

he existing land uses along the eastern section of the Mohawk Trail Scenic Byway reflect the history of the corridor. The Mohawk Trail has been a primary transportation route for north central Massachusetts since Native Americans created it. In the late 1800s and early 1900s, it was the main route for transporting goods produced in the mills that were powered by the Millers River. In the 1900s, the Trail (Routes 2 and 2A) became one of the oldest tourist and scenic routes in the country and a gateway to the Connecticut River Valley and the Berkshire Hills of Western Massachusetts.

The land along the corridor is predominantly forestland with village centers and commercial and residential development scattered along the way. Originally farm communities, many of the towns developed as classic New England mill villages where the power of the Millers, Connecticut and Green Rivers were tapped for manufacturing purposes. Manufacturing and farming are still present in most of the towns along the Byway.

Zoning is a tool that enables communities to support existing land uses and to promote desired future land uses and development patterns. Land uses can assist communities to direct growth to appropriate areas and to protect important natural, scenic and historic resources for future generations. As such, zoning is a tool which allows a town to establish its own blueprint to guide development, and to protect unique resources for future generations.

Land use and zoning are important to consider when completing a comprehensive plan such as this corridor management plan. In addition to preserving scenic vistas, farmland, and historic and natural resources, zoning can be effective in guiding commercial activities that support tourism along the byway.

The development of the corridor management plan and associated public participation processes are intended to identify efforts that will enhance and protect the area through which the Mohawk Trail East Scenic Byway travels. To protect and enhance the Scenic Byway experience, it is important to consider the land use and zoning directly abutting the roadway and within the larger Byway corridor. There are key viewsheds and vistas that make traveling the Byway scenic and enjoyable, while historic downtowns give travelers places to stop and explore along the way.

It is important to note that it is the landowners and individual towns who ultimately control what happens in a community. This chapter is intended to provide information and guidance for those communities that wish to implement additional measures to protect the Byways resources. This chapter of the Byway Corridor Management Plan includes a description of the existing land use

patterns, an examination of the zoning in the municipalities along the Byway, and an analysis of how the zoning may impact the landscapes within the Byway study area. The chapter also recommends actions to protect the Byway's natural, scenic, and historic resources.

In recent years, the communities along the Mohawk Trail East Scenic Byway have actively participated in planning and have been proactive in thinking about development and how they would like to manage and shape growth to support their visions for the future. Since 2000, each town has prepared a Community Development Plan and an Open Space and Recreation Plan. In Community Development Plans, towns designate certain areas as the most desirable for potential future development, and also indicate which areas may be unsuitable for new development because of environmental and infrastructure constraints. In Open Space and Recreation Plans, communities create strategies to protect developable open space lands and important historic and natural resource areas from development, and make recommendations to support recreational activities and access. Some of the towns along the Scenic Byway have developed comprehensive Master Plans. Many of the towns have also undertaken zoning bylaw changes to support their vision regarding future land uses and development and the preservation of rural areas and important resources.

The descriptions and analysis of land uses and zoning along the Mohawk Trail East Scenic Byway are based on a variety of information sources. These sources include: field observations and personal communications with local residents; discussions at Mohawk Trail East Scenic Byway committee meetings; land use data and protected open space provided through Commonwealth's Office of Geographic and Environmental Information (referred to as MassGIS); zoning data; and recent Community Development Plans, Master Plans, and Open Space and Recreation Plans.

Land Use

The Mohawk Trail East Scenic Byway study area is defined as covering Route 2/Route 2A between Athol and Greenfield, and a half-mile buffer along each side of the road. The study area includes sections of Athol, Orange, Wendell, Erving, Montague, Gill, and Greenfield. The Scenic

Byway mainly runs along Route 2A through Athol, Orange, and Greenfield, and on Route 2 through Erving and Gill. The Route 2A sections were formerly part of Route 2, before highway bypasses were created around the town centers of Athol, Orange, and Greenfield.

The land uses within the Mohawk Trail East Scenic Byway study area vary tremendously as

one travels from Athol to Greenfield. There are sections of undeveloped forests and open vistas particularly through Erving, as well as areas of dense development such as in downtown Greenfield, Athol, and Orange. As indicated in Table 7-1, overall, an estimated 59% of the Byway study area is forestland (MassGIS, 1999). The next major land uses are residential development (20%), and water bodies and wetlands (7%). More detailed information on land use within the Byway study area in each town is provided later in this section.

The land use figures presented in this chapter are based on data provided by MassGIS. MassGIS classifies land uses based on aerial photography interpretation. Statewide data are available for 1999, 1985, and 1971. MassGIS has 21 land use classifications; these 21 classifications have been grouped into seven broader categories. The forest category includes all land classified as forest by MassGIS. The agriculture category includes cropland, pasture, and woody perennials (such as orchards and

nurseries). The water and wetlands category contains all areas classified as water or as wetlands by MassGIS. The residential land use category includes singlefamily homes and multi-unit housing complexes and structures. The commercial land use category contains all land defined as commercial by MassGIS, including shopping areas. The industrial and transportation category includes light and heavy industry, mining and waste disposal facilities, and transportation infrastructure (such as highways, airports, railroads, and freight storage). The other open space and recreation category includes abandoned agriculture, areas of no vegetation, areas under power lines, parks cemeteries, and public and institutional green spaces and buildings, and vacant undeveloped land in urbanized areas, and recreation sites (such as playgrounds, golf courses, tennis courts, beaches, swimming pools, marinas, fairgrounds, race tracks, and stadiums).

Table 7-1: Land Uses within the Scenic Byway Corridor Study Area*

Land Use Type	Acreage	Percentage of the Total
Forest	10,467	58.6%
Agriculture	501	2.8%
Water and Wetlands	1,210	6.8%
Residential	3,545	19.8%
Commercial	555	3.1%
Industrial & Transportation	685	3.8%
Other Open Space & Recreation	912	5.1%
Total	17,875	100.0%

^{*}Study area defined as including ½ mile on each side of Route 2/Route 2A, from Athol (eastern Route 2/Route 2A intersection) to Greenfield (Route 2/Route 2A/Interstate 91 intersection at rotary). See Byway Base Map for more details.

^{1.} Forested wetlands are included in the forest category, not the water and wetlands category.

It is important to note that the land use classifications do not indicate whether land is permanently protected from development. Land that is categorized as forest or agricultural land, or that falls into the non-agricultural open space and recreation category may or may not be protected from future development. A discussion of land that is protected from development appears later in this chapter.

The land use patterns within the Scenic Byway study area are reflective of the land uses in the seven communities along the Byway overall. It is worth noting, however that there is frequently a greater level of developed land uses within the Byway study area than elsewhere in these communities, because Route 2/2A historically was and continues to be a major transportation corridor.

Athol

The study area for this Corridor Management Plan, the Mohawk Trail East Scenic Byway starts in Athol at the intersection of Routes 2 and 2A east of downtown Athol. The Scenic Byway travels west along Route 2A through the uptown common area and downtown Athol to the Athol-Orange border west of the downtown.

The Town of Athol, located in Worcester County, is a population and employment center for the region. At the same time, however, the town is still predominantly rural, with considerable amounts of forestland and other open space and natural resource areas.

The Town of Athol has a population of 11,697 (U.S. Census Bureau, 2005 Population Estimates). The current employment

base is 3,375 workers (MA Office of Labor and Workforce Development, 2005). Historically, the town's development and land use patterns have been strongly tied to the Millers River and transportation infrastructure. The town established a strong manufacturing base when the Millers River's power was harnessed for industrial purposes during the nineteenth and twentieth centuries. The current land use patterns in Athol generally follow the historic land use trends. Manufacturing is still an important part of Athol's economy. Most of the town's current commercial and industrial development is still focused in the downtown and along the Millers River. The town is currently pursuing the creation of a new business park to promote new economic growth. The business park is proposed to be located at the eastern end of the Byway, at the intersection of Route 2 and Route 2A. Athol's residential land uses continue to be concentrated near the historic village centers on lots of a half-acre or smaller. Overall, an estimated one-fifth of Athol's housing units are multi-family structures (of 3 units or more) (U.S. Census, 2000); most of these structures are in the downtown.

Athol has a total land area of 21,355 acres. An estimated 16% of the town (3,330 acres) lies within the Byway study corridor. Within the town's portion of the Byway corridor, half of the land (50%) is forested, and 4% is agricultural land. Other land uses in the Byway corridor include residential land (29%), commercial land (4%), and industrial uses and transportation infrastructure (3% combined). According to the MassGIS data, all of the current

Table 7-2: Acreages for Different Land Uses, Athol

Land Use Type	Acres in Byway Corridor*	Percentage of Byway Corridor*	Acres in Town	Percentage of Town
Forest	1,650	50%	16,212	76%
Agriculture	146	4%	660	3%
Water and Wetlands	174	5%	1,026	5%
Residential	963	29%	2,503	12%
Commercial	145	4%	145	1%
Industrial & Transportation	100	3%	171	1%
Other Open Space & Recreation	152	5%	639	3%
Total Acreage	3,330	100%	21,355	100%

^{*}Byway corridor is defined as including ½ mile on each side of the Mohawk Trail (Route 2/2A), from Athol (eastern Route 2/2A intersection) to Greenfield (Route 2 and Interstate-91 intersection). See Byway Base Map for more details.

Note: Totals may not add to 100% due to rounding.

Source: FRCOG compilation of 1999 MassGIS land use data.

commercial land uses in Athol (145 acres) are located within the Byway study area. The remaining portion of the Byway study area (5%) consists of recreational land and other open space.

Orange

The Scenic Byway travels west along Route 2A from Athol in Worcester County into Orange in Franklin County. The Byway runs through downtown Orange, which includes the Orange Center National Historic District (which has been listed on the National Register of Historic Places since 1989) as well as areas east and west of the downtown. Millers River is within the Byway study area for most of the Byway's segment through Orange. are a number of scenic views of Millers River in Orange along Route 2A.

Orange is a center for employment and the third most populous Town in Franklin County after Greenfield and Montague. The Town of Orange has a population of 7,667 (U.S. Census Bureau, 2005 Population Estimates) and an employment base of 2,085 workers (MA Office of Labor and Workforce Development, 2005). Orange has a strong manufacturing history tied to the Millers River, and currently, three of the largest five employers are manufacturing firms. The largest of these firms, Rodney Hunt, is located downtown within the Byway corridor (Rodney Hunt produces equipment for industrial and municipal water and wastewater flow management). Orange has two industrial parks located outside of the Byway corridor near the Orange Municipal Airport.

Orange Center has a mix of civic, business, and residential land uses. There are a few important vacant lots and structures such as the historic Putnam Hall building which is being considered for redevelopment. The Town of Orange recently completed the Orange Riverfront Park on a brownfields site where the town highway garage had been located.

The development pattern of

Table 7-3: Acreages for Different Land Uses, Orange

Land Use Type	Acres in Byway Corridor*	Percentage of Byway Corridor*	Acres in Town	Percentage of Town
Forest	1,876	56%	16,723	73%
Agriculture	115	3%	1,531	7%
Water and Wetlands	183	6%	1,213	5%
Residential	788	23%	2,178	9%
Commercial	102	3%	123	>1%
Industrial & Transportation	143	4%	630	3%
Other Open Space & Recreation	158	5%	646	3%
Total Acreage	3,364	100%	23,044	100%

^{*}Byway corridor is defined as including ½ mile on each side of the Mohawk Trail (Route 2/2A), from Athol (eastern Route 2/2A intersection) to Greenfield (Route 2 and Interstate-91 intersection). See Byway Base Map for more details.

Totals may not add to 100% due to rounding.

Source: FRCOG compilation of 1999 MassGIS land use data.

Orange today reflects its original settlement. In parts of downtown, the minimum lot size is 10,000 square feet, less than one-quarter acre, per unit for homes served by water and sewer. In rural residential areas, the minimum lot size is In recent years, new 2 acres. single-family homes have been increasingly built outside of the village centers. The town's housing stock consists 21% of multi-family housing containing three or more units. In the downtown, there are a number of former multi-storied mill buildings that are currently vacant or underutilized and could be potentially redeveloped.

Orange has a total acreage of 23,044 acres. An estimated 15% of the town (3,364 acres) falls within the Mohawk Trail East Byway study area. Within Orange's Byway section, the primary land use is forest (56%), 3% of the acreage is agricultural, and 6% has water or wetlands. Residential uses occupy 23% of the Byway corridor in Orange, and commercial, industrial, and trans-

portation uses combined comprise 7%. The remaining land (5%) consists of recreational uses or other open space.

Erving

The Scenic Byway travels west through Erving on Route 2. The Byway runs through Erving Center and the Villages of Farley and Ervingside and through the undeveloped and minimally developed areas between the villages.

The Town of Erving is geographically the smallest town in the Scenic Byway study corridor, with a total area of 9,194 acres. It is also a small town based on its population of 1,550 residents (2005). Erving's development is mostly located in its three villages: Erving Center, Farley, and Ervingside, all of which are in the Byway corridor. There has been limited development outside of the village areas. This is a result of the steep slopes throughout town and the limited availability of water and sewer services. Over threequarters (78%) of the housing units in Erving are single-family homes.

