east. The upland topography that is typical of the Town is most apparent in contrast with the low broad river terraces that stretch along the sides of the Ware River. Steep forested slopes and exposed bedrock shadow Route 32 from north to south. The Ware River is also significant due to its high recreational potential, especially with regard to fishing and canoeing. Wheelwright and Gilbertville have historic links to the Ware River.



D2. Landscape Character

Hardwick is a rural community with a population of just 2,990 spread over a land area of 40.8 square miles, yielding a population density of about 73 persons per square mile. The Town is distinguished by its actively managed agricultural lands interspersed with forests. Traveling the scenic thoroughfares, such as Petersham Road, Barre Road, Jackson Road, Greenwich Road, Hardwick Road, and Lower Road, Hardwick's strong agricultural heritage with many fields is still a dominant element of our landscape. Forests dominate the western portion of Town as one nears the Quabbin Reservoir.

At 68 acres, Hardwick Pond is the largest pond in Hardwick, formed by a natural constriction of Muddy Brook. The boat ramp on the southwestern end provides access for recreational boating. Hemmingway Swamp is the largest wetland complex in Town. Hemmingway Swamp in north Hardwick serves as the headwaters of Muddy Brook, which drains western Hardwick and flows into the Ware River in Ware. The Dept. of Fish and Game manages the Muddy Brook Wildlife Management Area, providing a large expanse of uninterrupted open space and preserving a pristine stream ecosystem.

The many hills and ridges in Town shape the landscape. Ruggles Hill, at an elevation of 321 meters (1053') is a distinctive ridge which is visibly prominent across Moose Brook as viewed from Prouty Road. Mandell Hill and Goat Hill are notable ridges and are visible from various vantage points. Dougal Range is one of the most prominent landforms in town. Its proximity to Gilbertville Center not only increases its "view ability" but also lends itself to passive recreational activities such as hiking. Webb Hill is a distinctive promontory positioned along the state conservation boundary of the Quabbin Reservoir.

Hardwick is located in the geographic center of the Commonwealth in the geologic formation known as the Central Highlands. The Town's 40.8 square miles includes a variety of ecological zones types. Many of these zones still exist in a relatively pristine state making the Town's open space worthy of special attention. Bordering the Town on its east and west sides are two large deep valleys running in a north-south direction, the Ware River Valley and the Muddy Brook Valley respectively, with valley elevations of 500-600 feet above sea level. These two valleys are separated by a central upland plateau with elevations of 800-1,100 feet above sea level. The upland central plateau contains multiple perennial streams and wetlands as well as rocky outcrops along its many ridge tops, creating a large mix of habitat and aesthetically pleasing land forms. The valley environments provide for extensive unfragmented wetland and forested landscapes such as in the Muddy Brook and the upper Moose Brook Valleys as well as river bottoms containing prime agricultural soils and unique riverine habitats.

The Ware River is a part of the Chicopee River watershed, the largest watershed in the Connecticut River basin. Other significant Town water resources include the 60 acre Hardwick Pond, Moose Brook, and two vulnerable, high yield subsurface aquifers of the Muddy Brook and Ware River valleys. Approximately 4,000 acres of Hardwick lies within the Quabbin Reservoir watershed supplying the Boston area with pure drinking water.

A discussion of Landscape Character in Hardwick would not be complete without mentioning the impact of human habitation upon the landscape. Native Americans lived in the area for hundreds of years without altering the landscape until the settlers arrived in the late 1600's. Changes to the landscape came quickly with clearing of the forests for agriculture, damming of the waterways for power and the building of structures for domestic and industrial endeavors, thus shaping the landscape into the familiar form we see in Hardwick today. Hardwick currently contains agricultural lands, industrial villages, and scattered residential development creating a pleasing mix of habitation. Two large north-south open space corridors in the aforementioned river valleys and a large east west corridor running from Quabbin to the Ware River valley create a bucolic setting for visitors. These corridors contain a mix of forest, wetland, and agricultural lands with varying degrees of protection. Furthermore, other contiguous undeveloped lands are vital to protection of ecological integrity, an important component of Hardwick's landscape character.

D3. Water Resources

Water resources in Hardwick occur both above and below the soil surface. The health and volume of these water resources are of great concern not only to the residents of Hardwick, but also to a much wider audience. Due to the presence of the Quabbin Reservoir, Hardwick's land use decisions affect the residents of the Commonwealth who obtain their potable water from the Department of Conservation and Recreation (DCR) Watershed Division. Additionally, the town of Ware sits downstream of the Muddy Brook Aquifer, from which it obtains some of its municipal water supply.

Quabbin Reservoir

A significant portion of Hardwick (4,278.3 acres) is owned by DCR for the purpose of watershed protection of the Quabbin Reservoir. The Quabbin Reservoir Watershed (including the reservoir itself) covers 120,000 acres. The Reservoir covers 24,705 acres and is Boston's major largest water supply area. The Reservoir contains 412 billion gallons of water across the towns of Hardwick, Ware, Belchertown, Pelham, Shutesbury, New Salem, and Petersham. The Quabbin Aqueduct flows from the Reservoir across north Hardwick to the Ware River Diversion in South Barre. Map 5 displays the Surface Water Supply Protection Areas, Zones A, B, and C, within the Quabbin watershed. The Commonwealth owns most of surface watershed of the Quabbin Reservoir in Hardwick, and few landowners will be subject to the provisions of the Mass. Watershed Protection Act. The presence of the extensive state landholdings for water supply protection has significant benefits for preserving environmental quality in Hardwick.

Aquifers

As shown on Map 4, two major areas of underground water exist in the two large valley regions of Hardwick. These are the Ware River (including Moose Brook) and the Muddy Brook valleys. These subsurface areas of permeable sands and gravel hold large volumes of clean water, an asset of great importance to Hardwick's future. Because surface water carries contaminants as it filters down through the soil above the aquifer, prevention of contamination in the soil above these aquifers is vital to insure the quality of this water. In addition, two deep wells tap the Ware

River aquifer for the public water needs of Gilbertville and Wheelwright. A shallow well serves the water needs of Hardwick Center.

These aquifer-related water supplies will undoubtedly be of increased importance if Hardwick continues to grow. Protection of the aquifer's purity is of great economic importance as well as a public health concern. It is virtually impossible to remove contamination once an aquifer becomes tainted. Currently the recharge areas have no protection from development and the Town has not adopted zoning measures to insure ground water purity.

Wetlands

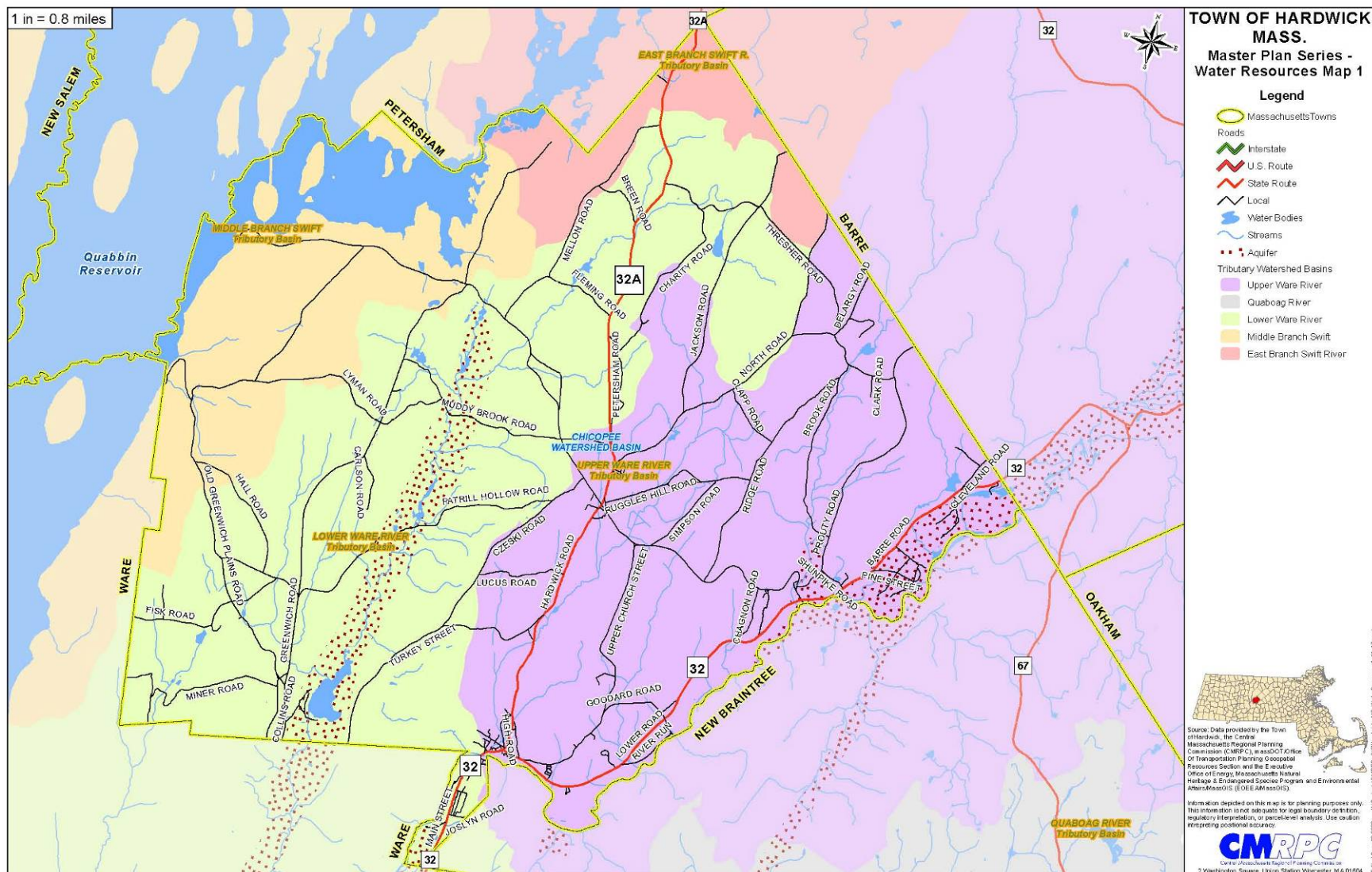
Hardwick contains a mosaic of wetlands distributed throughout the Town. Wetlands contain a large diversity of flora and fauna and have high resource values. They provide water supply, water purification through filtration, a rich biological diversity, and are of critical importance to flood control. Unfortunately, the 1996 Hardwick Open Space Plan references a "significant decrease in wetland acreage in Hardwick" through analysis of 1985 aerial photographs. This wetland loss and degradation has slowed considerably since that time, as the Hardwick Conservation Commission and the Massachusetts Department of Environmental Protection continue to enforce wetland violations.

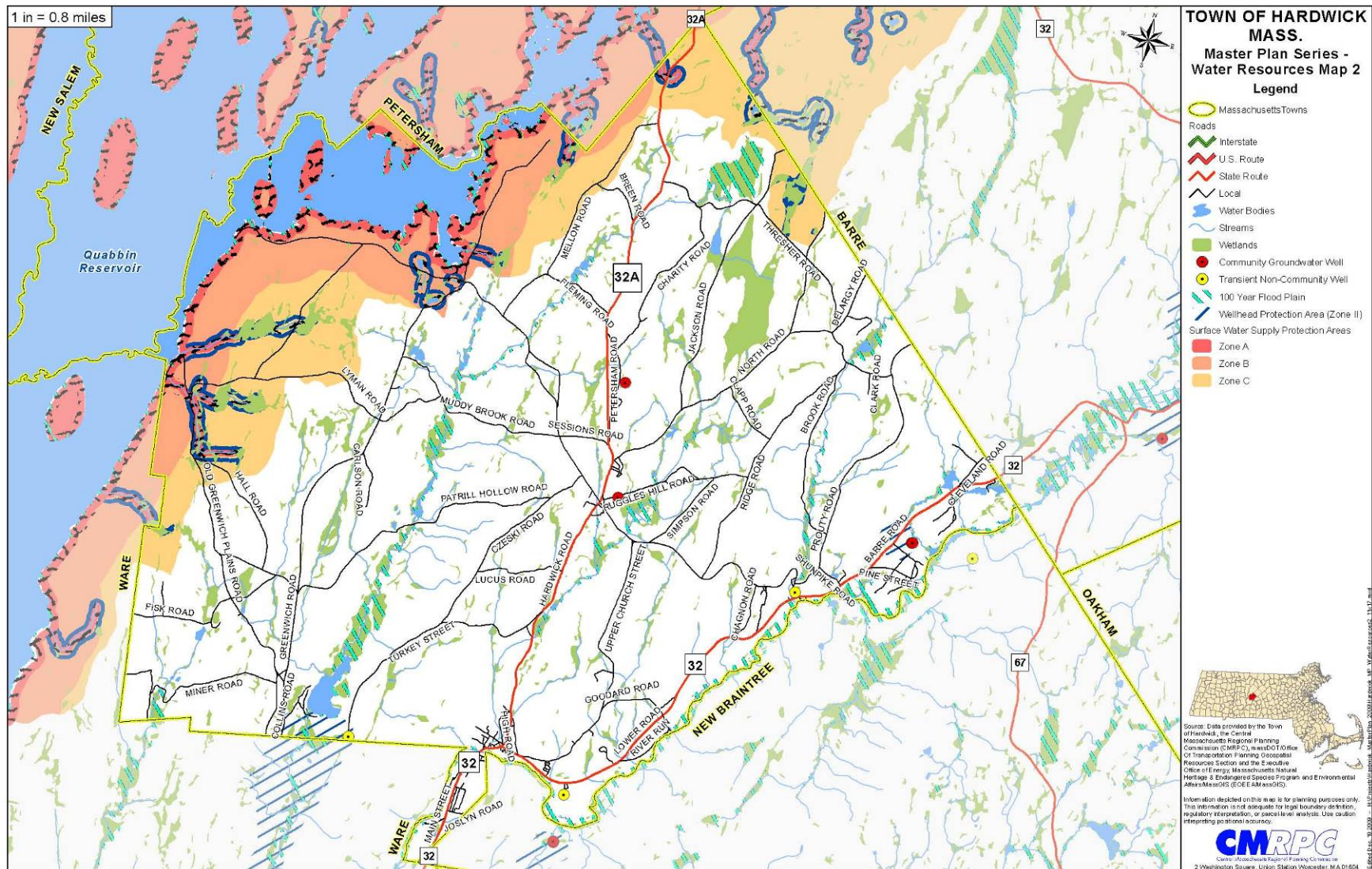
Wetland Types: Hardwick supports a diverse, important and interesting suite of wetlands. The Muddy Brook Watershed in particular contains an extremely high and unusual group of wetlands of regional ecological importance. The course of Muddy Brook includes representative wetland types, including expansive Emergent Deep Marshes, Emergent Shallow Marshes, Shrub Swamps, Red Maple Swamps and Hemlock-Hardwood swamps, as well as more unusual Spruce-Tamarack Bogs, Acidic Graminoid Fen and Level Bogs that hold a trove of species both common and regionally rare and imperiled.

Vernal Pools: According to data in the Natural Heritage and Endangered Species Program, in 2013 Hardwick supports 89 Certified Vernal Pools, which may be about half of the vernal pools present in Hardwick. These temporary spring pools are of critical importance in supporting many specialized species of wildlife and support the highest biodiversity of any natural community-type found in the state. All certified vernal pools receive some degree of protection through the Massachusetts Wetlands Protection Act, though uncertified (potential) vernal pools have no protection.

There are two major threats to wetland resources in the town of Hardwick: human alteration and invasive species. Human alteration is often expressed through the dredging, draining, or filling of the wetland, the alteration of native wetland vegetation, the interference of natural wetland processes such as beaver activity, and pollution of the wetland by chemicals, fertilizers or siltation. The Massachusetts Wetlands Protection Act addresses all of these activities.

The threat of invasive species in our wetlands is a critical issue to the proper function of these resources. Invasive wetland plants such as Purple Loosestrife and Common Reed severely diminish a wetland's biodiversity and alter its hydrology and chemistry. Addressing invasive infestations immediately through such avenues as chemical treatment, mechanical treatment, and bio-control is critical. All of these actions require review by the Hardwick Conservation Commission and the Massachusetts Department of Environmental Protection.





Flood Hazard

There are two major areas of Hardwick where significant flooding can occur: the Ware River and Muddy Brook. The Army Corps of Engineers regulates flooding on the Ware River through the flood control dam at Barre Falls. Natural flood control on Muddy Brook through the watershed's extensive wetland system has minimized flood damage to adjacent property. Wetlands provide a valuable function in absorbing flood waters in areas with no development and release the excess water slowly well after river levels peak from heavy rains. Communities that filled and developed wetlands in past decades have paid the price in increased flood damage and more expensive flood control structures to hold flood waters in check.

Hardwick participates in the National Flood Insurance Program (NFIP). Owners of property in a flood plain are eligible to obtain subsidized flood insurance to recoup losses in the event of a flood. In the comprehensive Zoning Bylaw revision of 2012, Town Meeting adopted changes to the Flood Plain Overlay District and now conforms to the requirements of the Federal Emergency Management Agency.

Major Water Resources in Hardwick

Ware River:

Source: Confluence of East and West Branch of the Ware River

Terminus: Chicopee River

The Ware River enters Hardwick from Barre just north of Wheelwright where it forms the town boundary with New Braintree. From this point it flows in a southerly direction through Gilbertville and into Ware. It is one of the largest rivers in Worcester County. In Hardwick it is a class "B" stream for water quality purposes.

The Ware River contains two distinctly different riparian habitats. The Wheelwright pool is the section north of the dam in the village of Wheelwright. This impounded area has extensive associated wetlands important to a variety of wildlife, most significantly waterfowl and aquatic mammals. The fish community here is associated with pond waters and includes bass, pickerel, perch, and sunfish.

The grades increase and the river becomes characterized by long pools separated by riffle sections below the Wheelwright Pool. Here the river flows through a mixture of hayfields and woodlands, and is met by a number of tributaries. There are few wetlands associated with this stretch of river. Beaver, mink, and otter are all common through this section. Fish eating birds including kingfisher, green and great blue herons, osprey, and a bald eagle frequent the river in the appropriate seasons. Massachusetts Division of Fisheries & Wildlife (MassWildlife) surveys indicate that the Ware River has one of the most diverse fish communities in Massachusetts, and the Massachusetts Natural Heritage and Endangered Species Program lists this stretch of river as critical habitat for rare mussels, dragonflies, and Wood Turtles.

MassWildlife stocks the Ware River with brook, brown, and rainbow trout, which encourages extensive use by fishermen.

Muddy Brook:

Source: Beaver flowages near Jackson Road

Terminus: Ware River

Muddy Brook rises from two large Spruce-Tamarack Bogs and a number of beaver ponds in the vicinity of Jackson and Thresher Roads. It flows south, crossing Route 32A, Greenwich Road, and Patrill Hollow Road, and entering Hardwick Pond; after exiting the pond, it crosses into Ware on its course to the Ware River.

The importance of this large stream to the industrial past of Hardwick is apparent from the many ponds and old dams along its course. These ponds, and the more recent beaver flowages, characterize the principal habitat on Muddy Brook and contain important wildlife and fish habitats. Representative wildlife species include wood duck, hooded merganser, great blue heron, beaver, otter, and a great variety of songbirds. The Muddy Brook watershed falls within the Quabbin Reservoir Important Bird Area (IBA) as designated by the Mass. Audubon Society. Audubon describes the habitat as “almost exclusively high canopy, unfragmented, mixed forest on steep, hilly terrain that holds a great representation and density of interior forest-breeding birds.”

Sections of Muddy Brook that are not impounded have wild brook trout populations, as do many of the small tributary streams. Shade and ground water flows provide cool waters needed by trout and many plant species present in these sections.

