

Connecticut River Scenic Byway

Corridor Management Plan Update

June 2016



FRANKLIN REGIONAL COUNCIL OF GOVERNMENTS



PIONEER VALLEY PLANNING COMMISSION



Connecticut River Scenic Byway Corridor Management Plan

June 2016

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We would like to express our gratitude to those who participated in the Byway Advisory Committee meetings, and provided insight during the development of the Corridor Management Plan.

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Introduction

CHAPTER 1

Connecticut River Scenic Byway

Study Background and Purpose

The Connecticut River Scenic Byway is a state designated Scenic Byway, and also part of the three-state (New Hampshire, Massachusetts and Vermont) nationally designated Scenic Byway. This Corridor Management Plan is for the 38-mile Massachusetts section of the Byway that spans North-South from the New Hampshire/Massachusetts line in the town of Northfield to South Hadley Center near Mount Holyoke College. In Franklin County, the Byway is Route 63 in the towns of Northfield, Erving, and Montague, and Route 47 in southern Montague and Sunderland. In Hampshire County, the Byway is Route 47 in the towns of Hadley and South Hadley.

The Massachusetts Legislature designated the Franklin County section of the Byway in the towns of Northfield, Erving, Montague and Sunderland as a Scenic Byway in 2000 and the Hampshire County section of the Byway in Hadley and South Hadley as a scenic byway in 2003. In 2009, the Massachusetts section of the Connecticut River Byway was designated as a National Scenic Byway by extending the New Hampshire and Vermont sections of the Byway that had been previously designated as a National Scenic Byway in 2005. Funding was received to complete the Corridor Management Plan through the Federal Scenic Byway Program.



The Dickinson Memorial Library in Northfield

The Connecticut River Scenic Byway corridor is rich in scenic, natural, cultural, archeological, architectural, and recreational resources. It celebrates the traditions, the history, the agricultural heritage, and the cultural vigor of the area as it travels through the heart of the Connecticut River Valley. It is a landscape of distinct natural beauty with classic New England farm village patterns. There are many sites and resources that highlight the rich history of the area dating back to the 1600s and the early settlement by Native Americans and Colonial settlers. The Byway is the main street of the towns and villages along the way.

The Corridor Management Plan is an update of a previous plan completed for the Byway in November 1998. It is a collaborative effort of the Franklin Regional Council of Governments (FRCOG), and the Pioneer Valley Planning Commission (PVPC). The project area includes a ½ mile buffer on each side of the Byway. The purpose of the development of a corridor

management plan is to recognize, interpret, preserve, and promote the unique archeological, cultural, historic, natural, recreational and scenic resources of the Connecticut River Byway. The Plan documents and analyzes these six intrinsic qualities. It includes updated inventories of the Byway's resources, issues of concern and recommended future actions.

The Corridor Management Plan update also includes an evaluation of a possible extension of the Byway to the west side of the Connecticut River in the towns of Hatfield, Whately, Deerfield and Greenfield. This evaluation included a review of possible routes and also an evaluation of the resources along these proposed routes. The information for Hatfield which is in Hampshire County is included in each of the chapters and the information for the towns of Whately, Deerfield and Greenfield is in a separate chapter which considers different proposed byway routes. The expansion to the west side of the Connecticut River would potentially include either River Road and/or Route 5/10.

The project was also intended to actively involve the public in the shaping of a Corridor Management Plan for the Byway through regional advisory committees and a participatory planning process.

Corridor Description

The Connecticut River Byway currently includes Route 63 in the towns of Northfield, Erving, and Montague and Route 47 in the towns of Montague, Sunderland, Hadley and South Hadley. The total mileage of the Byway is 38 miles with the mileage for each town as follows: Northfield (8.15 miles), Erving (2.16 miles), Montague (6.78 miles), Sunderland (7.03 miles), Hadley (11.20 miles), and South Hadley (2.86 miles).

In Franklin County, the Byway passes through historic Northfield center on Route 63. It is a scenic center with a historic streetscape, sidewalks and historic structures. The Byway route travels south through the farmland and scenic views of the Connecticut River in Northfield and Erving. The Byway route crosses the Millers River in the historic industrial village of Millers Falls. From Millers Falls the road passes through forested areas that abut the Byway. The historic village of Montague Center is near the Byway as it passes from Route 63 onto Route 47. South of Montague Center the Byway travels on Route 47 through rolling farmland on Montague and Sunderland. In Sunderland center the Byway travel through the historic village.

The Hampshire County section of the Byway travels through the farmland of Hadley. This section of the Byway is close to the Connecticut River and there are glimpses of the river along the way. The Byway travels through the historic tree-lined town common area of Hadley. The route winds into South Hadley through the farms that are at the base of Mount Skinner. It winds through South Hadley to the village center near Mount Holyoke College.

The Planning and Public Participation Process

A successful scenic byway program depends on the commitment, enthusiasm and support of community members and municipal officials. A Corridor Management Plan is

intended to reflect the vision for the Byway and the surrounding area that the communities along the Byway worked to develop together.

Throughout the planning process, the Franklin Regional Council of Governments (FRCOG) and the Pioneer Valley Planning Commission (PVPC) worked closely with their regional Connecticut River Scenic Byway Advisory Committees. The regional planning agencies and the Advisory Committees worked to recognize, interpret, preserve and promote the unique archeological, cultural, historic, natural, recreational and scenic resources in the byway study area.

The Connecticut River Scenic Byway Advisory Committees were comprised of municipal officials, landowners, business owners and interested citizens. The role of the regional committees, one in Franklin County and one in Hampshire County, was to develop the Corridor Management Plan and prioritize recommendations for implementation. The Byway Advisory Committee met quarterly throughout the two-year period in which the plan was crafted. The draft chapters were reviewed by the Advisory Committee. In addition, the final draft chapters were posted for public review on the FRCOG and PVPC's websites. The complete draft report was presented at two public review forums held on March 23rd, 2016 in Hampshire County and March 29th, 2016 in Franklin County. Two joint Byway Committee meetings were also held during the development of the plan. One of the joint meetings was held on June 18th, 2014 and the other on March 2, 2016.

Byway Vision Statement and Goals

A Corridor Management Plan is a tool that provides an inventory and assessment of important resources and articulates specific strategies and actions designed to achieve identified and measurable results. In order to get to specific actions it is important that the common direction of the Byway be stated. This is done through the use of a vision statement and goals.

Vision Statement

The Connecticut River Scenic Byway is recognized as a scenic resource by both the Massachusetts State Legislature and the National Scenic Byway Program. The Connecticut River Scenic Byway travels through the towns of Northfield, Erving, Montague, Sunderland, Hadley and South Hadley. The corridor is rich in history and heritage, and natural, cultural, architectural, and recreational resources.

The vision for the Connecticut River Scenic Byway and the Corridor Management Plan is to preserve and protect the scenic qualities, natural resources, historic structures/places, cultural resources and community character while educating people about the tourism, recreational, and economic opportunities along the Byway.

Broad Goals for the Plan

- Promote and enhance roadway safety while taking into consideration the rural and historic qualities of the Byway.

- Preserve and enhance the character by working with willing land owners to protect important viewsheds and natural resources.
- Maintain, protect, and enhance the historic resources, villages and districts within the project area.
- Promote a low impact approach to tourism that highlights the natural, agricultural, recreational, historical and cultural resources but minimizes potential negative impacts to these resources such as traffic congestion.
- Support the local agricultural resources and economic viability of farming activities.
- Enhance and develop information and educational resources available to tourists for sites located in the greater Byway area.
- Support, maintain and enhance the quality of outdoor recreational experiences (such as hiking, picnicking, kayaking or canoeing) available to Byway users.
- Increase universal access to recreation areas and associated facilities.
- Promote educational opportunities for students and the general public related to Byway resources.
- Support projects to improve the safety of Byway for motorists, pedestrians and non-motorized vehicles as appropriate to the roadway conditions such as scenic pull-off areas.

SCENIC RESOURCES

CHAPTER 2

Connecticut River Scenic Byway

Introduction

Travelers on the Connecticut River Scenic Byway will experience views of farmland, village centers, picturesque buildings and bridges, rivers, forests, open meadows, and distant mountains. An inventory and evaluation of the scenic resources is critical to understanding the many values that need to be protected along the Byway. This chapter describes the inventory and assessment methodology and then reviews each of the segments on the 24-mile byway in Franklin County, the 15-mile Byway in Hampshire County, and the 6-mile



A Farm Stand on the Byway

proposed Byway extension in Hatfield. The corridor study area is defined as Route 63 in Northfield, Erving and Montague and Route 47 in Montague, Sunderland, Hadley and South Hadley. The proposed extension of the byway to the west side of the Connecticut River includes Elm, Maple, and Main Streets in Hatfield, plus a half-mile wide strip on each side.

Scenic Resources Inventory Procedure

To assess the scenic resources of the Byway, staff from the Franklin Council of Governments (FRCOG) and Pioneer Valley Planning Commission (PVPC) traveled the road and systematically rated the landscape along the Byway corridor and the long range views. FRCOG reviewed the northern 24 miles of the Byway, while PVPC reviewed the southern 21 miles of the Byway. The scoring system is based upon a very similar landscape assessment procedure used by FRCOG and PVPC to assess the scenic resources along the Mohawk Trail Scenic Byway (East and West sections), Route 112, Route 116, and Route 122 Scenic Byway. The assessment procedure is described below, and a sample of the Segment Evaluation Form is included in Appendix B.

Step One

FRCOG and PVPC staff evaluated each 0.5-mile segment within the corridor twice, once driving south and once driving north, using the Segment Evaluation Form. The evaluation included all features, both scenic and detracting, along each side of the 0.5-mile road segment. Scenic features that were present with any 0.5-mile section of a segment received a score of +1, and detracting features received a score of -1. In addition, staff noted all topography that could be seen from the byway, not just topography within the 0.5-mile study

area, which accounts for many long range views that can be seen from the Byway. Staff calculated positive and detracting features for either a north or south directional total. The two directional totals were added together and divided by two (2) to give a “segment” score.

Step Two

Staff then divided the entire corridor into “visual segments” based on common visual characteristics as determined while driving the length of the Byway. The following five categories were used to divide the Byway into “visual segments”: Farmland/Open Land (defined as crop fields, orchards, hayfields, pasture land, and non-forested open land including recreational areas); Forest (defined as forest land including both mature and successional); Village/Town Center; Developed (including residential subdivisions, concentrated approval-not-required residential development, commercial development and industrial areas); and Farmland/Developed (defined as sparse residential development).

In instances where the visual segments that have two different characteristics (for example, residential development along one side of the road, and agricultural land with a historic farm house on the other side), the evaluator made a judgment about which is the dominant visual feature. Staff evaluated each “visual segment” every 0.5-mile according to the procedure detailed in Step One, and completed a separate Scenic Assessment Evaluation Form for each of these 0.5-mile sections. A new 0.5-mile section was begun at the start of each visual segment, so that the final section in some segments might be less than 0.5-mile long. For the purpose of this evaluation, staff windshield surveyed each section at least once in each direction, north and south, before moving onto the next section.

Step Three

FRGOC and PVPC staff calculated the “visual segment” score by adding the total score from each of the Scenic Assessment Evaluation Forms completed within that “visual segment.” Staff then calculated an average score for the “visual segment” by dividing the total score by the number of 0.5-mile sections within the particular “visual segment.” The “visual segment” then received a ranking based on the following categories:

- Other (score of 4.9 or less)
- Noteworthy (score between 5 and 6.9)
- Distinctive (score between 7 and 9.9)
- Outstanding (score of 10 or greater)

Scenic Assessment of Franklin County Area

The Franklin County section of the Connecticut River Scenic Byway is 23.75 miles long and is divided into 19 visual segments. The segments are described sequentially from north to south beginning at the New Hampshire border in Northfield and ending at the Sunderland/Hadley town line.

The majority of the landscape in the Franklin County segment of the byway is comprised of active farmland mixed with forests and scattered residential development. Over 13 acres are categorized as either Farmland/Open Land or Farmland/Developed Land. Roughly 5 acres of the byway is densely forested. Villages and town centers make up approximately 4 acres of the byway, with developed land comprising only 1.5 acres of the Byway landscape. Table 2-1 and 2-2 summarize the evaluation of the segments, and the following narrative provides more detail on each segment.