As with Athol and Orange, Erving's historic settlement and development was influenced heavily by the Millers River and by the role of the Mohawk Trail as a transportation corridor. By the late nineteenth century, there were industrial mills operating in each of the villages. The mills and manufacturing have played an important role in Erving's economy since its early days. The town's primary industry is still manufacturing, and the Erving Paper Mill, located near Erving Center, is the town's largest employer, with over 100 employees. There are an estimated 290 workers in total employed in Erving (2005). Since 1990, the employment base in Erving has shrunk by 63%, a decrease of almost 500 workers. This decline is due largely to the loss of manufacturing jobs including the closing of Erving Paper's Usher Plant in 1991, and the closing of International Paper Company Plant in Ervingside in 2000. Both of these facilities fall within the Byway study area. The International Paper Plant in Ervingside is currently vacant. During the summer of 2007, the Usher Plant had a major fire. The plant was demolished and the site is being considered for redevelopment.

Thirty-nine percent (39%) of Erving's total land area is within the Byway study area. Erving's section of the Byway corridor, the predominant land use is forestland (77%). Other land uses include residential land (11%), industrial uses and transportation infrastructure (4%), water and wetlands (3%), agricultural uses (1%), and commercial uses (less than 1%). The remaining land (3%) falls into the category of recreational uses and other open space. It is notable that all of the commercial land in Erving (17 acres), 96% of the transportation and industrial land (136 acres), and 71% of the residential land (537 acres) fall within the Scenic Byway study area.

Wendell

Although the Mohawk Trail East Scenic Byway does not run

Table 7-4: Acreages for Different Land Uses, Erving

Land Use Type	Acres in Byway Corridor*	Percentage of Byway Corridor*	Acres in Town	Percentage of Town
Forest	2,759	77%	7,515	82%
Agriculture	32	1%	157	2%
Water and Wetlands	106	3%	392	4%
Residential	384	11%	537	6%
Commercial	17	>1%	17	>1%
Industrial & Transportation	136	4%	141	1%
Other Open Space & Recreation	126	4%	435	5%
Total Acreage	3,559	100%	9,194	100%

^{*}Byway corridor is defined as including ½ mile on each side of the Mohawk Trail (Route 2/2A), from Athol (eastern Route 2/2A intersection) to Greenfield (Route 2 and Interstate-91 intersection). See Byway Base Map for more details. Totals may not add to 100% due to rounding.

Source: FRCOG compilation of 1999 MassGIS land use data.

through the Town of Wendell, a portion of the Byway study area falls within the town. Nine percent (9%) of Wendell's land acreage is within a half-mile of the Scenic Byway (Route 2). As one travels along the Byway through Erving, Wendell lies just to the south across the Millers River. Wendell connects to the Mohawk Trail via bridges in Wendell Depot, Erving Center and Farley. Much of the viewshed seen from the Byway in Orange and Erving is permanently protected land within the Wendell State Forest.

Wendell's portion of the Byway study area includes the Village of Wendell Depot, which developed after rail service was established in the 1840s, and the older settlement area of Mormon Hollow. Wendell Center, the town's civic center and most prominent village, is located south of the Byway study area. Wendell has the smallest population of any town in the Byway study area, with an estimated 1,035 residents as of 2005 (U.S. Census Bureau).

Wendell has a total land area of 20,615 acres. Within Wendell's section of the Mohawk Trail East Byway study area, 87% of the land is forested, 1% has agricultural uses, and 4% has water or wetlands (Table 7-5). Residential uses occupy 3% of the Byway corridor, and commercial, industrial, and transportation uses combined comprise 2%. The remaining areas (2%) contains other open space or recreational land uses.

Montague

The Town of Montague lies just south of Route 2, and Montague's two largest villages, Turners Falls and Millers Falls, are located within the Byway study area. The Village of Turners Falls has one National Register Historic Distric and several properties have Preservation Restrictions. The Connecticut River Scenic Farm Byway (Route 63) travels north/south and crosses the Mohawk Trail East Scenic Byway in Montague and Erving. It passes through the Village of Millers

Table 7-5: Acreages for Different Land Uses, Wendell

Land Use Type	Acres in Byway Corridor*	Percentage of Byway Corridor*	Acres in Town	Percentage of Town
Forest	1,611	87%	18,727	91%
Agriculture	19	1%	293	1%
Water and Wetlands	78	4%	594	3%
Residential	56	3%	560	3%
Commercial	5	>1%	1	>1%
Industrial & Transportation	38	2%	66	>1%
Other Open Space & Recreation	41	2%	374	2%
Total Acreage	1,849	100%	20,615	100%

Byway corridor is defined as including ½ mile on each side of the Mohawk Trail (Route 2/2A), from Athol (eastern Route 2/2A intersection) to Greenfield (Route 2 and Interstate-91 intersection). See Byway Base Map for more details. Totals may not add to 100% due to rounding.

Falls. The Village of Turners Falls was designated as a National Register Historic District in 1982. In addition, there are on-going efforts to obtain National Register designation for downtown Millers Falls.

Montague's total estimated population currently stands at 8,408 (2005). Turners Falls is the major urbanized center in Montague with just over half (51%) of the town's population. Millers Falls is smaller with 13% of the town's population. As with many other communities along the Byway, Turners Falls and Millers Falls were settled during the Eighteenth Century as the rivers helped power and create manufacturing enterprises. Though the role of manufacturing in the town's economy declined over the twentieth century, the manufacturing industry is still a major part of the economy. Four of the town's eight largest employers are manufacturing firms and account for 29% of the town's 2,800 jobs. Some of these employers and jobs are located at the town's industrial park near the Turners Falls Municipal Airport, the north end of which lies within the Byway corridor.

The Montague Town Hall and other civic buildings are located in Turners Falls, which also has retail businesses, offices, industrial uses, and residential structures. (80%) of Montague's multi-family housing is located within Turners Falls. In recent years, there have been a number of redevelopment and revitalization projects in Turners Falls. The historic Moltenbray, and Crocker and Cutlery mill buildings were renovated for use as high-quality affordable rental housing. The Colle Opera House has been redeveloped as art galleries and commercial office space. The Connecticut River Great Falls Discovery Center is located in an historic mill building just across the Connecticut River in the Byway corridor. The Discovery Center was established as a collaborative effort of the Massachusetts Department of Conservation Recreation (DCR) and the U.S. Fish and Wildlife Service Silvio Conte National

Table 7-6: Acreages for Different Land Uses, Montague

Land Use Type	Acres in Byway Corridor*	Percentage of Byway Corridor*	Acres in Town	Percentage of Town
Forest	588	54%	14,084	70%
Agriculture	62	6%	1,764	9%
Water and Wetlands	216	20%	880	4%
Residential	110	10%	1,744	9%
Commercial	18	2%	81	>1%
Industrial & Transportation	17	1%	278	1%
Other Open Space & Recreation	73	7%	1,278	6%
Total Acreage	1,084	100%	20,109	100%

^{*}Byway corridor is defined as including ½ mile on each side of the Mohawk Trail (Route 2/2A), from Athol (eastern Route 2/2A intersection) to Greenfield (western Route 2, 2A and Interstate-91 intersection). See Byway Base Map for more details. Totals may not add to 100% due to rounding.

Source: FRCOG compilation of 1999 MassGIS land use data.

Wildlife Refuge. It serves as an educational visitor center for the Connecticut River Watershed.

Millers Falls is smaller and predominantly residential with some retail spaces and offices. Millers Falls has a freight rail yard that has the potential to be a passenger rail stop. Millers Falls has undergone revitalization over the last few years. An extensive streetscape improvement project was recently completed with funding provided through the Scenic Byway Program (as part of the Connecticut River Scenic Farm Byway) and the Massachusetts Transportation Enhancement Program.

Five percent (5%) of Montague's land area is within the Byway study corridor. Within Montague's portion of the Byway corridor, 54% of the land is forested, 6% is used for agriculture, and 20% consists of water and wetlands. Residential uses comprise 10% of the Byway area and commercial, industrial and transportation uses combined account for 3%. The remaining land (7%) is recreational land and other types of open space land.

Gill

The Scenic Byway travels through Gill along Route 2 (the French King Highway). Much of the Gill segment of the Byway from the French King Bridge runs close to the Connecticut River and provides excellent river views. The milewide Byway corridor includes forestland near Stacy Mountain, the Barton Cove Recreation Area, the Riverside neighborhood near the Gill-Montague Bridge, and homes and small businesses along Rte 2.

The Town of Gill is 9,478 acres in size, and Gill's current population is approximately 1,400 residents (U.S. Census Bureau, 2005). There is scattered singlehome residential development throughout the town. The three main areas with developed land uses are Gill Center, the Riverside neighborhood, and Northfield Mount Hermon School's Gill campus. The residential area of Riverside is located within the Byway corridor, between the Connecticut River and Route 2 near the Gill-Montague Bridge that leads to Turners Falls. Gill Center, the town's primary village area and the Northfield Mount Hermon School (NMH) campus are located to the north of the Byway corridor on Main Road. NMH is the largest employer in the town with an estimated total 340 staff and faculty members (2007, NMH).

Gill's Community Development Plan (2004) included a parcel-level analysis to identify undeveloped and underutilized properties that could support additional commercial development near the Route 2-Main Road intersection. The parcel-level analysis was initiated by the Town of Gill to examine options for diversifying the town's tax base and promoting additional commercial activity in this area. This area of Gill serves as the primary gateway to Route 2, and to Turners Falls via the Gill-Montague Bridge. The analysis found two vacant parcels that had the best potential for new development and fourteen other parcels with the best potential for redevelopment. Following up on this analysis in 2006, the Town approved the creation of a new village district for this area, in order to encourage commercial de-

Table 7-7: Acreages for Different Land Uses, Gill

Land Use Type	Acres in Byway Corridor*	Percentage of Byway Corridor*	Acres in Town	Percentage of Town
Forest	1,005	57%	5,558	58%
Agriculture	73	4%	1,876	20%
Water and Wetlands	326	18%	756	8%
Residential	259	15%	833	9%
Commercial	12	>1%	20	>1%
Industrial & Transportation	9	1%	17	>1%
Other Open Space & Recreation	84	5%	419	4%
Total Acreage	1,767	100%	9,478	100%

^{*}Byway corridor is defined as including ½ mile on each side of the Mohawk Trail (Route 2/2A), from Athol (eastern Route 2/2A intersection) to Greenfield (Route 2 and Interstate-91 intersection). See Byway Base Map for more details.

Totals may not add to 100% due to rounding.

Source: FRCOG compilation of 1999 MassGIS land use data.

velopment in the district over other locations in town, and to help preserve rural areas and the scenic character of the Mohawk Trail. The village district is largely within the Scenic Byway corridor. Commercial development of a large vacant land parcel within the village district is now under consideration; the early parcel-level analysis had found this parcel had great potential for new growth.

An estimated 19% of the Town of Gill is within the Scenic Byway study area. Within Gill's section of Byway corridor, 57% of the area is forestland, 4% is farmland, and 18% consists of water and wetlands. Fifteen percent (15%) of the Byway area has residential land uses, 5% has recreational uses or other open space, and the remaining 1% contains commercial, industrial, and transportation uses.

Greenfield

Greenfield's portion of the Mohawk Trail East Scenic Byway travels on the French King Highway (partially on Route 2 and partially on Route 2A), and includes commercial businesses and historic residential neighborhoods along Route 2A through the center of downtown Greenfield. The study area for this Corridor Management Plan ends at the rotary at the intersection of Route 2A and Interstate 91/Route 2, where Route 2A ends and the western section of the Mohawk Trail Scenic Byway begins. (Corridor Management Plan completed in 2002.)

Greenfield is the largest population and economic center in Franklin County and along the eastern section of Mohawk Trail Scenic Byway. Greenfield's population is estimated at 17,385 (2005). Residential land uses in Greenfield are concentrated in and near the downtown and between Route 2/Interstate 91 and Route 2A.

Most of the town's retail and commercial activity is located in and near the downtown area and

Table 7-8: Acreages for Different Land Uses, Greenfield

Land Use Type	Acres in Byway Corridor*	Percentage of Byway Corridor*	Acres in Town	Percentage of Town
Forest	980	34%	6,721	48%
Agriculture	55	2%	1,936	14%
Water and Wetlands	127	4%	312	2%
Residential	985	34%	2,826	20%
Commercial	256	9%	325	2%
Industrial & Transportation	242	8%	689	5%
Other Open Space & Recreation	277	9%	1,228	9%
Total Acreage	2,922	100%	14,036	100%

^{*}Byway corridor is defined as including ½ mile on each side of the Mohawk Trail (Route 2/2A), from Athol (eastern Route 2/2A intersection) to Greenfield (Route 2 and Interstate-91 intersection). See Byway Base Map for more details.

Totals may not add to 100% due to rounding.

Source: FRCOG compilation of 1999 MassGIS land use data.

the roads leading to and from it. The town's industrial park is located northeast of downtown. A new shopping center has been proposed for an undeveloped site near the industrial park. Both the industrial park and shopping center site are within the Scenic Byway corridor.

Greenfield's current employment base stands at 10,235 work-Manufacturing and ers (2005). construction together account for 9% of the total employment base, and service-related jobs comprise 91% of the employment, with an estimated 650 service industry employers in town. The main sectors of services employment are education and health services (30% of the total employment base) and trade, transportation, and utilities (20%). Greenfield's largest employers are the Baystate Franklin Medical Center (with 500 to 999 workers), Gentiva Health Services, Big Y Supermarket, and the Greenfield Public Schools (each with 250 to 499 workers).

these employers are located within the Byway corridor.

Greenfield has a total area of 14,036 acres. Approximately one-fifth (21% or 2,922 acres) lies within the Scenic Byway study area. The dominant land uses within Greenfield's portion of the Byway corridor are forestland (34%) and residential uses (34%). The remaining land contains commercial uses (9% of the total), industrial and transportation uses (8%), recreational uses and other open space (9%), water and wetlands (4%), and agricultural land (2%).