Many of the wetlands associated with Muddy Brook are quite acidic in nature and support interesting plant communities, as well as a diverse array of rare and endangered species, represented by mussels, insects, plants and herptofauna¹.

Moose Brook:

Source: Beaver Pond near Route 122, Barre

Terminus: Ware River, Hardwick

Moose Brook rises in Barre and flows south, entering Hardwick to the north of Taylor Hill Road. After crossing Taylor Hill Road, the brook flows to the east through Old Furnace and crosses Route 32, and enters the Ware River.

This large stream was once an important source of waterpower as witnessed by the remains of dams and other water control structures along its path. However, the only impoundments present at this time are those created by beavers.

Stream surveys conducted by MassWildlife show a diverse fish population with both wild brook and brown trout present. Additionally, Moose Brook supports a diverse array of rare and endangered species, represented by mussels, insects, plants and herptofauna. The Massachusetts Audubon Society declared the Moose Brook Valley an Important Bird Area in 2002.

Danforth Brook:

Source: Wetlands near Jackson and North Roads.

¹ Herpetofauna: the reptiles and amphibians of a particular region, habitat, or geological period.

Terminus: Ware River

Danforth Brook rises from wetlands in the vicinity of Jackson and North Roads. It flows south on a course through the center of Hardwick, crossing Route 32A, and entering the Ware River in Gilbertville.



A number of small ponds and beaver flowages are present along Danforth Brook, as well as a series of extensive marshlands that support breeding marsh birds and some species listed as Endangered by the Massachusetts Natural Heritage and Endangered Species Program. The brook is facing threats of agricultural contamination from farms in the watershed. The Natural Resources Conservation Service (NRCS) can provide technical assistance to modify farm practices and help reduce contamination in runoff from farm operations.

Old Swimming Hole on Danforth Brook

MassWildlife surveys indicate that a small number of wild trout live in high gradient areas on this brook. Brook trout are stocked annually in the Gilbertville section.

Elwell, Canterbury and Newton Brooks:

Elwell and Canterbury Brooks flow south after rising in wetlands near Greenwich, Thayer, and Greenwich Plains Roads. These brooks converge near Greenwich Road to form Newton Brook. Newton Brook then flows a short distance to the east, where it enters Hardwick Pond.

These brooks have a large number of beaver flowages and small man-made ponds which provide considerable wildlife and fish habitats. Wild brook trout are common in the free-flowing sections of these streams and are particularly abundant in Newton Brook.

Hardwick Pond:

At 99 acres Hardwick Pond is the largest pond on Muddy Brook and is an important recreational resource. About 50% of the shoreline is developed. A concrete boat ramp on the pond provides access for fishing.

The average depth of the pond is ten feet with a maximum depth of 28 feet. Surveys by the MassWildlife indicate that fish species in the pond include largemouth bass, chain pickerel, yellow perch, black crappie, brown and yellow bullhead, red-breasted sunfish, bluegill, pumpkinseed, suckers, and golden shiner. MassWildlife stocks Hardwick Pond with brook and rainbow trout.

The wetlands at the inflow of Muddy Brook into Hardwick Pond are of regional ecological significance, supporting acidic wetland plant communities, a vast diversity of birdlife that includes state-listed marsh birds, and a strong population of otherwise imperiled plants listed by the Massachusetts Natural Heritage and Endangered Species Program as Threatened.

Fish Brook:

Source: North of Barre Road

Terminus: Ware River

Fish Brook originates from groundwater that feeds a large certified vernal pool in the Deer Park section of Hardwick and flows south through a steep valley of woodland and farmland on its course under Barre and Goddard Roads, under Route 32 and ultimately into the Ware River. The majority of its northern course is on protected land. Although this brook is quite small, it does flow through important wooded wetlands and sustains a population of native Brook Trout.

Broadmeadow Brook:

Source: Wetlands in southern Barre

Terminus: Ware River in Wheelwright

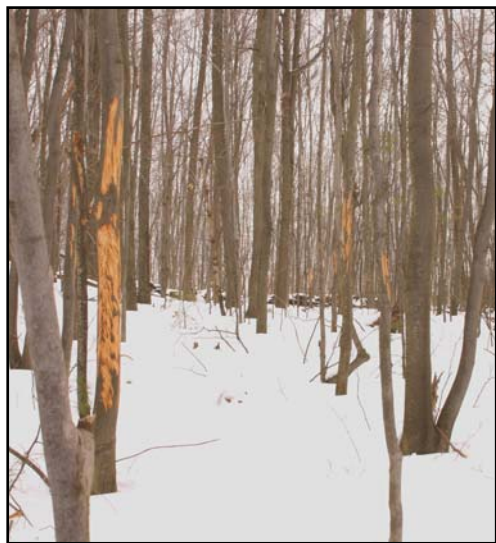
Broadmeadow Brook flows rather steeply into the Ware River Valley behind Robinson's sawmill. It is then impounded when it reaches the valley bottom and flows rather lazily across Route 32 and into the Ware River just above Wheelwright. Its primary impoundment is Tamkus' Pond. This pond is in private ownership, but it is an important part of the landscape for those driving along Route 32.

Pine Hill Brook:

Source: Wetlands in southern Barre

Terminus: Ware River in Wheelwright

Pine Hill Brook flows across Route 32 in Barre near the Hardwick line and into the Ware River a short distance upstream from Broadmeadow Brook. Its short Hardwick section contains the twin ponds at the South Barre Rod & Gun Club.

D4. Vegetation***Forests***

Moose Bark Stripping

Table 9 displays the extent of forest cover in Hardwick and the change over time based on aerial photo interpretation of land cover. Forests cover about 70% of the land base in Hardwick. The extent of forest cover today is greater than in 1951, which is largely due to the succession from farms and fields to forests and little new development. In addition to timber and recreation, the forests provide wildlife habitat, climate moderation, and watershed protection. These woods are primarily closed-canopied and middle-aged, having a great diversity of species but a lack of diversity in age and size. The major forest types are Appalachian Oak (Northern Red Oak, White Oak, and Chestnut Oak) and Hemlock-Northern Hardwood (Sugar Maple, Beech, Yellow Birch, White and Paper Birch, Hemlock, and White Pine). There are

Red Maple swamp scattered throughout Town. The Dougal Range, which runs south from Turkey Street into Ware, is a large forested block that represents a unique area in Hardwick. The EQLT owns about 45 acres and the Gilbertville Water District owns about 215 acres. The remaining land is in private ownership, but contains little development, and is an ideal candidate for preservation of a large block of forested open space.

**Table 9:
Total Forested Acres**

Year	Acres	Change	% Change	% of Town
1951	17,007.0			65.0%
1971	19,512.1	2,505.1	14.7%	74.9%
1985	19,055.5	-456.6	-2.3%	73.2%
1999	19,171.7	116.2	0.6%	73.3%
2005	18,209.4	-962.3	-5.0%	69.6%

Source: MassGIS Land Use Coverage

From an economic standpoint, Hardwick's forests are a prime timberland capable of producing in excess of 85 cubic feet of biomass per acre per year. Worcester County is the top producer of timber in the Commonwealth, with red oak and white oak the most valuable wood product. One cannot diminish the wood products industry when considering the local economy. The primary industry including timber planners, harvesters, transporters and sawmills, all have a strong presence in the Hardwick area. There are numerous licensed timber harvesters in Hardwick and the immediate adjoining towns. Hardwick Kilns, Inc. is the second largest producer in the Commonwealth. The secondary industries, which use timber products for items such as pallets, paper, and furniture, are also a significant contributor to the local economy. Although difficult to trace, the availability of inexpensive local forest products contribute to the overall economic viability of the region.

Ownership of the forests in Hardwick is undergoing significant change from traditional ownership patterns. As Hardwick continues to grow, average woodland lot sizes continue to decrease. Landowners are more likely to manage these smaller parcels for their aesthetic values rather than as a timber resource. Increased fragmentation makes long-term forest management more difficult, threatening the local wood products industry. Currently the Assessors classify 1,710 acres in Chapter 61A as “productive woodland” and 421 acres in Chapter 61, which requires a forest management plan. Timber harvesting operations of 50 cords or more are subject to the Massachusetts Forest Cutting Practices Act (Mass GL Chapter 132), administered by DCR. The law requires landowners to prepare a plan subject to approval by a DCR Service Forester. The plan considers the impact upon wetland, wildlife, and silviculture.

In general, protection of large tracts of forest is desirable from a forest management and economic standpoint. In addition, educational programs and encouragement of silvicultural methods will help insure continued timber harvesting. The added benefits of protected wildlife habitats, scenic landscapes, and water resources, as well as a healthier, more diverse forest will result from forest protection.

Agriculture

Since Hardwick's incorporation, agriculture has played a pivotal role in the Town's character and economy. The fertile bottom land allowed for good tilling, and the rolling hills made excellent pasture. Like many New England towns, the agricultural land in Hardwick is quite diverse. So diverse, in fact, that one can often find many different soil types and conditions in one field. The diverse land allows animal agriculture to flourish. A good farmer would plant both grasses and row crops in the bottom land, hay and pasture the rolling hills, and still pasture any upland piece if desired. Animal agriculture allows for the flexibility needed to successfully manage the diverse yet productive land that one finds in Hardwick.

Thirty years ago there were between 25 and 30 dairy farms in Hardwick. Now there are only three. Much of the permanent pasture lands of these farms is abandoned. Any brushy area or forest with five inches of growth or smaller probably was a permanent pasture 40 years ago, showing evidence of the long term structural change in New England agriculture. During the same period, the population has grown. One result is that the current value of agricultural land for development is significantly higher than its value for agriculture. For its agricultural value, one must consider the value of crops it produces per acre. This could be in bales of hay, pounds of milk or meat. This greatly contrasts with the same land's value from a development perspective. Because of this, the surviving farmers in need of land to expand their operations are unable to afford the purchase price of new land. Currently, farmers rent fields from non-farming owners, and rents received usually do not cover the tax burden. Though this practice allows for affordable farmland on a short-term basis, it is not economically sustainable in the long term, making the farmer vulnerable to unexpected loss of farmland.

An emerging trend in the field is the rise of community supported agriculture (CSA). Here, farmers sell "shares" to the public, who benefit by receiving regular supplies of fresh meats, fruits, and vegetables during the season. Farmers receive guaranteed financial support to continue operations, and the consumption of more local food reduces the costs and environmental impacts of importing food from long distances. At least two CSA farms exist in Hardwick today, Stillman Farm on Greenwich Road and Chestnut Farms on Turkey Street.



Mandell Hill Preserve

The majority of townspeople identify local farmland conservation as a prime concern. People recognize that the agricultural land is not only aesthetically pleasing, but it also represents the local character, history, and roots of the Town since colonial days. It is evident that if the farmland is to remain open, the Town must have a viable farm community to maintain it. Furthermore, if the farmers are to treat this land with respect and with an eye for long-term management, the farmer must have control of the land farmed. At present, the most highly productive undeveloped land is located in a few corridors within the Town. Though the owners of these corridors have changed many

times in the past, the natural productivity of the land has not. In order to guarantee any agricultural viability, these productive tracts of land have to be identified and protected. Lastly, we recognize that the current economic climate for traditional agriculture is challenging at best. For the present farms to survive or transform into other agricultural enterprises, both the farming and non-farming community will need to work together in new ways that require courage and foresight.

Predicting the status of New England agriculture one hundred years in the future is difficult. However, it is clear that maintaining and protecting the farmland is vital to our future agricultural needs. The Agricultural Commission is actively working to promote agriculture in Hardwick. It assists farmers to find ways to develop markets for products, sponsors agricultural events in town, and works to educate the public on the benefits of consuming food grown locally. The annual Hardwick Fair is a showcase to tout the variety of agricultural products Hardwick still has to offer. Recent adoption of a right-to-farm bylaw provides a strong statement that the Town fully supports agricultural pursuits and looks unfavorably upon frivolous nuisance complaints. The Bylaw states:

It is hereby determined that whatever impact may be caused to others through the normal practice of agriculture is more than offset by the benefits of farming to the neighborhood, community, and society in general. The benefits and protections of this By-law are intended to apply exclusively to those commercial agricultural and farming operations and activities conducted in accordance with generally accepted agricultural practices.

Wetland Vegetation and Unique Natural Resources

See the discussion in section D3, Water Resources.

D5. Fisheries and Wildlife

Habitat type and availability are key factors in determining wildlife composition, diversity and abundance. Large areas that support a variety of wildlife often contain a diversity of plant species, ages, densities and heights. Accordingly, diversity of wildlife and plants is greatest where large tracts of unfragmented forest meet open farmlands, wetlands, streams, and river valleys.



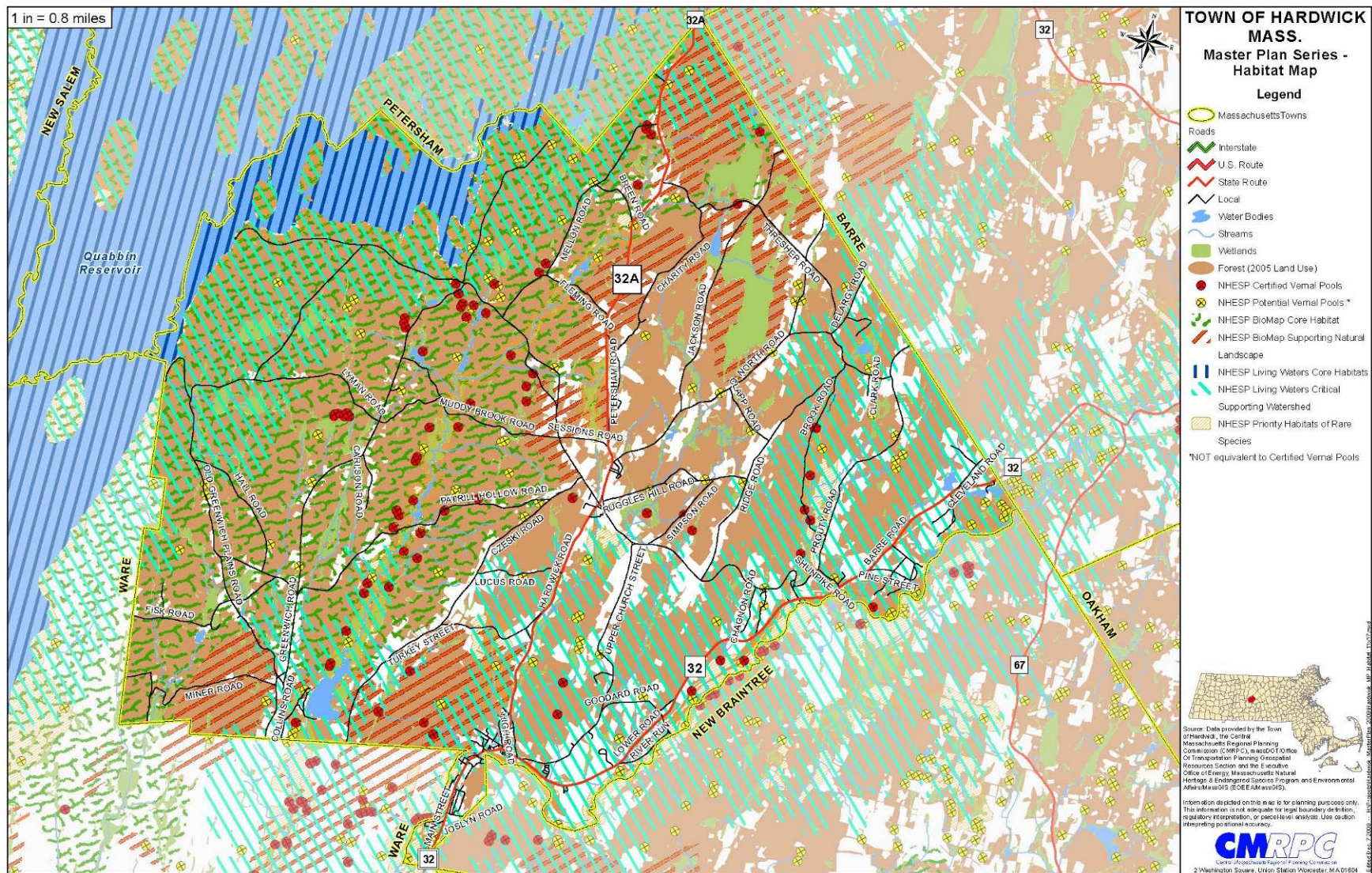
Wood Turtle in the Dougal Range

Hardwick, like many rural farming towns in Massachusetts, contains large blocks of unbroken mixed forest. The Town also has open farmland interspersed throughout, and numerous streams, wetlands, and ponds add to its diversity. This variety of habitat types provides for an abundance and diversity of wildlife not commonly found in central and eastern Massachusetts. Included in this diversity is a surprising array of rare and endangered plants and wildlife. The following table identifies species listed by the Massachusetts Natural Heritage and Endangered Species Program as “Rare and Endangered”.

**Table 10:
Rare and Endangered Species**

Taxonomic Group	Common Name	MESA Status	Most Recent Observation
Beetle	Twelve-spotted Tiger Beetle	Special Concern	2007
Bird	American Bittern	Endangered	2004
Bird	Common Loon	Special Concern	2008
Bird	Least Bittern	Endangered	2005
Bird	Pied-billed Grebe	Endangered	2003
Bird	King Rail	Threatened	1959
Dragonfly/Damselfly	New England Bluet	Special Concern	2008
Dragonfly/Damselfly	Spine-crowned Clubtail	Endangered	2004
Fish	Bridle Shiner	Special Concern	1993
Mussel	Triangle Floater	Special Concern	2007
Reptile	Wood Turtle	Special Concern	2008
Vascular Plant	Black Maple	Special Concern	1929
Vascular Plant	Climbing Fumitory	Special Concern	2007
Vascular Plant	Purple Clematis	Special Concern	1933
Vascular Plant	New England Blazing Star	Special Concern	1930

Source: Mass. Natural Heritage and Endangered Species Program, 2012



Three major resource landforms contribute to the Town's high level of biodiversity: the Ware River Valley, the Moose Brook Valley, and the Muddy Brook Valley.

The Ware River is a regionally significant waterway supporting strong populations of imperiled species of mussels and dragonflies, as well as a healthy fishery.

The steep slopes of the Moose Brook Valley support large tracts of rich mesic² forest, deep hemlock ravines, and dry, early successional pasturelands that provide a diverse and healthy assemblage of plants and breeding birds. Moose Brook itself, a pristine gravel waterway, divides the Valley and is habitat to a suite of rare species including mussels, dragonflies, and herptofauna.



Heron Rookery

The Muddy Brook Watershed is the most diverse unit in Hardwick, and perhaps the immediate region. It supports a wide range of unusual plant communities including Spruce-Tamarack Bogs, Acidic Graminoid Fens, Rich Mesic Forests, and Sandplain Grasslands. The wildlife associated with these communities is rich, providing strongholds for many common species and supporting a list of rare and endangered species as well.

A fourth area, the Dougal Range, provides a wealth of unfragmented upland forest habitat. Its 2,000 contiguous acres supports a stronghold of neo-tropical migrant birds, as well as unusual upland plant communities and rare plants. This range also acts as a direct and unbroken link between the Ware River and Muddy Brook. The Massachusetts Audubon Society declared The Dougal Range an Important Bird Area in 2002, along with the Muddy Brook and Moose Brook Valleys.

All four of the above mentioned areas fall within Massachusetts Natural Heritage and Endangered Species Program designated Bio-Map and Living Waters conservation priority areas.

D6. Scenic Resources and Unique Environments



Ware River as seen from Rail Trail

Hardwick is rich in scenic resources and unique environments. These take the forms of Cultural and Archeological Landscapes, Geological Features, and Natural Environments.