Table 2-1: Visual Segment Categorization – Franklin County

	Total Length (miles)
Farmland / Open Land	2.5
Forest Land	5
Village / Town Center	4
Developed Land	1.5
Farmland / Developed Land	10.75
Total	23.75

Table 2-2: Visual Segment Evaluation – Franklin County

	Total Length (miles)
Outstanding	13.25
Distinctive	6.5
Noteworthy	3
Other	1
Total	23.75

Table 2-3: Segment Category and Evaluation – Franklin County Area

Segment No.	Starting / Ending Points	Town	Approx. Length (miles)	Segment Category	Segment Evaluation	Most Distinctive Character
1	NH/MA State line / Pauchaug sign just north of Route 10	Northfield	0.5	Farmland / Open Land	Distinctive	Northfield Drive-In; farm field and forest
2	Just north of Route 10 / Northfield Mount Hermon driveway	Northfield	0.5	Forest Land	Outstanding	Long view of fields and forest; historic buildings on former Northfield Mount Hermon campus
3	Northfield Mount Hermon Driveway / Route 10 Intersection	Northfield	2.0	Village / Town Center	Outstanding	Historic linear common streetscape and village center; panoramic views of farm fields and forested mountains
4	Route 10 intersection / Whitney Fence	Northfield	0.5	Forest Land	Other	Mature forests with scattered residential development
5	Whitney Fence / Homer Road	Northfield	1.0	Farmland / Open Land	Distinctive	Gently sloping farmland and forest; historic monument; antique shop
6	Homer Road / Northfield Mountain Recreation Center entrance	Northfield	3.5	Farmland / Developed Land	Outstanding	Panoramic views of the Connecticut River; farmsteads and pastures; historic library and schoolhouse
7	Northfield Mountain Recreation Center entrance / House #108 (Erving)	Northfield / Erving	1.0	Farmland / Open Land	Distinctive	Panoramic views of fields and forests; historic cemetery; large solar array; utility corridor
8	House #108 / Semb Drive	Erving	1.0	Developed Land	Noteworthy	Fields and forests with scattered residential development; Erving Senior Center and Elementary School
9	Semb Drive / Pioneer Tavern	Erving / Montague	1.0	Village / Town Center	Noteworthy	Village residential setting; park; historic commercial blocks; dilapidated buildings
10	Pioneer Tavern / House #111	Montague	0.5	Developed Land	Other	Mature forests and rows of trees; roadside residential; auto repair shop; dilapidated buildings
11	House #111 / House #244	Montague	1.0	Forest Land	Noteworthy	Dense forest with scattered residential development; historic cemetery; railroad bridge and power line corridor
12	House #244 / Lang's Lane	Montague	1.0	Farmland / Developed Land	Distinctive	Panoramic views of farms and pastures; long view of Mt. Toby; roadside residential development; powerline corridor

Segment No.	Starting / Ending Points	Town	Approx. Length (miles)	Segment Category	Segment Evaluation	Most Distinctive Character
13	Lang's Lane / Center Street	Montague	0.5	Forest Land	Distinctive	Forest with scattered residential development; maple syrup farm stand; historic brick houses; auto repair shop
14	Center Street / Fosters Road	Montague / Sunderland	2.5	Farmland / Developed Land	Outstanding	Farm fields and forest with scattered residential development; Sawmill River; boulder outcrops
15	Fosters Road / House #330	Sunderland	1.0	Forest Land	Distinctive	Mix of farm fields, pasture and forest; scattered residential development; mature forest creates a tunnel effect; boulder outcrops
16	House #330 / Dragon Hill	Sunderland	1.0	Farmland / Developed Land	Outstanding	Panoramic views of farms, fields, and Mt. Toby; scattered residential development
17	Dragon Hill / House #250	Sunderland	1.5	Forest Land	Distinctive	Scenic turnout area; dense forests create a tunnel effect; views of the Connecticut River and Mt. Sugarloaf; boulder outcrops
18	House #250 / Millstone Market	Sunderland	1.0	Village / Town Center	Outstanding	Historic tree-lined village center; panoramic views of farm fields and mountains; farm stands; small commercial strip
19	Millstone Market / Hadley town line	Sunderland	2.75	Farmland / Developed Land	Outstanding	Views of farm fields and tobacco barns with mountains in the background; residential development

Narrative

Segment 1 – Northfield, from the New Hampshire and Massachusetts state line to the Pauchaug Brook Boat Launch sign just north of the intersection of Route 63 and Route 10

Farmland/Open Land, .5 mile



Characteristics: The northern terminus of the Massachusetts section of the byway is at the New Hampshire border. Traveling south, the landmark Northfield Drive-In Theatre is located to the east of the byway. The Northfield Drive-in Theatre opened in August 1948 and has operated continually since. It is family owned and believed to be the only drive-in theatre that straddles two states (NH and MA). There is a garden center with a field for growing flowers on the right. Just north of the intersection of Route 63 and Route 10 the

landscape near the byway is densely forested. A sign for the Pauchaug Brook Boat Launch is visible at the end of this segment.

Distinctive Features: Northfield Drive-In Movie Theatre, farm field, and forest

Issues: None

Scenic Value Rating: Distinctive

Segment 2 – Northfield, from the Pauchaug Brook Boat Launch sign just north of the Route 63/10 intersection to the former Northfield Mount Hermon School campus driveway



Forest Land, .5 mile

Characteristics: The area of dense forest continues as the byway joins with Route 10. South of the intersection the forest opens up to long views of fields and forests on the right. The picturesque former Northfield Mount Hermon School campus is to the east of the byway. The view to the east is of the hilly former campus and a number of the historic buildings.

Distinctive Features: Long views of fields and forests and the long view up the hill of the former Northfield Mount Hermon School campus.

Issues: None

Scenic Value Rating: Outstanding

Segment 3 – Northfield, from the former Northfield Mount Hermon School campus driveway to the southern intersection of Route 63 and 10



Village / Town Center, 2.0 miles

Characteristics: This section of the byway travels through historic Northfield village center, which has a linear town common with wide grass strips on both sides of Main Street (Route 63/10), a sidewalk that is set back from the road and mature shade trees. The

road is lined with a mix of civic buildings, small commercial establishments, and stately historic homes. Northfield village center is part of the Main Street National Register Historic District (from Moody Street to Route 10). Travelers can catch glimpses of farm fields and farm activity to the west of the byway, while forested mountains are visible to the east.

Distinctive Features: The historic village streetscape, and the panoramic view of fields and mountains as a backdrop to the historic village

Issues: A vacant lot where a gas station was previously located detracts from the scenic quality of the village.

Scenic Value Rating: Outstanding

Segment 4 – Northfield, from the Route 63/10 intersection to Whitney Fence



Forest Land, .5 mile

Characteristics: To the south of the intersection of Route 63 and Route 10, the landscape along the byway is forested with scattered residential development.

Distinctive Features: Mature forests

Issues: None

Scenic Value Rating: Other

Segment 5 – Northfield, from Whitney Fence to Homer Road



Farmland / Open Land, 1.0 mile

Characteristics: The landscape in this segment is characterized by active farmland on both sides of the byway. There is a historical marker in this section of the byway that marks the Indian Council Fires that occurred 250 years ago.

Distinctive Feature: Gently sloping farmland and forest.

Issues: None

Scenic Value Rating: Distinctive

Segment 6 – Northfield, from Homer Road to the Northfield Mountain Recreation Center entrance



Farmland / Developed Land, 3.5 miles

Characteristics: The landscape in this segment of the byway is characterized by active farmland mixed with forest and scattered residential development. There is a scenic turnout that has panoramic views of the Connecticut River across farm fields. When traveling north in this segment, there are distant views of mountains and the Northfield Mount Hermon School campus that is located in Gill. There are historic homes, a historic library building and schoolhouse within this segment.

Distinctive Features: Panoramic views of the Connecticut River and views of farmsteads and pastures

Issues: Auto repair garage

Scenic Value Rating: Outstanding

Segment 7 – Northfield, from the entrance of the Northfield Mountain Recreation Center to house number 108 in Erving



Farmland / Open Land, 1.0 mile

Characteristics: This segment begins with open views of fields on both sides of the Byway. There is an historic cemetery located on the east side of Route 63 to the north of the entrance to the Northfield Mountain Recreation Center. There is also a historic marker for the grave of Captain Richard Beers who was killed by Indians on September 4, 1675 near this site. There is a

large scale ground-mounted solar array on the west side of the byway which is surrounded by chain link fencing. There is scattered residential development and forest close to the byway as it enters Erving. The byway also passes a wide powerline corridor cut through the trees.

Distinctive Features: Panoramic views of fields and forests and historic cemetery



Issues: The large solar array could be better screened from the Byway; utility corridor

Scenic Value Rating: Distinctive

Segment 8 – Erving, from House Number 108 to Semb Drive

Developed Land, 1.0 mile

Characteristics: The landscape is mostly forested with scattered residential development in the northern section of this segment. The Erving Senior Center is on the west side of the byway. To the south of the Senior Center the byway landscape opens up into a clearing where the Erving Elementary School. To the south of the Elementary School there is newer residential development, and a commercial self storage facility.

Distinctive Features: Forested landscape

Issues: The commercial self-storage facility could be screened more from the Byway.

Scenic Value Rating: Noteworthy

Segment 9 – Erving/Montague from Semb Drive to the Pioneer TavernVillage / Town Center, 1.0 mile

Characteristics: This segment of the byway travels through Millers Falls Village in Erving and Montague. The byway passes under Route 2 in Erving, and enters the village residential setting of Ervingside (the Erving section of Millers Falls). There is a public park on the west side of Route 63. The Erving Public Library is to east. This area has historic homes lining the streets in the village. The

byway crosses over railroad tracks and through a small area of commercial establishments including a convenience store, auto sales business, and a café. The byway crosses a bridge over the Millers River and into the Montague section of the village of Millers Falls. Bridge Street (Route 63) is lined with primarily historic residential buildings and some commercial establishments near the center of the village. Bridge Street, and East and West Main Street intersect in the center of Millers Falls. The village has retained much of its late 19th Century historic character. Many of the historic houses and village commercial buildings are intact. Although the village has suffered from some neglect of its commercial buildings, there is recent interest and private investment going towards redevelopment and restoration efforts.

Distinctive Features: View of the Millers River and the intact historic commercial buildings in Millers Falls

Issues: Some homes and commercial buildings are vacant and/or in disrepair. Commercial buildings in Ervingside lack historic characteristics.

Scenic Value Rating: Noteworthy

Segment 10 – Montague, from the Pioneer Tavern to house number 111Developed Land, 0.5 mile

Characteristics: This segment of the byway has a mix of scattered residential development, commercial buildings and forest along the roadway. There are some buildings that are in need of repair.

Distinctive Features: The areas of forest.

Issues: Some buildings that are in need of repair

Scenic Value Rating: Other

Segment 11 – Montague, from House Number 111 to House Number 244



Forest Land, 1.0 mile

Characteristics: This segment of the byway is more densely forested. The roadway is narrow with little shoulder, and the dense forest creates a “tunnel” effect along some stretches. A powerline corridor bisects the byway to the north of a railroad bridge which crosses the road. Guardrails are present along numerous sections of the roadway.

Distinctive Features: Dense forest with scattered residential development and the historic cemetery

Issues: Powerline corridor, guardrails

Scenic Value Rating: Noteworthy

Segment 12 – Montague, from House Number 244 to Lang’s Lane



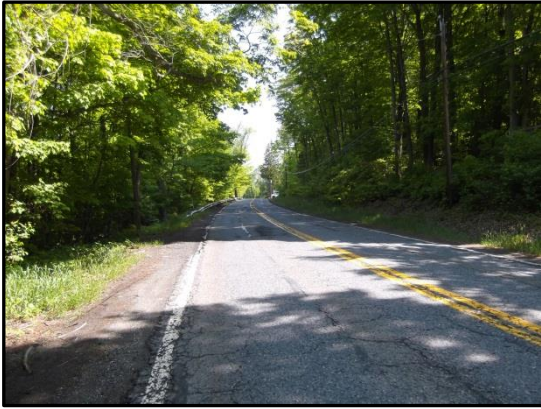
Farmland / Developed Land, 1.0 mile

Characteristics: In this section the dense forest begins to give way to increasing residential development, before opening up onto a panoramic view of a farm field and mountains beyond. A large powerline corridor traverses the farm field and crosses the byway. A tractor supply store displays farm and yard tractors on both sides of the road.

Distinctive Features: Panoramic views of farms and pastures and a long view of Mt. Toby

Issues: Powerlines. The tractor store fits with the rural and agricultural theme of the Byway but may be considered to detract from the scenic quality of the corridor.

Scenic Value Rating: Distinctive

Segment 13 – Montague, from Lang’s Lane to Center StreetForest Land, .5 mile

Characteristics: The roadway is narrow with narrow shoulders. The landscape has forest scattered with residential development. There are small openings in the forest that provide glimpses of yards and fields. There is a farm stand selling maple syrup, an auto repair shop, and several historic brick homes along the byway. A stone wall lines the east side of the road in front of one of the brick farmhouses.

Distinctive Features: Forest with scattered residential development; maple syrup farm stand; historic brick houses; auto repair shop

Issues: Auto repair shop

Scenic Value Rating: Distinctive

Segment 14 – Montague, from Center Street to Fosters Road in SunderlandFarmland / Developed Land, 2.5 miles

Characteristics: The Sawmill River winds through the woods adjacent to the road where the byway turns onto State Route 47. Heading south on Route 47, there is a panoramic view of rolling farmland and pasture dotted with farmsteads and residential development. The roadway is narrow and winding, and there is little to no shoulder.

Most Distinctive Features: Farm fields and forest with scattered residential development; Sawmill River; boulder outcrops

Issues: Guardrails, auto sales and repair, some dilapidated buildings

Scenic Value Rating: Outstanding

Segment 15 – Sunderland, from Fosters Road to House Number 330

Forest Land, 1.0 mile



Characteristics: In this segment, the landscape is forest. The roadway is narrow with little to no shoulders. Dense forest encloses the byway on both sides with very little residential development.

Most Distinctive Features: Mature forest creates a tunnel effect; large boulder outcrops

Issues: Guardrails

Scenic Value Rating: Distinctive

Segment 16 – Sunderland, from House Number 330 to Dragon Hill



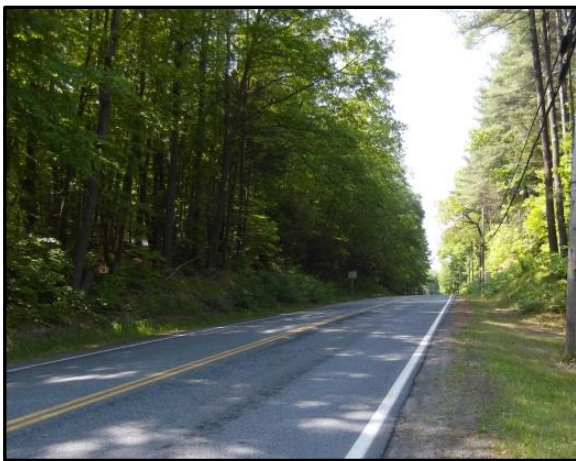
Farmland / Developed Land, 1.0 miles

Characteristics: In this segment the byway landscape is a mix of newer roadside residential development and older farmhouses. In several areas there are panoramic views of farm fields and Mt. Toby to the east.