Land Use Changes for the Entire Byway

From 1971 to 1999

The land use changes along the Scenic Byway between 1971 and 1999 illustrate the development trends along the corridor during this time frame. Between 1971 and 1999, the greatest change within the Byway corridor was the

increase in residential land, of 440 acres (30%) (Table 7-9). During the same time frame, commercial land increased by 87 acres (18%), as did industrial and transportation land which increase by 142 acres (19%). The other open space and recreation category increased by 79 acres (10%) and the water and wetlands category increased 17 acres (+2). The largest losses were forestland, which decreased by 590 acres (-5%), and agricultural land use, which fell by 172 acres (-23%).

Between 1971 and 1999, each of the towns in the Scenic Byway study area had land use changes that mirrored the general trends. All seven of the towns saw a decrease in forestland and agricultural land, and an increase in residential land. Within the mile-wide Byway corridor, the greatest changes occurred in the eastern part of the Byway, in Athol and Orange. In Athol's part of the Byway corridor, between 1971 and 1999, residential land increased by 84 acres (10%), commercial land

grew by 7 acres (5%), and forestland fell by 44 acres (-3%). In Orange's section of the Byway study area, residential land grew by 138 acres (21%) and forestland decreased by 224 acres (11%).

Since 1999

Limited data is available for land use changes since 1999. The limited information that is available makes it clear that the towns along the Mohawk Trail East Scenic Byway have continued to experience residential growth since 1999. Building permit data obtained from the towns and through the U.S. Census Bureau web site (shown in Table 7-11) indicates that from 2000 to 2005 each town within the Byway study area experienced an increase in their housing supply of between 1% and 10%. The largest number of new housing units were in Athol (255 new units) and Orange (195). The greatest percentage growth was in Erving, where the housing stock expanded by 10%.

Table 7-9: Land Use Changes For the Entire Byway Corridor*, 1971-1999

Land Use Type	Acres Change in Byway Corridor	Percentage Change in Byway Corridor
Forest	-590	-5%
Agriculture	-172	-23%
Water and Wetlands	17	2%
Residential	440	30%
Commercial	87	18%
Industrial & Transportation**	142	60%
Other Open Space & Recreation***	79	19%

^{*}Byway corridor is defined as including ½ mile on each side of the Mohawk Trail (Route 2/2A), from Athol (eastern Route 2/2A intersection) to Greenfield (Route 2, Route 2A and Interstate-91 intersection). See Byway Base Map for more details. The information in this table was compiled using the best data that was available.

Source: FRCOG compilation of 1999 MassGIS land use data.

^{**} Industrial & Transportation includes land with industrial uses, landfills, waste disposal, and mining.

^{***}Other Open Space & Recreation includes abandoned agriculture; areas of no vegetation; areas under power lines; parks; cemeteries; public and institutional green-spaces and buildings; vacant undeveloped land in urbanized areas; and areas with participant, spectator, or water-based recreation (such as playgrounds, golf courses, tennis courts, beaches, swimming pools, marinas, fairgrounds, race tracks, and stadiums).

Table 7-10: Land Use Changes by Community, within the Byway Corridor & Overall, 1971-1999

Town	Land Use Type	Acreage Change in Byway Corridor	Percentage Change in Byway Corridor	Acreage Change in Town	Percentage Change in Town
Athol	Forest	-44	-3%	-536	-3%
	Agriculture	-33	-20%	-221	-26%
	Water and Wetlands	-7	-4%	-5	0%
	Residential	84	10%	656	36%
	Commercial	7	5%	7	5%
	Industrial & Transportation	6	6%	3	3%
	Other Open Space & Recreation	-13	-8%	119	23%
Orange	Forest	-224	-11%	-1,285	-7%
	Agriculture	-86	-43%	-95	-6%
	Water and Wetlands	58	47%	336	38%
	Residential	138	21%	637	41%
	Commercial	29	40%	34	39%
	Industrial & Transportation	11	8%	76	14%
	Other Open Space & Recreation	78	96%	296	85%
Erving	Forest	-119	-4%	-155	-2%
	Agriculture	-23	-42%	-34	-18%
	Water and Wetlands	3	3%	243	164%
	Residential	127	50%	167	45%
	Commercial	0	0%	0	0%
	Industrial & Transportation	33	32%	38	36%
	Other Open Space & Recreation	-22	-15%	-259	-37%
Wendell	Forest	-30	-2%	-387	-2%
	Agriculture	-7	-26%	-83	-22%
	Water and Wetlands	-26	-25%	97	20%
	Residential	27	91%	243	77%
	Commercial	5		1	
	Industrial & Transportation	27	248%	30	85%
	Other Open Space & Recreation	4	10%	98	36%

Table 7-10: Land Use Changes by Community, within the Byway Corridor & Overall, 1971-1999

Town	Land Use Type	Acreage Change in Byway Corridor	Percentage Change in Byway Corridor	Acreage Change in Town	Percentage Change in Town
Montague	Forest	-25	-4%	-375	-3%
	Agriculture	-4	-6%	-354	-17%
	Water and Wetlands	0	0%	0	0%
	Residential	7	7%	376	27%
	Commercial	-2	-8%	16	24%
	Industrial & Transportation	2	13%	45	19%
	Other Open Space & Recreation	21	41%	292	30%
Gill	Forest	-63	-6%	-330	-6%
	Agriculture	-11	-13%	-84	-4%
	Water and Wetlands	0	0%	46	6%
	Residential	58	29%	317	61%
	Commercial	5	72%	13	192%
	Industrial & Transportation	4	78%	5	40%
	Other Open Space & Recreation	7	9%	33	8%
Greenfield	Forest	-85	-8%	-349	-5%
	Agriculture	-8	-13%	-499	-20%
	Water and Wetlands	-12	-8%	-13	-4%
	Residential	-1	0%	430	18%
	Commercial	43	20%	70	28%
	Industrial & Transportation	59	32%	138	25%
	Other Open Space & Recreation	4	2%	224	22%

^{*}Byway corridor is defined as including ½ mile on each side of the Mohawk Trail (Route 2/2A), from Athol (eastern Route 2/2A intersection) to Greenfield (Route 2, Route 2A and Interstate-91 intersection). See Byway Base Map for more details. The information in this table was compiled using the best data that was available.

Protected Open Space

Since 1999 there has been an increase in protected open space within the Byway study area. The protection of important scenic, natural and/or historic landscapes preserves and enhances the Byway corridor. Permanently protected land is sometimes referred to as Chapter 97 land, in reference to the section of the Massachusetts General Law which contains the state's statue that allows for the permanent protection of land for conservation purposes. Land is permanently protected when it is

owned by the Commonwealth of Massachusetts and managed by a state conservation agency, such as the Department of Conservation and Recreation (DCR). Land is also considered permanently protected when it is owned by a town and is under the authority of the Conservation Commission, or when it is owned by a land trust for conservation purposes. Land acquired by a public agency for the purpose of water supply protection may also be permanently protected if a conservation restriction has been placed on the water supply recharge area.

The Massachusetts Agricultural Preservation (APR) Program

^{**}Figures for Athol are preliminary and are in the process of being updated. Revised figures will appear in the next draft. Source: FRCOG compilation of 1971 and 1999 MassGIS land use data.

Table 7-11: New Residential Construction in Communities along the Scenic Byway, 2000-2005

Community	Housing Units (2000 U.S. Census)	Number of Housing Units Authorized through Building Permits 2000-2005	Housing Growth (%)
Athol	4,824	255	5.3%
Orange	3,303	195	5.9%
Erving	630	64	10.1%
Wendell	439	32	7.3%
Montague	3,844	93	2.4%
Gill	560	27	4.8%
Greenfield	8,301	83	1.0%
Total	21,901	754	3.4%

Sources: Franklin Cooperative Construction Inspection Program, town building inspectors, town annual reports, and U.S Census Bureau.

is a tool for permanently protecting actively farmed land that meets the requirements of the program. The APR program is administered by the Massachusetts Department of Agricultural Resources (DAR). The program provides funding to purchase the development rights of prime farmland in order to keep it in agricultural use permanently.

In addition, a conservation restriction (referred to as a CR) can be executed to permanently protect land while still remaining in private ownership. A CR is a legally binding agreement between a landowner and the CR holder, which is usually a public agency or a private land trust, whereby the landowner agrees to not develop the land in order to protect certain conservation values. The conservation restriction may run for a period of years or in perpetuity, and is recorded at the applicable Registry of Deeds. All permanent conservation restrictions must be approved by the Massachusetts Executive Office of Energy and

Environmental Affairs (EOEEA).

Once a parcel of land is permanently protected for land conservation purposes, the only way to remove this restriction is by a twothirds vote of the Massachusetts State Legislature. The State Legislature has on occasions voted at the request of local communities to release land from permanent protection status, so that conservation land can be used for schools. roads, economic development, or other public projects not related to resource protection. Reforms have been proposed at the State level to make this process more difficult.

Land that is enrolled in the Massachusetts Chapter 61 tax abatement programs (Mass General Law, Chapter 61) and land with limited term conservation restrictions are considered to be temporarily protected from development. Eligible landowners who enroll in the Chapter 61 program get a reduction in their local property taxes in return for maintaining land in productive forestry, agri-

cultural or recreational use for a The certain period of time. Chapter 61 program provides many public benefits, including maintaining wildlife habitat, recreational open space and sustaining rural character. The program also provides the towns with an opportunity to permanently protect the lands that are enrolled. When land that is currently enrolled in the Chapter 61 program is being put up for sale and converted to a use that would make it ineligible to participate in the Chapter 61 programs, there is a 120-day waiting period during which time the town where the land is located may exercise its right of first refusal to purchase the property at fair market value and preserve it permanently. A principal challenge for towns in exercising the right of first refusal is raising the funds to purchase the parcel at fair market value within a short time frame. Towns can assign their right of first refusal to a land conservation organization, which may have more capital available.

Table 7-12 lists the amount of permanently and temporarily protected land within the Byway corridor and Table 7-13 details the acreage of protected land in the towns along the Byway. The figures in the tables are based on Open Space data from MassGIS. MassGIS's Open Space data is regularly updated using information provided by the EOEEA, DAR, and land trusts.

As indicated in the table, of the 17,735 acres within the Byway study area, 15% (2,765 acres) is permanently protected. The towns with the greatest percentage of protected open space within the Byway study corridor are Wendell and Erving, where 51% and 17%,

respectively, of the towns' Byway study area is permanently protected. Many of the scenic views seen along the Erving section of the Byway include permanently protected land in the Erving and Wendell State Forests. An estimated 4% of the Byway corridor has temporary protection status through the Chapter 61 Programs. Wendell, Gill and Orange have the highest percentages of Chapter 61 land within the Byway corridor, while Athol and Montague have no Chapter 61 land within the corridor.

Generally, for all of the towns, much of the land which is protected or temporarily protected from development lies outside of the Scenic Byway study area. This reflects the historic development patterns and land use activities along the Mohawk Trail. Overall, for the seven communities along the Mohawk Trail East combined, 28% of the land is permanently protected, and 10% has temporary protection. The protection of land outside of the corridor can enhance the Byway and help preserve the Byway's scenic views. This is true especially in areas, such as through the hilly sections of Erving, where the vistas along the Byway are long-range and extend beyond the mile-wide Byway corridor.

As mentioned earlier, all of the towns along the Mohawk Trail East Scenic Byway have prepared Open Space and Recreation Plans in the past six years. Each of the Open Space Plans includes recommendations to prioritize future land protection activities, such as the acquisition of Chapter 61 lands and the permanent protection of unprotected but important open space parcels, and purchase of development rights from willing

Table 7-12: Protected Open Space Acres within the Byway Corridor*, by Community, 2007

Community	Athol	Orange	Erving	Wendell	Montague	Gill	Greenfield	Total
Acreage within the Scenic Byway	3,330	3,364	3,559	1,849	1,084	1,767	2,922	17,875
Study Area								
Level of Protection (acreage)								
Land with Permanent Protection								
(Chapter 97)	367	381	605	952	141	210	109	2,765
Land with Temporary Protection								
(Chapter 61)	0	196	27	200	0	299	8	730
Percentage of Byway Acreage in								
the town that is Permanently Pro-								
tected	11.0%	11.3%	17.0%	51.5%	13.0%	11.9%	3.7%	15.5%
Percentage of Byway Acreage in the town that is Temporarily Pro-								
tected	0.0%	5.8%	0.8%	10.8%	0.0%	16.9%	0.3%	4.1%

^{*}Byway corridor is defined as including ½ mile on each side of the Mohawk Trail (Route 2/2A), from Athol (eastern Route 2/2A intersection) to Greenfield (Route 2 and Interstate-91 intersection). See Byway Base Map for more details.

Note: Some of the figures for Greenfield are currently blank because they are in the process of being updated.

Source: FRCOG compilation of MassGIS open space data, with updates by FRCOG staff.

Table 7-13: Protected Open Space Acres in the Communities along the Scenic Byway, 2006

Town	Athol	Orange	Erving	Wendell	Montague	Cill	Greenfield	Total
Acreage within Community	21,355	23,044	9,194	20,615	20,109	9,478	14,036	117,832
Level of Protection (acreage)								
Land with Permanent Protection	4,775	5,770	2,784	11,004	6,937	882	1,450	33,602
Land with Temporary Protection	260	2,193	54	2,988	2,253	2,781	1,138	11,967
Percentage of Byway acreage that	22.4%	25.0%	30.3%	53.3%	34.5%	9.3%	10.3%	27.7%
Percentage of Byway acreage that	2.6%	9.5%	%9.0	14.5%	11.2%	29.3%	8.1%	10.2%

Source: FRCOG compilation of MassGIS open space data, with updates by FRCOG GIS staff, 2007.

landowners. Funding for the permanent protection of important scenic or natural resources (such as a purchase of a Conservation Restriction from a willing landowner) along a byway is one of the eligible funding categories under the Federal Scenic Byway Program.