The Ware River is a distinctive scenic feature that defines the edge of Hardwick along the east. The upland topography that is typical of the Town is most apparent in contrast with the low broad river terraces that stretch along the sides of the Ware River. Steep forested slopes and

² Mesic: Relating or adapted to a moderately moist habitat.

exposed bedrock shadow Route 32 from north to south. The Ware River is also significant due to its high recreational potential, especially with regard to fishing and canoeing. Wheelwright and Gilbertville have historic links to the Ware River, arising as mill villages to support the industries that harnessed the power of the river.

Traveling south from Barre into Hardwick, Route 32 winds slowly to the right and then to the left as it opens into a significant viewshed area. The steep slopes with exposed bedrock to the west frame the open landscape, which includes fields and a small pond fed by Broadmeadow Brook. Regrettably, given the suburban sprawl which is creeping slowly through this viewshed, it is a notable remnant of a potentially distinctive landscape.

Ruggles Hill (at elevation over 321 meters) is a distinctive ridge which is visibly prominent across Moose Brook as viewed from Prouty Road. The entire valley has high scenic value due to the coincidence of a stream corridor, high steep forested slopes and undulating pastoral fields. The few houses along Prouty Road have historical charm and seem to fit into the landscape. Mandell Hill and Goat Hill are notable ridges visible above certain elevations and from certain vantage points.

The Dougal Range is one of the most prominent landforms in Town. Its proximity to Gilbertville Center not only increases its "view ability" but also lends itself to passive recreational activities such as hiking. Webb Hill is a distinctive promontory positioned along the state conservation boundary of the Quabbin Reservoir. New England's largest man-made lake, the Quabbin Reservoir, is included in the Massachusetts Landscape Inventory for its outstanding scenic quality. The Reservoir is surrounded by heavily wooded hills which creates a wilderness environment unequaled in southern New England. The reservation is home to bald eagles and other animals associated with wilderness areas.

Hemmingway Swamp is a distinctive wetland area that is adjacent to other large low lying wetlands in the north of town. Hemmingway Swamp is a source of Muddy Brook. The Muddy Brook Corridor has distinctive scenic value due to its overall magnitude and diversity. Muddy Brook begins from the north of town near Hemmingway Swamp and transitions through a variety of small ponds and marshes before entering Hardwick Pond. The brook has steep forested slopes along much of its length. As shown on Map 6, the Mass. NHESP has identified the Muddy Brook Watershed as a Biomap Core Habitat, areas that are critical for the long-term persistence of rare species and provide a wide diversity of natural communities and intact ecosystems across the state.

At 99 acres, Hardwick Pond is the largest pond in Hardwick. Although it has high recreational significance for fishing and boating, it has minimal scenic value due to the dense development along its southern edge.

Hardwick Reconnaissance Report



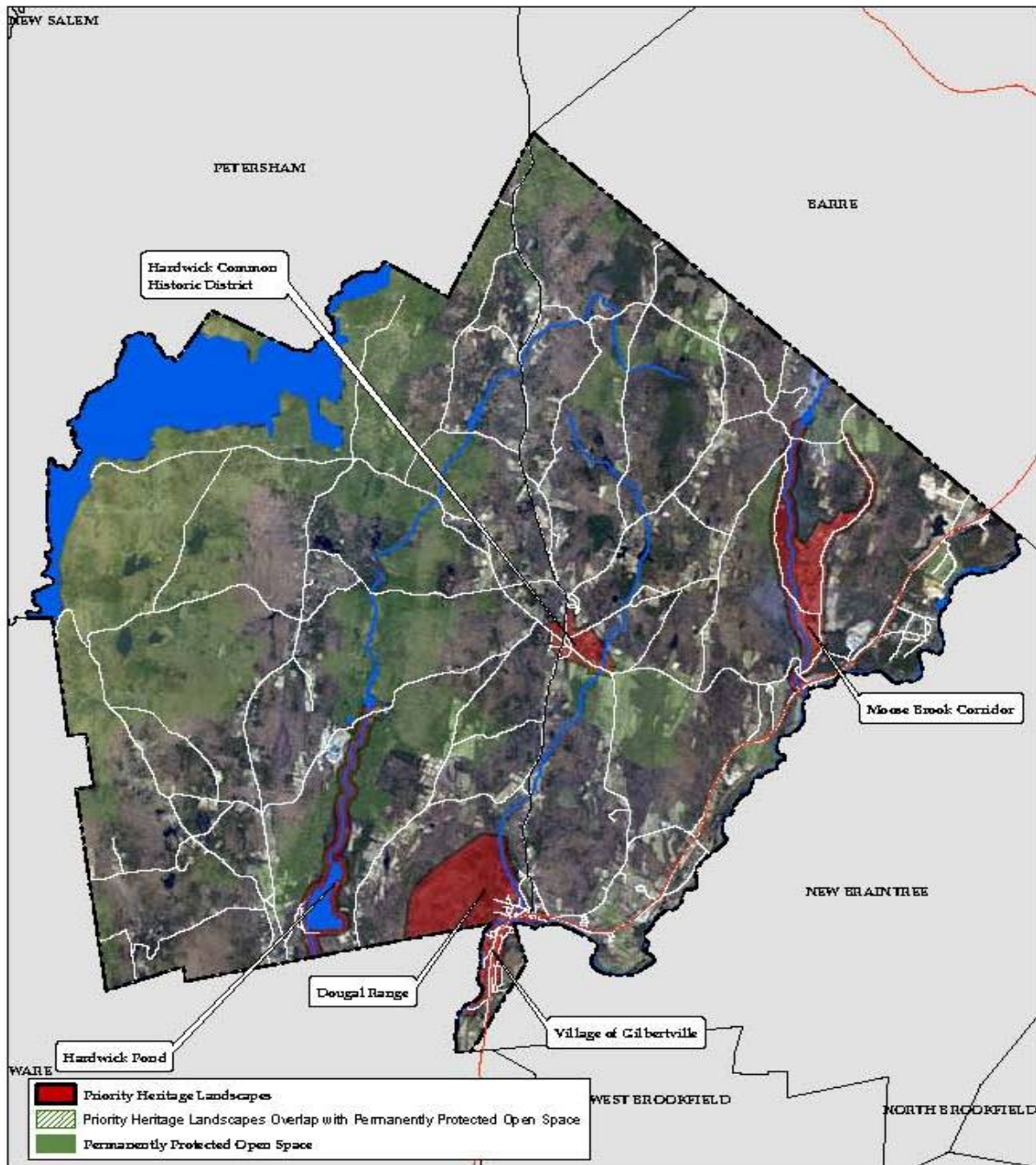
In 2008 the Dept. of Conservation and Recreation selected Hardwick to participate in its Heritage Landscape Inventory Program. The ensuing Hardwick Reconnaissance Report identified numerous special places in Hardwick that have high scenic and conservation value. The process involved numerous knowledgeable townspeople and included extensive field work to determine the highest ranked visual resources that contribute to Hardwick's striking landscapes. The key findings of the process are very relevant to this Open Space Plan because they include a number of scenic landscapes that are worthy of preservation. The report recommended a variety of tools to accomplish specific actions. In fact, the Town has already implemented one key recommendation, adoption of a Right-to-Farm Bylaw. Appendix 2 contains a complete list of Hardwick's heritage landscapes and outstanding natural and cultural resources. Map 7 displays the highest ranked priority landscapes most valued by residents. These include:

- a. Gilbertville Village
- b. Hardwick Pond/Music Camp/Muddy Brook
- c. Dougal Range
- d. Hardwick Common Historic District
- e. Moose Brook Corridor – Village of Old Furnace

Of course, it is neither feasible nor desirable to preserve all of these special areas through purchase alone. The Report contains a variety of important recommendations to protect and maintain their integrity through proper management, legal protection, and innovative zoning. Presented below are the report's recommendations for each of the priority landscapes.

Gilbertville Village

1. Adopt the Mill Conversion Overlay District and Village Center Zoning to encourage mixed-use development in Gilbertville. (*Completed*)
2. Establish a Local Historic District (LHD) Study Committee to create a Gilbertville LHD using the National Register District boundaries as an initial guide.
3. Explore state zoning incentive programs such as 43D, 40R and 40S.
4. Document the important buildings and develop a management plan to mothball unneeded structures so that they can survive until needed.
5. Explore use of #1 Mill for senior housing and a senior center.
6. As part of a National Register Historic District, privately owned, income generating properties are eligible for Massachusetts Historic Rehabilitation Tax Credits. Publicly owned properties are eligible to apply for Massachusetts Preservation Project Fund grants.



Priority Heritage Landscapes

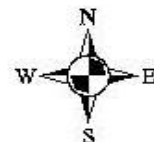
Hardwick, Massachusetts

Prepared for: Massachusetts Department of Conservation and Recreation, Heritage Landscape Inventory Project in the Upper Quabog Watershed and North Quabbin Region

Prepared by: Dodson Associates, Ltd., Landscape Architects and Planners
Ashfield, Massachusetts

25 June 2008

0 0.5 1 2 3 4 Miles



"Office of Geographic and Environmental Information (MassGIS), Commonwealth of Massachusetts Executive Office of Environmental Affairs"
MassGIS 2005 Orthophotos

For Planning Purposes Only

Hardwick Pond

1. The Open Space Committee should work with the state and local conservation groups to protect remaining wetlands and ecologically-sensitive parcels surrounding the Pond and the headwaters of the Muddy Brook. The North American Wetland Conservation Act (NAWCA) Small Grants provides an excellent funding avenue for wetland conservation, which could apply along the Moose Brook Corridor.
2. Work with landowners around the Pond to raise awareness of contamination potential from septic systems and stormwater runoff.
3. Pursue protection of important roadside vistas through easements or scenic roads designation.
4. Adopt the Open Space Subdivision zoning bylaw. (*Completed*)
5. The Town should work with the owner of the Music Camp to develop a Master Plan for the property, using Open Space Zoning to retain a campus feel to the property, keeping the open spaces open and clustering any new buildings.

Dougal Range

1. The Open Space Committee should work with the EQLT and other regional conservation groups to secure permanent protection for the range. The 52-acre parcel for sale on Mechanic Street should be a priority for acquisition. Forest Legacy is an excellent source of funding for protecting large blocks of forest that exist in the Dougal Range.
2. Adopt a Scenic Overlay District for the area.
3. Prepare a short and long term management plan for the core area to help sustain rare species, limit invasives, and manage the impact of human uses.
4. Prepare a management plan for surrounding parcels with recommendations for stewardship of this unique shared resource.
5. Pursue an outreach program to surrounding landowners.

Hardwick Village Historic District

1. Establish a Local Historic District (LHD) Study Committee to create a Hardwick Center LHD using the National Register District boundaries as an initial guide.
2. Prepare a physical Master Plan for the Common, and a management plan for the surrounding historic district to prevent unintended impacts of future change.
3. Pursue planning for a sewer line extension from Gilbertville, or small-scale shared systems, for the center village.
4. Continue gradual improvements to the Common and fairgrounds, including roadway repair, tree planting and pedestrian amenities. Combine sewer work with the implementation of other improvements to assist residents with Title 5 problems.

5. Pursue Conservation Restrictions on unprotected parcels in a greenbelt surrounding the village.

Moose Brook Corridor

1. Consider scenic road designation for Prouty, Taylor Hill, and Brook Roads to help protect the character of the roadways through this landscape.
2. Work with landowners to identify threats to farmsteads, barns, and outbuildings and develop approaches to maintain them.
3. Work with farmers to identify new crops, livestock, and production techniques that could keep the land in production if dairy farming continues to decline. Encourage agricultural land protection through Chapter 61A designation or Agricultural Preservation Restrictions.
4. Adopt the Open Space Subdivision and Residential Compound zoning amendments. (*Completed*)
5. Develop a Master Plan that shows landowners how open space zoning and the residential compound bylaw can allow growth to continue while preserving the character of the Valley.
6. Work with the EQLT and other partners to secure conservation restrictions on farmland along Prouty Road.
7. The Open Space Committee should work with the Conservation Commission and Mass. Department of Fish & Game to identify and secure additional parcels with the greatest ecological value. The Town should also identify important Chapter 61, 61A, and 61B lands and develop a strategy to invoke its right-of-first-refusal to acquire properties coming out of the program either outright or through the purchase of a Conservation Restriction.

Note: The *North Quabbin Regional Landscape Partnership* is taking an active role “to identify and protect ecologically, historically, economically, and culturally significant open space”. Staff work closely with landowners to demonstrate how they can preserve significant resources on their property and prevent the fragmentation of large natural areas that make the region a valuable place for recreation, wildlife habitat, and forest products.

D7. Environmental Challenges

The following items highlight environmental challenges facing Hardwick. Like many rural communities throughout the state, Hardwick continues on an overall steady path of growth and development. With this growth comes the need for diligent oversight, not necessarily to curb growth, but to manage it in a way which maintains the natural, cultural, and historic resources of the Town.

Old Dump Sites

Several old dump sites remain in Hardwick. One such site is located on Greenwich Road in the vicinity of Dead Pond beyond Mellon Road. The property owner is working with the Department of Environmental Protection (DEP) to determine the extent contamination in the immediate and surrounding area. This collaborative effort should continue and any clean-up actions initiated with the Town’s support. In addition, many old farmsteads in Hardwick at one time had their

own individual dumpsites located on the property. This is important to keep in mind as development and recreational opportunities continue to expand throughout the Town.

Hardwick Landfill and Other Solid Waste Facilities

The landfill located on Patrill Hollow Road opened in 1967 and remained privately owned and operated. Leachate from the site was, and still is, transported to the Gilbertville wastewater treatment facility where it is processed and discharged into the Ware River. Monitoring wells are in place at designated locations at the landfill. Sampling continues on a regular basis with oversight by the DEP Western District Office and the Hardwick Board of Health.

Casella Waste Systems, Inc. of Vermont currently owns the landfill. Under Casella, the landfill accepted municipal solid waste but not construction and demolition waste, which it had accepted previously. In 2007, Casella proposed to expand the landfill by creating a 48-acre landfill zoning district along Patrill Hollow Road. The zoning measure failed to obtain the necessary 2/3 vote at a special town meeting. As a result, the landfill ceased operations and Casella capped the remaining active cells. Environmental monitoring will continue under the guidance of the DEP and the Board of Health.

The landfill capping presents the Town with an opportunity to manage the site as habitat for grassland bird species whose populations are rapidly declining in large part due to habitat loss. Certain species of grassland birds thrive at landfills if managed according to their habitat needs (slope, seed mix, mowing regime, etc.). The Town should work with Casella, the DEP and other agencies to create and properly manage this potentially significant grassland bird habitat.

With the closing of the landfill, many residents now use a commercial service to haul their trash. The Town has established a system of periodically collecting hazardous waste as well as bulk items through the Hardwick Recycling Program. The Town should continue to support the efforts of the Hardwick Recycling Center. When the Recycling Center initially proposed the idea of a 'Pay as you throw' (PAYT) program in June of 2007, the concept did not generate enough town-wide support at Town Meeting to pass. This program has proven effective in encouraging households to recycle reusable materials and reduce the amount of waste entering landfills or burning in incinerators.

The DEP database of closed landfills contains records of three other former landfills. It is unknown to what extent these sites pose a risk to the environment from contaminated leachate.

Table 11:
Unlined Landfills in Hardwick

Name	Address	Active Yrs	Type of Waste	Acres	Closure Status	Liner
Gilbertville Landfill	44 Lower Rd.	1960-1967	Municipal	5	Unknown	Not Lined
Nields Landfill	Greenwich Rd.	1950-1958	Municipal	1	Unknown	Not Lined
River Run Landfill	197 River Run	1966-1968	Municipal		Unknown	Not Lined

Underground Storage Tanks

Underground storage tanks (USTs) can pose a risk to the environment and public health if leaks develop over time and remain undetected. According to the American Petroleum Institute, 50% of bare steel tanks develop leaks within 15 years. Several locations in Hardwick have USTs, some of which do not have valid permits. Some old tanks required the removal of contaminated soil and the placement of monitoring wells for regular testing. Since there is no inventory of tanks installed before permits were required, it is important to be cognizant to the possibility of their existence and threat of contamination.

At the state level, responsibility of the Mass. Underground Storage Tank Program was transferred from the Department of Fire Services to the Department of Environmental Protection in 2009. Owners are required to register their tanks and have annual third party inspections. Installing a new tank or removing an old tank still requires a permit from the local Fire Department. The Fire Chief may ask to see tank records to ensure that a tank complies with program rules, and that tests have determined that it is not leaking and does not present a fire or explosion hazard.

The Spread of Exotic Vegetation

Invasive plants are non-native species that have spread into and overtake plant systems native to Massachusetts. These plants cause economic and environmental harm by developing self-sustaining populations that dominate and/or disrupt native ecosystems. Hardwick is not immune to the spread of exotic vegetation; one does not have to drive far to find dense stands of Asiatic Bittersweet, Purple Loosestrife, Japanese Knotweed, Autumn Olive and many other invasive varieties.

Invasive plants impact the environment by out-competing native plants for limited natural resources, and reducing food and shelter for native wildlife. Invasive plants can also eliminate beneficial native insects and compete with native plants for pollinators. This competition can cause otherwise healthy, biologically diverse forests, wetlands, and meadows to become dominated by one or a few non-native invaders, diminishing ecological, economic, and aesthetic values of natural landscapes. Some aquatic invasives develop such large populations that they make lakes and waterways nearly inaccessible for swimming, fishing and boating. Property values decrease as a direct result of invasive infestations.

The Conservation Commission should make extended efforts to reduce the further spread of exotic vegetation by requiring that all developments include a planting plan which contains only non-invasive, Massachusetts native species. The Town, to the greatest extent practical, should also be proactive in educating residents on this issue and overseeing the sale of plants to make sure that no detrimental invasives are sold to unwitting residents. Town boards should also support efforts of residents to rid their properties of invasive species if they so choose. A list of invasive plant species is available on the USDA National Agricultural Library at: <http://www.invasivespeciesinfo.gov/plants/main.shtml>.

Light Pollution

A benefit of living in a rural setting is unimpeded vision of the night sky. Misdirected light shining onto a neighbor's property is a nuisance and affects nighttime clarity. Obtrusive light wastes energy and has an adverse effect on the environment. New research shows that light pollution affects wildlife by disrupting biological rhythms and interferes with the behavior of nocturnal animals. Birds are especially vulnerable as they migrate at night and can become disoriented by artificial light. Resident moth species are also vulnerable to light pollution as they attempt to navigate by the moon and stars and they can easily become disoriented.

The solution to the problem of light pollution is relatively simple and readily available. Unshielded streetlights can be retrofitted with light cutoffs to prevent the upward escape of light, while providing the same amount of surface light needed for safety reasons. As part of the comprehensive Zoning Bylaw revision in 2012, an Outdoor Lighting section sets standards for new development to minimize on-site light intensity and to provide measures to prevent escape of light into the night sky.

Suburban Sprawl

While still a predominantly rural community, Hardwick is not immune to the effects of suburban sprawl. The Town must manage development in a way that has the least impact on the environment. The Zoning Bylaw revision provides tools to prevent alteration of the Town's rural landscapes from typical suburbanizing forms of new development. The Bylaw allows creative forms of development that help to preserve open space, minimize impact on the environment, and preserve scenic views of Hardwick's countryside. The bylaw includes provisions for Open Space Subdivisions, Residential Compounds, Common Driveways, and Solar Energy Systems. Town officials will now be better able to regulate development to preserve the Town's natural resources, agricultural lands, wildlife habitats, and scenic views.

Global Climate Change

Since the effects of global climate change are now widely acknowledged, Hardwick officials should do all within their means to encourage energy conservation and the responsible use of alternative sources of energy. Town policies should encourage project proponents to construct 'green certified' buildings and incorporate renewable sources of energy such as solar panels and ground source heat pumps. All new street lighting should be required to use energy efficient bulbs, which last longer than incandescent bulbs and have a lower life-cycle cost. The Town should consider applying for designation under the state's "Green Community" program and make a commitment to reducing municipal energy consumption and promoting use of renewable energy sources.