Distinctive Features: Panoramic views of farms, fields, and Mt. Toby; scattered residential development

Issues: None.

Scenic Value Rating: Outstanding



Segment 17 – Sunderland, from Dragon Hill to House Number 250

Forest Land, 1.5 mile

Characteristics: The roadway winds through forests with occasional residential development. The scenic turnout area just south of Falls Road provides long views of the Connecticut River and the Pocumtuck Ridge including Mt. Sugarloaf.

Distinctive Features: Scenic turnout area; dense forests create a tunnel effect; views of the Connecticut River and Mt. Sugarloaf; boulder outcrops

Issues: None.

Scenic Value Rating: Distinctive

Segment 18 – Sunderland, from House Number 250 to the Millstone Market



Village / Town Center, 1.0 mile

Characteristics: In this segment the roadway becomes straight and the landscape is flat as the byway parallels the Connecticut River towards Sunderland Center. Views of the Connecticut River and Mt. Sugarloaf are visible to the west. As the byway enters the Sunderland Historic District, it is flanked on either side by wide grass strips, street trees, and a mix of historic and newer homes. The center of

Sunderland has a Connecticut River linear town common. Views of farmland, the Connecticut River, and mountains can be seen behind the rows of historic homes. The byway intersects with Route 116 at the main intersection in Sunderland Center. The intersection is busy and there are small-scale commercial buildings. To the south of the intersection there is the same historic linear town common pattern along South Main Street (Route 47). There are several farm stands in this section.

Distinctive Features: Historic tree-lined village center; panoramic views of farm fields and mountains; farm stands; small commercial strip at Route 116 intersection

Issues: Some of the commercial development at the intersection with Route 116 is auto-oriented and out of character with surrounding historic structures.

Scenic Value Rating: Outstanding

Segment 19 – Sunderland, Millstone Market to the Hadley town line



Farmland / Developed Land, 2.75 miles

Characteristics: The landscape in this segment of the byway is flat, open farm fields, barns, and scattered residential development. There are wide panoramic views of cultivated fields with mountains in the background on both sides of the roadway. Many of the homes along the road are newer construction, including an apartment complex. As the Byway approaches the Hadley town line, active agricultural fields and tobacco barns are

the dominant feature of the landscape.

Distinctive Features: Views of farm fields and tobacco barns with mountains in the background; newer residential development

Issues: Some of the newer residential development may detract from the otherwise agricultural character of this segment

Scenic Value Rating: Outstanding

Scenic Assessment of Hampshire County Area

The Hampshire County section of the Connecticut River Scenic Byway is 21.4 miles long, and is divided into 29 visual segments (including the proposed byway in Hatfield). The segments are described sequentially from north to south, beginning at the Hadley/Sunderland town line, and ending in South Hadley at the junction with Route 116, and starting at the Hatfield/Whately town line at Main Street, and ending at the I-91 overpass on Elm Street.

The landscape of the Hampshire County portion of Connecticut River Byway is mostly a rural, agricultural landscape, with stretches of classic New England village and residential development. Much of the route is Village/Town Center (7.2 miles), with the largest contiguous segment in Hatfield (3.2 miles). The rest of the route has active agricultural activity, interspersed with stretches dominated by low-density residential development and patches of forest land. Tables 2-3 through 2-4 below summarize the evaluation of these segments, while the following narrative provides more detail.

Table 2-4: Visual Segment Categorization – Hampshire County

	Total Length (miles) (including Hatfield)
Farmland / Open Land	6.3
Forest Land	3
Village / Town Center	7.2
Developed Land	1.1
Farmland / Developed Land	3.8
Total	21.4

Table 2-5: Visual Segment Evaluation – Hampshire County

	Total Length (miles)
Outstanding	8.9
Distinctive	6
Noteworthy	2.7
Other	1.2
Total	18.8

Table 2-6: Segment Category and Evaluation – Hampshire County Area

Segment No.	Starting / Ending Points	Town	Approx. Length (miles)	Segment Category	Segment Evaluation	Most Distinctive Character
1	Sunderland town line / Russellville Cemetery	Hadley	.2	Farmland / Open Land	Outstanding	Historic cemetery and farm fields; distant views of Mt. Toby
2	Russellville Cemetery / Cold Spring Road	Hadley	.3	Developed Land	Other	Newer housing on Cold Spring Road
3	Cold Spring Road / 405 River Drive	Hadley	.5	Farmland / Open Land	Outstanding	Sweeping views over farm fields to river's edge and distant hills
4	405 River Drive / 379 River Drive	Hadley	.1	Forest	Noteworthy	Historic homes tucked away in trees
5	379 River Drive / Shattuck Road	Hadley	.4	Farmland / Developed Land	Distinctive	Barns dotting long views to Pelham Hills & UMass
6	Shattuck Road / Karl's Excavating	Hadley	.2	Farmland / Developed Land	Other	Newer housing in ANR development pattern
7	Karl's Excavating / 263 River Drive	Hadley	1.1	Farmland / Open Land	Distinctive	Lake Warner & farm fields in background
8	263 River Drive / Stockwell Road	Hadley	.9	Village / Town Center	Outstanding	N. Hadley Village & N. Hadley Sugar Shack
9	Stockwell Road / Rocky Hill Road	Hadley	1.8	Farmland / Open Land	Distinctive	Landscape near Porter Phelps Huntington House Museum
10	Rocky Hill Road / just north of East Street	Hadley	1.7	Village / Town Center	Outstanding	Stately old homes in

						Hadley Town Center
11	Just north of East Street / just north of Bay Road	Hadley	.2	Forest	Noteworthy	Land form around Ft. River
12	Just north of Bay Road / Laurel Drive	Hadley	1.3	Farmland / Developed Land	Noteworthy	Newer housing amid fields and minor commercial / industrial uses
13	Laurel Drive / just north of Mitch's Marina	Hadley	1.2	Forest	Distinctive	Dense, mature forest with trails
14	Just north of Mitch's Marina / 193 River Road	Hadley	1.2	Farmland / Open Land	Outstanding	Rolling farm fields, Barstow's Farm
15	193 River Road / South Hadley town line	Hadley	.1	Forest Land	Distinctive	Fields to river on west, forest on east
16	Hadley town line / top of hill after Sullivan Lane	South Hadley	.5	Forest Land	Distinctive	Forest tunnel of trees (hemlocks)
17	Top of hill after Sullivan Lane / 316 Hadley Road	South Hadley	.5	Farmland / Developed Land	Noteworthy	Hay fields on hills
18	316 Hadley Street / 143 Hadley Street	South Hadley	.5	Developed	Noteworthy	Residences amid forested blocks
19	143 Hadley Street / 101 Hadley Street	South Hadley	.4	Forest Land	Distinctive	Bachelor Brook
20	101 Hadley Street / Community playing fields	South Hadley	.1	Farmland / Open Land	Distinctive	Community gardens, farm fields
21	Community playing fields / Village Center	South Hadley	.7	Village / Town Center	Distinctive	Established homes and street trees
22	Whately town line / 501 Main Street	Hatfield	.2	Farmland / Open Land	Distinctive	Farm fields, Mt. Toby
23	501 Main Street / field just south of Third Hand Farm	Hatfield	.7	Village / Town Center	Distinctive	Bradstreet Historic District, farm activity
24	Field just south of Third Hand Farm /	Hatfield	.1	Forest	Noteworthy	Wildlife, wetlands

	large farm fields					
25	Large farm fields (north end) / between two entrances to Kellogg Hill Road	Hatfield	1.2	Farmland / Open land	Outstanding	Expansive views of farm fields
26	Between two entrances to Kellogg Hill Road / just north of 177 Main Street	Hatfield	.2	Forest Land	Other	Farm roads and crop fields
27	Just north of 177 Main Street / 143 Main Street	Hatfield	.3	Developed Land	Other	Farm field at northern end of segment
28	143 Main Street / Dwight Street	Hatfield	3.2	Village / Town Center	Outstanding	Historic homes in village center
29	Dwight Street / Interstate 91 bridge	Hatfield	.2	Forest Land	Other	Trees on either side of road

*Narrative***Segment 1** – Hadley, from Sunderland town line to the Russellville CemeteryFarmland/Open Land, .2 miles

Characteristics: Traveling south from the Sunderland town line, this initial visual segment in Hadley is flat and agricultural in character. There are farm barns and active equipment relatively close to the road on the east, with farm houses on the west. Trees are close to the road before giving way to farm fields on both sides. Traveling from the south, the fields bring the eye towards long red

barns and Mt. Toby State Forest in the background before entering the cluster of farming activity at the border with Sunderland. The Russellville Cemetery also adds a sense of history and permanence to the surrounding landscape of working farms.

Most Distinctive Feature: Red barns, fields, cemetery

Issues: Some of the farming equipment over the border in Sunderland is not as picturesque (truck storage, cars, etc.) and is visible from this segment.

Scenic Value Rating: Outstanding

Segment 2 – Hadley, from Russellville Cemetery to Cold Spring Road AreaDeveloped Land, 0.3 mile

Characteristics: This short segment features mostly residential characteristics, with well-maintained but newer homes on either side. The homes are set relatively far back from the road. Traveling from the north, there is a distant long view over the farm fields to the south on the west side of the road (which comprise the next segment). Traveling from the south, expansive fields give way to the residential area, with the newer but well-

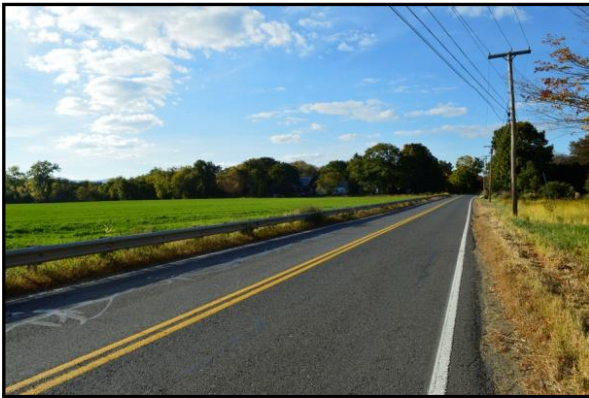
maintained subdivision along Cold Spring Road marking the change in landscape.

Most Distinctive Scenic Feature: Newer, well-maintained homes with attractive yards

Issues: The subdivision development pattern on Cold Spring Road is somewhat at odds with the stunning surrounding agricultural landscape to the south. The homes along River Road are attractive but clearly newer, though the yards are well-maintained and vegetated.

Scenic Value Rating: Other

Segment 3 – Hadley, from Cold Spring Road area to 405 River Drive



Farmland / Open Land, .5 mile

Characteristics: There is a large expanse of intact fields on the east side of the Byway that creates a sweeping view from the edge of the road to the distant river. On the west side of the Byway the fields stretch to the forest edge with mountains in the background. Long barns dot the distance. The southernmost part of the segment is dotted with some traditional farmhouses.

Most Distinctive Scenic Feature: Large amount of in-tact farmland

Issues: There are two abandoned farmhouses with barns, but they are not yet excessively dilapidated and could be viewed by some as adding to the segment's historic character.

Scenic Value Rating: Outstanding

Segment 4 – Hadley, from 405 River Drive to 379 River Drive



Forest, .1 miles

Characteristics: This short segment gently slopes and curves over Russellville Brook, under a mature canopy of trees. Large, historic homes are tucked far back among the trees on the west side. Forest dominates the east side of the street.

Most Distinctive Scenic Feature: Large historic homes enshrouded in trees

Issues: Excessive guardrails

Scenic Value Rating: Noteworthy

Segment 5 – Hadley, from 379 River Drive (at intersection of Comins Road) to Shattuck Road

Farmland / Developed Land, 0.3 mile



Characteristics: This segment is flat and curving, with newer housing the western side of the road. There are large fields extending far into the eastern view at the northern end of the segment, with several barns in the distance. Houses and some barns tend to block continued views of these fields on the east, though the farmland dominates the background in glimpses. The houses are newer on the west side of the road, and overall the residential density is on the higher side in this

segment.

Most Distinctive Scenic Feature: Long views of farm fields with barns and some distinctive trees in the distance

Issues: Housing blocks views in some cases. The approval-not-required development pattern and ranch-style houses on the western side of the road are somewhat out of character with the surroundings. The intersection with Comins Road is fairly barren and has an auto-repair shop with no buffer to the road.

Scenic Value Rating: Distinctive

Segment 6 – Hadley, from Shattuck Road to Karl’s Excavating



Farmland / Development, .2 miles

Characteristics: This segment is mainly residential, though there are agricultural fields on the eastern portion of the southern end that extend from the roadway to the river. On the northern end of the segment, there is some new housing on old fields with manicured lawns, which re-characterizes the landscape with a more suburban than rural/agricultural feel.

Traveling from the south, there are long views of fields at the bend in the road (intersection with Shattuck Road). An abandoned farmhouse at the intersection of Shattuck Road features a beautiful barn with a stone foundation, which contrasts with the newer, suburban-style housing in the next lots. Further south down the segment, the excavating business serves to indicate the road's role in today's current economic activity.

Most Distinctive Scenic Feature: Abandoned farmhouse at Shattuck Road, long views east towards Amherst over fields

Issues: The abandoned farmhouse may deteriorate into an eyesore over time. The excavating business, while clearly busy and successful, is not buffered from the roadway with landscaping, and is located close to the road.