Since 2000, there has been new attention focused on protection of forestland and farmland in the region through land trusts and other initiatives. Much of the focus has been in the North Ouabbin region, which includes the towns of Athol, Orange, Erving, and Wendell, as well as five other towns (New Salem, Petersham, Phillipston, Royalston, and Warwick). In 2000, the **Executive Office of Environmental** Affairs (now the Executive Office of Energy and Environmental Affairs or EOEEA) launched the Tully Valley Private Forest Lands Initiative, a three-year land protection effort. The primary goal of the Tully Initiative was to protect lands within the Tully Watershed that were especially vulnerable to sprawling residential development patterns, and in doing so, to prevent the fragmentation of contiguous forestland areas and to help protect the region's biodiversity and economic viability of sustainable forestry activities. The Mount Grace Land Conservation Trust was the lead agency for the initiative and partnered with EOEA in negotiating the purchase of conservation restrictions for unprotected open space parcels. Massachusetts Department of Conservation and Recreation, the Department of Fish and Game, the New England Forestry Foundation, and the Trustees of Reservations were also important participants.

By the time of its completion in 2003, the Tully Initiative had resulted in the permanent protection of more than 9,100 acres of forestland in the north-central Massachusetts region, including acreage in Athol and Orange. Between 2001 and 2006, through the Tully Initiative and other land protection efforts, the amount of permanently protected land in Athol increased by 1,000 acres and the amount of permanently protected land in Orange increased by 3,000 acres.

There have also been a number of initiatives in the region to promote farming and forestry and associated businesses. These initiatives are seen as a way to support the preservation of farmland and forestland, to protect these lands from development, and to encourage the agricultural and forestry sectors of the economy. Each of the Master Plans and Community Development Plans created for the towns along the Scenic Byway include recommendations to encourage farming and forestry. In the past few years, five of the Byway towns (all except Athol and Erving) have created Agricultural Commissions, and Orange has also adopted a right-to-farm bylaw, to promote local farming activities. In addition, Community Involved with Supporting Agriculture (CISA), a non-profit organization based in Deerfield, has a regional "Buy Local" campaign to support local farms and promote local farm products. Local agricultural products are sold at farm stands, farmers' markets, and in local stores. Another important initiative is the North Quabbin Woods project, coordinated by the New England Forestry Foundation (NEFF). The main goals of the North Quabbin Woods project are: to encourage land protection and stewardship; to improve the regional economy by promoting the sustainable use of timber and non-timber forest resources; to develop a marketing strategy for forest-based tourism, and to build community awareness of and input on forestry issues.

Zoning along the Scenic Byway

The future pattern of development along the Mohawk Trail East Scenic Byway will be greatly influenced by zoning and by the nature of the land available for development. The zoning along the Byway differs from town to town. The zoning for the Byway communities is summarized in this section. The focus of the discussion is on the zoning within the Byway corridor study area and how it benefits and protects the Byway's character. Comprehensive information on the zoning within the towns along the Byway can be found by referencing the towns' zoning bylaws. All of the towns along the Scenic Byway have Community Development Plans and a number have also prepared comprehensive Master Plans. Each of these plans includes zoning-related recommendations that can help preserve and enhance the Byway.

Enacted Zoning Measures

Table 7-14 provides a brief summary of zoning measures that the communities along the Scenic Byway have enacted to protect important resources and encourage development at appropriate

locations in town and at an appropriate scale. Key measures are described below in this section. More details on the zoning within the Scenic Byway corridor are provided under the zoning discussion for each town.

Village Center Zoning

With village center zoning, towns establish zoning districts that have different allowable densities and allowed land uses. The different districts are generally designed to encourage future growth and development in village center areas over more rural areas of town, and to help preserve rural character, farmland, forestland, and natural resource areas. The village zones typically allow a mix of residential, commercial and sometimes light industrial uses, and have the best infrastructure for new development. The village zones can be established in historic town and village centers or can be created in less developed areas that are considered to have best potential for new growth.

Open Space Residential Development

Open Space Residential Developments (OSRD), also known as conservation subdivisions, are a type of development in which homes are built on smaller than regular lots in exchange for a significant portion of the remaining area being set-aside as protected open space. The overall density of an OSRD project is typically the same as the density in a standard subdivision. However, the clustering of homes helps preserve open space and natural resources and encourages a less sprawling pattern of development. The grouping of homes also promotes efficient provision of

water and sewer services and the efficient creation of new roads to serve the homes. This often lowers the development costs for the project, which can result in less expensive housing units. The preserved open space in an OSRD is used for passive recreation and/or conservation purposes. Often the protected open space remains under the ownership of the homeowners with a conservation restriction placed on the land, though sometimes a municipality or land trust will take ownership of the open space.

Back Lot Development with Open Space Set Aside

Back lot development zoning is designed to help preserve quality farmland and forestland and reduce the level of Approval-Not-Required (ANR) development along rural roadways. The main purpose of back lot zoning is to allow the owners of important agricultural land, forestland, or habitat areas to transfer their development rights from important open space parcels that have roadway frontage, to land without frontage or land with less than the required frontage that is not valuable for farming, forestry, or habitat preservation purposes. The land that fronts of the roadway can then be protected from development through a conservation restriction.

Flag Lots (sometimes called Backlots)

Flag lots encourage infill development in areas that already have residential and/or commercial land uses and in areas with public water and waste disposal infrastructure. Flag lots have less than the generally required roadway frontage. The part of the lot being used for

development lies behind current homes or businesses and is reached via an access strip off the roadway. By allowing infill growth, a flag lot zoning provision can reduce the development pressures on undeveloped land elsewhere in the community.

Accessory Apartments

An accessory apartment zoning provision is another way to promote infill development, and also helps preserve older larger homes, including those in historic residential neighborhoods and village cen-Accessory apartments are ters. secondary housing units that are added within an existing home, typically with little or no change to the external building structure. Accessory apartments offer homeowners who have difficulty affording their home and who do not need all their current housing space, a financial way to remain in their homes. They also offer an affordable housing option for residents with low or fixed incomes, including relatives of the family residing in the primary house.

Site Plan Review

Site Plan Review is a process for reviewing development plans and site conditions for development projects. Site Plan Review is intended to ensure that significant development projects will be completed in a manner that minimizes impacts to community character and nearby properties. According to Site Plan Review, the assigned municipal board (typically the Planning Board) reviews plans based on guidelines that have been established to ensure that the project will be designed in a way that it best fits the site and larger community. The reviewing board

Table 7-14: Zoning Summary for the Communities within the Scenic Byway Corridor

	Athol	Orange	Erving	Wendell	Montague	Gill	Greenfield
Number of Zoning Districts Total (not including overlay districts)	7	5	4	1	14	4	11
Number of Zoning Districts in the Byway corridor	7	5	4	1	7	4	11
Village zoning district(s) with higher densities and/or more allowed uses to promote development in the district(s)	Yes	Yes	Yes	No	Yes	Yes	Yes
Open Space Residential Development (also known as a Conservation Subdivision) provision	Yes, by special permit	Yes, by right with Site Plan Review	Yes, by special permit	Yes, by special permit	No	Yes, by right with Site Plan Review	Yes, by right with Site Plan Review
Back Lot allowed	No	No	No	Yes, with Site Plan Review	Yes, by special permit	No	No
Flag Lot allowed	Yes, by special permit	Yes	No	No	No	Yes**	Yes, by special permit
Accessory Apartment allowed	Yes, by right	Yes, by right	Yes	No*	Yes, by special permit	Yes, by right	No
Site Plan Review	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Types of Overlay Districts in the Byway Corridor	Major Commercial Floodplain Groundwater Protection	Floodplain Water Supply Protection	Groundwater Protection Wireless Commun- ications	None	Floodplain Water Supply Protection	Floodplain	Scenic Corridor Planned Development Adult Businesses Floodplain

^{*} Wendell has an Accessory Dwelling provision for secondary dwellings that are detached from the main home; secondary dwellings are allowed by special permit.

^{**}Gill requires commercial and mixed use development on flag lots to undergo Site Plan Review; Site Plan Review is not required for residential Flag Lot development.

Source: Local zoning bylaws, current as of October 2007.

evaluates development proposals using these established criteria and can request changes to modify a project before granting approval. Site Plan Review can be a part of a town's review of significant projects that are allowed by-right under the zoning bylaws, or part of the review of projects that are allowed through the special permit process.

Overlay Districts

Overlay districts are typically created over primary zoning districts to help protect an important resource that appears within the overlay area, such as an aquifer, a floodplain, sensitive wildlife habitat, farmland, forestland, or scenic views. They can also be used to encourage residential or economic growth. Land uses within the overlay zone must meet the regulations of both the overlay district and the underlying zoning district.

Approval Not Required (ANR) Development

Approval Not Required (ANR) development is allowed throughout Massachusetts and is regulated under the Massachusetts Subdivision Control Law (Massachusetts General Law, Chapter 41, Section 81-K through 81-GG). Under the Subdivision Control Law, land along a public way can be legally subdivided using an ANR plan without needing Planning Board approval for the subdivision, if it meets certain basic requirements. ANR development often leads to spread out development along a town's roads and can fragment the landscape and negatively impact the quality of forestland, farmland, wildlife habitats, watersheds, and recreational opportunities within a There have been community.

some legislative proposals at the State level to reform the Zoning Act to change the ANR provisions to better enable communities to direct their residential growth.

Zoning

The towns along the Mohawk Trail East Scenic Byway vary significantly in terms of how complex their zoning is and how many zoning districts they have. At one end of the spectrum are Greenfield and Montague, which have 11 and 14 zoning districts, respectively; at the other end is Wendell, which has one zoning district that covers the whole town.

In general, the towns have a mix of residential, residential/commercial/industrial, and village zones. A map showing generalized zoning districts in the towns along the Mohawk Trail East Scenic Byway is provided at the back of this chapter. As indicated on the map, most of the zoning districts in each community fall within the Scenic Byway study area; this reflects the significance of Route 2/Route 2A as a development and transportation corridor.

The village districts in each town tend to be located in the historic town centers; Gill is the only town with a village zone outside of its town center. Gill's village district is located along Route 2 in an area with a lot of development pressure and is adjacent to a dense residential neighborhood. The village districts in each town allow a mix of residential, commercial, and mixed-use buildings. Some small commercial uses, such as neighborhood stores and professional and businesses offices, are usually allowed in these districts by right. Other larger commercial

and some industrial uses are allowed with the granting of a special permit. The village districts often the highest development densities as well, since they are the most likely to be have public sewer and/or water services.

Each town, except Wendell, has multiple residential zoning districts. The allowable density and intensity of residential uses in these districts vary by what is most appropriate for each district's location. The residential districts in and near the village centers generally have the highest allowable densities with minimum lot sizes for a single-family home often a quarter-acre or smaller. Residential districts in outlying rural areas tend to have the lowest allowable density. Each of the Byway towns has a rural residential district with a large minimum lot size. In rural residential zones, the minimum lot size for a single-family home varies by town: one acre (Athol and Greenfield), two acres (Erving, Gill, Orange), three acres (Wendell) and four acres (Montague). Some of the rural residential districts are referred to as "residential/ agriculture" "residential/forestry" "agriculture/forestry" districts to reflect their goal of helping preserve farms and forestland by limiting the intensity of development in these areas. In each of the towns along the Scenic Byway, the largest zoning district by area is the rural residential district. For each town, the rural residential district ranges from an estimated 50% of the land area in town (Montague and Greenfield) to 100% (Wendell).

A few of the larger towns along the Scenic Byway, such as Montague and Greenfield, have

commercial/industrial zones where the towns explicitly encourage commercial and/or industrial activities and discourage residential development. These commercial/industrial zones are the most likely districts to allow light industrial or industrial uses such as warehouses, motor vehicle sales and service, and manufacturing.

Under State l a w (Massachusetts General Laws, Chapter 40A, Section 3), there are certain agricultural, religious, educational uses that must be allowed by right in all zoning districts. Single family homes and child care facilities must also be allowed by right. Aside from these uses, the other uses allowed in each zoning district are determined by each town. Changes to zoning bylaws require a two-thirds vote of approval by Town Meeting, or for Greenfield, approval by the City Council.

The sections below discuss the zoning in each town along the Scenic Byway. The discussion focuses on the zoning regulations that apply within the Byway corridor and which may impact developed land uses, open space, and forestland in the corridor area.

Athol

Athol has seven zoning districts, all of which are represented in the town's portion of the Mohawk Trail East Scenic Byway corridor and abut Route 2A. The zoning districts and their lot size and frontage requirements are summarized in Table 7-15. Within the Byway corridor, no single zoning district is dominant. For the town overall, the main district is the Rural Single-Family Residential District, which covers an estimated 90% of the town.