Old Mill Sites

The historic mills in Gilbertville and Wheelwright present the Town with both a challenge and an opportunity. Converting these mills into housing and/or industry would be an ideal way to direct growth to an area that has the infrastructure to accommodate concentrated development. Town Meeting adopted a new Mill Conversion Overlay District in 2012 that allows mixed use development as an incentive to encourage building reuse. Town officials should discourage the demolition of these buildings to maintain the high density fabric in the village centers.

Summary of Recommendations:

Landfill on Patrill Hollow Road

- The Board of Health should remain proactive in monitoring the landfill and insure compliance with closure requirements to prevent leachate contamination.
- Continue to support the efforts of the Hardwick Recycling Center, including reconsideration of a PAYT program.

The Spread of Exotic Vegetation

- The Planning Board and the Conservation Commission should require that all proposed projects include a planting plan that contains only Massachusetts native species.
- The Town should educate residents on this issue to reduce the sale of invasive plants to unwitting town residents.
- Town boards should support efforts of residents to rid their properties of invasive species if they so choose.
- Landowners should call upon the North Quabbin Regional Landscape Partnership for assistance in developing planting programs of native species.

Light Pollution

- Retrofit all unshielded streetlights with cutoffs to prevent the upward escape of light, while providing the same amount of surface light needed for safety reasons.
- Replace streetlights with low energy bulbs.
- Implement the new Outdoor Lighting bylaw and enforce as necessary.

Suburban Sprawl

- Use the newly adopted Zoning Bylaw measures to encourage creative developments that incorporate open space and agricultural land and minimize land disturbance.
- Support the EQLT in its efforts to preserve open space in Hardwick.

Global Climate Change

- Encourage project proponents to construct ‘green certified’ buildings, which use less energy and incorporate renewable sources of energy such as solar panels.
- Examine the Town’s energy use and consider cost-effective measures to reduce demand through conservation, building retrofitting, and use of renewable energy sources.

E. INVENTORY OF CONSERVATION AND RECREATION LANDS

E.1 Overview

Hardwick has large expanses of land to preserve as unfragmented habitat for wildlife preservation, natural resource conservation, and passive recreation purposes. These areas of open space include woods, agricultural fields, wetlands, and ridgelines. The old Mass Central railroad provides a long-distance, multi-purpose trail, and older playground areas, while needing renovation in most cases, meet the desires of citizens for active recreation.

Open space is critical to all communities because it provides aesthetic amenities, maintains the community's rural character, protects natural resources, and provides areas for outdoor pursuits. In addition, open lands are a positive source of property tax revenues and do not impose a burden on Town services. Undeveloped private lands provide property tax revenues that exceed their cost of community services. In addition, the Commonwealth makes a payment in lieu of taxes to host communities for land in state ownership to compensate for loss of property tax revenue. In 2013, for example, the Commonwealth provided \$59,346 to Hardwick as compensation for state-owned land.

Non-profit land trusts in Hardwick own considerable tracts of open space for conservation purposes. While generally exempt from property taxes, these organizations often provide other services of value, such as offering educational programs to children and sponsoring outdoor learning programs for adults.

Definition of Open Space

In this plan, we define “open space” as “all parks, forests, trails, playgrounds, and fields of significant size owned and managed for recreation, agriculture, or conservation uses.”

Different Types of Protection

Open space within the Town, whether publicly or privately owned, can be protected against development in a number of ways. The following are forms of open space protection available to Hardwick.

- 1. Federal Land & Water Conservation Fund (LWCF) and State Local Acquisitions for Natural Diversity (LAND, formerly Mass. Self-Help) Grant Programs:** These acquisition programs assist communities to purchase land and provide an absolute measure of protection. The Division of Conservation Services considers such land preserved “in perpetuity.” Note that for these properties the protection of Article 97 (below) applies. The LWCF provides up to 50% of the total project cost for the acquisition, development and renovation of park, recreation or conservation areas. LAND provides reimbursement funding for the acquisition of land or a conservation restriction and may include forests, fields, wetlands, wildlife habitat, unique natural, historic or cultural resources, and some farmland. Acquired properties must allow public access.

2. **The State Parkland Acquisitions and Renovations for Communities (PARC) Program (formerly the Urban Self-Help Program):** PARC assists cities and towns in acquiring and developing land for park and outdoor recreation purposes. Active and passive recreation uses are eligible and may include the acquisition of land and the construction or renovation of park and outdoor recreation facilities, such as swimming pools, play fields, playgrounds and game courts. Access by the public is mandatory.
3. **Article 97 Protection:** A codification of the “Public Trust Doctrine,” Article 97 of the Massachusetts Constitution protects all publicly-owned lands used for conservation or recreation purposes. This amendment requires a two-thirds vote of the State Legislature before an owner can sell, transfer, or convert such property to a different use.
4. **Protection through Ownership (“Fee”):** In cases where open space has been acquired in its entirety (“in fee”) by a state or federal agency or nonprofit organization, such as the EQLT or the New England Forestry Foundation, such ownership often will trigger Article 97 protection. Absent a Conservation Restriction, a non-profit organization could sell or develop its land, but doing so would contradict the group’s conservation purpose.
5. **Protection through Conservation Restrictions, Easements, or other Deed Instruments:** Due to the high costs of acquiring land, it has become increasingly popular to acquire Conservation Restrictions limiting future development. Similarly, access easements can provide permanent public access to a property. In certain situations, a private party may voluntarily impose a conservation restriction as part of a development approval process. As with any matters involving real property, care in the drafting of the restriction is essential to protect the rights and interests of all parties. The state Division of Conservation Services must approve Conservation Restrictions to insure they conform to MGL c. 184 §§ 31-33. Donors continue to own the property and generally receive certain tax benefits if the restriction is perpetual, donated exclusively for conservation purposes, and granted to a qualified conservation organization or government entity.
6. **Landscape Partnership Grant Program:** The program seeks to preserve tracts of a minimum of 500 acres to sustain ecosystem integrity and the economic viability of farm and forest landscapes. The program seeks to enhance partnerships among state and local governments and non-profit conservation organizations to preserve large tracts through acquisition, conservation restrictions, and agricultural preservation restrictions. The Dougal Range, for example, could be a potential candidate for the program.
7. **Conservation Partnership Grant Program:** The program grants provide funding to assist non-public, not-for-profit corporations in acquiring interests in lands suitable for conservation or recreation purposes. Applicants must be qualified IRS 501(c)(3) organizations that have been formed for a variety of educational, charitable, historical, athletic, agricultural, horticultural, and natural purposes. Municipalities are not eligible. Applicants must convey a perpetual conservation restriction to the municipality where the project is located, managed by either a Conservation or Recreation Commission, or a state agency, or both. All projects must provide appropriate public access.

E2. Inventory Summary

Nearly one-half of Hardwick is either permanently protected or enrolled in one of the State's "current use" property taxation categories under General Laws Chapter 61, 61A, or 61B. These programs allow assessment of open lands on the value of their current use, and at a fraction of the development value, to reduce property tax obligations. In exchange, the Town has a right of first refusal to buy the land at fair market value when the current owner wishes to sell his or her land for development. Owners may also incur a financial penalty when withdrawing property from the program for development purposes. This process provides the Town with the opportunity to expand the amount of permanently protected property in the future. In numerous instances, non-profit conservation organizations have stepped in as an intermediary to assist in an acquisition via a town's right-of-first-refusal.

The Hardwick Assessors classify another 18% of Hardwick as containing a mix of residential and either forest, agriculture, or open space. Landowners have not enrolled in one of the current use taxation programs. It is interesting to note that many property owners choose to leave large portions of their lot in an undeveloped state for enjoyment of the natural environment, farming on a small scale, or management of timber stands for personal use and wildlife habitat. Adding this acreage to permanently protected and chapter lands, over two-thirds of Hardwick is open land.

The Open Space Inventory consists of two categories based on extent of protection: 1) permanently protected land in public ownership or private land encumbered with a deed restriction that precludes development, and 2) privately owned land that has no permanent protection from development. Protected lands are those that are permanently committed for conservation and park purposes. In Hardwick, state, Town, non-profit, and some privately owned parcels have permanent protection. The privately owned, unprotected lands in this inventory are those properties that provide significant open space benefits but have no restrictions on future development.

Permanently Protected Lands

The Commonwealth of Massachusetts owns significant land area in Hardwick. The Mass. Dept. of Conservation and Recreation Division of Water Supply owns 4,278 acres of the Quabbin Reservoir Watershed and keeps the land in its natural state to protect the water quality of metropolitan Boston's water supply. The Dept. of Fish and Game holds about 1,600 acres, primarily in the Muddy Brook Wildlife Management Area, and along Moose Brook and the Ware River. Two land trusts, the EQLT and New England Forestry Foundation (NEFF), combined own about 900 acres. These organizations remain active in Hardwick and provide a means for landowners to donate land or grant conservation restrictions to protect land from development. Land Trusts may also work diligently to secure financing from a variety of sources to purchase large tracts of open space. A number of Hardwick landowners have voluntarily executed conservation restrictions (over 800 acres) and agricultural preservation restrictions (nearly 800 acres) to preserve the land in perpetuity. The Gilbertville and Wheelwright Water Districts also own property for water supply protection.

Map 8 displays the permanently protected lands in Hardwick.

**Table 12:
Permanent and Temporary Open Space**

Permanently Protected Land	Acres	% of Town
Dept. of Conservation and Recreation	4,278.0	16.4%
Dept. of Fish and Game	1,631.0	6.2%
East Quabbin Land Trust	609.6	2.3%
New England Forestry Foundation	281.0	1.1%
Town of Hardwick	109.5	0.4%
Other Conservation Restrictions	820.1	3.1%
Agricultural Preservation Restrictions	791.1	3.0%
Gilbertville Water District	215.0	0.8%
Wheelwright Water District	19.0	0.1%
Subtotal	8,754.3	33.5%
Temporary Open Space		
Summer Camp	51.2	0.2%
Golf Course	100.1	0.4%
Chapter 61, Forest	421.4	1.6%
Chapter 61A, Agriculture	2,594.8	9.9%
Chapter 61B, Recreation	832.1	3.2%
Subtotal	3,999.5	15.3%
Mixed Residential and Forest, Agriculture, or Recreation	4,752.3	18.2%
Total	17,506.1	66.9%

Private Parcels

The property tax abatement provisions of MGL Chapters 61, 61A, and 61B are available to landowners that have qualifying forest, agricultural, or recreational land, respectively, who keep the land undeveloped and managed under the terms of the statutes. The programs do not offer permanent protection, but they encourage landowners to actively manage their property for open space purposes in order to have land assessed at its open space use rather than its development value. Landowners may convert the parcel to a residential, commercial, or industrial use and pay the difference in tax liability for a five-year period. They may sell the land, but they must notify the Town prior to the completing the sale. The Town has a right of first refusal – it may match a bona fide Purchase and Sale price and thereby acquire the land. Many communities have

combined local funds, state grants, and non-profit land trust contributions to raise the funds necessary to match a private offer.

Chapter 61 – Forest Land:

Nine Hardwick landowners have enrolled 15 parcels in Chapter 61 totaling 421 acres. The properties lie mostly in the northern and western parts of Town. All but one parcel directly abuts other permanently protected properties or lands enrolled in another current-use tax classification, making these properties key links in the overall open space network of Hardwick.

Chapter 61A - Agricultural and Horticultural Land:

Forty-three landowners with a total of 2,600 acres in 68 parcels have enrolled in Chapter 61A. Most of these agricultural parcels directly abut other permanently protected properties or lands enrolled in another current-use tax classification. The large extent of agricultural land in Hardwick adds a distinctive scenic character to the landscape and offers edge habitats to numerous bird and animal species. There are three dairy farms, two pasture raised beef/animal operations, and several other farms raising poultry and mixed vegetables for local and regional markets. In addition, many farm fields produce hay and silage corn to support local farms. Five farms have permanent protection through an Agricultural Preservation Restriction and two others by Conservation Restrictions. Table 13 below shows a breakdown by use determined by the Assessors for Hardwick's Chapter 61A lands:

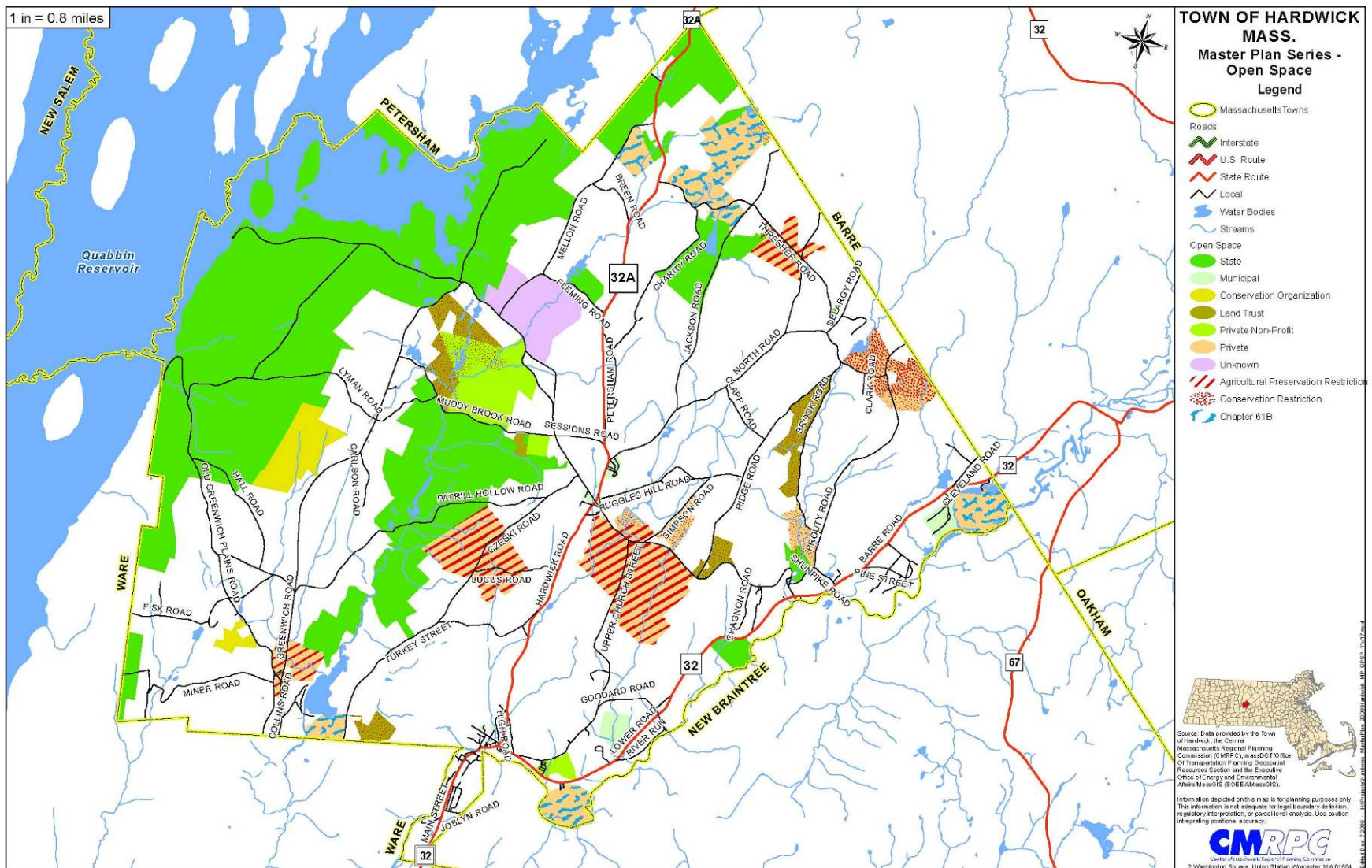
**Table 13:
Summary of Chapter 61A Lands**

Agricultural Use	Parcels	Acres
Field Crops - hay, wheat, tillable forage, cropland, etc.	22	368.9
Necessary related land-farm roads, ponds, land under farm buildings	1	0.4
Productive Woodland	23	1,710.0
Pasture	17	450.4
Wet land, scrub land, rock land	5	68.6
Total	68	2,598.3

Source: Hardwick Assessors

Chapter 61B - Recreational Land

Twenty-five landowners with a total of 845 acres have enrolled in Chapter 61B. A portion of the Dunroamin Country Club, a 100-acre 9-hole public golf course with a clubhouse and driving range, is in Chapter 61B. The South Barre Rod and Gun Club has 77 acres in the program. In addition, 22 landowners have placed 35 parcels totaling 755 acres in Chapter 61 B, which the Assessors classify as nature study areas.



E3. Town and Nonprofit Parcels

The Town has small land holdings for recreational activities. Each of the three villages, Hardwick Center, Gilbertville, and Wheelwright, has ball fields and the Town owns a few other undeveloped land assets including the Town Common and land along the Ware River. Table 14 shows the properties the Town maintains for recreational purposes. The largest property, Deer Park, is a 48.5-acre recreation area located along the Ware River in Wheelwright, which includes several ball fields and land for other municipal uses. Playgrounds are located at the Elementary School, at the Paige Memorial Library, and next to the municipal building on Ruggles Hill Road. The Town has two large open space parcels taken for tax title that contain wetlands and wooded areas.

The EQLT owns over 500 acres in 11 parcels. Three include actively managed agricultural fields and all have wooded areas with associated streams and wetlands. Mandell Hill, Moose Brook Preserve, and Patrill Hollow Preserve have passive recreation trails.

The land along the Ware River that was part of the former Mass Central Railroad has the potential to provide significant recreational opportunities. The Town owns seven acres in Gilbertville, but private individuals and the EQLT own the remaining length. The EQLT purchased a 3.2-mile section in 2007 from Creamery Road into Wheelwright that crosses the Ware River into New Braintree. The Town and EQLT are working closely to develop the Hardwick portion as part of the Mass Central Rail Trail to create a regional long distance trail from Boston to Northampton. Map 10 displays the EQLT's plan for its section of the trail. EQLT has opened up portions of the trail for public access and is continuing to improve other portions.

The Eagle Hill School, a private high-school, owns significant parcels near Hardwick Center that contain active recreational facilities, including tennis courts and a running track. A trail with a boardwalk through a wetland area provides opportunities for bird watching and nature study. The Eagle Hill School permits resident use of these areas when school is not in session. Formalizing permitted resident uses would enhance recreational opportunities within the community.

The New England Forestry Foundation owns 526 acres on Greenwich Road and Muddy Brook Road known as the Mixter-Nields Memorial Forest. NEFF manages this land for wood products and it has several recreational trails. The Mixter family donated another 600 acres to the Department of Fish and Game as part of the Muddy Brook Wildlife Management Area.