Scenic Value Rating: Other

Segment 7 – Hadley, from Karl's Excavating to 263 River Drive

Farmland / Open Land, 1.1 mile



Characteristics: The traveler from the south enters this segment after exiting the village of North Hadley, and the longer stretches between residences and farm field visible at the first bend in the road indicate this transition. Lake Warner, crops such as cabbage and corn, and farmhouses characterize the agricultural landscape the east. A traveler entering this segment from the north passes the excavating business on the left to large fields with long views

towards the hills of Amherst. UMass is visible in the distance. This area also includes large-scale industrial-style greenhouses set back from the road.

Most Distinctive Scenic Feature: Fields with UMass in the distance, flashes of Lake Warner beyond farm fields

Issues: The greenhouses are slightly out of context of the surrounding area as they have an industrial quality, including tall smoke-stack like exhaust structures. There is an abandoned house that is somewhat shielded from view but may deteriorate further. Lake Warner is less visible in the landscape in this area due to green algae (see picture above).

Scenic Value Rating: Distinctive

Segment 8 – Hadley, from 263 River Drive to Stockwell RoadVillage / Town Center, .9 miles

Characteristics: The traveler enters from the north along a curving road and into more closely-spaced houses. Lake Warner is visible to the east of the road, and the houses are of classic New England character and become closer to the road. A white church steeple is visible in the background. The center of North Hadley village is marked by this church and the North Hadley Village Hall, as well as an old but rehabilitated gas station building. The mill and dam at Lake

Warner are close by but not immediately visible to travelers that do not know to look for these scenic features. As the traveler moves further south, the setbacks are still close to the road, but the houses are sparser. The road winds over the Mill River in a short forested tunnel, into an area of active agricultural fields, and eventually passes the North Hadley Sugar Shack, which is a point of scenic and cultural interest.

Most Distinctive Scenic Feature: North Hadley center, Lake Warner mill and dam, North Hadley Sugar Shack

Issues: The Lake Warner mill and dam are beautiful scenic features, and travelers could benefit from better signage to them. There are some houses around the Mill River that have fallen into disrepair. Lake Warner is coated in green in large areas due to excessive algae growth and invasive plants, causing the water to blend in with the surrounding vegetation at vantage points from the road.

Scenic Value Rating: Outstanding

**Segment 9** – Hadley, from Stockwell Road to Rocky Hill RoadFarmland / Open Land, 1.8 miles

Characteristics: The traveler enters this segment after passing the North Hadley Sugar Shack. On the western side of the road are newer houses with vegetated and well-maintained lawns. On the east side, through

a planted, evenly spaced line of mature trees, is a panoramic view over open farm fields and barns to the edge of the Connecticut River. Further south the views on both sides become more agricultural, with fields behind tree vegetation along the road. The Porter Phelps Huntington House Museum and a falconry facility are nestled amid this landscape, both set back from the road but clearly marked with signage for the traveler, adding to the historic and agricultural value of this area. Towards the southern portion of this segment, the Holyoke Range is visible in the distance over farm fields. Coming from the south, travelers would see solar panels in the distance over one farm field at the southern portion of this segment.

Most Distinctive Scenic Features: Panoramic views, Porter Phelps Huntington House Museum, view of Holyoke Range

Issues: There are large, newer houses in riparian buffer areas where the river is close to the road, obstructing potential views of the river. A few buildings also close to the road along this segment are industrial and commercial in nature (an automotive repair shop and large warehouse-style building), and appear out of context. In addition, some larger homes have been built in former farm fields that disrupt long views. The solar panels may also be viewed by some as detractions from the distant views.

Scenic Value Rating: Distinctive

Segment 10 – Hadley, from Rocky Hill Road to just north of East Street



Village / Town Center, 1.7 miles

Characteristics: This segment includes Hadley town center and crosses Route 9. Well-maintained historic homes and barns add high scenic quality to this segment. There are numerous indicators of village activity, such as town buildings (senior center, historical society), as well as sidewalks, farm stands, and the Norwottuck Rail Trail. Coming from the north, the

intersection with Route 9 is marked by a church steeple and town hall, though coming from the south the scenic quality at the intersection is more commercial in nature. South of Route 9, the segment is predominantly residential with less civic uses, though the homes are predominantly old and historic. Glimpses of farm fields and barns are visible beyond the houses and mature trees lining the street. At the intersection with Bay Road, there is a historic stone marker noting the mileage to Boston and Albany.

Most Distinctive Scenic Feature: Historic homes, fields

Issues: In some small areas there is newer, larger housing in farm fields behind the established housing on the street, which clutters and obstructs the scenic quality. The northeast corner of the intersection with Route 9 features a low-slung modern building with little landscaping and negatively contrasts with the more traditional structures on the other corners. Some of the historic homes along the segment have been updated with modern materials such as vinyl that detract from their historic quality.

Scenic Value Rating: Outstanding

Segment 11 – Hadley, from just north of East Street to just north of Bay Road



Forest, .2 miles

Characteristics: Tree vegetation is thicker in this segment, creating a canopy in places. Houses are present but more obscured by the trees than in the previous segment. Coming from the south, the road takes a dip and a turn as it enters the low-lying and canopied land form created by the Fort River. The river is visible from the bridge, offering a framed view of natural scenery

amid the stretches of man-made agricultural fields and residences.

Most Distinctive Scenic Features: Fort River

Issues: There is a pumping station along the Fort River that comes into view after crossing the bridge. The guard rails are clearly old but have newer, ill-fitting metal plating tacked over them. There are no signs other than on the pumping station to mark the presence/name of the Fort River.

Scenic Value Rating: Noteworthy

Segment 12 – Hadley, from just north of Bay Road to Laurel DriveFarmland / Developed Land, 1.3 miles

Characteristics: This segment features residential units (many that are newer) strung along the road with farmland predominantly located behind. The setbacks and housing styles and sizes are more varied, with a small amount of minor commercial and industrial uses mixed in with farm stands and an organic vegetable farm. The farm's barn is old but has solar panels on its southern route. Travelers coming from the south see signs

directing to various cultural and institutional destinations as they approach Bay Road, creating a sense of crossroads before entering the town center area. Travelers from the north can view the Holyoke Range in the distance over long red barns and fields, with some newer subdivision-style houses in that horizon.

Most Distinctive Scenic Value: Working organic vegetable farm, long red barns, Holyoke Range

Issues: The newer housing in this segment is large and appears to be more haphazardly placed. There is also an un-built subdivision, with an empty road stretching perpendicular from the Byway. Some may view the solar panels on the old barn as detracting from the historic quality of the structure.

Scenic Value Rating: Noteworthy

Segment 13 – Hadley, from Laurel Drive to just north of Mitch's MarinaForest, 1.2 miles

Characteristics: This segment features dense forest that creates a tunnel or canopy effect over the road in many areas. Brooks are visible from the roadside, as are trails leading into Skinner State Park. The forest is mature and without significant underbrush, drawing the eye into the stands of tall trees. There are some tidy houses, but most are on the east side of the road on the slope down to the river and obscured by trees, making them interesting

focal points amid the forest.

Most Distinctive Scenic Feature: Forested slopes up into Skinner State Park

Issues: Excessive and unattractive guardrails line this segment. There is also no prominent signage alerting travelers to the trailheads and parking areas for Skinner State Park.

Scenic Value Rating: Distinctive

Segment 14 – Hadley, from just north of Mitch’s Marina to 193 River Road

Farmland / Open Land, 1.2 miles



Characteristics: Travelers from the north can see the Connecticut River over the top of Mitch’s Marina as they emerge from the previous forested segment. Continuing downhill the tree canopy opens up to a panoramic expanse of field on the east and the forested river buffer on the west. The Holyoke Range serves as a steep and close backdrop to the fields, creating the sense of being in an enclosed valley. In this space farmhouses with barns are located near an interesting

sign marking historic flood levels of the Connecticut River, creating a unique sense of place. Further south the fields open up again on either side, providing high-quality long and panoramic views. Housing is sparse and mostly set back far from the road. Traveling south, the Holyoke Range tapers down to meet the road in the distance. Traveling north, the Summit House can be glimpsed on the ridge from the road. A historic one-room schoolhouse and the bustling and historic-yet-modern Barstow’s Farm store are both of high scenic quality and also lend a sense of permanence and continuity in this area.

Most Distinctive Scenic Feature: Ridge-to-river valley land form, historic and cultural landmarks, panoramic field views

Issues: Trailers and docks stored at Mitch’s Marina are prominently visible for travelers from the south; these items are somewhat shielded by the slope for travelers from the north. The smoke stack from the former coal power plant in Holyoke is visible in some areas, which some may view as a detraction to the scenic quality of the landscape (though others may view it as an interesting contrast that tells the story of the area).

Scenic Value Rating: Outstanding

Segment 15 – Hadley, from 193 River Road to South Hadley town lineForest Land, 0.1 mile segment

Characteristics: The eastern side of this segment is a wall of trees, with some houses scattered within. The western side features open fields down to the forest line along the river, which provides some long views of high scenic quality. The stone wall around the Hockanum Cemetery lines the last portion of this segment. The cemetery provides a picturesque historic focal point.



Most Distinctive Scenic Features: Long views towards river, Hockanum Cemetery

Issues: A utility corridor of high-tension lines detracts from some of the long views towards the river and Holyoke.

Scenic Value Rating: Distinctive

Segment 16 – South Hadley, from Hadley town line to the top of the hill after Sullivan LaneForest Land, 0.5 mile segment

Characteristics: Both sides of this segment are dense forest, with houses tucked away amid the trees. The road is narrow and windy and the mature trees create a forest tunnel effect. There are numerous hemlock trees, making the tunnel dense and dark. Travelers from the north exit the forested area and start down a long hill with hay

fields to the east. Travelers from the south exit the forested area to see Hockanum Cemetery in Hadley.

Most Distinctive Scenic Features: Forest tunnel of dense trees

Issues: None.

Scenic Value Rating: Distinctive

Segment 17 – South Hadley, from the top of the hill after Sullivan Lane to 325 Hadley Road

Farmland / Developed Land, 0.5 mile segment

Characteristics: This windy segment of the road features a view of Mt. Tom for travelers from the south. The smoke stack from the former coal plant in Holyoke is also visible from this direction. The roadside features a mix of short forested or tree-lined segments with hay fields stretching up long hills. Houses dot the top of these hills on the west side and are also numerous and newer/larger on the east side of the segment.

Most Distinctive Scenic Features: Long hills of hay fields

Issues: The smoke stack may be viewed by some as detraction from the landscape, but could be viewed by others as a local landmark. There is a long and beautiful hill and hay field on the middle-western portion of this segment that is obscured by a thin but dense line of tree vegetation. Thinning that line could offer the traveler more scenic views of this field.

Scenic Value Rating: Noteworthy

Segment 18 – South Hadley, from 316 Hadley Street to 143 Hadley StreetDeveloped Land, 0.5 mile segment

Characteristics: This segment features dense forest on the western side with some forest and then residential development on the eastern side. The forest portions are interrupted by driveways that lead to houses hidden by trees or the upslope of the hill. The houses on the east side tend to be newer one-story ranches, though there are some

older homes with shorter setbacks interspersed.

Most Distinctive Scenic Features: Thick forested areas that line road

Issues: Development and driveways interrupt the wall of forest frequently. The residential development on the east side generally dominates the landscape.

Scenic Value Rating: Noteworthy

Segment 19 – South Hadley, from 143 Hadley Street to 101 Hadley Street



Forest Land, 0.4 mile segment

Characteristics: This segment features thinner forest through wetland areas and over Bachelor Brook. Either side of the road is forested. The view from the bridge of Bachelor Brook is framed by a canopy of trees that draws the eye in and creates curiosity. There is an unmarked parking area by the bridge.

Most Distinctive Scenic Features: View of Bachelor Brook

Issues: None.

Scenic Value Rating: Distinctive

Segment 20 – South Hadley, from 101 Hadley Street to community playing fields



Farmland / Open Land, 0.1 mile segment

Characteristics: The traveler from the south experiences a transition from the village/town center area to open space in this segment. The community fields and gardens on the western side mark village activity, but it is juxtaposed with corn fields on the eastern side.

Most Distinctive Scenic Features: Community

gardens

Issues: The community garden sign is angled in such a way that travelers from the north may miss it.

Scenic Value Rating: Distinctive

Segment 21 – South Hadley, from community playing fields to village center

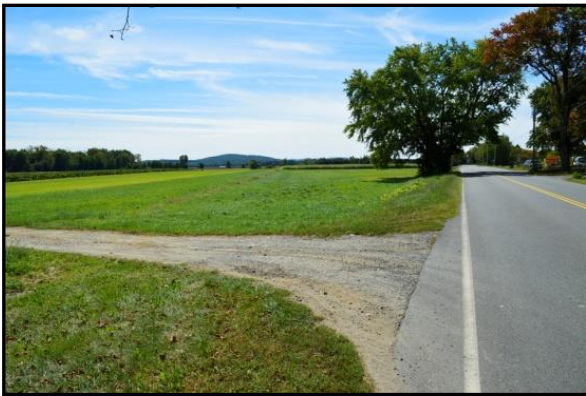
Village / Town Center, 0.7 mile segment

Characteristics: The traveler from the south enters from the Village Common area in South Hadley, adjacent to numerous shops and restaurants. Heading north, the experience is that of an extension of this village area, with regularly spaced and diverse-looking houses and a sidewalk. As the traveler progresses further north, there is a cemetery set back from the road and a crop field can be seen in the distance. Coming from the north, the houses become more closely spaced, giving the experience of approaching and eventually coming into the center of a village area.