Table 7-15: Zoning Districts within the Athol Section of the Byway Study Area

		Minin	num Stand	ards		
	Lot Size, total or for first housing unit (sq ft)	Area for each addi- tional housing unit (sq ft)	Lot Front- age (ft)	Front Yard c (ft)	Side Yard c (ft)	Rear Yard (ft)
Multi-Family Residential (RA)	8,000	4,000	65	25	10	30
Medium Single-Family Residential (RB)	10,000		70	25	15	30
Rural Single-Family Residential (RC)	44,000	10,000	160	30	20	30
Central Commercial (CA)	0**		0	0	0	15
Neighborhood Commercial (CB)	10,000	2,000	115	25	0	15
General (G)	10,000	2,000	75	O ^a	0 ^{a,b}	15
Industrial (I)	40,000		200	40	30	30

^{* 44,000} square feet equal 1.01 acres; 10,000 square feet equal 0.23 acres.

Athol has village zoning in the center of the downtown and a mix of residential and commercial districts elsewhere along Route 2A. An industrial district was created in 2006 at the eastern end of the The district is ap-Byway. proximately 400 acres in size. Templeton Road (Route 2A) is to the north, Route 2 is to the south, and Petersham Road is to the west. The district is the site of the proposed North Ouabbin Business Park, which is currently in the planning stages and looking for tenants. Athol has created an overlav district, the Major Commercial Overlay District, for the North Quabbin Business Park site to promote development there.

Since the completion of the Athol's Master Plan and the Community Development Plan, the Town has implemented a number

of the Plans' zoning recommendations. The creation of an industrial zoning district was one recommendation. Also recommended was the passage of zoning changes to allow open space residential developments, homes on flag lots, and accessory apartments. All of these were approved in 2006. Another adopted recommendation was the creation of a Site Plan Review process. Site Plan Review is now required for all non-residential buildings, structures, and parking lots.

Orange

Orange has six zoning districts, all of which are represented within Orange's section of the Scenic Byway corridor (Table 7-16). The districts have different minimum lot size requirements in areas with

^{**}In Montague the "Central Commercial" district does not have a minimum lot size requirement. The size of a structure is regulated by the maximum lot coverage requirement which is 50%.

a. Permitted residential uses must comply with the setback regulations for the RA District.

b. Increase to 15 feet when abutting a residential district.

c. Corner lot shall maintain front yard requirements for each street frontage.

Table 7-16: Zoning Districts within the Orange Section of the Byway Study Area

		Mini	mum Standa	rds		
	Lot Size, total or for first housing unit (sq ft)*	Area for each additional housing unit (sq ft)	Lot Frontage (ft)	Front Yard (ft)	Side Yard (ft) ^a	Rear Yard (ft)
Village Residential/Commercial (AC) and Village Residential (AR)	10,000 with sewer; 21,780 without sewer	10,000 with sewer; 20,000 without sewer	50	20	10	15
Commercial Area Revitalization District (CARD)	5,000	5,000	50	20	10	15
Residential/Commercial (B)	21,780 with sewer; 43,560 without sewer	20,000 with sewer; 40,000 without sewer	100	20	10	15
Residential (C)	43,560	20,000 with sewer; 40,000 without sewer	100	35	15	25
Rural Residential (D)	87,120	40,000 with sewer ^b ; 80,000 without sewer	200	35	20	35

^{* 21,780} square feet equals a half-acre; 43,560 square feet equals one acre; 87,120 square feet equal two acres.

Source: Town of Orange Zoning Bylaw, May 2006.

and without public sewer service. The primary zoning district within the Byway study area is a village zone, which runs along Route 2A and extends from the downtown east to the Orange-Athol town line. Along Route 2 and 2A west of downtown are residential districts of different densities. Overall, the largest zoning district in Orange is the rural residential district, which covers an estimated 75% of the town.

In the center of downtown and within the Byway corridor, there is a village district known as the Commercial Area Redevelopment District (also referred to as the CARD district). The CARD district is approximately 10 blocks in

size, and was created to encourage high-density development and redevelopment in downtown. Within the CARD district: there are no onsite parking requirements; buildings can occupy 100% of a lot area and can be up to five stories in height; and large multi-family homes are allowed by right. The CARD district is the only zoning district in Orange with complete sewer access.

Orange has a residential/commercial zoning district (known as the B District), a small portion of which lies in the Scenic Byway corridor. The district is in the western half of the town and runs from the Byway corridor south to the Orange-New Salem

a. Wider side yards are required for multi-family dwellings with more than 4 housing units.

b. There are currently no parts of the Rural Residential District that have sewer access.

town line. The district includes the Orange Municipal Airport and the town's two industrial parks. In the B District and in the town's village districts, including the CARD district, a number of commercial uses are allowed by right, such as inns/hotels, bed and breakfasts, boarding houses, restaurants. Other small retail and commercial offices (of 2,000 square feet or less) are allowed by right if they can meet performance standards regarding parking, noise, lighting, and screening for adjacent properties. Larger retail and commercial offices (up to 5,000 square feet) and light industrial businesses (up to 10,000 square feet) are generally allowed by right if they can meet a more detailed list of performance standards regarding their impact on other properties. Businesses that cannot meet the performance standards may still be allowed by special permit.

Performance standards were added to Orange's zoning in 2006. They were created to make the zoning bylaws more flexible and to help the town attract a variety of commercial enterprises. Prior to the establishment of performance standards, more commercial and light industrial uses required special permits. The Orange Zoning Bylaw states (Section 5400) that the "performance standard section provides an alternative to the special permit process and should save applicants time and expense." The performance standards address a variety of characteristics of potential businesses that could impact nearby properties and the community overall, including traffic generation, noise, wastewater treatment, storm-water runoff, parking and loading areas, lighting, buffering from adjacent properties, and hours of operation.

The establishment of performance standards was a recommendation of the Orange Master Plan and the Community Development Plan. Other zoning recommendations of the Plans that have also been implemented in the last few years include:

- Revisions to the Open Space
 Development provisions to
 allow this type of development
 by right with Site Plan
 Review. These revisions were
 made to promote this development option and to encourage
 new construction which permanently preserves open
 space;
- Changes to allow accessory apartments and flag lots to encourage infill residential development;
- An increase in the minimum lot size in the rural residential district to two acres from one acre in order to reduce the allowable density and development pressures in the rural areas of Orange and to help these areas remain rural; and
- Revisions to the Site Plan Review guidelines to make the procedures and requirements more clear.

Erving

The Town of Erving has four zoning districts, all of which are represented in the Erving portion of the Mohawk Trail East Scenic Byway study corridor. Table 7-17 lists the zoning districts and their lot and frontage requirements. The largest district within the Byway corridor and Erving overall is the rural residential district.

Until 2005, Erving had only one zoning district. The district

Table 7-17: Zoning	Districts within	the Erving Secti	ion of the Bywa	v Study Area
	DISCIPCIO MICHILI	i the Bi thing Section	ton or the by ma	, would, it is

		Min	imum Stanc	lards		
	Lot Size, total or for first housing unit (sq ft)*	Area for each additional housing unit (sq ft)	Lot Frontage (ft)	Front Yard (ft)	Side Yard (ft)	Rear Yard (ft)
Central Village (CV)	21,780	0	125	20	10	20
Village Residential (VR)	21,780	0	125	20	10	20
French King Commercial District (C)	87,120	0	225	50	50	50
Rural Residential (RR)	87,120	0	225	100	50	50

^{* 21,780} square feet equal half an acre; 87,120 square feet equal two acres.

Source: Town of Erving Zoning Bylaw, June 2005.

had a minimum lot requirement of 20,000 to 30,000 square feet (0.46 to 0.69 acres), depending on whether there was public sewer access. New commercial and industrial development was allowed if it would be adjacent to an existing non-residential, nonagricultural use, or if it was served by public water or sewer service and had direct access to Route 63, Route 2, or Route 2A. These zoning regulations could have led to a sprawling pattern of development and resulted in increases in traffic and reductions in the scenic views within village centers and along the major roadways.

In 2005, Erving made changes to its zoning based on the recommendations of the Erving Master Plan and Community Development Plan. New zoning districts were created to support new residential and business development in the parts of town that already have the most development and to support the preservation of Erving's rural and scenic areas. With the new zoning districts, new residential growth was encouraged to locate in the Villages of Erving Center,

Farley, and Ervingside, and new commercial development was encouraged to locate in Erving Center, Ervingside, and along the Mohawk Trail between Route 63 and the French King Bridge.

Single-family homes bed and breakfasts, and agricultural, educational, and religious uses are allowed by right in all of Erving's zoning districts. Accessory apartments and two-family homes are each allowed in some districts by right and may be allowed in others with a special permit. Hotels. motels, and inns, and municipal uses may be allowed in all the zoning districts by special permit. In the residential/commercial district along the Mohawk Trail (the French King Commercial District), small professional and business offices are allowed by right, and retail stores (up to 5,000 square feet) and larger offices may be allowed by special permit. The town created this district to promote business development in this area while also ensuring that any new businesses will be compatible with the Scenic Byway.

The village districts in

Ervingside and Erving Center allow more commercial and industrial uses than any other zoning districts in Erving. By-right uses in the village districts, in addition to those listed earlier, include retail stores under 5,000 square feet. Uses allowed by special permit include multi-family dwellings, retail stores over 5,000 square feet, and some light industrial uses such as manufacturing, warehousing, gasoline stations and repair garages, and laundromats.

Erving has two overlay districts within the Scenic Byway corridor, the Groundwater Protection Overlay District and the Wireless Communication Overlay District. The Groundwater Protection District includes sections of Ervingside in Millers Falls and an area north of Ervingside along the Route 2 (Mohawk Trail) and along Route 63 (Moore Street and Northfield Road). The purpose of the Groundwater Protection District is to protect the town's drinking water by restricting land uses that could adversely affect the town's aquifer and groundwater supplies.

The Wireless Communications District bylaw designates specific areas where wireless communications facilities may be located, in order to protect Erving's community character. The Wireless District includes two areas along the Mohawk Trail, one just west of Erving Center and the other between Ervingside and Farley. The construction of wireless infrastructure on the Mohawk Trail in the Wireless District, such as the current tower on the west side of the French King Bridge, may impact the scenic views along the Byway. Wireless Communications Facilities may be allowed by

special permit in the overlay district.

As shown in Table 7-14, Erving has adopted other zoning measures to support desired types of development and protection of natural resources. An Open Space Residential Development bylaw was adopted in 2005 to support the clustering of housing and preservation of open space. Erving has also established Site Plan Review for non-residential and non-agricultural uses and for the creation of four or more subdivision lots.

Wendell

Wendell has one zoning district, the Rural Residential and Agricultural District, which covers all of town. Building lots for single-family and two-family dwellings are required to be at least three acres in size and buildings lots for three-family dwellings must be at least four acres.

One recommendation of Wendell's Community Development Plan was to investigate whether any part of town, such as the village areas of Wendell Depot (within the Byway corridor) or Wendell Center, could be appropriate for slightly higher residential development or for a mixed-use traditional neighborhood district. This recommendation is still under consideration. It is worth noting that the current minimum threeacre lot size requirement is greater than the lot sizes of many existing homes and other buildings in village centers. This requirement can make it hard to expand the village centers and retain the same village character. A key factor that would facilitate a higher density district is the provision of public wastewater and/or water services, which is not

Table 7-18: Zoning Districts within the Montague Section of the Byway Study Area

		Min	imum Stand	lards		
	Lot Size, for first housing unit (sq ft)*	Area for each additional housing unit (sq ft)*	Lot Frontage (ft)**	Front Yard (ft)	Side Yard (ft)	Rear Yard (ft)
Agricultural-Forestry 4 (AF4)	174,240	22,500	250	25 ^a	15 ^b	30^{b}
Recreation/Education (RE)					15 ^b	30^{b}
Residential (RS)	22,500	22,500	150°	25 ^a	15 ^b	30 ^b
Central Business (CB)	10,000	5,000	75	0^{d}	0 ^e	0^{e}
General Business (GB)	22,500	22,500	0	25 ^a	0 ^e	0^{e}
Neighborhood Business (NB)	10,000	5,000	75	25 ^a	10	20
Historic Industrial (HI)				25 ^a	15 ^b	30 ^b
Industrial (I)				25 ^a	15 ^b	30 ^b
Unrestricted (UN)				25ª	15 ^b	30 ^b

^{*174,240} square feet equal four acres; 22,500 square feet equals 0.52 acres.

Source: Town of Montague Zoning Bylaw, May 2004.

likely for Wendell Depot at the current time, or perhaps shared septic systems.

Wendell's zoning bylaws allow only a few uses by right: single-family and two-family dwellings, bed and breakfasts, home occupations, and educational, religious, and agricultural uses. Uses that may be allowed by special permit include three-unit dwellings, accessory dwellings, small retail stores, small professional offices, and commercial and light industrial businesses.

As indicated in Table 7-14, Wendell allows open space residential developments by special permit, and back lot residential development by right with Planning Board review of a Back Lot Site Plan. There is no requirement that the land in front of the back lot be permanently protected from future development. The Conservation Development and Back Lot zoning provisions are designed to promote the efficient use of land and to help preserve forestland and wildlife habitats. Wendell's zoning also includes a Site Plan Review process for the construction or alteration of commercial, industrial, and municipal facilities.

^{**}Montague's zoning does not specify the minimum lot size or frontage for commercial or industrial uses. The minimums listed in commercial and industrial zones are for residential homes.

a. No building need provide a street line setback greater than that of the principal buildings on 3 out of 4 adjoining properties.

b. Setback listed is for principal building, setback is less for accessory buildings.

c. Lot frontage listed is for single-family homes; two-family homes require 200 feet frontage, and multi-family homes require 300 feet.

d. In the CB district, where sidewalks exist, the front yard setback shall be the edge of sidewalk away from the street line. Where no sidewalk exists, the front yard setback shall be no more than 10 feet.

e. No side yard setback is required for non-residential structures in the CB and GB districts provided that there is access to the rear of the lot over a drive of at least 12 feet in width.