The Gilbertville Water District owns 215 acres outside of Gilbertville for the village water supply. Currently the deep well on site provides water for the fire hydrant system. Drinking water comes from a well along the Ware River in New Braintree. The Water District land is in the Dougal Range, which provides important recreational opportunities and wildlife habitats. *(Ed. Note: The property boundaries are unmapped.)*

**Table 14:
Town Recreation Facilities**

Site Name/Address	Map-Lot	Acres	Zoning	Manager	Purpose ¹	Facilities	Condition	Action Plan
Paige Farm Greenwich Rd, Hardwick Ctr.	30-8	2.5	V	Selectmen	C	Home of the Hardwick Fair	Good	
Memorial Field Prospect St., Gilbertville	51-39	2.7	G-V	Parks Dept.	R	Baseball field Basketball court Tennis court	Good Good Good	Improve parking striping/signage for ADA compliance. ²
Ruggles School 58 Ruggles Hill Road	31-11	1.0	R-40	School Dept.	R	Basketball court	Poor	
Hardwick Elementary School 531 Lower Road	109-16	40.3	R-40	School Dept.	R	Community Playground Not ADA compliant Basketball court	Good Good	Remove accessibility barriers ²
Goddard Field/Rec. Area 0 Petersham Road 87 Petersham Road	31-9 31-12	2.3 1.7	V	Parks Dept.	R	LL field Tennis court Play equipment Bocce court	Fair Fair Fair Fair	Remove accessibility barriers ²
Town Common Main St., Hardwick Center	32-27	1.0	V	Parks Dept.	H	Paige Memorial	Good	
Former Town Pool Mechanic St. Gilbertville	49-2	2.3	G-V	Parks Dept.	R	Impoundment on Danforth Brook	Water quality concerns for swimming	Improve for fishing
Deer Park/Roach Memorial Field 2380 Barre Rd, Wheelwright	144-1	48.5	I-40	Parks Dept.	R	Baseball field Soccer field Football field/concess. Gravel bank	Good Good Good	Remove accessibility barriers ²
Wheelwright Field Barre Road, Wheelwright	120-3	2.15	V	Parks Dept.	R	Baseball field	Poor	Remove accessibility barriers ²
Old Furnace Launch Barre Road	125-29	0.5	R-40		R	Canoe launch	Good	Remove accessibility barriers ²

Site Name/Address	Map-Lot	Acres	Zoning	Manager	Purpose ¹	Facilities	Condition	Action Plan
New Furnace Launch Main St., Gilbertville	56-1 55-21 42A-1	6.4 0.8 2.91	G-V		R	Canoe launch Gazebo, parking area, land along Ware River	Good	Remove accessibility barriers ²
Hardwick Pond Boat Landing	92-17	0.3	R-60		R	Boat ramp and parking area	Good	Remove accessibility barriers ²

1. Purpose: C = Conservation; R = Recreation; H = Historical/Cultural
2. For recommendations to bring facilities into compliance with the Americans with Disabilities Act (ADA), see Appendix 1. The Appendix contains excerpts from The Town of Hardwick Accessibility Plan, December 2009, by James Mazik Consulting Services

F. COMMUNITY VISION

F1. Description of Process

In 1994, the Open Space and Recreation Committee submitted to the citizens of Hardwick its first Open Space and Recreation Plan. This plan detailed open space and recreational assets from several perspectives, including historical context, agricultural and forested lands, environmental, biodiversity, natural resources, unique and special features, and recreational opportunities. The finished plan became the foundation for other town-wide planning documents that include the Community Development Plan and Master Plan.

In 2004, Hardwick participated in the Executive Order 418 Community Development Planning Program and received assistance to conduct a Community Visioning Exercise. On February 18, 2004 the Planning Board hosted a Strengths, Weaknesses, Opportunities, and Threats (SWOT) forum in the Old Town Hall in Hardwick Center. Roughly 85 citizens participated to offer their vision of what actions are important to preserve and enhance the values that make Hardwick a special place. The attendees broke out into four work groups to discuss the four themes of the program. The citizens demonstrated a strong resolve to protect the rural character of their community. The results were:

**Table 15:
SWOT Exercise Results**

Strengths	Weaknesses
Rural character/open spaces/natural resources: 34 votes	Outdated Zoning: 14 votes
The people: 5 votes	Limited internet/cable access: 7 votes
	Lack of employment opportunities: 5 votes
Opportunities	Threats
Open space protection: 12 votes	Landfill: 20 votes
Controlling growth: 10 votes	Uncontrolled growth/overdevelopment: 11 votes
Mill redevelopment/vacant buildings: 10 votes	High taxes: 7 votes
Use of creative zoning: 8 votes	Loss of farms: 5 votes

This process defined the Planning Board agenda for the next 8 years as it worked diligently on drafting Zoning Bylaw amendments to address many of the issues noted above, including preserving open space and natural resources, controlling growth, offering mixed use development at vacant mill sites, and developing creative zoning techniques. Town Meeting approved a comprehensive zoning reform package in May 2012.

In May 2008, the Hardwick Board of Selectmen reestablished the Open Space Committee to produce an updated plan. The Committee members are:

Rod Leehy
Ric Craig

Linda Leehy
Rick Romano

Chris Buelow
Lucinda Childs

Jenna Garvey
Stan White

Harry Webb

Cynthia Henshaw, Executive Director of the EQLT, provided professional consulting services by preparing maps of current features and compiling text in accordance with the State's Planning Requirements for Open Space and Recreation Plans. William Scanlan, a private planning consultant, came on-board in 2012 to help produce the finished product.

The Open Space and Recreation Committee posted its meetings and held numerous sessions in the Municipal Building in Gilbertville. All residents were welcome to attend.

Public Comment

The Public gained input through a public meeting/presentation on June 19th, 2008 to review the draft goal statements and maps included in the Plan. The Committee encouraged public participation through posting of the meeting and placing articles in the local newspapers: Ware River News, Barre Gazette, Springfield Republican, and Worcester Telegram and Gazette. In addition, members distributed meeting notices to Town email contacts, EQLT's email contacts, and personal email contacts.

References to Other Town Studies

In addition to public comments specifically on the Open Space and Recreation Plan, the Committee considered the findings of previous special committees and their reports. In 2008, the Division of Conservation and Recreation, with the assistance of Dodson Associates, completed the Hardwick Reconnaissance Report of the Mass. Heritage Landscape Inventory Program. This study incorporated a meaningful public participation process and identified important open space priorities of Hardwick residents.

In December 2009, James Mazik completed the Town of Hardwick Accessibility Plan. The study contains a comprehensive analysis of all municipal facilities and policies regarding compliance with state and federal accessibility requirements. The author examined Town operations, physical barriers at public buildings and sites, and the Town's policies and procedures with an eye to determining whether the Town complies with the Americans with Disabilities Act. Appendix 2 contains the policy statements the Town adopted that demonstrate its commitment to uphold the letter and spirit of the law. Appendix 3 contains excerpts from the Plan that list accessibility issues at recreation and conservation sites and describe measures that the Town will take to make its outdoor facilities and programs accessible to all people with disabilities.

The Committee willingly included the results, goals, and recommendations of these reports into this Open Space and Recreation Plan.

F2. Statement of Open Space and Recreation Goals

Public opinion covers a wide range of open space issues. It is clear that residents view Hardwick as a rural town. During the Open Space public forum, there was consensus that it was critical to preserve farmland as well as open space for water and conservation needs. Residents were generally satisfied with recreational opportunities for youth but want more adult recreational

opportunities. Specific recreation needs mentioned include swimming areas, children's play areas, cross country skiing, hiking, and bicycle trails. The Open Space Committee concluded that protection of aquifers for pure drinking water, corridors for wildlife, wetlands, scenic roads, and historic areas are vital to maintain the Town's quality of life.

Unlike many towns in the Commonwealth, Hardwick still derives significant economic value from its open land. The Committee believes strongly that protection of open space is an important element of planning for the Town's economic future.

The important themes that comprise the principal tenets of this plan are:

1. To preserve the rural and historic character of the Town through acquisition of land or through conservation restrictions in strategic areas. The protection of open space to meet community water and conservation needs and to preserve the Town's farmlands are most important. Preserving historic properties and buildings are also high priorities.
2. To develop recreational opportunities that improve the quality and quantity of adult recreation facilities, such as bicycling, hiking, and skiing trails, and that improve access to streams and ponds for water-based contact activities. This will include the development of the Mass Central Rail Trail, creating passive recreation trails throughout Town (especially in the Dougal Range), and expanding the opportunity for public access to Hardwick Pond, the Ware River, and other water bodies in Hardwick. Under the state's Recreational Use Statute, MGL c. 21 §17C, private landowners who allow the public to use their land for recreation at no charge will not be liable for personal injuries or property damage in the absence of willful, wanton, or reckless conduct by the owner.
3. To establish regular opportunities to communicate and educate residents about conservation options and recreational opportunities. Many landowners are interested in preserving their property for conservation purposes.
4. To promote excellent land stewardship practices on all lands within Hardwick.
5. To provide suitable habitat to enable native wildlife species to thrive. Habitat of rare and endangered species shall receive special efforts in habitat protection to promote their recovery to a non-threatened state. Wildlife conservation will require the cooperation of private landowners for managing their properties to provide corridors for migration and to protect a wide variety of habitat types for sustaining natural diversity that satisfy species requirements at all stages of their life cycle.

G. ANALYSIS OF NEEDS

G1. Summary of Resource Protection Needs

Hardwick contains large forested tracts owned by the Commonwealth for water supply protection of the Quabbin Reservoir and for wildlife habitat enhancement in the Muddy Brook watershed. The majority of privately owned parcels are not dedicated for open space or recreation, including the many farms that were the historic land use in Hardwick. Preservation of agricultural lands and continuation of farming is a key priority in maintaining a fine example of a Massachusetts historic rural landscape.

The Massachusetts Natural Heritage and Endangered Species Program (NHESP) of the Division of Fisheries and Wildlife identified the Ware River, Muddy Brook, and Moose Brook corridors as critical priority habitats. A strong effort is underway to acquire and preserve additional land along the watercourses for conservation purposes.

Areas of prime farmland soils and large contiguous blocks of forestland are local priorities for conservation. Farmland along Turkey Street and North Road are priorities for preservation. Large forested areas like the Dougal Range provide many unique values and conservation of the whole range is essential for the integrity of the ecosystem. The range contains more than 2,000 acres of contiguous upland forest in Hardwick and Ware, which is unusual in Massachusetts today. This unfragmented forest provides important habitat for wildlife, including several rare and endangered species. The Mass. Natural Heritage and Endangered Species Program (MNHESP) identified the range as Critical Supporting Watershed for the Ware River, Muddy Brook, and Danforth Brook.

Hardwick also possesses significant scenic and cultural assets that resulted from human intervention in altering the natural environment. The “Heritage Landscape Inventory Report” noted the importance these features play in shaping the character of the community. These heritage landscapes are in private ownership and are vulnerable to change. Landowners and local officials must take care to protect the scenic qualities of these resources without stifling economic return. The mill villages of Gilbertville, Wheelwright, and Old Furnace developed due to the water power’s potential for industrial purposes. Today, these villages contain high concentrations of residents and commercial services but require public and private investment to revitalize living conditions for residents, enhance the social fabric, and preserve their historic integrity.

The scenic landscape of Hardwick Pond presents challenges because of shoreline development and potential reuse of the former Music Camp. Local officials should encourage use of the open space preservation tools in the recently adopted zoning package to allow development without compromising scenic and environmental quality. State and local preservation efforts should focus on acquiring remaining open space with high resource values in the Muddy Brook watershed and Hardwick Pond shoreline.

G2. Summary of Community Needs

The Parks and Recreation Commission (PRC) is responsible for enhancing personal health through the social, mental, physical, and emotional benefits of participation in organized and spontaneous activity. The PRC is a three-member elected board established by vote of the Special Town Meeting in June 1976. The PRC has been inactive in recent years due to lack of willing participants.

The PRC has a \$2,000 line in the Town budget, but it has not spent the funds in recent years. The Highway Department cuts the grass in parks and monuments. With only volunteer labor to maintain existing parks, many areas have fallen into disrepair while other areas sit under-utilized. The Town does not provide recreational programs for residents, and private organizations have taken up the slack to provide sports programs for youth.

The Town's small population restricts its ability to provide adequate recreational programming. However, residents understand that children's desires for organized sports as well as adult's preferences for passive recreational opportunities are no different here than in large cities. To this end, volunteers step forward every season to refurbish sports fields, install playgrounds, and engage in other community building projects. Sports organizations provide their own fundraising, and receipts from concession sales support field upgrades and purchase of equipment such as nets and balls.

The geographically separated villages and Town's low population density leave an abundance of forests, streams, and wildlife habitats where passive recreational opportunities such as hiking, hunting and cross-country skiing are popular. Each village has neighborhood sports fields within walking distance of the local residents.

Despite its limited funding, the PRC has an ambitious agenda to improve the quality of recreational activities in Hardwick, including:

1. To continue to maximize the volunteer resources of its residents and seek grants to expand adult and passive recreational opportunities including:
 - Refurbish Ruggles Hill Road skating rink
 - Evaluate a public swimming area
 - Enhance Veteran's Memorial Park as a relaxing area for repose with shaded benches and walkways
 - Enhance access to the Ware River by improving the Town-owned areas along the river
 - Work with the EQLT to develop the Mass. Central Rail Trail as part of the 104-mile Boston to Northampton recreational trail.
2. To survey residents to identify priority improvements and realign the objectives of the PRC to the desires of the Town's residents.

3. To reinvigorate the PRC by changing the Commission from an elected to an appointed body, by selecting residents who have a strong focus on recreation, and increasing the budget to take better care of Town parks and athletic facilities.
4. To protect public parks from any use other than recreation through permanent dedication under Article 97.
5. To develop capacity of the PRC to qualify for funding to enhance recreational activity for area residents.

In the future, the PRC will become a clearinghouse for new ideas and committed volunteers. The PRC will work with these volunteers to establish new programs, improve and develop recreational sites, and enhance the quality of life in Hardwick.

G3. Master Plan Survey

In December 2008, the Master Plan Committee prepared a community survey to assess citizens' perceptions of existing services and to target areas for improving and enhancing community life. All households in Hardwick received the survey through the annual Town Census mailing; 471 citizens responded, which represents a response rate of about 16% of all residents and about 40% of all households (assuming one return per household). Of particular importance to this plan are the findings from Question 12, shown in Table 15 below. Here, residents indicated a strong preference for preserving open space, natural resources, and agricultural land. Some of the key results of the survey are:

- 98.4% of respondents felt it was “extremely important” or “important” to protect environmental quality (i.e. air, streams and ponds).
- 97.7% of respondents felt it was “extremely important” or “important” to protect water supplies (public and private wells and aquifers).
- 96.2% of respondents felt it was “extremely important” or “important” to preserve working farms.
- 92.2% of respondents felt it was “extremely important” or “important” to preserve and protect open space.
- 92.1% of respondents felt it was “extremely important” or “important” to maintain active local and regional land trusts.
- 89.3% of respondents felt it was “extremely important” or “important” to preserve historic properties.
- 84.8% of respondents felt it was “extremely important” or “important” to provide improved recreational opportunities.

It appears that a strong current flows through the community for preserving Hardwick's natural resources as evidenced by the high response rates for protecting environmental quality and water supplies, preserving working farms and historic properties, acquiring open space with land trust

involvement, and improving recreational opportunities. The numerous public outreach efforts over the years all consistently uphold a strong open space preservation and land stewardship ethic to maintain a clean environment and access to areas of wild and natural beauty.

G4. Management Needs, Potential Change of Use

In order to advance the goals and objectives outlined in this plan, the Board of Selectmen should appoint a standing committee whose responsibility is to promote the open space and recreation goals of the community. The Conservation Commission, Park and Recreation Commission, and Planning Board are key committees in ensuring progress but have primary responsibility for other essential town functions. The establishment of an Open Space and Recreation Committee can focus on land conservation and recreation enhancement opportunities.

The lack of funding for the Parks and Recreation Commission precludes the Town from sponsoring active recreation programming that can benefit the health and well-being of its citizens. This also means a lack of routine maintenance at parks and recreation facilities that would preserve the Town's investment and extend the useful life of these properties. Through public education, the Open Space and Recreation Committee can strive to obtain a reasonable funding stream in the Town budget to adequately maintain park facilities and sponsor recreation programs that benefit large numbers of residents.

The Town will become an active participant with the EQLT, the Wachusett Greenways, DCR and other organizations to develop its portion of the long distance Mass Central Rail Trail. The Town is the owner of part of the trail in Hardwick, but does not have the financial resources to develop the trail of its own accord. The Town will work with other regional organizations to help improve the Hardwick section for the benefit of the Town and central Massachusetts as a whole.

Table 16:
Master Plan Survey Results

12. Please indicate how important you think it is for the Town of Hardwick to focus on each of the following goals in the next 5-10 years:

	Extremely Important	Important	Not Important
To improve or expand municipal services	93	242	87
To create a full time fire department & ambulance service	101	178	152
To preserve historic properties	183	210	47
To preserve working farms	298	134	17
To preserve & protect open space	260	154	35
To maintain active local & regional land trusts	221	153	32
To promote renewable energy (i.e. wind, solar & hydroelectric)	287	128	30
To promote commercial development & job growth	179	194	70
To provide housing for the elderly & handicapped	166	224	55
To protect environmental quality (i.e. air, streams and ponds)	282	149	7
To protect water supplies (public & private wells & aquifers)	320	114	10
To provide a variety of housing options, including housing which is affordable to middle & low-income families	109	209	124
To provide improved recreational opportunities	120	253	67
To regulate the quality & appearance of commercial development	165	218	55
To develop and promote tourism	78	167	194

H. GOALS AND OBJECTIVES

In this chapter, the “big picture” vision identified in **Section F** provides the foundation for establishing long range goals and specific, achievable planning objectives. Objectives are more focused statements of what the Town would like to accomplish over the next seven years with regard to the protection of open space and natural and historic resources, and the promotion of recreational opportunities. **Section I** (the Seven-Year Action Plan) provides specific details including a timeline for implementation and the entity responsible for accomplishing each objective.

Note also that the appearance of a goal or objective does not imply that action is not yet underway to achieve that objective.

Goal 1:

Preserve the rural and historic character of the Town through acquisition of land or by conservation restrictions in strategic areas. The protection of open space to meet the community water and conservation needs and the Towns’ farmlands are the highest priority. Historic properties and buildings are also important to preserve.

Objectives:

1. Protect the Ware River, Moose Brook, and Muddy Brook watersheds and the Dougal Range for purposes of providing wildlife habitat and corridors.
2. Map and protect aquifer recharge areas, and consider alternate zoning for aquifer protection.
3. Improve public access to the Ware River through land acquisition or easements.
4. Provide protection to active farmland and properties with prime agricultural soils, wildlife corridors, large blocks of open space, and other significant areas through conservation restrictions and other land protection strategies.
5. As the Dougal Range is one of the largest contiguous blocks of open space in the North Quabbin Region, work with landowners, land trusts, and state agencies to preserve land in Hardwick and Ware for passive recreation and diverse wildlife habitat.

Goal 2:

Develop recreational opportunities that improve the quality and quantity of adult recreation facilities such as the Mass Central Rail Trail, bike trails, hiking and skiing trails, and access to water bodies.

Objectives:

1. Promote the development of the Mass Central Rail Trail and pocket parks along the Ware River.
2. Continue development of passive recreation trails throughout the Town including in the Dougal Range, Muddy Brook watershed, and other conservation areas.

3. Acquire land along the shoreline of Hardwick Pond for recreational purposes.
4. Provide a safe swimming area; possible locations include Hardwick Pond or the old swimming hole on Danforth Brook. The dam on Danforth Brook requires repairs, and if swimming is not possible, the area has potential as a natural park and picnic area.
5. Improve public access to the Ware River for recreational use.
6. Seek the assistance of the Ware River Snowmobile Club in developing, extending, and maintaining trails for mixed use, outdoor recreation activities.

Goal 3:

The public and many landowners are interested in expanding the amount of conservation land within Hardwick. Establish regular opportunities to communicate and educate residents about conservation options and recreational opportunities in Town.

Objectives:

1. Disseminate information on habitat improvement, wildlife needs, and special wildlife concerns available from public agencies and private organizations. Examples of specific issues include the coordination of haying to accommodate grassland birds, overseeing the succession of old fields and shrub land to accommodate wildlife, managing the inland sand plain community along Muddy Brook/Patrill Hollow, and addressing invasive species issues throughout town.
2. Educate forest landowners in silvicultural methods and long-term forest management.
3. Provide information and assistance to landowners regarding land conservation alternatives.
4. Encourage new forms of sustainable agriculture as business alternatives for the farming population and for public education for the non-farming population.

Goal 4:

Enhance land stewardship practices on all lands within Hardwick.