Distinctive Scenic Features: Established homes with consistent setbacks and attractive landscaping, the Village Common area at the Route 116 intersection

Issues: The entrance to the Byway at the Route 116 intersection has a few modern buildings that are prominent but do not add to the area's character, and do not have attractive landscaping in front of them.

Scenic Value Rating: Distinctive

Segment 22 – Hatfield, from Whatley town line to 501 Main StreetFarmland / Open Land, 0.2 mile segment

Characteristics: The traveler from the south experiences panoramic views of farm fields with Mt. Toby in the distance. From the north, the traveler can see the Holyoke Range in the distance. Fields extend far to the east and west of the narrow road, which has no shoulder and resembles an old farm road.

Distinctive Scenic Features: Large expanses of farm fields, with mountain ranges in the distance

Issues: There is a structure with some amount of junk and debris in the yard just before the Whatley line.

Scenic Value Rating: Distinctive [upgrade to outstanding?]

Segment 23 – Hatfield, from 501 Main Street to field just south of Third Hand Farm



Village / Town Center, 0.7 mile segment

Characteristics: This segment, which traverses the Brad Street Historic District, features a narrow road and closer setbacks. There is active farm activity in this area, including trucks hauling crops, which is somewhat screened with landscaping. Village features include a cemetery (more visible while traveling north) and some historic housing

that was once utilized for farm workers. Barns and farm fields are interspersed throughout the village housing. The eastern side of the road includes a significant amount of 1970s-era ranch housing.

Distinctive Scenic Features: Farm fields interspersed with historic housing

Issues: Some of the houses are in disrepair. On the east side of the road, newer housing blocks views over farm fields to distant mountain ranges and tree lines.

Scenic Value Rating: Distinctive

Segment 24 – Hatfield, from field just south of Third Hand Farm to northern edge of large farm fields



Forest Land, 0.1 mile segment

Characteristics: This short segment offers a slight forest tunnel effect from the trees on either side. Glimpses of wetland areas are visible through the trees when traveling at a slower pace. The wetlands feature stark trees with intricate trunk and limb patterns, and with a planting arrangement that somewhat resembles an old orchard. A bald eagle was

also observed in this area during the scenic assessment.

Distinctive Scenic Features: Wildlife and wetlands

Issues: The trees on either side of the road block scenic views of the wetlands beyond. The water in the wetland area is covered with green algae, reducing the color contrast of the water and the surrounding landscape.

Scenic Value Rating: Noteworthy

Segment 25 – Hatfield, from northern edge of large farm fields to area between two entrances to Kellogg Hill Road loop



Farmland / Open Land, 1.2 mile segment

Characteristics: This segment traverses wide open expanses of intact farm fields with panoramic views to the river and old oxbow's edge and mountain ranges. Long weathered barns are visible both in the distance and close to the road. Irrigation equipment is also visible. The road is somewhat windy, and towards the southern end of the segment, it curves into a small forest tunnel with wetland

areas visible on the west and hidden corn fields on the east. Dirt farm roads wander away from the Byway at various points along this segment, creating focal points of curiosity for the traveler.

Distinctive Scenic Features: Expansive farm fields extending to the river, long barns

Issues: Graffiti on the sides of some of the barns detracts from their scenic quality in some instances, though a mural does add some beautification. The large fields are shaped by and located in an interesting geological area between the Connecticut River and an old ancient oxbow, but travelers would be unaware of this without interpretive signage or additional information on the Byway website.

Lines of thick trees and understory block views of smaller corn fields at the southern end of the segment. The water treatment plant in this area is also out of scenic context.

Scenic Value Rating: Outstanding

Segment 26 – Hatfield, from area between two entrances to Kellogg Hill Road loop to just north of 177 Main Street

Forest Land, .2 mile segment

Characteristics: The traveler experiences a short segment of forest land that offers a slight tunnel effect. The guardrails here are the old cement and cable type that are less visually intrusive than the newer aluminum types.



Distinctive Scenic Features: Wetlands visible through trees

Issues: It is somewhat difficult to see the wetlands unless traveling at a slow speed.

Scenic Value Rating: Other

Segment 27 – Hatfield, from forested area just north of 177 Main Street to 143 Main Street

Developed Land, .3 mile segment



Characteristics: After exiting the forested area from the north, the traveler enters a more open area with a farm field immediately on the east and new, large houses and lawns on the west. The eastern side of the road gives way to more of these houses after the initial farm field. Setbacks on the western side of the road are very large, with large expanses of lawn in front. Glimpses of the Holyoke Range are visible

traveling south, and distant farm fields are visible behind the houses.

Distinctive Scenic Features: Farm field at northern end of segment

Issues: The large houses and expansive lawns are somewhat out of character with the historic and agricultural quality of the adjacent segments, and obstruct some distant views.

Yard vegetation in this area seems to include a higher amount of non-native ornamental plants and uniform lawns.

Scenic Value Rating: Other

Segment 28 – Hatfield, from 143 Main Street to Dwight Street

Village / Town Center, 3.2 mile segment



Characteristics: This segment is the longest continuous segment in the Hampshire County Byway area. It traverses several historic districts, and is notable due to the large number of historic homes and buildings with outstanding architecture. Setbacks along the Main Street portion of this segment are mostly uniform, with a fairly large tree canopy. Newer homes within the Main Street portion of this segment tend to conform to the architectural context. Travelers can glimpse

fields behind the old homes, and farm stands dot the segment. The Center School, town hall, and churches provide a clustered example of fine architecture.

The Maple and Elm Street portions of this segment are also attractive, and feature smaller homes with smaller setbacks. There is also a less intact tree canopy over these portions; significant trees are more likely to be found alone or in brief stands. Farm fields are more frequent and meet the road along Maple and Elm Streets, but the close spacing of the homes continues to indicate a village.

Distinctive Scenic Features: Outstanding historic architecture on Main Street, farm stands, and farm fields interspersed with village housing on Elm and Maple Streets

Issues: Some trees along the Main Street portion of the segment need re-planting, as they are very cut-away and old. The senior housing complex on Main Street is tidy and attractive but out of context. The senior subdivision on Elm Street is generally out of character with its surroundings and lacks significant vegetation. There are a few non-contextual uses such as an automotive repair shop but for the most part these are not imposing enough to detract from the overall scenic quality. The road is somewhat excessively wide on the Main Street portion.

Scenic Value Rating: Outstanding

Segment 29 – Hatfield, from Dwight Street to Interstate 91 Bridge

Forest Land, .2 mile segment



Characteristics: The roadway is the dominant and somewhat the only feature of this segment. Small trees and brush line either side of a steady slope. There is not much to indicate that this portion of Elm Street leads to a scenic village area.

Distinctive Scenic Features: Vegetation on either side of road

Issues: The road is excessively wide here. An old historic marker sign is too rusted to read. There is not much else to look at.

Scenic Value Rating: Other

Regional View sheds

Regional viewsheds are views that show unique and impressive natural or cultural features. These include spectacular agricultural landscapes or regionally significant landscape elements. The predominant landscape features on Connecticut River Scenic Byway and proposed Byway extension are:

- Connecticut, Millers Mill, and Fort Rivers;
- Mount Toby and Mount Sugarloaf;
- The Holyoke Range;
- Farmland or pasture land; and
- Cultural resources including historic buildings, scenic farmsteads, villages and town centers.

In this analysis, a viewshed had to contain at least three of these four features to be considered a regional viewshed. In addition, other criteria were considered to evaluate regional viewsheds. The considerations included:

- The field of view;
- The width of the scene visible from the observer;
- The depth of view;
- The perception of distance to the farthest element on the horizon;
- The variety and contrast of the landscape; and
- The degree to which the view was compromised (with detractions to predominant landscape elements by features – for example, a new subdivision in a predominately agricultural area would be considered a detraction).

To be considered a regional view, the field of vision had to be wide, generally greater than 120 degrees; the depth of view had to be moderate to long; there have to be a sense of variety and contrast; and visual compromises and contradictions had to be minimal.

Franklin County Area

The following section summarizes regional views identified in the Franklin County section of the Byway. The locations of these views are shown on the Scenic Resources Map.

Northfield near Pauchaug Brook



A byway traveler can see a long view of farm fields and the Connecticut River to the south near the northern juncture of Routes 63 and Route 10 in Northfield. Forested hills are seen in the background.

Northfield near the former Northfield Mount Hermon Campus



West side of the Byway



East side of the Byway

At a high elevation, the Byway opens up on either side to reveal panoramic views of fields and mountains to the north and west. To the east, the landscaped former campus of the Northfield Mount Hermon School offers views of the historic campus buildings.

Northfield south of the Village Center



Views of the Connecticut River, farm fields, the buildings of the Gill campus of the Northfield Mount Hermon School, and wooded hills can be seen to the west of the Byway.

Erving/Montague in Millers Falls



The Millers River is viewed when crossing from Erving to Montague.

Montague near Lake Pleasant



Dense forests open onto a farm field and views of hills beyond.

Montague near the Sunderland Town Line



The Byway emerges from forests into open farmland on both sides of the road. Farm fields extend from the road towards the hills in the background.

Sunderland near the Montague Town Line



A picturesque farmstead and farm fields can be seen in this segment on the west side of the Byway.

Sunderland near Mount Toby



A long view of Mount Toby is seen on the east side of the Byway, with open fields in the foreground.

Sunderland near the scenic turnout



View of Mount Sugarloaf and the Pocumtuck Ridge are seen to the west of the Byway as the terrain flattens out heading toward Sunderland Center.

Sunderland south of Sunderland Center

The area just south of Sunderland Center to the Hadley Town line contains some of the best farmland in the country. Views are panoramic and vast, as the land in this section of the Byway is extremely flat. The Connecticut River is just beyond the fields to the west, while views of Mount Sugarloaf can be seen to the north.

Sunderland near the Hadley Town Line

Tobacco barns are a dominant feature in the cultivated fields just before the Byway enters Hadley. Distant views of hills can be seen to the east and north.

Hampshire County Area

The following section summarizes seven regional views identified in the Hampshire County Area. Locations of these views are also shown on the Scenic Resources Map.

Hadley near Russellville

West side of Byway



East side of Byway

This area is just south of Cold Spring Road in Hadley. The intact-nature of this large piece of farmland on the west side of the Byway (particularly traveling from the north) creates both a visually striking and historic quality to this view. The Connecticut River lining the background of the tilled fields conveys how the area's history was shaped by this important natural feature, and relies on it today. The view on the east side of the Byway at this point (particularly traveling from the south) is equally long and visually striking.

Hadley near Hockanum

The sweeping farmland on either side of the road near Barstow's farm and the old one-room schoolhouse provides views of the Holyoke Range, the Connecticut River, and the hills beyond.

Hadley, at base of Holyoke Range

This view provides a unique perspective of the area's defining mountain range. The fields that extend up the hill draw the eye into a long view, and careful observers will see the Summit House at the top.

Hadley, approaching Holyoke Range

This area is in segment 4. Heading south along the Byway at this point provides an expansive view of the entire Holyoke Range. However, this viewshed is threatened by residential development already visible from this vantage point on the Byway.

Hadley, near Porter Phelps Huntington House Museum



While the fields north of the Porter Phelps Huntington House Museum are large, they also convey an intimate feel due to the lining of the trees along the river and their association with the historic property.

Hatfield, near old oxbow area



This area (north of the wastewater treatment plant) provides panoramic views of large expanses of farm fields that draws the eye far off into the horizon. The traveler enters and exits this scenic area through small segments of forest with forest-tunnel effects at either end, which enhances the sense of openness. Weathered barns are additional focal points on the horizon.

Hatfield, near Whately town line



This view provides more working-farm activity, with barns, tractors often visible, as well as Mt. Toby in the background. The Holyoke Range is visible looking south.

Findings and Recommendations

The scenic resources inventory finds that the Connecticut River Scenic Byway corridor is highly scenic due to active farms and fields, forested segments and long views, and for the numerous historic structures and buildings found along the corridor. There are segments where views and scenic qualities are interrupted by over-scaled structures, standardized development, or out-of-context development, but these areas are more the exception than the rule. Development is dense in some areas, but often is of a historic or contextual quality that helps tell the story of the Byway's agricultural and rural surroundings. To preserve and maintain the scenic qualities of this corridor, a number of findings and recommendations are made here.

Issues

- Approval-not-required residential and out-of-context commercial development, if not controlled, could eventually line the majority of Byway corridor with homes and businesses, and make open space and views less visible from the corridor. Residential and commercial development should maintain the scale and materials that characterize the most scenic and historic segments along the corridor.
- The scenic quality of the Byway in many areas is dependent on the intact nature of large expanses of land, particularly working farmland.
- In several locations of the Byway, guardrails are excessive and aesthetically incompatible with the scenic nature of the road.
- On-ground solar installations may detract from the scenic quality of the Byway for some travelers.
- Some locations lack signage that would point Byway travelers to important landmarks or destinations. Some areas may be at risk of over-signage in the future.
- Vegetation is integral to the scenic value of the Byway, but is also the most dynamic. Large expanses of manicured grass on former farm fields can visually detract from the rural, historic, and agricultural nature of the surroundings, and also pollute local waterways. Conversely, wild vegetation also often limits visibility of the Connecticut River, the defining natural feature of the Byway.
- Though not a widespread problem, historic homes, farmhouses, and other structures in some areas are falling into poor repair, potentially detracting from the traveler's experience. Barns and some farm structures are also an integral part of the Byway experience, but may be at risk for deterioration in future years. Maintaining the integrity of historic structures is particularly important along this Byway, as the Village / Town Center roadway environment type is the most predominant.