Montague

The Montague section of the Mohawk Trail East Scenic Byway study corridor covers portions of Turners Falls and Millers Falls and the area along the Connecticut River between the two. Montague's section of the Byway corridor is largely zoned rural residential (Agricultural-Forestry), but also includes village, commercial, industrial, denser residential zones (Table 7-18). Nine of the town's fourteen zoning districts are represented within the Scenic Byway corridor. Montague's zoning does not specify minimum lot size. frontage or lot coverage for commercial or industrial uses. These dimensional topics are regulated by site constraints and are addressed through the Site Plan Review process.

The standard minimum lot size for homes in the rural residential (Agricultural-Forestry) district is In other residential four acres. areas, the standard minimum lot size is 22,500 square feet (0.52 acres) for a single-family dwelling, and 22,500 square feet for each additional dwelling unit. In general the residential districts allow single-family homes by right and two-family homes or accessory apartments by special permit. The Montague zoning bylaws provide a special permit option for the reduction of residential frontage and lot size requirements where public water and sewer are available. The Zoning Board of Appeals (ZBA) regularly grants such requests, which encourage housing on small, infill lots in existing neighborhoods and help protect village character. The ZBA supports these requests because the standard lot size and setback requirements could result in a more spread-out land use pattern than currently exists in the village centers of Turners Falls and Millers Falls.

Since the completion of the Montague Comprehensive Plan in 1999, Montague has being working to implement the Plan's recommendations and to realize the Future Land Use Map created as part of the Plan. The Future Land Use Map shows the preferred locations for residential, commercial and industrial development and areas planned for future agricultural use and conservation. Implemented recommendations include the creation of a number of new zoning districts in Turners Falls, Millers Falls, and elsewhere in town to better direct future growth and encourage the continued redevelopment of the historic village centers and underutilized historic mill buildings. Montague has also strengthened its Environmental Impact and Site Plan Review standards for large-scale projects to promote and protect Montague's natural, scenic, and historic resources.

Until 1999, Montague had only one commercial zone. After the completion of the Comprehensive Plan, new commercial and industrial districts were created to distinguish different areas in town and to better encourage the most appropriate land uses in each. In 1999, the Central Business District was established in the commercial core of Turners Falls and Millers Falls "to provide for pedestrianoriented downtown areas with mixed-use buildings and a range of retail and commercial services" (Zoning Bylaw, Section 5.2.11). In the Central Business District, residential uses are prohibited from the first floor. Land uses allowed by right in the district include

		Mini	mum Stand	ards		
	Lot Size, total or for 1 or 2 housing units (sq ft)*	Area for each additional housing unit over 2 (sq ft)	Lot Frontage (ft)	Front Yard (ft)	Side Yard (ft)	Rear Yard (ft)
Village Residential (VR)	10,890	21,780	100	20 ^a	10	10
Village Commercial (VC)	43,560	21,780	150	20	25	25
Residential (R)	87,120	21,780	200	50	30	30
Residential-Agricultural (RA)	87,120	21,780	200	50	30	30

^{* 10,890} square feet equal one-quarter acre; 21,780 square feet equal half an acre; 43,560 square feet equals one acre; 87,120 square feet equal two acres.

Source: Town of Gill Zoning Bylaw, December 2006.

offices and retail businesses (under 10,000 square feet) and mixed-use buildings with street-level commercial space, and one-family and two-family dwellings as acces-The Neighborhood sory uses. Business District was also created in 1999 and includes parts of downtown Turners Falls and Millers Falls. The district was designed to "ensure the compatibility of business and residential uses" (Zoning Bylaw, Section 5.2.10) and allows one and twofamily homes, retail shops, and professional and business offices by right.

In 2001, Montague created the Historic Industrial District (HI District) to "encourage adaptive reuse of historic industrial buildings and sites" (Zoning Bylaw, Section 5.2.12). The HI District includes land in downtown Turners Falls abutting the power canal including the Strathmore Mill property, and several historic mill sites in Montague City. The creation of the district could help promote the redevelopment of these structures

and revitalization of these areas. Several mills were established in the district's area beginning in the 1870s; there is currently only one in operation. There are approximately eight acres of vacant land in the district. In addition, there are two vacant mill buildings, totaling over 300,000 square feet, available for redevelopment.

The Town of Montague has two overlay zoning districts within the Byway corridor, the Flood Plain District and Water Supply Protection Overlay District. The districts are designed to help protect those resources and to limit land uses that are inappropriate for the overlay areas.

Gill

Gill has four zoning districts, all of which are represented in the Scenic Byway study area. Table 7-19 lists the districts and their lot size and frontage requirements. The largest zoning district within the Byway study area and in Gill overall is the rural Residential-Agricultural District.

^{**} The front yard dimension may be determined by the setback of existing structures on adjacent parcels where these setbacks are less than the minimum front yard dimension listed here.

Gill has three residential districts that vary in terms of their allowed density. The least dense district is the rural Residential-Agricultural District, which requires a minimum lot size of two acres. The densest district covers the neighborhood of Riverside, which lies between the Mohawk (Route 2) and the Trail Connecticut River across the river from the Village of Turners Falls. The minimum required lot size in Riverside is 0.25 acres and the zoning bylaw contains a provision to waive the front vard setback (20 feet) and allow the setback to be determined by the setback of existing structures on adjacent parcels. All the residential zoning districts allow single and two-family homes, and accessory apartments by right.

As discussed earlier, Gill created a new Village Commercial District (also referred to as the VC District) in 2006 based on a parcel level analysis of the district area conducted for the town's Community Development Plan and the Plan's recommendations. The VC District covers approximately 110 acres at the intersection of Main Road and Route 2 and ex-

Table 7-20: Zoning Districts within the Greenfield Section of the Byway Study Area

		N	Iinimum Sta	andards		
	Lot Size, total or for first housing unit (sq ft)*	Area for each additional housing unit (sq ft) ^a	Lot Frontage (ft)	Front Yard (ft)	Side Yard (ft) ^c	Rear Yard (ft) ^c
Urban Residential (RA)	8,000	2,000	65 ^b	25	10	30
Suburban Residential (RB)	12,000	3,000/ 4,000 ^a	80 ^b	25	15	30
Rural Residential (RC)	40,000	10,000/ 5,000 ^a	200	30	20	30
Semi-Residential (SR)	8,000	2,000	65 ^b	25	10	30
Health Service (H)	8,000	2,000	65 ^b	25	10	30
Central Commercial (CC)				0	0/15	0/15
Limited Commercial (LC)			30 ^b	0	0/15	0/15
General Commercial (GC)			30 ^b	25	0/15	0/15
Office (O)			30 ^b	25	0/15	0/15
General Industry (GI)			30	30	15/50	15/50
Planned Industry (PI)			50	50	25	25

^{* 8,000} square feet equal 0.18 acres; 40,000 square feet equal 0.92 acres.

a. The first number is the increase in required minimum lot size comparing one and two-family dwellings. The second number is the required minimum increase in lot size for each additional housing unit over two.

b. The frontages listed are for single-family and two-family homes. For multi-family dwellings, the minimum frontage required is 100 feet in the RA, SR, H, CC, and LC Districts, and 140 feet in the RB District.

c. When two numbers are listed together in these columns, the first number is the default required setback, and the second number is the required setback when a non-residential use abuts a residential, educational, or religious use, or a residential district.

Source: Greenfield Zoning Bylaw, May 10, 2006.

tends up Main Road and east on Route 2. The VC District was established to help target the town's commercial growth to a suitable location with water/sewer infrastructure while also encouraging the preservation of open space and rural and scenic character elsewhere in town, including along Route 2. The VC District allows some uses by right that are allowed by special permit in Gill's other zoning districts, such as inns, bed and breakfasts, and retail stores (up to 2,500 square feet). In the VC District, there are also land uses allowed with special permits which are not allowed at all elsewhere in town, such as hotels, motels, larger retail stores, and transportation facilities.

Other recommendations of the Gill Community Development Plan that were implemented in 2006 to help support the town's vision for new development and open space and resource protection include:

- A new provision to allow Open Space Residential Developments (OSRD) by right with Site Plan Review.
- A new bylaw to allow commercial and residential development on flag lots in the Village Commercial District.
- A change to allow accessory apartments to promote infill in developed areas.
- New limits on the number of housing units (6 units) allowed in multi-family dwellings and on the size of retail establishments (10,000 square feet in the Village Commercial District and 2,500 square feet elsewhere) to prevent large developments which might be incompatible with the rest of the community.

Greenfield

Greenfield has eleven zoning districts, each of which lies at least partially within the Mohawk Trail East Scenic Byway corridor. A list of the districts, with their minimum lot size, frontage, and setback requirements is provided in Table 7-20. Along the Byway there is a large mix of residential, commercial, industrial, and village zones. The largest zoning district within the Byway Study area is the dense Urban Residential District. The largest district in Greenfield overall is the Rural Residential District.

The center of downtown Greenfield has village center zoning (Central Commercial) and allows a mix of residential and commercial uses. There are also mixed use residential/commercial districts along Federal Street and along Route 2/2A west and north of downtown. The village and other mixed use districts allow a variety of retail and commercial uses by right or by special permit. In some of the mixed-use districts, single-family and two-family homes are allowed by right; in others they are allowed only via special permit. The districts also allow multi-family housing by special permit. One of the mixeduse districts covers the Franklin Medical Center and allows a variety of health care related uses by right and special permit.

There are residential zoning districts along the southern portion of High Street and elsewhere in Greenfield within the Scenic Byway corridor, but not directly on Route 2/2A. Each of the residential districts allows single-family and two-family dwellings by right, and multi-family dwellings, shared housing, and bed and breakfast es-

tablishments by special permit.

Greenfield has three zoning districts for industrial uses, and business and industrial parks. The districts are generally located in areas with little residential development and designed to minimize their impacts on surrounding properties. One of the industrial districts is the Planned Industrial District (PI District) that covers the Greenfield Industrial Park, located north of intersection of Routes 2 and 2A northeast of downtown. Most of the industrial park is within the Scenic Byway study corridor. One requirement of the PI District and of another industrial district on Munson Street is that the uses in the district be screened and buffered from neighboring properties to minimize the visual impacts on surrounding areas.

Greenfield has five different overlay zoning districts, four of which are within the Byway. There is a Flood Plain Overlay District to limit developed land uses in floodprone areas. The town also has a Corridor Overlay District along the Scenic Byway on the French King Highway and the north part of High Street. The district was established to create attractive entryways into Greenfield by minimizing strip development and traffic congestion to protect scenic and natural features. The Corridor Overlay District area still has considerable space for growth. As development occurs within the district, the district's requirements regarding landscaped buffers from the roadway, access driveways, and protection of the ridgeline on the east side of the French King Highway/High Street will help preserve the Byway's scenic qualities.

Another overlay district is the

Planned Unit Development (PUD) Overlay District, which was established in 2004. Planned unit developments are comprehensive unified projects, with a mix of land uses and buildings that are developed as a single entity and designed to promote alternatives to more sprawling forms of development. Few PUD areas have been designated thus far; one was established for the redevelopment of the site of the former Greenfield Tap and Die plant off of Deerfield Street, this site now houses an extended care facility for older residents.

Greenfield's zoning bylaws include a number of provisions to support desirable types of development and to preserve important natural, historic, and scenic resources along the Scenic Byway. The zoning bylaws include Site Plan Review for all business, commercial, industrial, institutional, and multi-family development projects, and provide screening and landscaping guidelines for these developments. Greenfield also has provisions for Open Space Residential Developments by right with Site Plan Review and for residential development on flag lots in neighborhoods by special permit to encourage these patterns of development. Additionally, the zoning bylaws provide an option for the Building Inspector to issue a building permit for residential construction on lots with less than the normally required lot size and frontage in some mixed-use and residential zoning districts where public water and sewer is available, and where surrounding properties similarly have smaller lot sizes and frontage. This policy supports infill development in existing neighborhoods where there is infrastructure to support it and the least disturbance to open space.

Potential for Future Development

This section briefly describes the areas with the greatest development potential in each of the towns within the Byway study area. The assessment of development potential is based largely on land characteristics such as slopes, wetlands, public water and sewer infrastructure, and on current zoning regulations.

Athol

Much of Athol's portion of the Scenic Byway is already built-out; however, there are some areas that could potentially be developed. One developable area is the proposed North Quabbin Business Park site located at the eastern end of the Byway at the intersection of Routes 2 and 2A. This site has approximately 400 acres and is being considered for large-scale retail or other commercial businesses. There is also the potential for redevelopment of existing underutilized and vacant commercial buildings in and near downtown Athol, including on the upper floors. One possible challenge for the redevelopment of the historic buildings downtown is that they do not contain elevators, and elevator installation can be very expensive.

Orange

Much of Orange's portion of the Scenic Byway study area is already developed. East of Orange Center, there is currently limited commercial and residential development, and some potential for future growth. Constraints on

growth in this area include relatively steep slopes (of 15% or more), the lack of public water and sewer services, and the limits on land uses within the overlay Water Resource District for groundwater supplies.

In 2004, as part of the town's Community Development Plan, Orange considered the best locations for future potential growth. The downtown was identified as the best area for future small commercial and mixed use development. The Community Development Plan also identified five potentially suitable locations for future industrial or largecommercial growth. Two of the locations were just north of Route 2A and within the Byway corridor. It will be essential for these locations to be investigated further before development is pursued at these sites. For each location, an engineering feasibility study will be needed to fully evaluate the site's development potential, possible environmental constraints, including wetlands issues, and the costs of extending water and sewer services as necessary. None of the sites are currently served by sewer lines and only one, near the airport, is served by town water lines.