Objectives:

1. Monitor and address invasive plant infestations in wetlands and areas critical for maintaining ecological diversity, especially for rare and endangered plants and wildlife.
2. Continue to survey and inventory important water resources for wildlife and rare species to help identify key areas for protection and management.
3. Minimize non-point pollution sources by adopting best management practices to contain road and agricultural runoff, and by removing or modernizing underground storage tanks that pose a risk to the environment.
4. Monitor water quality of the Ware River for recreational purposes, including fishing, swimming and boating.

5. Encourage participation in Chapter 61 (Forest), 61A (Agricultural), and 61B (Recreation) Programs, and especially encourage wildlife habitat improvement as a goal of management plans under the Programs.
6. Encourage participation in the stewardship cost sharing program for timber stand and wildlife habitat improvements.
7. Continue to survey and inventory important water resources for wildlife and rare species to help identify key areas for protection and management, especially on private lands.
8. Develop a cooperative approach with hunters to respect the rights of private landowners who may wish to limit hunting on their property to certain areas, species, or times of year.

I. SEVEN-YEAR ACTION PLAN

II Implementation Strategy

The Seven-Year Action Plan closely follows the goals and objectives of the previous section. To oversee the implementation of this plan on a year-to-year basis, the Master Plan Committee and Community Development Advisory Committee should combine forces. The Committee will be responsible for overall implementation of the plan and for public outreach and education to help make this effort a success.

The Action Plan specifies how the Town will deliver on the promise of the goals and objectives developed throughout this process. It includes a program of tangible steps for the Town to take over the next seven years. There is already a high level of activity on these issues, based upon the input received during the planning process.

These actions target the physical as well as the organizational issues confronting the Town, as described and analyzed in **Section G**. The Seven-Year Action Plan maintains a focus on the substantive issues of open space and recreation preservation, acquisition, enhancement, management, and maintenance.

Some of these actions may already be well underway toward implementation; while others are on-going but need additional support. While all actions listed are important, three areas in particular rise to the top as essential for achieving progress for meeting the goals of this plan:

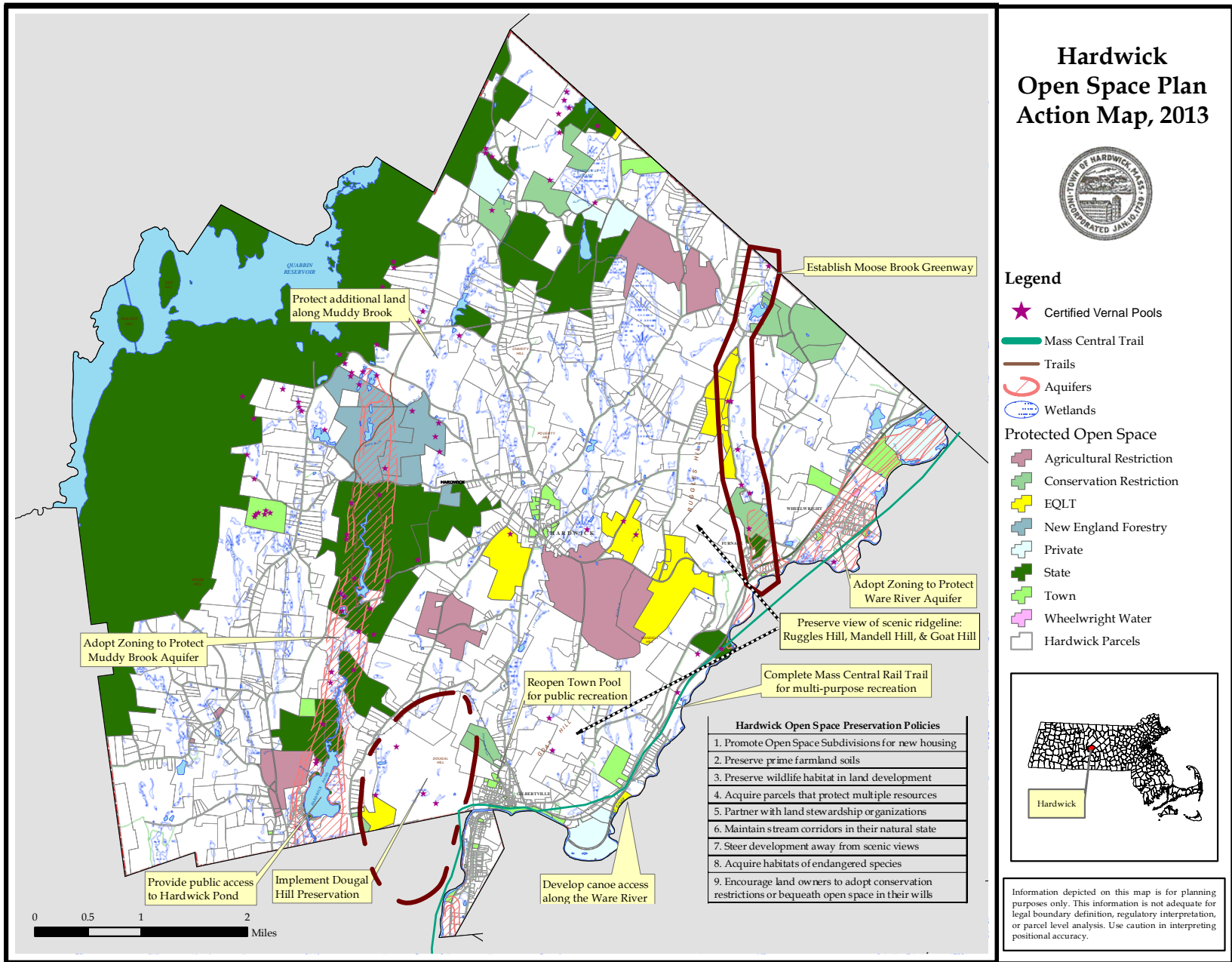
1. Obtain “buy-in” from Town staff, commissions, and boards that open space is a central and lasting priority for the Town. While there are many competing needs in the Town, all groups must abide by the central principle that open space issues are extremely important to Hardwick’s future. Where open space and recreational resources are concerned, the goals and policies of this plan provide strong guidance for directing Town actions. Furthermore, Town boards and committees should agree in advance on the proper decision-making procedures to follow when questions arise. This will include analyzing the fiscal impacts of providing services to developed and undeveloped lands and the actual costs and revenues to the taxpayers of land preservation versus development. Collaborative efforts with regional open space advocates in promoting the benefits of open space and preserving town character can help to sustain momentum for implementing these recommendations.
2. Designate an Implementing Body. Although there are many Town departments and private organizations active in open space and recreation issues, their activities are not coordinated or focused. There is no single consistent voice for open space needs in the Town. If Hardwick is to accomplish the ambitious goals and objectives of this plan, there should be a single committee charged with overseeing progress and coordinating the action. The Master Plan Committee and Community Development Advisory Committee are well-suited to pick up the recommendations in this report and can maintain a strong focus on coordinating the work of other important boards and commissions charged with advancing actions pertinent to their own missions.

3. Secure additional sources of funding, staffing, and other support for open space and recreation activities and programs. Hardwick is a small town with limited municipal resources to achieve the goals of this plan. The Town cannot afford additional staffing or larger departmental budgets to enhance its role. Therefore, implementation of the Action Plan will require partnerships with conservation organizations, local businesses, community volunteers, park adoption programs, and reliance on federal, state, and private grants.
4. Seek adoption of the Community Preservation Act (CPA). The CPA can provide a reliable revenue stream to complete actions that require funding. Hardwick nearly adopted the CPA in the past, and with a concerted effort, it is possible to secure enough votes for passage. With a small property tax surcharge, the Town can accumulate funds for park improvement, open space acquisition, renovating historic sites and buildings, and affordable housing. The state matches local dollars based on a community's equalized value per capita, and with a favorable ranking on the criterion, Hardwick would receive a greater percentage match than most communities.

12 Guiding Themes for Preserving Open Space and Improving Recreation Services

1. Work with private landowners, state agencies, and Land Trusts to preserve large holdings to preserve the Dougal Hill Range for wildlife and conservation purposes. Work closely with the Town of Ware since a portion of the range lies in that Town.
2. Preserve active farmlands and prime soils by encouraging farmers to participate in the agricultural preservation restriction program.
3. Encourage use of the Open Space Subdivision provision in the Zoning Bylaw to preserve working farms, prime soils, and sensitive habitats when developing new housing.
4. Make handicapped accessibility improvements at the following town recreation areas as specified in the Town of Hardwick Accessibility Plan. See Appendix 3.
 - a. Old Furnace Launch
 - b. Wheelwright Little League Field
 - c. New Furnace Landing
 - d. Sections of the Mass Central Rail Trail
 - e. Hardwick Community Playground
5. Improve recreation facilities at the following Town parks:
 - a. If feasible, improve the Town Pool on Danforth Brook and reopen for public swimming. If not feasible, improve as a passive park and picnic site.
 - b. Goddard Field
6. Develop the Town-owned portion of the Mass Central Rail Trail. Work with EQLT on developing its stretch of the trail in Hardwick.
7. Preserve habitats of rare and endangered species to assure permanent protection of those lands.

8. Maintain stream corridors in their natural state and acquire lands to protect water quality. Add connections between previously protected parcels to allow movement of wildlife, and promote passive recreation activities such as hiking, nature study, and bird watching.
9. Preserve scenic viewsheds, especially those identified in the Heritage Landscape Inventory Reconnaissance Report. See Appendix 1.
10. Work with local Land Trusts to preserve lands along the Ware River for protection of wildlife and fisheries. Encourage passive recreation uses of the river by constructing boat launches for canoeing, kayaking, and fishing. Work with New Braintree to implement a preservation and multiple-use recreation program along both sides of the river.
11. Work with DCR, DFG, EQLT, NEFF, Eagle Hill School, owners of lands with conservation restrictions, and landowners enrolled in the chapter 61B open space tax abatement program to develop a multi-purpose, inter-connected trail system, and acquire easements across private lands to establish long distance trails that connect open space parcels, village centers, and important recreation areas. As noted earlier, private landowners who allow public access to their property for recreation without charge will not be liable for personal injury or property damage sustained by members of the public under the provisions of the Recreational Use Statute.
12. Engage parents of school children to promote the “Safe Routes to School” initiative. This program works to provide safe sidewalks and bike routes to encourage children near school to walk or bike to school. The campaign will have the dual benefit of combating childhood obesity and adding to the enjoyment of Hardwick’s outdoor environment.



I3 Action Plan Matrix

[Note: The column marked “Priority” gives an indication of the weight given to this item in achieving the goals and objectives of this plan. Priority relates to both the “level of importance” of items and the necessary sequencing of them (i.e., without completing the first priority items, it may be difficult to proceed to the latter ones). In the table, 1 = highest priority, and 2 = medium priority.]

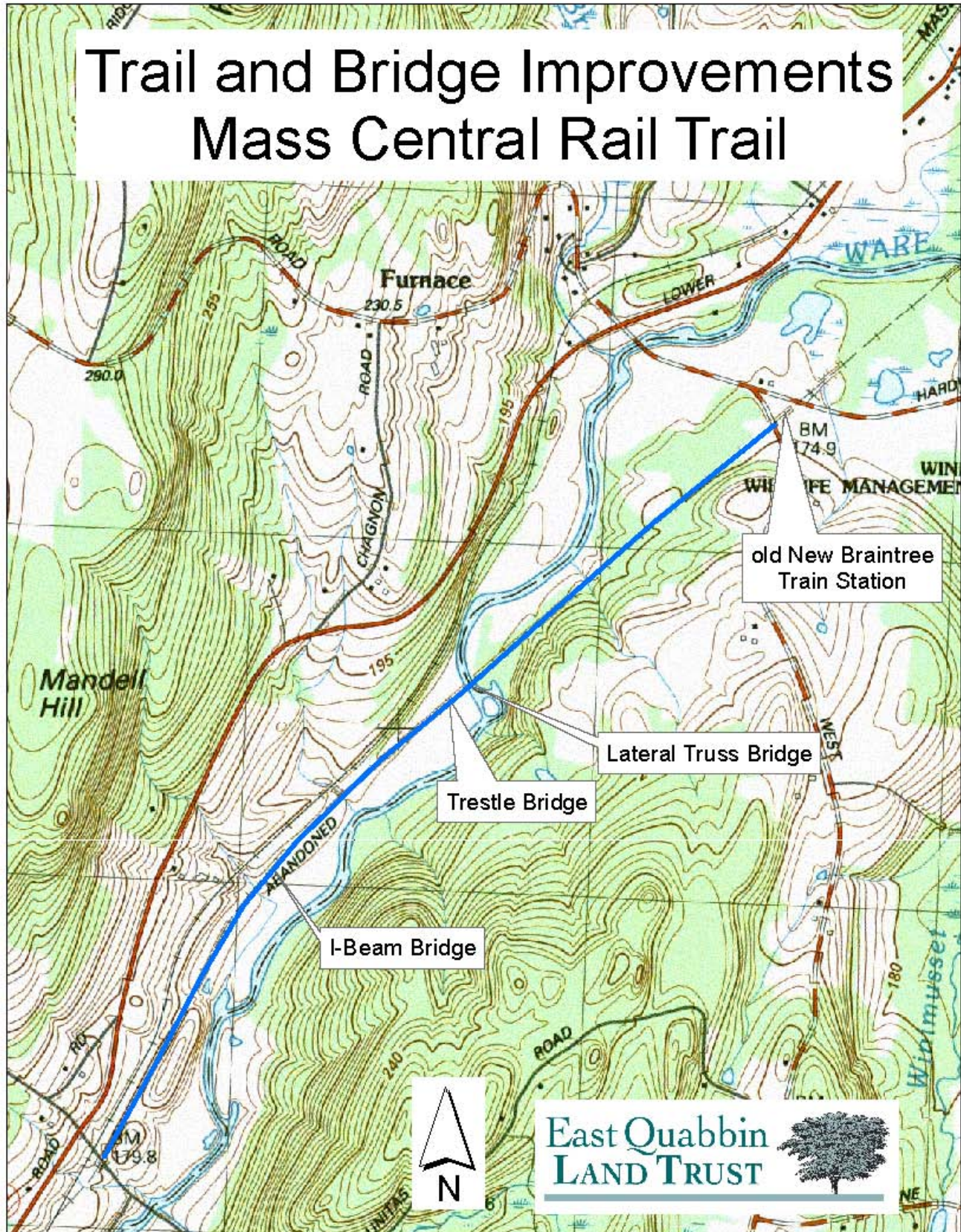
Action	Priority	Completion Deadline	Lead Agency	Comments
Year 1 – 2013				
Assign responsibility for guiding this Action Plan to the Master Plan Committee (MPC) and Community Development Advisory Committee (CDAC)	1	2013	Board of Selectmen (or Town Bylaw)	Implementation requires dedicated volunteers
Develop criteria to rank level of interest of parcels for future open space acquisitions such as vernal pools, endangered species, scenic views, productive soils, etc.	2	2013	MPC	This will be a multi-year effort
Continue developing the Mass Central Rail Trail in Hardwick, Ware, and New Braintree	1	2013	MPC	Work with EQLT, Wachusett Greenways, and others
Prepare an outreach strategy to inform residents of this plan’s priorities for protecting open space and start a dialogue with landowners	2	2013	MPC	
Work with the Selectmen and Finance Committee to establish a line item in the Town budget for park maintenance	1	Ongoing	Parks & Rec	It is important to have a regular funding stream for park maintenance
Year 2 – 2014				
Assess needs for recreational programs; focus on youth and family activities	1	2014	Parks & Rec	
Develop educational packet on land conservation to owners of large parcels	2	2014	MPC, Conservation Commission	Work with EQLT
Propose an aquifer protection zoning bylaw to regulate land use over aquifer recharge areas	2	2014	Planning Board	

Action	Priority	Completion Deadline	Lead Agency	Comments
Based on criteria developed in Year 1, inventory open space properties of interest and document their special features	1	2015	MPC	Solicit help from local experts and state field staff. Map high priority locations.
Continue developing the Mass Central Rail Trail in Hardwick, Ware, and New Braintree	1	2013	MPC	Work with EQLT, Wachusett Greenways, and others
Identify potential trail extensions through state lands	2	2014	MPC	Work with DFG and DCR to plan and develop trails
Develop Plan to improve town recreation sites and remove accessibility barriers	1	2014	Parks & Rec	Inventory facilities, assess costs, set priorities
Continue to maintain and manage existing facilities	2	Ongoing	Parks & Rec	
Year 3 – 2015				
Continue developing the Mass Central Rail Trail in Hardwick, Ware, and New Braintree	1	2013	MPC	Work with EQLT, Wachusett Greenways, and others
Establish Stream Teams to protect stream corridors, preserve water quality and promote public access	1	2015	MPC	Identify potential threats to water quality and act to eliminate
Complete inventory of properties of interest.	1	2015	MPC	
Establish Task Force to study re-opening of Town swimming hole	2	2018	MPC	This will be a multi-year effort
Continue to maintain and manage existing facilities	2	Ongoing	Parks & Rec	
Make handicapped accessibility improvements	2	2015	Parks & Rec	See Appendix 3 for details
Begin Town-wide Trail Plan to connect villages, conservation lands, and town facilities	2	2015 and ongoing	MPC, CMRPC	
Year 4 – 2016				
Continue to maintain and manage existing facilities	2	Ongoing	Parks & Rec	
Improve recreation facilities at highest ranked site	1	2016	Parks & Rec	May require Town Meeting funding

Action	Priority	Completion Deadline	Lead Agency	Comments
Continue developing the Mass Central Rail Trail in Hardwick, Ware, and New Braintree	1	2013	MPC	Work with EQLT, Wachusett Greenways, and others
Contact landowners of high-interest properties and identify top priorities for acquisition	1	2016	MPC	
Assess cost and feasibility of re-opening Town swimming hole	2	2016	Ad Hoc Task Force	
Year 5 – 2017				
Continue to maintain and manage existing facilities	2	Ongoing	Parks & Rec	
Continue developing the Mass Central Rail Trail in Hardwick, Ware, and New Braintree	1	2013	MPC	Work with EQLT, Wachusett Greenways, and others
Assess effectiveness of recent Zoning Bylaw changes for preserving open space and promoting development that fits Hardwick’s rural character	2	2017	Planning Board	Experience may uncover ways to improve tools
Seek Town Meeting appropriation to re-open Town swimming hole, if feasible. Otherwise, explore new options for water-based recreation	2	ATM, 2017	Ad Hoc Task Force	
Finish Town-wide Trail Plan	1	2017	MPC	
Year 6 – 2018				
Continue to maintain and manage existing facilities	2	Ongoing	Parks & Rec	
Continue developing the Mass Central Rail Trail in Hardwick, Ware, and New Braintree	1	2013	MPC	Work with EQLT, Wachusett Greenways, and others
Complete Town swimming hole project (or other site) and open to the public	1	2018	Ad Hoc Task Force	Hardwick Pond may be a suitable alternative site
Construct one new trail in conformance with the Town-wide Trail Plan	1	2018	MPC	Continue to work with landowners on trail development
Apply for state funding to acquire a high priority open space parcel	1	2019	Selectmen, MPC	This culminates years of study of private open space

Action	Priority	Completion Deadline	Lead Agency	Comments
Year 7 – 2019				
Continue to maintain and manage existing facilities	1	Ongoing	Parks & Rec	
Begin update of the Open Space and Recreation Plan	1	2019	MPC	
Improve recreation facilities at second highest ranked site	1	2019	Parks & Rec	May require Town Meeting funding
Finish construction of the Mass Central Rail Trail	2	2019	MPC	
Construct second new trail in conformance with the Town-wide Trail Plan	1	2018	MPC	Continue to work with landowners on trail development
Complete acquisition of high priority open space parcel	1	2019	Selectmen	