- Water quality can affect scenic qualities, particularly if water is discolored by pollution or runoff. Specifically, Lake Warner is often coated with bright green algae, likely due to nutrient runoff that causes it to blend in with surrounding vegetation when viewed from points on the Byway.
- Signage alerting travelers of upcoming trails, boat ramps, and scenic places was missing along the route. Signage could alert travelers to these resources, which offer high-quality scenic views of the Byway area from different vantage points and modes. Specifically, these include trailheads for Skinner State Park, the Lake Warner mill and dam and boat launch, and Bachelor Brook/Stony Brook Area.
- There are no clear or designated areas for travelers to enjoy the “marquee” or regional viewsheds of the Byway. (See Regional Viewsheds section of this chapter.)
- Some of the “gateway” intersections to the Byway – where a large amount of potential travelers may be coming from – could use improvements to better mark the start of the Byway journey and draw travelers in. Specifically, these areas include the Byway’s intersection with Route 9 in Hadley; where Elm Street in Hatfield meets Interstate 91; and the intersection with Route 116 in South Hadley (only one corner). These intersections all have some measure of modern buildings or infrastructure with little or no attractive vegetation associated with them.

Recommendations

- Emphasize and encourage that development concentrates in village centers rather than spread all along the Byway. Communities should adopt Mixed Use Village Center zoning districts to allow a mix of residential, commercial and civic uses within a single structure or planned development, at an increased density. Hatfield has adopted a district that provides a good model. .
- Hadley has adopted commercial development performance standards that include architectural design standards, and landscape standards, particularly for limited commercial areas outside of village centers. South Hadley and Hatfield should consider adopting similar standards. The byway communities should consider adopting Green Development Performance Standards to encourage retention of on-site trees and shrubs and might require buffering of unattractive uses such as parking, storage areas, loading docks, and dumpsters to retain, and where possible, improve the scenic values of the roadway.
- Community officials should encourage their state legislators to advocate for zoning reform at the state level to enable communities to choose to limit approval-not-required development.

- Communities should adopt other “smart growth” tools, including: Open Space Residential Development (cluster) zoning and Transfer of Development Rights (which Hadley has adopted and used successfully).
- Towns along the Byway should pursue funding for purchase of scenic easements and conservation restrictions from willing landowners to permanently protect important scenic vistas along the Byway. Towns should also pursue purchase of Agricultural Preservation Restrictions on large agricultural properties whenever possible. Funding sources for such work include Transfer of Development Rights, and Massachusetts Division of Conservation Services PARC grants.
- As roadway improvement projects are completed, request that MassDOT use of new guard rails constructed of more aesthetically appropriate design and materials, such as wooden rails or weatherized (Cor Ten) steel, rather than galvanized steel. Communicate with MassDOT about standards for guardrail installation to determine whether excessive lengths of guardrails can be removed.
- Review or adopt standards for solar installations that buffer from the Byway and within scenic views, and protect high-quality agricultural land from installations.
- Encourage towns to assess existing sign bylaws to discourage the installation of oversized and inappropriate signs, particularly in village areas. Consider enhancing or adding subtle but readable signs to identify landmarks such as rivers, parks, or important historic or scenic landmarks that would enhance visitor experience.
- Sunderland has created very scenic flowering planting beds and lighting fixtures in the town center on the Byway, and these should be replicated in Hadley, Hatfield and South Hadley town centers.
- Develop a vegetation management plan the Byway committee can use to guide conservation and enhancement of Connecticut River for public highway personnel, and neighboring public and private landowners. A similar plan was developed for the Jacob’s Ladder Trail Scenic Byway. This plan should include immediate action recommendations to protect some of the most important vegetative features, and also ways to encourage landowners and public entities (such as MassDOT) to choose and plant native vegetation that adds to the scenic nature of the Byway and requires less water, fertilizer, and pesticides.
- Work with town conservation commissions and state agencies to educate residents about the spread of invasive species, their impact on the native species that define the Byway, and ways to prevent and eradicate them.
- Improve roadside attractiveness along the Byway through pruning and planting, and, where appropriate, thoughtful selective thinning or clearing. This could be coordinated with state road projects or town roadside projects as opportunities arise,

or incorporated into grant applications should Scenic Byway funding be reinstated in the future.

- Identify abandoned and deteriorating properties along the Byway to secure them from vandalism and rapid deterioration. Work to identify landowners to address code violations or encourage sale and renovation.
- Coordinate with town historical commissions to work with owners of historic properties— residential, municipal, and income-producing—to prepare nominations and obtain listing on National Historic Register.
- Once properties are nationally listed, work with owners of income producing properties (including rentals and farm buildings) to enroll in the National Park Service’s Investment Tax Credit Certification Program. Municipally-owned buildings and not for profit historic properties are eligible for historic preservation grants through the Massachusetts Historic Commission.
- Coordinate with historical commissions to educate homeowners about the use of modern materials on historic properties and how their used may contribute to the loss of historic details such as door and window surrounds, porch supports, and eave brackets.
- Inventory key barns and farm structures along the Byway that contribute to scenic values. When possible, integrate agricultural preservation restrictions for land with preservation restrictions for barns and farm structures.
- Work with local organizations and institutions to identify sources of harmful runoff for the Byway’s tributaries, specifically the Mill and Fort Rivers. Conduct outreach and identify strategies and best management practices to remediate runoff and pollution problems.
- Potential sources of funding for these efforts include MassDEP 604(b) and 319 grants; NRCS EQUIP grants; and EPA Small Urban Waters grants. Potential partners include USDA, the Friends of Lake Warner, and the Silvio O. Conte Wildlife Refuge System.
- Work with MassDOT to identify desired signs for recreational or scenic areas and their design and scale. Design and scale should complement existing Byway signage.
- Explore the potential to add scenic outlook turnouts in areas with the highest-quality scenery and pursue Scenic Byway funds for their construction.
- Consider adding interpretive signage at these turnoffs to help travelers understand the various elements working to create these scenic views.

- Give special attention to these “gateway” areas in the Byway vegetative management plan to identify plantings or landscaping that gives travelers a scenic start to their Byway experience.
- Work with MassDOT to add pedestrian improvements or other context-sensitive design features at the Elm Street/I-91 area in Hatfield to visually narrow that segment if adding attractive landscaping is not feasible.

Natural Resources

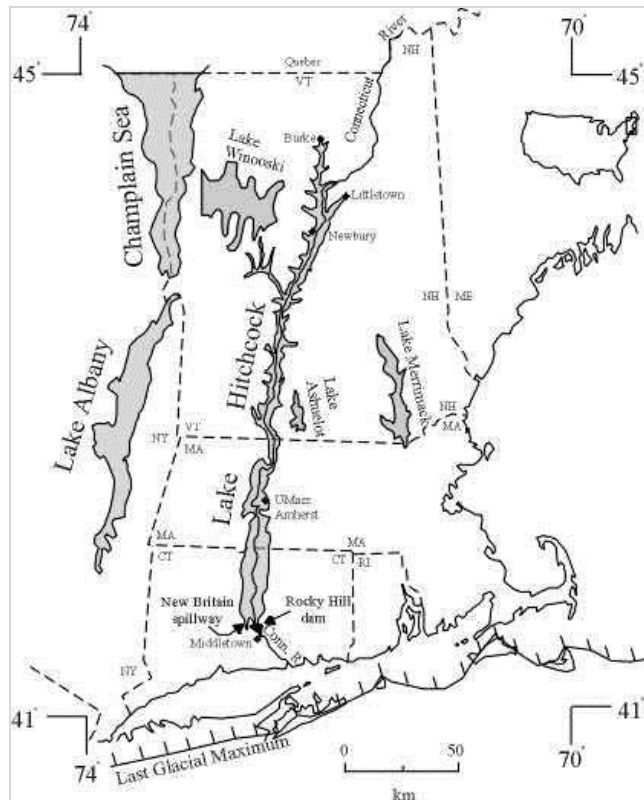
CHAPTER 3

Connecticut River Scenic Byway

Introduction

There are many important and obvious natural resources along the Connecticut River Scenic Byway, such as Mount Toby and the Mount Holyoke Range. There are other resources that are less apparent, but no less important, such as the many small brooks that run through the byway area. The wide variety of natural resources makes the area a particularly distinctive place for both residents and tourists to explore. Also, the many natural resources contribute to the region’s economic, recreational, and ecological viability.

This chapter contains a general overview and inventory of the natural resources in the Connecticut River Scenic Byway area. Information on the geology, soils, water resources, and rare species habitats located in the study area are described. The inventory is intended to highlight the byway’s natural and environmental assets. The existing threats to natural resources and potential protection methods are also discussed, as are issues that could impact the natural resources in the future. This chapter concludes with recommendations for protecting, maintaining, and enhancing the byway’s natural resources. Each topic is described traveling from north to south along the byway.



Geology and Soils

Geologic History

The Connecticut River Valley was formed primarily through the forces of continental drift, volcanic activity, and glacial scouring.¹ During the Triassic Period (180 to 220 million years ago), two faults

Lake Hitchcock shaped the byway’s present-day land forms. Source: Rittenour, T., Brigham-Grette, J. and Mann, M., 2000, ENSO-like climate teleconnections in New England during the Late Pleistocene. *Science*, 288, 1039-1042.

¹ Source: South Hadley OSRP, Hadley Master Plan

formed deep in the earth. The landscape was then pulled apart by continental drift. This event created the Triassic basin that today comprises the river valley in the six towns of the project area. Additionally, volcanic venting, lava flows, and fissures created rock formations.

The rock formations created in the Triassic Period were further shaped in the Pleistocene Era, or the “Ice Age,” one million years ago. The movement and melting of the glaciers which were 10,000 feet thick left sand and gravel deposits and glacial till, or sediment, at the base of the Holyoke Range. Glacial till contributed to the formation of Lake Hitchcock by damming glacial meltwaters and creating a 200 mile long lake which extended from Middlefield, Connecticut to Lyme, New Hampshire. The map on page one shows the extent of Lake Hitchcock.

Today, evidence of the river valley’s geologic history can be seen along the byway. After Lake Hitchcock drained, the Connecticut River and its tributaries cut through the lake deposits and created flat, level terraces and floodplains that are prominent features of the landscape. In Northfield, just to the west of the

Connecticut River, a delta formed in the wake of melt water entering Lake Hitchcock and depositing sediment. The delta is now being diminished as it is home to an active gravel bank. In Erving, the French King Bridge overlooks the 400-foot-deep French King Gorge, which was deeply eroded as Lake Hitchcock drained. West of the byway in Gill, water rushing over a bedrock ridge scoured deep plunge pools in what is now Barton Cove, an area which is popular for boating, fishing, and picnicking. In Montague, the Montague Plains were formed of delta sands, while in Sunderland an unusual high-roofed cave about 100 feet long was formed on the west side of Mount Toby by two giant conglomerate blocks which shifted away from one another. Volcanic venting and fissures created rock formations including the Holyoke Range, located in both Hadley and South Hadley.² The proposed Byway through Hatfield also rests upon these river and lake deposits, contributing to the abundance of surrounding farmland.

What are Prime Farmland Soils?

According to USDA’s Natural Resources Conservation Service, prime farmland soils are those that have the best combination of physical and chemical characteristics for producing food, feed, forage, fiber, and oilseed crops, and are also available for these uses. In general, prime farmland soils have adequate and dependable precipitation, a favorable temperature and growing season, acceptable acidity or alkalinity, and few or no surface stones. They are permeable to water and air. Prime farmland soils are not excessively erodible or saturated with water for a long period of time, and they either do not flood frequently or are protected from flooding.

Source: www.nrcs.usda.gov/wps/portal/nrcs/main/national/technical/fotg/

Soils and Slopes

The soils of the Connecticut River Valley are considered some of the most fertile in the nation and the world. Much of the byway travels through prime farmland soils that were created by deposits from glacial outwash and from the Connecticut River. These soils are deep (sometimes

² *Dinosaurs, Dunes and Drifting Continents: The Geology of the Connecticut River Valley 3rd Edition*, Richard D. Little

up to 12 feet), well drained, and good for growing. While some of the soils are subject to periodic flooding, they are quite exceptional for farming and are desirable for development such as housing. Until recently, there had been a steady loss of farmland to development. In 2012, however, Franklin County saw a 13% increase from 2007 of land in farms. Hampshire County's land in farms also increased during the same time by 2%.

The landscape along of the byway varies. Some areas are characterized by large predominantly flat or slightly sloped agricultural fields and residential development, and other areas are forested. In Northfield, there are large expanses of prime farmland soils between the byway and the Connecticut River. In Montague, the 1,600-acre state-owned Montague Plains, described in the Recreational Chapter, is also comprised of prime farmland soils. The Montague Plains is not farmed but, the area is permanently protected as an outstanding example of a Natural Heritage and Endanger Species Program's Natural Community as a pitch pine-scrub oak barren. In the southwest area of Montague, the soil types are primarily shallow and located on steep slopes with ledge, which are not easily developable.

Silt loam is the dominant soil type in Hatfield west of the Connecticut River where an extension of the byway is proposed. Hatfield is considered the 19th most threatened agricultural landscape, according to American Farmland Trust's *Farming on the Edge*, due to its prime farmland soils that are also of ideal quality for development.³

In the background of the byway are hills and ridges formed by lava flows and carved by glacial movements and melting millions of years ago. In particular, southbound travelers on the byway see the Pocumtuck Ridge in the northern part of the byway and the Holyoke Range from the southern section. The Holyoke Range was formed by several massive lava flows that welled up in faults created by the formation of the Triassic Basin, and is one of very few east-west mountain ranges in the nation. The bedrock of the Holyoke Range is covered by thin glacial soils and forest. The steep slopes and loose soils at the base of the ridges are limitations to development, but offer excellent recreational opportunities.