Orange has also been pursuing the redevelopment of vacant and under-utilized buildings in the downtown area, such as the Putnam Hall building, as part of its downtown revitalization activities. Putnam Hall is one of a few large, historic brick buildings in the downtown area. It has five floors and a total of approximately 20,000 square feet of space and is owned by the Town of Orange. Renovation of the building is being proposed by the Town of Orange in partnership with the North

Quabbin Woods, an organization that seeks to promote forestry and forest products in the region. North Quabbin Woods would be the anchor tenant of the building once it is redeveloped. One potential challenge for the redevelopment of the historic mill buildings is that they do not contain elevators and elevator installation can be very expensive. Putnam Hall or other historic buildings could be considered for use as a tourist information center and/or interpretive center for the Byway.

Wendell

Of all the communities along the Byway, Wendell has the least potential for future growth within the Byway corridor. An estimated 51% of Wendell's section of the Byway corridor has been protected as open space and cannot be developed. Wendell's large amount of protected land helps preserve the scenic vistas along the Byway. Much of the remaining Byway corridor in Wendell has slopes of 25% or more and is too steep to build upon. The area around Wendell Depot in east Wendell has the most growth potential and is identified in Wendell's Community Development Plan as a possible future small village center with a mix of residential and small commercial uses.

Erving

There are steep slopes along much of Erving's portion of the Scenic Byway and the potential for future development is limited. The most suitable areas for future growth are the village centers of Erving Center and Ervingside. The Central Village (CV) District was created in 2005 to encourage the development in the village centers

over other locations. Erving is also interested in redeveloping or reusing the Usher Plant site in Erving Center and the International Paper Company Plant in Ervingside. Both of these former manufacturing facilities are currently vacant. The Usher Plant is in the process of being demolished following a major fire in the summer of 2007.

Gill

Gill has the greatest potential of any of the Byway communities for growth along the Byway corridor. Slopes along Gill's section of the Byway are less than elsewhere along the corridor and there is not much protected open space. Only 12% of the Gill portion of the Byway corridor is permanently protected from development. Gill has worked to address future potential growth pressures and to protect important natural and scenic resources along the Byway through recent zoning changes, such as the creation of a Village Commercial District as a target area for future commercial growth. This village district is at the intersection of the Mohawk Trail (Route 2) and Main Road just across the Connecticut River from downtown Turners Falls. area also serves as a gateway to both Turners Falls and the rest of Montague.

Montague

Turners Falls and Millers Falls have been identified as village centers on the Future Land Use Map that was created as part of the Montague Comprehensive Plan. Within Turners Falls and Millers Falls, much of the growth potential is through the redevelopment of older historic commercial and in-

dustrial structures, such as the former mill buildings within the Historic Industrial District and the reuse of vacant and underutilized residential and commercial properties. As mentioned previously, one potential challenge with the redevelopment of historic mill buildings is the need for and cost of elevator installation. Outside of Turners Falls and Millers Falls, there is limited potential for residential and commercial growth within Montague's section of the Scenic Byway study area. Outside of the villages, the areas along the Millers River and Connecticut River have steep slopes in excess of 25% making them a challenge to develop.

Greenfield

Greenfield's section of the Byway, which runs through Greenfield's extensive downtown, is more built out than any of the other Byway The area in Greenfield towns. within the Byway corridor with the most potential for growth is along the French King Highway northeast of the downtown. This section of Greenfield contains the town's industrial park and is also being proposed for a new major shopping center. It serves as the gateway to downtown Greenfield from the eastern portion of the Byway.

There is also some potential for growth through redevelopment of a number of vacant or underutilized downtown buildings, such as the historic Bank Row buildings. Redevelopment of some of these historic structures has already begun, and funding for additional redevelopment projects is being pursued by the town and others. For example, a site just off Bank Row has been selected for a new

regional transit center for the Franklin Regional Transit Authority. This project is currently in design with construction slated for 2009-2010.

Important Vistas along the Byway

There are a number of scenic vistas along the Byway that were identified as outstanding during the visual assessment. These scenic views are noted with a viewshed icon on the Open Space Map at the back of this chapter. The areas with panoramic or medium range views have also been noted and are discussed below. Further discussion of the scenic views and vistas along the Mohawk Trail East Scenic Byway appears in the Scenic Resources chapter of this plan.

Several factors were considered when assessing the scenic qualities of a medium- or longrange vista or roadway corridor. Medium and long-range vistas are more breathtaking when they contain both an expansive field of view and depth of view. The field of view is the horizontal width of the view, while the depth of view is how far away one can see. Contrast and focal points are elements that add interest to what is being seen. Contrast is the differences seen in the vista, such as landscape differences. Focal points are elements in the landscape that draw the eye.

Athol

In Athol, just west of the town center at the Alan E. Rich Environmental Park travelers are able to see a large field beyond the Scenic Section of the Byway that Travels next to the Millers River in Erving



parking area and boat ramp with a back drop of large wooded hillsides.

Orange

In Orange there are three scenic vistas, all of the Millers River. One is of a large wetland area directly south of the Byway. Another occurs where the Byway travels next to the Millers River, and there is a ponded area of the river surrounded by forested lands and used for fishing. The third view occurs near the Orange Wastewater Treatment Plant. Travelers can see the Millers River from the roadway and there is a pull-off area by the river with picnic tables and river access.

Erving

In Erving, there are numerous long views of forested hillsides and the Millers River. One wonderful view is of a 2.5-mile stretch of the Millers River that runs right along the south side of the Byway. At various places, there are long views of the river rapids and large

cobblestones with the mountains in the Town of Wendell as a distant backdrop. The Erving cliffs are to the north of the Byway.

Near the Village of Farley, there is a gently rolling landscape with views of the mountains in Wendell, farm fields, and the vil-Between Farley and Ervingside, there is a 3.5-mile section through forestland. To the north of this section lies land owned by FirstLight Power and to the south is the Wendell State Forest. There is little development along this section of the Byway, and there are many long and panoramic views of mountains in Wendell and Gill and of the Connecticut River Valley in the distance. This area is particularly scenic during the fall foliage season as the hills are ablaze with the magnificent colors of the turning leaves. Through this section the roadway is wide with shoulders and passing lanes for the hills, which allows the traveler to see more of the landscape.

At the Erving/Gill town line,



The view of the Connecticut River from the French King Bridge

the Byway travels over the Connecticut River on the French King Bridge which allows for spectacular views north and south along the river. From the bridge there is a view of the French King Rock in the river and the mountain valley of the Connecticut River toward Vermont and New Hampshire. The confluence of the

Millers River and the Connecticut River is to the south of the bridge. Some of the panoramic view from the bridge is part of the Connecticut River Greenway State Park which is permanently protected. However, there are still some portions of the view from the bridge and Route 2 near the Connecticut River and the Millers River which are a priority for protection. Rest areas at both ends of the bridge allows travelers to park and walk across the bridge which spans high above the Connecticut River.

Gill

In Gill there are two other scenic vistas that also offer views of the Connecticut River. The first is just west of the French King Bridge along a rural stretch of Route 2 where there are farms and forested land on the north side of the road and views of the Connecticut River through the trees and Barton Cove to the south side. This section of the Byway has a number of pulloff areas where travelers can stop to picnic, rest and get a better view of the Connecticut River.

The second vista is at a pull-off area just east of the Route 2/Main Road intersection. From this pull-off area, there is a panoramic view of the historic mill-Village of Turners Falls in Montague, the Gill-Montague Bridge, the Turners Falls hydroelectric dam and canal, and the Connecticut River. In the spring, the view is particularly dramatic because of the water from melting snow and rainfall, which rushes over the dam and fills the river below the power canal.

Greenfield

In Greenfield there are a number of scenic viewshed. One is to the east of the Greenfield/Gill town line at Factory Hollow. This section of the Byway winds through a wooded area along the Byway. To the north is the historic Factory Hollow area. The remnants of the homes, factories and a dam that existed in this area are just visible through the trees. Also, downtown

Greenfield is a scenic downtown with a vast and varied inventory of historic architecture along the Byway. Near downtown on High Street the road is lined with mature trees, sidewalks and historic residential architecture. On Main Street there is a diverse and well intact inventory of historically significant structures. The streetscape is that of a classic historic New England downtown. The backdrop of the downtown to the west, south and east are the surrounding foothills which create numerous scenic views while traveling along Main Street.

Tools and Strategies to Preserve the Scenic Byway Resources

This section provides an overview of tools and strategies that can be used by towns and regional organizations to help preserve historic, scenic, and open space resources and enhance tourism along the Mohawk Trail East Scenic Byway. The strategies fall into four primary categories: land protection, historic preservation restrictions, funding programs, and zoning and other town bylaws.

Land Protection Conservation Restrictions (CR)

Scenic, open space, forest, and agricultural resources can be protected through the use of conservation restrictions. A conservation restriction is a legally binding agreement between the landowner and a government agency or qualified conservation organization, such as a land trust, that places constraints on the use of a property

in order to protect its scenic or open space values. With a conservation restriction, land uses are typically limited to forestry, farming, and/or passive recreational activities, and development is prohibited except if it is related to those uses (such as a barn for farming purposes). Scenic easements and conservation restrictions can be donated or sold by a land-A donation of such a owner. scenic easement can yield a significant tax benefit. The Federal Scenic Byway program can provide funding for acquisition of scenic easements from willing property owners.

Agricultural Preservation Restriction (APR) Program

The Agricultural Preservation Restriction Program protects prime farmland from development. The APR Program is a voluntary program that offers a nondevelopment alternative to farmers and other owners of prime agricultural land and other farmland of statewide importance who are faced with a decision regarding the future use and disposition of their farms. The program offers to pay farmers the difference between the "development value" and the "agricultural value" of their farmland in exchange for a permanent deed restriction which precludes any use of the property that will have a negative impact on its agricultural viability. The APR Program is run through the Massachusetts Department of Agricultural Resources.

Chapter 61 Programs

Parcels enrolled in the property tax abatement programs under Chapter 61 of the Massachusetts General Laws are temporarily pro-

tected from development. The Chapter 61 programs offer landowners reduced local property taxes in return for maintaining land in productive forestry, agricultural or open space or passive recreational use for a certain period of time, usually at least10 years. One important feature of the Chapter 61 programs is that they offer towns the opportunity to protect land permanently if land that has been enrolled in programs is being sold or being converted to another use, and will leave Chapter 61. The town where the parcel is located has a 120-day period during which it can exercise, or assign, its right of first refusal to purchase the property at fair market value or meet the conversion price offer, and preserve it permanently.

Historic Preservation Preservation Restrictions

A preservation restriction is a mechanism that is used to preserve a property's historic character. It is a legally binding agreement that is used to protect historic resources, such as historically significant buildings, landscape features or landscapes area. Preservation restrictions can be written to list the specific features of the historic property to be protected Preservation restrictions are enabled under Massachusetts General Law Chapter 184 Sections 31-34. The preservation restriction must be held by a government or non-profit entity. Preservation restrictions are recorded in the local Registry of Deeds. The preservation restriction ensures that the specified features of the historic property will not be altered in the future and will be preserved for future generations.

Sources of Funding Community Preservation Act (CPA)

Signed into law in 2000, the Massachusetts Community Preservation Act (M.G.L., Chapter 44B), gives communities a funding source for projects related to historic preservation, open space protection, and affordable housing. Municipalities adopt Community Preservation Act (CPA) on a local basis, through a ballot referendum. Communities that approve the CPA can impose a property tax surcharge of up to 3%. The funds collected through this surcharge are set aside in a local Community Preservation Fund along with a State match. Monies accruing in this fund are to be spent on historic preservation, open space (excluding recreation), and affordable housing with at least 10% of the annual receipts going toward each category. Spending can be deferred until The community deterneeded. mines how it would like to distribute the remaining 70% of funds to any or a combination of the three categories, including public recreation. Currently, the State match for CPA funds is 100%. As of May 2007, none of the towns along the Scenic Byway have adopted the CPA.

Local Acquisitions for Natural Diversity Grant Program (LAND, formerly the Self-Help Program)

Provides grant assistance to city and town conservation commissions for the acquisition of open space for conservation and passive recreation purposes. The program is administered by the Executive Office of Energy and Environmental Affairs (EEA). The LAND Program helps preserve lands and waters in their natural state and the program offers funding to preserve areas that contain unique natural, historical or cultural features or extensive water resources. The program encourages compatible passive outdoor recreational uses such as hiking, fishing, hunting, cross-country skiing, and wildlife observation. General public access must be allowed. The LAND Program pays for up to 80% of a municipality's costs for the acquisition of land, or a partial interest (such as a conservation restriction), and ancillary land acquisition costs. The grants range in size from \$75,000 to \$500,000. In 2004, the Town of Wendell received a grant through this program for acquisition of a 125-acre parcel containing Fiske Pond, and in 2006, the Town of Erving received a grant for the acquisition of a 100-acre parcel. Other towns along the Byway have also received grants through this program as well.