Trail and Bridge Improvements Mass Central Rail Trail



J. REFERENCES

1. “Hardwick Open Space and Recreation Plan”, 1995
2. “The Open Space Planner’s Workbook”, DCR, 2008
3. Massachusetts Statewide Comprehensive Outdoor Recreation Plan (SCORP)
4. The East Quabbin Land Trust
5. MassBenchmarks, US Census Data, <http://www.massbenchmarks.org/statedata/data.htm>
6. Mass Directory of Sawmills & Dry Kilns, 2006
7. “Community Development Plan for the Town of Hardwick”, CMRPC, 2004
8. “Hardwick Reconnaissance Report, Massachusetts Heritage Landscape Inventory Program”, DCR and Dodson Associates, Ltd, 2008
9. “Town of Hardwick Accessibility Plan”, James Mazik, 2009
10. “Hardwick Housing Needs Assessment”, James Mazik, 2010
11. “Hardwick Master Plan”, draft 2012
12. “Hardwick Community Development Strategy, FY 2012”, Community Development Advisory Committee and PVPC
13. Assessors Parcel Data and Maps, Hardwick Board of Assessors
14. “Central Ware River Valley Trail Planning and Research Project”, James Mazik, 2000

K. PUBLIC COMMENTS

Planning Board Letter

Letter from CMRPC

Appendix 1 Heritage Landscapes, Hardwick Reconnaissance Report

APPENDIX A: HARDWICK HERITAGE LANDSCAPES

Landscape Name	Landscape Notes
Agricultural	
<i>Lower Moose Brook Valley</i>	Farms along Prouty Road: Keelips-1780 Year built-Conservation Restriction, Liland-1880 YB-Conservation Restriction, Tomasi-1747YB, Urban-1911YB-Chapter 61A, Gerulaitis-1838YB-Chapter 61A; also noted as an industrial and residential landscape
<i>Great Meadow Brook Farm</i>	Fleming-1910YB APR & Chapter 61A
<i>Robinson Farms- North Rd. & Jackson Rd.</i>	Joseph Robinson-1860YB-Chapter 61A, Raymond Robinson-1892YB-Chapter 61A
<i>Clover Hill Farm</i>	Steve Prouty-1737YB-Chapter 61A
<i>Wheeler Farm</i>	on Prouty Road, 1850YB not under Chapter 61
<i>Hardwick Winery</i>	John Samek-1780YB-Not Under Chapter- new addition and barn, along the Muddy Brook
<i>Podbelski Farm</i>	Podbelski-1900YB Chapter 61A
<i>Hanson Farm</i>	Kelly-1700YB-Chapter 61A, Dewey-1790YB-Chapter 61A, DeBros-1722YB Not under Chapter, Dept. of Fish & Wildlife own property along the Ware River Corridor
Archaeological	
<i>Old Furnace</i>	1700's, from beginning of town settlement; also identified as civic, military and residential landscapes; located in Moose Brook Valley
<i>Slab City</i>	late 1700's/ Taylor's Mills late 1800's, in Moose Brook Valley
<i>West side of Moose Brook Valley – Old Stone Arbors - "Crags"</i>	1700's and 1900's Old Ruggles Farm; also identified as agricultural landscape
<i>Marker Stones on Thresher and Greenwich Roads</i>	1800's purpose unknown
<i>Original Town Center site</i>	1700's plaque located on Greenwich Road

Note: Highlighted landscapes have been designated "Priority Landscapes" by the town, or directly correspond to a Priority Landscape.

Open Space/Recreation	
<i>Music Camp</i>	evolved from Kennedy Farms in late 1800's-early 1900's; Great Lakes Camp Inc.; also identified as a residential landscape; located on Hardwick Pond
<i>Open Swimming Hole</i>	Town of Hardwick-1920's; within the village of Gilbertville
<i>Dunroamin – Golf Course</i>	Staiti
<i>Mandel Hill</i>	East Quabbin Land Trust
<i>Rail Trail along Ware River</i>	East Quabbin Land Trust
<i>Roach Field</i>	Town of Hardwick
<i>Cherry Hill</i>	
<i>Goddard Park</i>	Town of Hardwick
<i>Hardwick Rod & Gun</i>	
<i>Wheelwright Baseball Field</i>	Town of Hardwick; part of the village of Wheelwright
<i>Potential River Park</i>	Within the village of Wheelwright
Residential	
<i>Mixer Houses on Barre Road</i>	see national register
<i>First Parsonage on Sessions Road</i>	Huntress-Chapter 61B see national register
<i>Cutler-Paige House</i>	Lemaitre-1810YB- Chapter 61A see national register
Transportation	
<i>Covered Bridge in Gilbertville</i>	1887; Ware/Hardwick; also identified as a civic landscape; within the village of Gilbertville
<i>Brook Road</i>	
<i>Stone Railroad Bridge on Muddy Brook</i>	1870's; also identified as a transportation landscape
<i>Rail Road Bridges over Ware River and Rail Trail</i>	1800's B& A (Ware River line, 1860's B & B (Mass Central 1887)
<i>Rail Road Depots in Gilbertville</i>	1800's Whistle Stop and Hardwick House of Pizza; within the village of Gilbertville
<i>Sixth Turnpike</i>	1700's; also identified as an archaeological landscape; now Rt. 32, Barre Road & Greenwich Road
<i>Old Rail Road Intersection Abutments</i>	1880's

Note: Highlighted landscapes have been designated "Priority Landscapes" by the town, or directly correspond to a Priority Landscape.

Burial	
<i>The Old Center Cemetery</i>	Town of Hardwick-1700's documented in late 1990's, located on the common
<i>Baptist Cemetery</i>	Town of Hardwick-1800's documented in 1989, located on Collins Road
<i>Upper Cemetery</i>	Town of Hardwick-Early 1800's to present day
<i>St. Aloysius Cemetery</i>	1800's (1898) after establishment of church
<i>Thresher Road Cemetery</i>	Town of Hardwick-1800's
Civic	
<i>Hardwick Common & National Register Historic District</i>	placed on register in 1989; also identified as a 1700's residential landscape
<i>Congregational Meeting House site</i>	at original town center, placed on register in 1989
<i>Gilbertville</i>	established in 1860's, Main Street was noted as a residential landscape
<i>Wheelwright</i>	1880's officially named in 1894; also identified as a residential landscape
<i>Old Tavern</i>	1800's Ruggles Tavern; part of Hardwick Common (NRDIS)
Industrial	
<i>Gilbertville Mills</i>	1860's; within the village of Gilbertville
<i>Wheelwright Mill</i>	1880's; part of the village of Wheelwright
<i>Old Furnace Storage Facilities</i>	
<i>Newton Brook Sawmill Dam</i>	1800's
Institutional	
<i>Stone Church in Gilbertville</i>	dedicated in 1874; within the village of Gilbertville
<i>Gilbertville Library</i>	1913; within the village of Gilbertville
<i>Former Hardwick High School</i>	1910
<i>Elementary School</i>	1913; part of the village of Wheelwright
<i>Gilbert School</i>	1903; within the village of Gilbertville
<i>Historical Society Building</i>	1800's schoolhouse Hardwick District #1; part of Hardwick Common (NRDIS)

Note: Highlighted landscapes have been designated "Priority Landscapes" by the town, or directly correspond to a Priority Landscape.

<i>Churches in Center</i>	1800's; part of Hardwick Common (NRDIS)
<i>Hardwick Library</i>	1905; part of Hardwick Common (NRDIS)
<i>Hardwick Town House</i>	1837; part of Hardwick Common (NRDIS)
<i>Ruggles Hill School</i>	1901
<i>St. Augustine's</i>	1895; part of the village of Wheelwright
<i>Eagle Hill School</i>	
Military	
<i>Civil War Memorial</i>	1889; part of Hardwick Common (NRDIS)
<i>World War I Veterans Memorial</i>	1926; within the village of Gilbertville
<i>Brigadier Ruggles's Drill Field</i>	1700's
<i>World War II Memorial</i>	1950; part of the village of Wheelwright
<i>New Furnace in Gilbertville</i>	early 1800's; within the village of Gilbertville, also an open space landscape
Natural	
<i>Hardwick Pond</i>	Also identified as an Open Space/Recreation landscape
<i>Dougal Range</i>	land formation can be seen from many areas of town; see Ecological Aspects of the Dougal Range-Chris Buelow 2006; also identified as an open space/recreational landscape
<i>Moose Brook Valley & Forest Preserve</i>	Range walls from 1700's deed references; also identified as industrial, archaeological, and recreational landscape
<i>Muddy Brook</i>	Department of Fish & Wildlife, feeds Hardwick Pond
<i>Ware River Corridor</i>	Ware River also identified as open space/recreation landscape
<i>Water District – The Bugle</i>	
<i>View of Quabbin on Greenwich Rd</i>	Fleming-Chapter 61A
<i>Quabbin Reservoir – Gate 43 (all the gates)</i>	1930's
<i>Great Swamp & Hemingway Swamp</i>	
<i>Deer Park</i>	1700's now East Quabbin Land Trust

Note: Highlighted landscapes have been designated “Priority Landscapes” by the town, or directly correspond to a Priority Landscape.

Appendix 2

Hardwick Accessibility Policies

Non Discrimination Policy

The Town of Hardwick does not discriminate on the basis of disability. Program applicants, participants, members of the general public, employees, job applicants, and others who are entitled to have access to all town programs, activities, and services will not be discriminated against on the basis of disability.

Copies of this notice as well as other policies and procedures may be available, upon request, in standard or alternate print formats to include large print, audio tape, Braille, and computer disk. The town's grievance procedures, self-evaluation, transition plan and ADA policies, practices, and procedures, are readily available, upon request.

Employment/Pre-employment Criteria

Reasonable Accommodation Policy

The Town of Hardwick strives to make employment opportunities and programs available to people from every race, color, religion, sex, national origin, age, handicap, or veteran status and does not discriminate against any person based on these "categories". The town is committed to supporting people of various needs and abilities and will make every effort to provide a healthy, caring environment for all staff and the public.

It is the policy of the Town of Hardwick that no otherwise qualified individual with a disability shall be excluded from employment solely by reason of her/his disability.

It is understood that the obligation to comply with this policy is not decreased by any state or local law or other requirement that, based on disability, imposes inconsistent or contradictory prohibition. Any prohibitions or limits upon the eligibility of qualified individuals with disabilities to practice any occupation or profession are not allowed under this policy.

It is the policy of the town that reasonable accommodations will be made for any qualified applicant or employee unless the town can demonstrate that the accommodation imposes an undue financial or administrative hardship on the operation of the town.

Notice of availability of reasonable accommodations for job applicants will be included in postings and advertisements and will be made available upon request to applicants with disabilities during the pre-employment process if necessary to provide equal opportunity to secure employment with the Town of Hardwick.

All prospective employees will be informed at the initial interview that the Town of Hardwick does not discriminate on the basis of disability and that requests for reasonable accommodations needed for the performance of essential job functions or for the enjoyment of other benefits of employment should be made by prospective employees following receipt of a conditional offer of employment.

Persons with a disability employed by the Town of Hardwick may request reasonable accommodations from their immediate supervisor or from the town's ADA Coordinator. Requests for accommodations can be made at any time as they become necessary to perform essential job functions, or utilize benefits enjoyed by employment. These requests must be made both verbally and in writing describing the nature and purpose of the requested accommodation. Assistance will be made available upon request to any individual who needs assistance in identifying or documenting the reasonable accommodation needed.

A decision regarding reasonable accommodation requests will be made within thirty (30) working days of the submission of the request. The effectiveness of the accommodation and need for modification will be assessed during the first month of use.

The final decision concerning any requested accommodation that may represent an undue financial or administrative hardship will be made by the ADA Coordinator. Applicants or employees have the right to appeal the denial of any accommodation request using the ADA Grievance Procedure. In the case of a denial on undue hardship by the ADA Coordinator, the employee or applicant may appeal in writing within thirty (30) working days to the Board of Selectmen.

Employment Testing and Pre-employment Inquiry

The Town of Hardwick shall not use any employment test or other selection criteria that screens out or tends to screen out individuals with disabilities.

The town shall not make any pre-employment inquiries or conduct a pre-employment medical examination of an applicant to determine whether the applicant is an individual with a disability or the nature or severity of the disability.

The town will ask no questions of applicants, before employment related to physical or mental impairment and no such question~ shall appear on any written application form it may use. No medical examination shall be required for prospective employees unless it is a *bona fide* necessity for the position in question. No medical examination shall be required before a conditional offer of employment has been made. All pertinent medical information obtained in such instances shall be considered as confidential and shall be available only to supervisory personnel and certain others who have a legitimate need for the information. A written record of anyone inspecting the medical information in a personnel file will be maintained.

The town may make pre-employment inquiries to determine an applicants ability to perform job-related functions.

All job selection criteria and/or tests that may be utilized will be examined to ensure that they reflect only *bona fide* job related qualifications and do not tend to screen out otherwise qualified persons with disabilities. In making such determinations the input and assistance of persons with disabilities may be sought and engaged.

Employment Training Assistance

It is the policy of the Town of Hardwick that staff training and development activities provided will include information about the ADA employment requirements. All employees and volunteers will receive a briefing on the ADA and the town's ADA policies and procedures.

Equal Opportunity Policy General Policy Statement

It is the policy of the Town of Hardwick to ensure that persons with disabilities are provided maximum opportunity to participate in and benefit from programs, services, and activities offered by the town. It is the town's goal that such participation as equal as possible to that of able-bodied persons. Therefore, the town's primary focus will be architectural modifications, assistive listening devices and equipment, and sign language interpreters upon request and availability. This approach may not always be feasible or sufficient to ensure equal access and benefit.

In providing its services, programs, and activities the Town of Hardwick shall not:

- Deny a qualified individual with a disability the opportunity to participate in or benefit from a benefit, service, or activity.
- Afford a qualified individual with a disability the opportunity to participate in or benefit from any aid, benefit, or service that is not equal to that offered to others.
- Deny a qualified individual with a disability the opportunity to participate as a member of planning or advisory boards, commissions, or any other entity of the Town of Hardwick.
- Limit a qualified individual with a disability the enjoyment of any right, privilege, advantage, or opportunity received by other individuals receiving the aid, benefit, or service.

It is the policy of the Town of Hardwick to ensure that persons with disabilities are provided maximum opportunity to participate in and benefit from programs, services, and activities. It is the goal that such participation is in the same manner as that of non-disabled persons. Toward achieving this, the town has a primary focus to identify barriers to access and remove or modify them to use assistive devices or procedures when necessary.

Reasonable Modifications Policy

The Town of Hardwick shall make a reasonable program or service modification whenever a person requests such an accommodation, unless it can be demonstrated by the town that such an accommodation would impose an undue burden or fundamental alteration to the program or service. Final decisions regarding requests for reasonable modifications will be made by the ADA Coordinator in a timely manner. These modifications shall be made within thirty (30) working days of the request or as soon as is reasonably possible. Individuals seeking to contest a denial of a request for reasonable modifications will be given a copy of the grievance procedure in the format appropriate for their needs.

The town will comply with all applicable Federal and State laws and regulations relative to the use of assistive equipment, including trained assistance animals. In addition, no arbitrary

restrictions or limitations will be placed on the type or number of assistive equipment items, including assistive animals, that people with disabilities may bring with them to town facilities.

Eligibility Requirements

Any prohibitions or limits upon the eligibility of qualified individuals with disabilities to receive services or practice any occupation or profession are not allowed under this policy.

Assurance Regarding Surcharges

It is the policy of the Town of Hardwick that surcharges are never charged to participants (nor any other interested party or person) for reasonable accommodations under any circumstances. Such accommodations include, but are not limited to: American Sign Language (ASL) interpreters, Computer Aided Real Time (CART) translators, architectural accessibility, computer accessibility hardware or software, Braille material, listening devices, closed captioning, etc.

Integrated Services Assurance

The Town of Hardwick strives to ensure that all of its services, programs, and activities are provided in the most integrated setting possible. People with disabilities will not be required to participate in separate programs even if separate programs that are specifically designed to meet the need of persons with disabilities are offered.

Services will not be provided to any person with a disability in a manner or at a location different from that available to other service recipients unless the potential for removal of architectural barriers or the use of assistive devices and equipment have been found to be inadequate or inappropriate to the needs of the individual. In all cases, the affected individual will be fully involved in the consideration and decision-making process.

Significant Assistance Assurance

It is the policy of the Town of Hardwick that programs to whom the town provides significant support or who the town sponsors may not discriminate against people with disabilities.

Accessible Transportation Policy

It is the policy of the town that whenever transportation services are provided they will be accessible to participants in town programs regardless of disability. When transportation services are provided and an individual is in need of accessible transportation they should make their request in writing to the ADA Coordinator. Requests must be made at least five (5) days in advance of the need. As with all of the town's transportation services, all requests are subject to the availability of space. When a request can not be met, notice will be given as soon as possible and at least one (1) day before the requested date of service.

If a person needs a wheelchair van every effort will be made to accommodate this need. If the town is providing transportation for anyone to or from a particular event or service and someone

requests wheelchair accessible transportation, then the town will be responsible for the arrangement and the cost of that transportation.

Community Referral Assurance

Whenever the Town of Hardwick participates in or funds programs or makes references to other programs or services, it is the policy that such programs and services must be accessible or usable by a person with a disability. The town will gather information regarding which of the programs or services that it refers people to are accessible, and those that are not. The town will make efforts to gather at least one accessible provider in each of the categories of service in which the town makes referrals.

Effective Communication

Effective Communication

It is the policy of the Town of Hardwick that auxiliary aids and services will be provided when necessary to ensure effective communication with persons whose disabilities effect communication. Persons with communications disabilities will be given the opportunity to request the aid or service that they prefer and the requested aid or service will be given primary consideration by the town unless doing so would impose an undue burden or unless a fully effective alternative is available.

The town is making efforts to ensure that emergency alarm devices in all public areas are both visual and auditory. Emergency evacuation procedures have been developed for each facility which includes evacuation of people with disabilities. The individual responsible for coordinating training for emergency evacuation for each facility has been designated. Information on emergency evacuation procedures will be provided to people verbally, in written format, or in alternate format forms as needed.

TTY/TDD Assurance

It is recommended that a TTY/TDD be purchased and installed at the Office of the Board of Selectmen for use by all Town Hall general government services. The town shall also be familiar with the New England Telephone VOICE/TTY Relay Service System. All telephone receptionists and primary staff will be trained on the use of the TTY. All publications of telephone numbers for town offices, employees, or services shall also list the TTY number or the relay system number as being available.

Alternative Format Policy and Procedure

It is the policy of the Town of Hardwick to make all documents, publications, and materials used in town business available to all persons who require them in alternate formats. Procedures have been established for the provision of alternate formats to include large prints, audiotape, Braille, and computer diskettes.

Large print, short audio tapes and computer diskette formats will be prepared by town employees who have been identified by the ADA Coordinator and trained in the necessary skills and procedures.

A request to the ADA Coordinator for alternative format documents should be made fourteen (14) days in advance of the event or activity whenever possible. If materials in Braille are being requested then the request must be made thirty (30) days in advance of the event. Every attempt will be made to meet the request. The materials will be provided at no charge. If the request can not be met, an alternative effective format will be offered. The person making the request will be informed as soon as possible but at least five (5) days in advance of the event or activity.

Materials describing the town services, programs, or upcoming events will be available in alternative formats such as large print or audio format. All materials should include the words "ASL interpreters upon request and availability".

Interpreter Services Policy

It is the policy of the Town of Hardwick that sign language interpreters, assistive listening devices, readers, or scribes will be provided upon request to ensure equally effective communication. Requests should be made at least fourteen (14) days prior to the event, service, program or meeting. Every reasonable effort will be made to meet the request. When an ASL interpreter is needed, the town will make every effort to provide one.

A request to the ADA Coordinator for interpreter services should be made fourteen (14) days in advance of the event or activity whenever possible. Every attempt will be made to meet the request. The service will be provided at no charge to the person needing the accommodation. If the request can not be met, an alternative effective format will be offered. The person making the request will be informed as soon as possible but at least five (5) days in advance of the event or activity.