Water Resources

The Connecticut River is the defining waterway and the most significant landscape feature along the Connecticut River Scenic Byway. The Connecticut River runs more than 400 miles from Fourth Connecticut Lake on the Canadian border in New Hampshire to Long Island Sound. It is the longest river in New England. In Massachusetts, the Scenic Byway travels along roads that are near and within view of the Connecticut River for much of the route.

Additionally, there are other significant water resources within the byway area such as the Millers River, Sawmill River, Mill River and the Fort River. The Millers River is a major tributary of the Connecticut River, which serves as a wildlife habitat in upland areas and for cold water fish such as trout. Streams and rivers add to the scenic and recreational experience of the byway traveler, and contribute to this environmentally rich landscape. The following section provides descriptions of the waterways in the byway area.

³ https://4aa2dc132bb150caf1aa-7bb737f4349b47aa42dce777a72d5264.ssl.cf5.rackcdn.com/map_machusetts300.jpg

Major Rivers and Streams within the Byway Corridor

Connecticut River

The byway generally follows the path of the Connecticut River on Routes 63 and 47. The byway route moves away from the River on Route 63 in Montague and meets back up with it in the northern part of Sunderland. The byway is entirely within the Connecticut River Watershed, with the exception of a two mile stretch near the Erving/Montague town line where the byway crosses the Millers River watershed. Entering Hampshire County, the byway is close to the eastern bank of the Connecticut River, traveling through rich farmland and floodplain. The proposed extension of the byway in Hatfield is on the western side of the Connecticut River.

In the winter, the Connecticut River is frequently visible through the sparse riverbank vegetation and bare trees, and in the summer, the river's presence draws close and recedes in a line of green trees as the byway meanders alongside. With the windows down, travelers might also be able to sense the cooler air as they pass over several cold water streams and brooks draining into the river, which are home to native fish and macro-invertebrates. Though not necessarily the defining feature of the byway, these streams are as important as the Connecticut River for wildlife habitat and ecosystem services for surrounding farmland and forestland.



A View of the Connecticut River in Sunderland.

The Connecticut River has played a central role in the settlement of the Pioneer Valley, by Native Americans and colonial settlers. The river's meanderings left rich soil along its banks, which attracted agricultural uses. During the 19th Century the Connecticut River was used as a transportation route to send logs from northern New England to the growing cities in southern New England and New York. The Connecticut River and its tributaries were also a resource for industry and commerce, and for many decades afterwards the river

was polluted. This was true particularly in the urban segment of the river between Holyoke and Springfield, south of the byway. The river has improved over the years, with the removal of many of the combined sewer overflows and by addressing other pollutants. The Connecticut River now meets federal Clean Water Act standards for Class B or "fishable-swimmable" water quality in the entire segment adjacent to the Connecticut River Byway from the Vermont/Massachusetts state line to South Hadley. As a result, recreational activities have rebounded and are a significant feature of the river landscape today.

Millers River⁴ (Erving, Montague)

The Millers River is one of 38 major tributaries to the Connecticut River. It is 52-miles long and originates in Asburnham, Massachusetts. It joins the Connecticut River just downstream from Millers Falls. The Millers River forms the boundary between Erving and Montague. The Millers River fluctuates between sluggish and rapid flows, primarily due to Army Corps of Engineers' flood control projects. There is an average drop of twenty-two feet per mile on the river. This steep drop and rapid waters helped to power industrial development, the remains of which can still be seen in the form of smoke stacks and mill buildings along the river. Today, the Millers River is valued for its recreational and natural resources which provide opportunities for fishing, wildlife and scenic viewing, whitewater boating, and swimming. The most popular public access point for the Millers River is located at its confluence with the Connecticut River.

Sawmill River (Montague)

The Sawmill River flows westerly for approximately fourteen miles from Lake Wyola in Shutesbury to the Connecticut River in Montague. As its name implies, the early settlers in Montague harnessed the Sawmill River to generate power. During the 18th Century, the river was dammed to power the many mills along its length. Today, most of the mills are gone, but several dams remain. The dams currently serve no commercial function and restrict the passage of migratory fish. The Sawmill River was once part of the Atlantic Salmon Restoration Program sponsored by the Massachusetts Division of Fisheries and Wildlife. It has been the subject of several studies and projects to address ongoing issues such as erosion of the stream banks and sedimentation. The Sawmill River Watershed Restoration Project was established in 2002 to further study challenges along the Sawmill River, and to implement fixes to these challenges.⁵

Mill River (Hadley)

The Mill River drains from east to west beginning at Puffer's Pond in Amherst. It flows into and through Hadley until it drains into the Connecticut River very close to the byway at River and Ferry Roads. In the 18th and 19th Centuries there were multiple mills along the Mill River due to its relatively sharp drop as it drained into the valley.⁶ A gristmill was built on the river in 1662, creating Lake Warner (also known as North Hadley Pond). The current dam on Lake Warner was built in 1919. The Mill River corridor is identified by the Natural Heritage and Endangered Species Program as an Estimated Habitat of rare wildlife and Priority Habitat of rare species.

Fort River (Hadley)

The Fort River flows through Amherst and Hadley, and into the Connecticut River. The Fort River watershed is known for its large diversity of freshwater mussels, including one federally endangered species.⁷ The river is the longest free-flowing tributary of the Connecticut River in Massachusetts. The Fort River also provides recreational opportunities, including fishing, canoeing/kayaking, and the Fort River Birding and Nature Trail, which opened in October 2014 as part of the Silvio O. Conte National Fish and Wildlife Refuge. The one-mile trail is accessible and located within a short drive of the byway on Moody Bridge Road.

⁴ 2011 Erving OSRP

⁵ 2010 Montague OSRP

⁶ Amherst Open Space and Recreation Plan, 2009

⁷ Town of Amherst Website, <https://www.amherstma.gov/1261/Mill-Fort-Rivers>

Mill River (Hatfield)

The proposed Byway extension in Hatfield parallels and then crosses the Mill River. This Mill River has its headwaters in Conway and is approximately 25 miles long. It drains into the Connecticut River in Hatfield after flowing through Conway, Deerfield, Whately, Williamsburg, and Northampton. The Mill River is dammed in Hatfield, a short distance off the byway on Prospect Street, where there is an old mill historic site. The dam marks the site where a plateau divides the lowlands of the Connecticut River valley with the flat agricultural areas that have defined Hatfield for centuries.⁸ There is also fishing access off of the proposed Byway on Elm Street. The Mill River hosts four of the seven listed mussel species in the state and one federally endangered species. Fish species include trout, pickerel, and perch.

Table 3-1: Other Rivers and Streams

Town	River / Brook
Northfield	
	Pauchaug Brook
	Louisiana Brook
	Mill Brook
	Millers Brook
	Roaring Brook
	Merriam Brook
	Pine Meadow Brook
	Fourmile Brook
	Bottom Brook
Erving	
	Scots Brook
Montague	
	Hannegan Brook
	Goddard Brook
	Cranberry Pond Brook
	Spaulding Brook
Sunderland	
	Clay Brook
	Dry Brook
	Gunn Brook
	Long Plain Brook
	Mohawk Brook
	Russelville Brook
	Whitmore Brook
	North Island Brook
Hadley	
	Russellville Brook

⁸ Town of Hatfield OSRP, 2014, page 20.

	Harts Brook
South Hadley	
	Dry Brook
	Elmer Brook
	Bachelor Brook
	Stony Brook
	White Brook
	Buttery Brook
Hatfield	
	Cow Bridge Brook

The Franklin County Scenic Byway Advisory Committee noted that there is a concern with the brooks becoming filled in by rain and silt.

Water Quality Assessment

States are required to monitor and assess the quality of surface waters and provide periodic status reports to the U.S. Environmental Protection Agency (EPA), the U.S. Congress, and the public. Under the Clean Water Act, there is a process through which the waters of the Commonwealth are evaluated with respect to their capacity to support designated uses as defined in the Massachusetts Surface Water Quality Standards. These uses include aquatic life, fish consumption, drinking water, shellfish harvesting, primary (swimming) and secondary (boating) contact-recreation, and aesthetics. The monitoring process entails assessing each of these uses, where applicable, for rivers, lakes, and coastal waters. The causes and sources of use impairment are also identified as applicable. Once a water body is identified as impaired by a pollutant, the Massachusetts Department of Protection (MassDEP) is required to develop a clean-up plan under the Clean Water Act to restore water quality and enable waters to attain designated uses.

The Integrated List of Waters report prepared by MassDEP provides the status of all assessed waters in a single, multi-part list. Each waterbody or segment thereof is assigned one of the following five categories:

- Category 1) Unimpaired and not threatened for all designated uses;
- Category 2) Unimpaired for some uses and not assessed for others;
- Category 3) Insufficient information to make assessments for any uses;
- Category 4) Impaired for one or more uses, but not requiring the calculation of a Total Maximum Daily Load (TMDL); (impairment due to "pollution" such as low flow, habitat alterations or non-native species infestations); and
- Category 5) Impaired for one or more uses and requiring a TMDL (impairment due to pollutant(s) such as nutrients, metals, pesticides, solids and pathogens).

The following table includes: rivers and streams identified as Category 4 or 5 in the 2012 *Integrated List of Waters*; the location, size or length of the section of waterbody sampled; and the type of pollutant or impairment.

Table 3-2: List of Rivers and Streams

Name	Description/Location	Size	Category	Pollutant(s)/Impairment(s)
Bachelor Brook	Outlet Forge Pond, Granby to confluence with CT River, South Hadley	11.6 miles	4a	Nutrient/Eutrophication Biological Indicators
Lake Warner	Hadley	65.1 acres	4a	Non-Native Aquatic Plants, Excess Algal Growth, Dissolved Oxygen, Phosphorus, and Turbidity
Cranberry Pond	Sunderland	28.1 acres	4b	Eurasian Water Milfoil,
Barton Cove	Connecticut River, Gill	160 acres	5	Eurasian Water, E. coli PCB in Fish Tissue
Connecticut River	Massachusetts state line to Route 10 bridge, Northfield.	3.5 miles	5	Alteration in stream-side or littoral vegetative covers , other flow regime alterations, PCB in Fish Tissue
Connecticut River	Route 10 bridge, Northfield to Turners Falls Dam, Gill/Montague.	11.2 miles	5	Alteration in stream-side or littoral vegetative covers , other flow regime alterations, PCB in Fish Tissue
Connecticut River	Turners Falls Dam, Gil/Montague to confluence with Deerfield River, Greenfield /Montague /Deerfield	3.6 miles	5	Low flow alterations, other flow regime alterations, PCB in Fish Tissue, Total Suspended Solids (TSS)
Connecticut River	Confluence with Deerfield River, Greenfield /Montague /Deerfield to Holyoke Dam, Holyoke /South Hadley.	34.3 miles	5	E. coli, PCB in Fish Tissue
Connecticut River	Holyoke Dam, Holyoke/South Hadley to Massachusetts /Connecticut border.	15.9 miles	5	E. coli, PCB in Fish Tissue, Total Suspended Solids (TSS)
Fort River	Headwaters (confluence of Adams and Amethyst brooks, Amherst), to confluence Connecticut River, Hadley	12.8 miles	5	E. coli
Mill River	Headwaters, outlet Factory Hollow Pond, Amherst to inlet Lake Warner, Hadley.	5.2 miles	5	E. coli
Stony Brook	Headwaters, Granby to confluence with Connecticut River, South Hadley (thru Upper Pond and Lower Pond).	13.3 miles	5	Non-Native Aquatic Plants, E. coli, Turbidity

Source: 2012 Integrated List of Waters, www.mass.gov/eea/docs/dep/water/resources/07v5/12list2.pdf

Cold Water Fisheries

In Northfield, Erving, Montague and Sunderland, there are approximately 19.2 miles of cold water fisheries (CWFs) within the byway corridor. In Hadley, South Hadley, and Hatfield, there are approximately 6.1 miles. CWFs are identified by the Department of Fish and Wildlife (DFW) through fish community sampling. Local conservation commissions can help DFW identify these

fisheries by passing on local knowledge of the fish evident in brooks and streams in their communities.

Cold water fisheries are streams and waterways that support the life cycles of cold water fish such as trout and salmon. Cold water fisheries are considered sensitive habitats because changes in pH or temperature can reduce their ability to support such species. The 2003 Connecticut River Watershed Water Quality Assessment Report notes that the Mill River in Hatfield, by which the proposed Byway passes, had increased temperatures and lowered flow, putting the segment on “Alert” status for aquatic life use.

CWFs along the byway and proposed the byway include the following:

Table 3-3: Cold Water Fisheries

Town	Cold Water Fisheries (CWF)
Northfield	Pauchaug, Louisiana, Mill, Millers, Roaring, and Four Mile Brooks
Erving	Four Mile Brook
Montague	Hannigan, Goddard, and Cranberry Pond Brooks and the Sawmill River
Sunderland	Dry and Long Plain Brooks
Hadley	Russellville Brook and the Mill and Fort Rivers
South Hadley	Elmer Brook
Hatfield	Mill River

Vernal Pools

Vernal pools are important to the life cycles of certain amphibians and invertebrates, which are dependent on them for breeding in the springtime. Vernal pools typically fill in the late winter to early spring and dry out during the summer. Clusters of vernal pools are important for species survival, since the multiple pools provide alternatives for species use, allowing some genetic mixing between pool populations. The Natural Heritage and Endangered Species Program (NHESP) certify vernal pools and catalogue those identified by researchers, citizens, or other groups.⁹ Vernal pools on private land can only be certified with the landowner’s permission.