Parkland Acquisitions and Renovations for Communities (PARC, formerly the Urban Self-Help Program)

Provides grant assistance to cities and towns to acquire parkland, develop new parks, or renovate existing outdoor public recreation facilities. The program is also administered by the Executive Office of Energy and Environmental Affairs (EEA). Any city or town with a population of 35,000 or more, which has a park or recreation commission and a conservation commission, is eligible to participate. Grants can also be issued to smaller communities for projects that have regional or statewide significance. **Projects**

for outdoor recreation purposes, whether active or passive in nature, are considered for funding. Grants are available for the acquisition of land and the construction, restoration, or rehabilitation of land for park and outdoor recreation purposes such as athletic playing fields, playgrounds, game courts, and swimming pools. Access by the general public must be allowed. The grants reimburse a significant portion of total project costs. The grants range in size from \$50,000 to \$500,000.

The Town of Orange received an Urban Self-Help (now PARC) Grant for funding to construct the Orange Riverfront Park. riverfront park provides canoe and kayak access to the Millers River and a rest stop for travelers along the Mohawk Trail East Scenic Byway. The Town of Greenfield also received a grant for this program for the acquisition of land near the Green River that was formerly part of the mobile home park that was destroyed after extensive flooding. The land will be used to create public access to the Green River and to extend the town's existing bike trail into the downtown commercial district. Greenfield also received an Urban Self-Help (now PARC) Grant for renovations to the Green River Swim Area to add recreational amenities and improve access for residents with disabilities.

Massachusetts Recreational Trails Grants Program

The Recreational Trails Program provides grants ranging from \$2,000 to \$50,000 on a reimbursement basis for a variety of trail protection, construction, and stewardship projects throughout Massachusetts. It is part of the national Recreational Trails Program,

which is funded through the Federal Highway Administration (FHWA). Funds are disbursed to each state to develop and maintain recreational trails and trail-related facilities for both non-motorized and motorized recreational trail uses. In Massachusetts, funds are administered by the Department of Conservation and Recreation (DCR), in partnership with the Massachusetts Recreational Trails Advisory Board. Eighty percent of the project costs are reimbursed to grantees, but at least 20% of the total project value must come from other sources.

Brownfields Assistance

There are a number of programs to assist in the cleanup and redevelopment of brownfields Each of the communities sites. along the Scenic Byway contains properties that have been identified as brownfields with most of these brownfields being located in or near historic town centers where industries were traditionally Brownfield cleanup is located. regulated in Massachusetts under Massachusetts General Law, Chapter 21E. In 1998, the State Legislature amended Chapter 21E to establish significant liability relief to encourage the redevelopment of brownfield sites, while ensuring that the Commonwealth's environmental standards are met. The Massachusetts Department of Environmental Protection (DEP) administers the State's cleanup laws and regulations. DEP offers technical assistance for the cleanup of brownfields sites.

The Franklin Regional Council of Governments (FRCOG) coordinates a regional Brownfields Site Assessment Program for Franklin County funded through the Environmental Protection Agency. In addition to the Site Assessment Program, the FRCOG coordinates a Rural Brownfields Clean-up Revolving Loan Fund to help fund brownfields clean-up and redevelopment activities in Franklin County communities. The program could be of particular benefit to downtowns that have historic mill buildings which are vacant or underutitilized and could be redeveloped. The restoration and reuse of these structures is important for the Byway.

Community Development Action Grant Program (CDAG)

The CDAG Program offers funding to help revitalize disinvested or deteriorated neighborhoods, stimulate new economic development, and leverage private investment in communities. Any Massachusetts city or town is eligible to apply to the Massachusetts Department of Housing and Community Development for CDAG funds. CDAG funding is available for publicly-owned or publiclymanaged projects. CDAG funds can be used in a variety of ways, including the installation, improvements, repairs, rehabilitation or reconstruction of buildings and other structures, facades, sidewalks, streets, and utility distribution systems. CDAG funds can also be used for the demolition of existing structures and relocation assistance. CDAG applications are evaluated based on the following criteria: the number of jobs created; the current degree of economic distress and physical deterioration of the project area; the extent of committed financial participation by other public and private entities; and the extent to which the project is consistent with the applicant's community development plan(s) and with the Commonwealth's Sustainable Development priorities.

Community Development Block Grant Program (CDBG)

The Community Development Block Grant (CDBG) program is a federally funded, competitive grant program run through the Massachusetts Department of Housing and Development that is designed to help small cities and towns meet a broad range of needs. Eligible CDBG projects include, but are not limited to, business assistance, infrastructure, community/public facilities, housing rehabilitation or development, and downtown revitalization. Communities may apply for funds on behalf of a specific developer or property owner. All of the towns along the Scenic Byway have received CDBG funds for housing rehabilitation. Some towns such as Athol, Orange, Wendell and Greenfield have received funds for other types of proiects as well.

Expedited Permitting Process

In 2006, the State Legislature enacted regulations (Massachusetts General Laws, Chapter 43D) to support an expedited and streamlined municipal permit process for targeted economic development projects. An established, predictable local permitting process is considered advantageous by potential developers. For towns that choose to enact Expedited Local Permitting, this program gives them the ability to promote commercial/industrial development on pre-approved parcels, known as "Priority Development Sites," by offering an expedited, streamlined local permitting process. Towns

that participate are eligible for a one-time technical assistance grant to aid them with the creation of a streamlined permitting process and for site specific pre-development work. The goal is to create a transparent and efficient municipal process, which guarantees local permitting decisions on designated "Priority Development Sites" within 180 days. This will require coordination of municipal staff and town boards including the Planning Board, Zoning Board of Appeal, Conservation Commission, Fire Chief, the Historic Commission, and Board of Health.

Eligible "Priority Development Sites" are sites that have been identified and approved by the town with permission from the property owner(s) that are in a commercial, industrial or mixed use zone and can accommodate the development or re-development of a building(s) of at least 50,000 square feet. Communities with Priority Development Sites will receive priority consideration for economic development grant programs such as CDAG and brownfields funding. Through a State grant starting in 2007, the FRCOG will provide technical assistance to help towns identify possible Priority Development Sites and apply for Technical Assistance Grants. So far, the towns of Gill, Montague, and Orange have committed to participate in this program and have requested the FRCOG's assistance.

Local Bylaws and Zoning Options

Corridor Overlay District

Scenic Byway communities may consider the creation of a zoning district that overlays the Byway corridor. Uses underlying the

corridor district would continue to be allowed, but new development would be required to meet additional design standards. These standards could limit the amount of lot clearing, call for maintaining roadside vegetation and trees, favor curved over straight driveways, limit the size and color of large commercial buildings and storage facilities, keep exterior lighting to a minimum, and introduce special regulations for signs within the district. Additional requirements could include the identification of existing scenic vistas from the Byway and proposed measures to avoid impacting those vistas, such as locating buildings, structures, and power lines out of the sightway. Performance incentives could be developed to allow an increase in use, density, or other bonuses if a developer meets or exceeds the design standards of the bylaw.

Greenfield is currently the only Byway community with a corridor overlay district. The district is along the French King Highway and the north part of High Street. The district has requirements regarding landscaped buffers from the roadway, access driveways, and protection of a ridgeline that will help preserve the Byway's scenic qualities.

Local Historic Districts

A local historic district is established and administered by a community to protect the distinctive characteristics of important areas, and to encourage new structural designs that are compatible with the area's historic setting. Prior to the establishment of a local historic district, a district study committee is appointed to conduct a survey of the area and to

prepare a preliminary report for local and state review. A final report is then submitted to the local governing body for approval of the local historic district ordinance or by-law. Once a local historic district is established, a local historic district commission is appointed to review all applications for exterior changes to properties within the district. This design review process assures that changes to properties will not detract from the district's historic character. The review criteria are determined by each city and town and are specific to each local historic district.

Architectural Preservation Districts (also known as Neighborhood Conservation Districts)

An architectural preservation district is a defined area in which additions, major alterations, demolition and new construction are reviewed. An architectural preservation district bylaw protects the overall character of an area by regulating major alterations and demolitions, and by ensuring that new construction is completed in keeping (scale, massing, street pattern, setback and materials) of the existing buildings. An architectural preservation district is an alternative to a local historic district for areas where some alterations have already occurred but protection of the overall scale, streetscape and historic buildings is a priority.

Village Center Zoning

The creation of village center zoning districts helps direct future growth and development to those areas and therefore helps preserve rural and open space areas elsewhere. Village center districts are usually established in existing villages, or in other parts of town that have the infrastructure (water, sewer, roads, etc.) to support more development in these locations. Village center districts typically have higher densities (smaller lot sizes and frontage) and encourage more intensive residential uses, such as multi-family homes, and commercial uses to locate in the village centers instead of elsewhere in town. For example, in Gill's Village Commercial District, some commercial uses are allowed by-right that are only allowed by special permit in other districts.

Growth in village centers is also promoted through flag lot provisions which allow development on lots without the standard required frontage behind existing development in areas with sewer and water service. Another important provision is a waiver of lot size and front setback requirements, in older neighborhoods where many properties do not meet the standards. Greenfield and Montague have this type of provision, which helps support infill development and the preservation of neighborhood character All the towns along the Scenic Byway corridor except for Wendell have created village center zoning districts. Wendell has informally considered one, but has taken no action yet.

Open Space Residential Development

As discussed earlier in the chapter, open space residential developments (OSRD) can help preserve open space and reduce residential development costs. In OSRDs, homes are built on smaller than regular lots in exchange for some of the remaining area being set-aside as protected open space

and the clustering of homes helps preserve open space and natural resources. All of the towns along the Scenic Byway corridor, except for Montague, have OSRD bylaws in place. However, to date no open space residential developments have been constructed in any of the towns. In Athol, Erving, and Wendell, OSRDs may be allowed by special permit. Gill, Greenfield, and Orange have adopted provisions to allow OSRD by right with Site Plan Review to help encourage its use.

Sign Regulations

All of the communities along the Scenic Byway have sign regulations in place. Sign regulations can be incorporated into a community's zoning bylaws or general bylaws. In some of the towns along the Mohawk Trail East the sign regulations are quite minimal. The sign regulations in each community could be reviewed to see if they should be strengthened to protect the community character overall and the scenic character of the Byway corridor specifically. One option could be to have more detailed regulations and design guidelines for signs within a Byway corridor overlay district to help enhance the Scenic Byway. A community could also have different sign limits in rural zoning districts than in commercial areas.

Lighting Regulations

Communities can establish regulations regarding external lighting to help preserve rural and scenic character. Regulations can be designed to address the brightness, color, and height of external lighting and can also call for light-

ing fixtures to project light downward to limit their impact on neighboring properties, on the night sky, and on night flying insects. There can also be design guidelines for lighting fixtures in local historic districts or as part of Site Plan Review.

Phased Growth Bylaw

Phased growth bylaws limit the number of homes that are allowed to be built each year. The purpose of a phased growth bylaw is to help ensure that growth does not strain a community's ability to provide basic public facilities and services, to provide towns with time to incorporate growth into a master plan and regulations for the community, and to preserve and enhance existing community character. Under a 2004 Massachusetts Supreme Court decision for a case in Hadley (Zuckerman v. Town of Hadley), phased growth bylaws are not allowed for an indefinite period of time, but are permissible temporarily while a town develops a plan to prepare for future growth. Both Wendell and Erving have phased growth bylaws in place. In recent years, the building caps in these communities have been greater than the number of new homes built.

ISSUES AND RECOMMENDATIONS

Issues

There are historically significant commercial and industrial buildings along the Byway that are underutilized.

- There are many outstanding scenic views along the Byway that are worthy of protection.
- Downtown Greenfield, Orange and Athol are historic and would greatly benefit from continued revitalization efforts that highlight and enhance the historic and industrial heritage of the area.
- Local zoning regulations do not always serve to enhance the scenic and historic qualities of the Byway.
- Strip commercial development detracts from the scenic quality of the byway.
- The industrial heritage of the region is significant and should be highlighted.

Recommendations

- Pursue funding to assist property owners with restoration and rehabilitation projects for historic and architecturally significant buildings.
- Support the efforts of Byway towns to create National Historic Districts in their village centers or other significant historic areas.
- Consider the adoption of local neighborhood conservation districts or local historic districts to protect historic neighborhoods and properties.
- Pursue funding (grants and other available sources) to complete redevelopment and revitalization projects in downtown centers and at former mill building sites.
- Encourage appropriate and sustainable economic development where wanted by towns.
- Enhance the public visibility of agricultural and forestry businesses in the Byway towns and promote the purchase of local forest and farm products.
- Identify scenic areas that are important to protect and seek funding to purchase conservation restrictions or land from willing property owners in these areas.
- Consider the creation of local Ridge Protection Overlay Districts to help preserve undeveloped hillsides and ridgelines that contribute to the scenic views and vistas along the Mohawk Trail.
- Review and update local Telecommunication Bylaws as desired and necessary by local communities in order to minimize the impact of cellular and telecommunications infrastructure on the Byway's scenic character.
- Support the review and revision of local zoning bylaws to enhance and protect the character and resources of the Scenic Byway corridor.
- Encourage commercial establishments to have signage, external lighting, building characteristics, and land-scaping that complement the scenic, historic, and natural characteristics of the Mohawk Trail.
- Consider strengthening local regulations to discourage signs and outside lights that detract from the scenic nature of the Byway. This may include adopting more detailed regulations and design guidelines for signs and lighting within the Byway corridor to help enhance the Scenic Byway.
- Consider the adoption of local zoning overlay districts for the Scenic Byway corridor that include additional design standards to help preserve the Scenic Byway.
- Create model building design guidelines and a model signage bylaw and scenic byway overlay district bylaw that could be adopted by the Byway communities.
- Pursue options to preserve and promote historic resources along the Mohawk Trail, such as the development
 of architectural guidelines for historic structures to assist property owners when completing historic renovation or restoration projects.