Assistive Listening Device Assurance

The Town of Hardwick shall provide or obtain assistive listening devices when requested for either group or individual settings. This may be accomplished by using an available assistive equipment loan program. This may include amplified phone handsets and TV decoders or amplifiers etc.

Training Assurance

It is the policy of the Town of Hardwick that staff training and other staff development activities provided will include training on the use of a TTY /TDD if provided, the operator relay service, and other equipment necessary to ensure effective communication. Staff will receive training in procedures and policies on receiving and handling requests for auxiliary aids and services and for ensuring that primary consideration is given to the type of service or format preferred by the person with a disability. Training on effective communication is given during orientation and at a yearly staff refresher training.

Appendix 3

Accessibility Needs at Hardwick Recreation Sites

Recreation Facilities

Name: Active town recreation and play facilities. **Location:** Town-wide.

Description of Facility: Hardwick Recreation Facilities.

Function: Active recreation and play facilities. **Responsible Party:** Recreation Commission, Selectmen.

General Description or Obstacle Which Limits Mobility or Access: Most facilities lack fully compliant and accessible parking areas with signage. Fully compliant accessible routes of travel to facilities, individual play or recreation components and within play areas is non-existent throughout most recreation areas. In general, a paved or hard packed accessible pathway (48" wide w/ a 36" clear space) from the respective parking area to all facility programs and services is required. In fact, only the recently completed Gilbertville Recreation Area has a compliant accessible route from the parking area to the facilities. Although the Hardwick Pond Boat Landing and the Hardwick Community Playground have "hard packed" surfaces for parking, they are not in full compliance. The Hardwick Community Playground also lacks an accessible play surface and route of travel between play components. Although some of the components appear to be reasonably accessible, additional accessible components should be considered. Those areas with concession stands or other built structures such as gazebos or dug-outs (Wheelwright Little League Field, Roach Memorial Field, New Furnace Launch) require modification to create an accessible route of travel into those facilities. Most have an abrupt change in surface of 1" or more into the built structure. None of the facilities have public restrooms or toilet facilities. If portable toilets are used, at least one must be handicapped accessible and placed on a level surface on an accessible route of travel.

Accessibility Requirements: Under Section 19 of 521 CMR, all recreation facilities shall be accessible and on an accessible route of travel that is paved or hard packed. Other components of a facility (i.e. toilet rooms, ramps, picnic tables, etc.) must also fully comply with 521 CMR. Under the ADAAG standards, at a minimum, an accessible route must be provided up to and through all play areas and equipment. Current ADAAG Supplements [inclusive of State and Local Government Facilities (1998), Children's Environments (1998), Play Areas (2000) and Recreation Facilities (2002)] are considered to be "guidelines" that have not been incorporated into the Department of Justice's accessibility standards and therefore are not enforceable. A reprint of the United States Access Board "Summary of Accessibility Guidelines for Recreation Facilities" and "Summary of Accessibility Guidelines for Play Areas" is provided in Attachment H.

Public spaces, recreational facilities and playgrounds are within the jurisdiction of ADA and therefore must conform to those standards pertaining to accessible routes, reach ranges and similar standards for ancillary features (bathroom, benches, picnic tables, water fountains, parking, etc.). Play and recreational areas must be located on an accessible route with accessible routes to the various play structures, recreational facilities and equipment. The accessible route connecting ground level components within a play area should be 60" wide with some variation allowed depending on length of travel route and size of play area. The accessible route should be stable, firm and slip-resistant and is preferred to be the same as the general route of travel. The actual playground surface must also be stable, firm and slip-resistant as well as "impact attenuating" to provide a safe fall area around play equipment. Acceptable materials include interlocking rubber matting, plastic matting, poured in place rubber surfacing and specially bonded wood fibers. The sole use of wood chips, the material used in the Hardwick Community Playground, is not in compliance with accessibility standards. These materials can be used in conjunction with the acceptable materials as part of the overall design scheme. Play equipment should be as accessible as possible with "guidance" pertaining to this provided in Attachment H as previously noted.

Description of Programs: Active recreation and play facilities.

Accessibility Compliance Options: Initiate improvements and remove architectural barriers as specified.

Estimated Total Project Cost: \$ 43,075

Projected Completion Date: November 2012

Hardwick Accessibility Plan

Park and Recreation Facilities continued

Name of Facility	Parking, Striping, Signage	Accessible Route to Facility	Accessible Route w/i Facility	Toilet Room Facilities	Portable Toilets	Firm, Stable Surface for Wheelchair	Accessible Picnic Table & Benches	Bleacher Seating	Water Fountains	Concession Stand (counter)	Ramps	Date of Completion
Gilbertville Rec. Area	P	C	C	NA	N	C	NA	NA	NA	NA	NA	
Wheelwright LL Field	●	●	●	NA	N	●	NA	●	NA	NA	NA	
Roach Memorial Field	●	●	●	NA	N	●	NA	1	NA	●	NA	
Community Playground	●	●	●	NA	N	●	●	NA	NA	NA	NA	
New Furnace Landing	●	●	●	NA	N	C	NA	NA	NA	NA	●	
Old Furnace Launch	●	●	●	NA	N	●	●	NA	NA	NA	NA	
Goddard Field	●	●	●	NA	N	●	●	NA	NA	NA	NA	
Hardwick Pond Boat Landing	●	C	C	NA	N	C	NA	NA	NA	NA	NA	

Key to Table and Following Pages

Compliance	Feasibility (F)	Priority (P, 1 = highest priority)
● Non-Compliant	1. Can be easily undertaken	1. Physical entrance into a building or facility
C Compliant	2. Can be undertaken by maintenance staff, DPW, etc.	2. Access to programs and services within a building or facility
NA Not Applicable	3. Minor modifications which require skills or specialized work	3. Access to bathroom facilities
P Partially Compliant	4. Major modifications which require skilled or specialized work	4. Removal of remaining architectural barrier
N None Present		

Hardwick Accessibility Plan

Gilbertville Recreation Area: Village recreation complex consisting of basketball courts, tennis courts, tennis/soccer practice wall and a ballfield. An accessible route exists from the designated parking areas to the facility. Accessible parking is for two spaces and consists of two 9' wide spaces with a shared 6' access aisle. No van accessible signage exists.

<u>General Description of Obstacle Which Limits Mobility or Access</u>	<u>Type of Action to be Taken</u>	<u>P</u>	<u>F</u>	<u>Cost Estimate</u>
1 Non-compliant designated accessible parking spaces, line striping or signage.	Designate one 8' wide accessible passenger vehicle parking space and one 8' wide van accessible parking space, separated by a 8' wide accessible access aisle. Provide related striping and van accessible signage.	1	2	\$100
				Total \$100



Hardwick Accessibility Plan

Wheelwright Little League Ballfield: Little league complex consisting of baseball field including 2 dugouts, a batting cage, and storage buildings. No designated and paved permanent parking exists. There is no designated firm hard-packed accessible route of travel to the ball field, bleachers and dugout. The access into both of the dugouts is noncompliant as a 3" rise eliminates the accessible route of travel. The bleachers do not have railings.

General Description of Obstacle Which

<u>Limits Mobility or Access</u>	<u>Type of Action to be Taken</u>	<u>P</u>	<u>F</u>	<u>Cost Estimate</u>
1. Lack of compliant designated accessible parking spaces.	"Temporary" accessible parking shall be provided on the least sloping location near the field on a hard packed, smooth surface. Field markings, paint or traffic cones/barrels (as appropriate) should be used to identify the space (s).	1	2	\$50
2. No accessible route of travel exists to the baseball field and dugout.	Construct a 36" clear width hard packed accessible pathway to the ball field and dugouts.	1	3	\$1,500+/-
3. Access into the dugouts is restricted by an abrupt change in level surface in excess of 3" due to the cement pad that the dugout is constructed on.	Ensure that this surface level change is eliminated either by constructing a compliant earthen/packed or wooden ramp into the entrance	2	2	\$250
4. Lack of railings in bleachers.	Install accessible compliant railings.	4	3	\$300
				Total \$2,100



Roach Memorial Field: Recreational complex consisting of soccer fields, softball fields and a football field. The football field also contains storage buildings, a announcer booth and a concession stand. If the announcer's booth is not open to the public then it may be possible that no further action is required or, under the ADA, reasonable accommodations provided. No designated and paved permanent parking exists. There is no designated firm hard-packed accessible route of travel to the fields or concession stand. The access into the concession stand and onto the adjacent deck is noncompliant due to an 8" rise and abrupt change onto the deck and a "ramp" that is too steep. The concession stand has two counters of 47" and 48" in height. Although bleachers were not at the field at the time of inspection, if bleachers are used they must be in compliance and provide adequate railings.

<u>General Description of Obstacle Which Limits Mobility or Access</u>		<u>Type of Action to be Taken</u>	<u>P</u>	<u>F</u>	<u>Cost Estimate</u>
1	Lack of compliant designated accessible parking spaces.	"Temporary" accessible parking shall be provided on the least sloping location near the field on a hard packed, smooth surface. Field markings, paint or traffic cones/barrels (as appropriate) should be used to identify the space (s).	1	2	\$50
2.	No accessible route of travel exists to the field and concession stand.	Construct a 36" clear width hard packed accessible pathway to the field and concession area.	1	3	\$1,500
3.	Access onto the deck is restricted by an abrupt change in level surface of 8". Access into the concession stand is restricted due to a non-compliant "ramp".	Ensure that this surface level change is eliminated either by constructing a compliant earthen/packed or wooden ramp into the entrance	2	2	\$1,200
4.	The counter heights at the concession stand are 47" a.f.f. and 48" a.f.f. respectively which exceeds the 34" maximum height requirement.	Lower one of the counters to a maximum height of 34" with a minimum of 27" knee clearance.	2	2	\$25
					Total \$2,775



Hardwick Community Playground: The Hardwick Community Playground is a newly constructed town-wide playground located on the grounds of the Hardwick Elementary School. The playground is designed to accommodate ages 2-12. There are no designated accessible parking spaces immediately adjacent to the playground. The nearest area where parking can be designated is not on an accessible route of travel due to a non-compliant wooden bridge and a non-compliant accessible route of travel due to abrupt changes in level surface as a result of concrete upheaval and deteriorating and broken asphalt. The bridge has a 3" to 6" vertical rise from the adjoining walkway, is curved and varies up to 9.5% in running slope and lacks railings. The cement walkway on the playground side of the bridge has a running slope of 9.8% to 11.0%. The asphalt driveway is not striped as part of the accessible route and is severely deteriorated. No accessible routes of travel exists around the playground or within the play area to link play equipment. The play area lacks an accessible route of travel inside it due to the use of wood chips. Although some of the play components appear compliant, additional play equipment should be considered. The facility also contains 3 benches and 2 picnic tables which are not located on an accessible route of travel. The benches do not have companion level area for a wheelchair. The picnic tables are non-compliant. Consultation with a qualified professional qualified in design of accessible play components should be pursued to insure full and reasonable compliance.

<u>General Description of Obstacle Which Limits Mobility or Access</u>	<u>Type of Action to be Taken</u>	<u>P</u>	<u>F</u>	<u>Cost Estimate</u>
1. No designated accessible parking space, line striping or compliant signage.	In the nearest parking lot, designate one 8' wide van accessible parking space and one 8' passenger vehicle accessible space with a shared 8' wide accessible access aisle. Provide related striping. Accessible signage must be placed in front of each space and at a height of between 5' and 8' to the top of the sign.	1	2	\$300
2. No accessible route of travel exists from the parking area to the playground.	Remove existing wooden bridge and concrete pads leading to the playground. Reclaim a minimum 4' wide section of the driveway portion of the accessible route of travel. Construct a 48" wide w/36" clear width accessible pathway to the playground.	1	3	\$7,500+/-
3. No accessible route of travel exists entirely around or to and within the play facility.	Construct a 48" wide w/36" clear width accessible pathway to and around the play area. Construct companion area next to benches. In addition consider the installation of a stable, firm and slip-resistant as well as "impact attenuating" surface around and to play equipment. Acceptable materials include interlocking rubber matting, plastic matting, poured in place rubber surfacing and specially bonded wood fibers.	2	3	Up to \$20,000
4. Benches not on an accessible route of travel.	Relocate at least one of the benches to the accessible route of travel.	2	2	\$0
5. None of the picnic tables are compliant or on an accessible route of travel.	Purchase a compliant picnic table with minimum 27" high knee clearance, minimum 30" wide clear space, and 19" depth and install on the accessible route of travel.	2	2	\$650
				Total Up to \$28,450+/-



Old Furnace Launch: A small, rustic facility overlooking the Ware River. The upper area consists of a picnic table, bench and viewing area of the river. There is no accessible route or pathway to these facilities. The picnic table is not wheelchair accessible and the bench does not have a companion flat area. The parking is non-compliant as the surface is unstable and lacks striping.

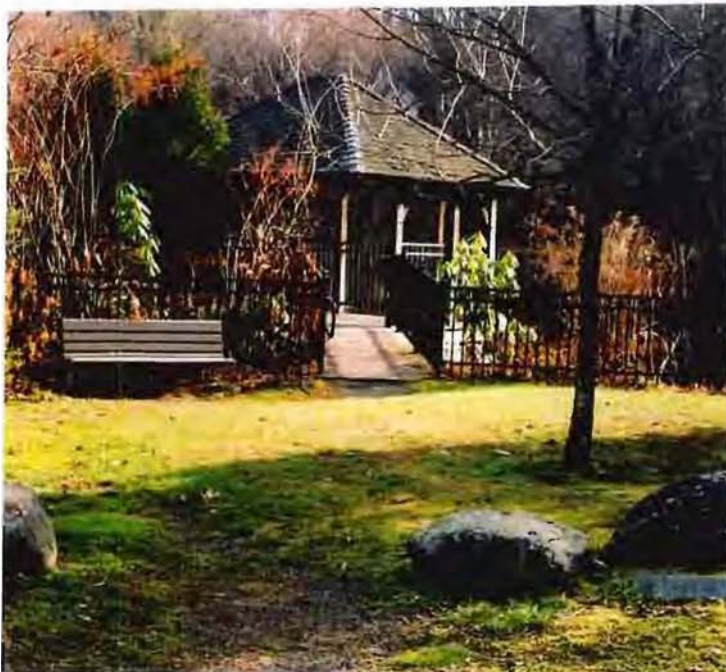
The lower area consists of a bench, canoe launch and parking. There is no accessible route or pathway to the bench nor does it have a companion flat area. This parking is also non-compliant as the surface is unstable and lacks striping.

<u>General Description of Obstacle Which Limits Mobility or Access</u>		<u>Type of Action to be Taken</u>	<u>P</u>	<u>F</u>	<u>Cost Estimate</u>
1	No designated accessible parking space, line striping or signage.	Create one compliant 8' wide van accessible space with a firm, hard surface, 8' wide access aisle, striping and signage.	1	2	\$1,200
2	No accessible route of travel exists to the viewing area, benches and picnic table.	Construct a 36" clear width hard packed accessible pathway to the upper level viewing area, upper level picnic table and upper/lower level benches. Create 3' x 5' firm, hard, level companion spaces next to benches.	1	3	\$1,000
3	The picnic table is non-compliant.	Purchase a compliant picnic table with minimum 27" high knee clearance, minimum 30" wide clear space, and 19" depth and install on the accessible route of travel.	2	2	\$650
Total					\$2,850



New Furnace Landing: A designated canoe landing area consisting of a gazebo, bench and parking area. small, rustic facility overlooking the Ware River. The parking is non-compliant as the surface is unstable and lacks striping. There is no accessible route or pathway to the gazebo and bench. The bench does it have a companion wheelchair flat area. A 1 ¼" abrupt change in surface occurs at the transition of the ground and ramp. The running slope of the ramp exceeds the maximum threshold of 8.3%. The clear width between railings is only 46", which does not meet the required 48" minimum.

<u>General Description of Obstacle Which Limits Mobility or Access</u>		<u>Type of Action to be Taken</u>	<u>P</u>	<u>F</u>	<u>Cost Estimate</u>
1.	No designated accessible parking space, line striping or signage.	Create one compliant 8' wide van accessible space with a firm, hard surface, 8' wide access aisle, striping and signage.	1	2	\$1,200
2.	No accessible route of travel exists to the gazebo and bench.	Construct a 36" clear width hard packed accessible pathway to the gazebo and bench. Create a 3' x 5' firm, hard, level companion space next to the bench.	1	3	\$450
3.	The accessible route onto the ramp is compromised due to a 1 ¼" abrupt change in level surface at the ramp. The running slope of the ramp ranges up to 9.7% which exceeds the maximum 8.3% allowed. The clearance between the railings is only 46".	Reconstruct the existing ramp such that it meets all accessibility requirements. This should include the construction of a ramp which does not exceed a running slope of 8.3% nor a 2.0% cross-slope. A 60" x 60" level area at the ramp base and top is required. Four feet of clear space is required between handrails. The handrails shall be continuous on both sides of the ramp, 1-1/4" to 1-1/2" in outside diameter, and round or oval in shape; handrails to be provided in pairs, one at a height of 34" - 38" above the ramp surface and the lower handrail at a height between 18" and 20"; handrails to be 1-1/2" from the mounted surface; handrails should extend 12" beyond the bottom of the ramp. No greater than a ¼" change in level surface shall occur from the ground surface to the ramp.	1	3	\$2,500 +/-
Total					\$4,150+/-



Goodard Field and Recreation Area: Hardwick Center recreational area consisting of a baseball field, tennis court, bocce court, 2 sets of swings, a slide and a sandbox. The area also contains 7 benches and 2 picnic tables. There is no accessible route or pathway to these facilities. The picnic tables are not wheelchair accessible and none of the benches have a companion flat area. There does not exist any on-site parking for this facility. If the town makes the necessary accessibility improvements to the Hardwick Community Playground, it may not be necessary to modify the play equipment at this location.

<u>General Description of Obstacle Which Limits Mobility or Access</u>		<u>Type of Action to be Taken</u>	<u>P</u>	<u>F</u>	<u>Cost Estimate</u>
1	Lack of compliant designated accessible parking spaces.	"Temporary" accessible parking shall be provided on the least sloping location near the field on a hard packed, smooth surface.	1	2	\$50
2.	No accessible route of travel exists to the baseball field, bocce court, tennis court or play equipment.	Construct a 36" clear width hard packed accessible pathway to access the ballfield and other facilities. Create at least one 3' x 5' firm, hard, level companion spaces next to benches	1	3	\$1,500+/-
3.	Access onto the bocce court is restricted by an abrupt change in level surface in excess of 9" due to the timber frame of the court and lack of an opening.	Ensure that this surface level change is eliminated by constructing an on-grade entry into the bocce court.	2	3	\$350
4.	The picnic table is non-compliant.	Purchase a compliant picnic table with minimum 27" high knee clearance, minimum 30" wide clear space, and 19" depth and install on the accessible route of travel.	2	2	\$650
Total					\$2,550



Hardwick Pond Boat Landing: This area consists of a large parking area and a boat ramp. Although there are no formal requirements in place for a facility of this size and type, the federal regulations strongly encourage the integration of accessible features into boat docking and fishing areas. This includes fixed docks, floating docks and/or similar facilities which allow for a smooth transfer from shore to boat. In addition, accessible fishing platforms are strongly encouraged whenever practical and feasible. Should this area be expanded or modified in the future, such enhancements should be considered..

<u>General Description of Obstacle Which Limits Mobility or Access</u>	<u>Type of Action to be Taken</u>	<u>P</u>	<u>F</u>	<u>Cost Estimate</u>
1. No designated accessible parking space, line striping or signage.	Designate one 8' van accessible parking space with an 8' wide accessible access aisle. Provide related striping and van accessible signage.	1	2	\$100
	Total			\$100