Certified vernal pools within a half mile of the byway are shown on the Natural Resources map at the end of this chapter. There is one certified and sixteen potential vernal pools in Northfield. In Erving, there are five potential vernal pools. In Montague, there are five certified and twenty one potential vernal pools. Sunderland has two certified and eight potential vernal pools. There are twenty-three potential vernal pools within a half-mile of the byway in Hadley. There are five certified and eight potential vernal pools in South Hadley. There are twenty-five potential vernal pools along the proposed Byway in Hatfield. For the most part the byway in Hampshire County avoids large clusters of vernal pools, though there is a cluster of potential vernal pools along Main Street in Hatfield, where the proposed Byway passes.

⁹ <http://www.mass.gov/eea/agencies/dfg/dfw/natural-heritage/vernal-pools/vernal-pool-certification.html>

Lakes and Ponds

In Northfield, there are numerous small ponds scattered throughout the town. Along the byway, Mill Brook Swamp and Mill Brook Pond are about ten acres in size and are situated along Mill Brook near Northfield Village.

In Montague, Lake Pleasant is located adjacent to the byway. Once the focal point of a summer spiritual retreat developed in the 19th Century, the property around this lake evolved into the permanent settlement of the village of Lake Pleasant. The 53-acre lake now serves as one of Montague's emergency water supplies. The lake can no longer be used for recreational purposes, but the undeveloped watershed around the lake offers opportunities for passive recreation. Lake Pleasant is located near Green Pond, a 15-acre reservoir that also serves as an emergency water supply for Montague. There are also several other small water bodies, including Podlenski's Pond, West Pond and the Montague Center School Pond within a half mile of the byway in Montague. The Montague Center School Pond on School Street is used for ice skating in the winter and is stocked for a fishing derby in the spring.

In Sunderland, the 27-acre Cranberry Pond is located just south of the Montague town line. This pond is popular for fishing, ice fishing, and non-motorized boating. Cranberry Pond has a gravel launch area on the north shore and is located within the Mount Toby State Forest. The pond is characterized by clear water color and has a transparency of 15 feet. Whitmore and Chard Ponds are also located in Sunderland near the byway just off of Falls Road.

Lake Warner, also known as North Hadley Pond, covers approximately 70 acres and is located directly east of the byway in North Hadley. Lake Warner was created by settlers when it was first dammed in the 1660s. In the past the lake has been used for boating and fishing, but it has grown very shallow. The lake is sometimes plagued by overgrowth of aquatic plants, including the invasive water chestnut, but the Friends of Lake Warner organizes cleanups and fundraising to restore the lake's health. Lake Warner is accessible via a public boat ramp near the dam right off the byway. When the Department of Conservation and Recreation's Office of Dam Safety determined that the dam had to be repaired or removed in 2012, the dam owner (Kestrel Land Trust) worked with the town and local Friends of Lake Warner group to come up with funding for the significant repair work.

Along the proposed Byway extension in Hatfield, Great Pond is a remnant of a former oxbow of the Connecticut River. The 200 acres of open water serve as refuge for migrating birds,¹⁰ and the adjacent marshlands contain NHESP Estimated and Priority habitats for rare wildlife. There are several dirt roads surrounding Great Pond. There are currently no management plans in place for public access on town-owned land.

¹⁰ Hatfield OSRP, 2014, page 20.

Wetlands

There are numerous wetlands along the byway. While most are forested and are associated with the rivers and streams mentioned above, there are some that are more notable. Among these are two major river floodplain forests in Northfield. One is located on Kidd Island and the other is in the area of the boat ramp along the Connecticut River near Pauchaug Brook. In Erving, Montague, and Sunderland, many wetlands are located adjacent to rivers and streams. There are also extensive flood plain forest wetlands near Cranberry Pond and several kettle hole ponds or wetlands on the Montague Plains. Kettle hole ponds are wet depressions formed by the melting of isolated blocks of glacial ice.

The wetlands along the Mill River and Connecticut River (including the old oxbow) in Hatfield are identified as Critical Natural Landscape and Core Habitat by NHESP. A notable exception to the river corridor wetlands along the byway are the freshwater emergent wetlands adjacent to Great Pond in Hatfield. Russellville Brook and the Fort River in Hadley are also NHESP Core Habitats, as is all of the Connecticut River shoreline in this area. The wooded floodplain of Bachelor Brook in South Hadley is a prime example of a rare wetland vegetation community type, the Small River Floodplain Forest. It is also important habitat for several rare plant and animal species. Other important wetlands along the Connecticut River are found in Russell Cove and Hockanum Meadows in Hadley, and The Cove in South Hadley. Wetlands along Bachelor Brook, Stony Brook and The Cove in South Hadley are identified by NHESP as Core Habitat for rare species.

The Massachusetts Natural Heritage & Endangered Species Program and the Nature Conservancy's BioMap2 Wetlands identify areas critical to maintaining ecological biodiversity. Wetlands related resources along the byway identified in BioMap2 include:

- A 27-acre wetland on the south side of the Millers River in Montague, identified as an Oxbow
- A 2-acre wetland in southwest Erving, identified as a Priority Natural Community wetland
- A 33-acre wetland in Sunderland at the base of Mount Toby, identified as a Wetland Core
- The Mill River in Hatfield, identified as Critical Natural Landscape

Public Drinking Water Supplies

Communities along the byway depend upon surface and ground water to provide safe, clean drinking water. While many rural residents have private wells for drinking water, there are also reservoirs and aquifers that provide public drinking water. The MassDEP establishes the areas around public drinking water supply wells as Wellhead Protection Areas (WPAs), and limits the activities and land uses in those areas. Some towns also use zoning overlay districts to limit certain activities and land uses within aquifer recharge areas.

The byway passes close to several drinking water supplies and wells. The Grandin Reservoir is used by the East Northfield Water Company and has served the Northfield Mount Hermon area, as well as nearby neighborhoods in Northfield. In Montague, Lake Pleasant and Green Pond

serve as public drinking water supplies. The Long Plain Aquifer is Sunderland’s largest drinking water supply and is recharged by the Long Plain Brook.

The Town of Hadley sources its drinking water from groundwater aquifers at the Callahan wells, located along the Fort River very near where the byway passes. In South Hadley’s Water District 2, one well and a backup well at the mouth of Dry Brook as it enters the Connecticut River serve the northern part of town. Both Hadley and South Hadley’s wells tap into a medium-yield aquifer running under the Connecticut River. Both wells are susceptible to contamination due to a lack of hydrogeologic barriers (clay).^{11,12} In addition, the byway falls within or very near the Hadley Zone I protection area for the wells as they were drilled before wellhead protection regulations were in effect.

Zone I wellhead protection regulations require the municipality or governing authority to be in control of land uses within 400 feet of a public water supply well. Zone II refers to the area of an aquifer that contributes water to a well under the most severe pumping and recharge conditions that can be realistically anticipated. Interim Wellhead Protection Areas (IWPA) are for public water systems using wells or well fields that lack an approved Zone II. An IWPA is a one-half mile radius measured from the well or well field for sources with an approved pumping rate of 100,000 gallons per day or greater.

In Hatfield the proposed Byway does not pass near the town’s water supply wells or reservoir, which are to the west of Interstate 91.

Table 1-4: Wellhead Protection Areas along the Byway

Town / Dam Name	Map ID	Zone 2 or IWPA	Type	Supplier
Northfield				
		IWPA	Community Groundwater Well	Linden Hill School
		IWPA	Transient Non-Community	Riverview Picnic Area
		IWPA	Non-Transient Non-community	Mini Station Visitor Center
Erving				
		IWPA	Transient Non-Community	French King Motor Inn
		IWPA	Community Groundwater Well	Weatherheads
		Zone 2	Aquifer Protection Area	Erving Water Department
Montague				
		IWPA	Community Groundwater Well	Montague Center Water District
		Zone 2	Aquifer Protection Area	Turners Falls Water Department
		Zone 2	Aquifer Protection Area	Turners Falls Water Department
Sunderland				
		IWPA	Community Groundwater Well	Pond Ridge Condo Association
Hadley				
		IWPA	Transient Non-Community	DCR Skinner State Park
		Zone 2	Aquifer Protection Area	Hadley Highway and Water Dept.
		Zone 2	Aquifer Protection Area	Hadley Highway and Water Dept.

¹¹ Source Water Assessment and Protection Report, South Hadley Water District #2, 2003, <http://www.mass.gov/eea/docs/dep/water/drinking/swap/wero/1275001.pdf>

¹² Source Water Assessment and Protection Report, Hadley, 2002, <http://www.mass.gov/eea/docs/dep/water/drinking/swap/wero/1117002.pdf>

South Hadley				
		Zone 2	Aquifer Protection Area	South Hadley Fire Dept. 2
Hatfield (proposed Byway corridor)				
		Zone 2	Aquifer Protection Area	Hatfield Water Department
		Zone 2	Aquifer Protection Area	Hatfield Water Department

Source: MassDEP Wellhead Protection Areas (Zone II, IWPA)

Dams and Culverts

Dams

The dams within the byway corridor were built for industrial mills, recreation, or water supply, and are now in need of various amounts of repair. Dams may have structural problems that can pose potential threats to lives and property because of age, maintenance history or outdated engineering design. Massachusetts Department of Conservation and Recreation’s Office of Dam Safety conducts inspections and regulates dams. The dam owners are responsible for a significant portion of dam safety requirements. The level of risk posed by a dam is determined by the likelihood of failure would lead to loss of life or property damage. A hazard index rates dams as “high hazard,” “significant hazard,” or “low hazard.” Dams that are lower than 6 feet in height and/or not in excess of 15-acres of storage capacity are not regulated.

The following table lists all the dams within the byway corridor (and proposed corridor in Hatfield) as well as their hazard index (level of risk).

Table 3-5: Dams along the Byway

Town / Dam Name	Map ID	Hazard Index*	River / Stream	Owner
Northfield				
Wannamaker Pond Dam		Non-jurisdictional	Pauchaug Brook	Private
Perry Pond Dam		Low	Perry Pond	Private
Erving				
Northfield Mountain Main Dam		Significant	Northfield Mountain Reservoir	Private (First Light Power)
Northfield Mountain West Dike Inlet		Significant	Northfield Mountain Reservoir	Private (First Light Power)
Northfield Mtn. Northwest Dike and Spillway		Significant	Northfield Mountain Reservoir	Private (First Light Power)
Millers Falls Tool Company Dam		Non-jurisdictional	Millers River	Private
Montague				
Lake Pleasant Dam		Significant	Hannegan Brook	Town of Montague
Richard Clapp Dam		Significant	Hannegan Brook	Private
Billings Upper Pond Dam		Non-jurisdictional	Sawmill River	Private
Billings Lower Pond Dam		Non-jurisdictional	Sawmill River	Private
Sunderland				
Standish Chard Pond		Significant	Gunn Brook	Private
Hadley				
Lake Warner Dam	MA00062	Significant	Mill River / Lake Warner	Private (Kestrel Land Trust)
B&M Upper Pond Dam	MA01728	Non-jurisdictional	Unnamed pond	Private
B&M Middle Pond Dam	MA01729	Non-jurisdictional	Unnamed pond	Private
B&M Lower Pond Dam	MA01730	Non-jurisdictional	Unnamed pond	Private
South Hadley				

Mt. Holyoke College Upper Pond Dam	MA00583	High	Upper Pond	Private
Mt. Holyoke College Middle Pond Dam	MA01981	Low	Stony Brook / Middle Pond	Private
Mt. Holyoke College Lower Pond Dam	MA00584	High	Lower Pond	Private
Hatfield (proposed Byway corridor)				
D.F. Riley Grist Mill Dam	MA00493	Significant	Mill River	Private

Source: MassGIS Oliver/Massachusetts Office of Dam Safety

**Hazard Index: High Hazard Potential: Dams located where failure or improper operation will likely cause loss of life and serious damage to homes, industrial or commercial facilities, important public utilities, main highways, or railroads; Significant Hazard Potential: Dams located where failure or improper operation may cause loss of life and damage to homes, industrial or commercial facilities, secondary highways or railroads or cause interruption of use or service of relatively important facilities; Low Hazard Potential: Dams located where failure or improper operation may cause minimal property damage to others. Loss of life is not expected.*

The Northfield Mountain Main Dam, the Northfield Mountain Northwest Dike and Spillway and the Northfield Mountain West Dike Inlet are within a mile of the byway. These dams are associated with the Northfield Mountain Project, a pumped storage hydroelectric facility owned and maintained by FirstLight Power Resources of Hartford, Connecticut and located in Erving. The dams are under Federal Energy Regulatory Commission supervision, and therefore not required to follow state dam inspection regulations. The 2010 Emergency Action Plan for this facility was produced by FirstLight Power Resources, and includes inundation maps for the Northfield Main Dam and the Northwest Dike of the Northfield Mountain Reservoir in Erving.

All three Northfield Mountain Project dams are classified as Significant Hazards by the DCR Office of Dam Safety. In the event of total failure of the Northfield Main Dam, flooding along Briggs Brook would be immediate and have potentially catastrophic effects. According to the most recent inundation maps for the Northwest Dike, floodplain areas in Northfield along Briggs Brook and the Connecticut River would be the first to be impacted by a dike failure. Residents would have very little time to respond to potential flooding. Under sunny conditions, floodwaters in Four Mile Brook would reach the confluence of the Connecticut and Millers rivers in 24 minutes.

In Hadley, the Lake Warner dam was declared structurally deficient in 2012. There is significant local and state support for maintaining the dam and the lake behind it, and when fundraising and repairs are completed, the Friends of Lake Warner will assume ownership of the dam from Kestrel Land Trust.

Culverts

Culverts and other road crossings can impact the ecological integrity of the surrounding landscape if not designed properly. Poorly designed culverts can inhibit the migration or regular movements of aquatic wildlife, and can cause stress by creating more physical obstacles for wildlife to surmount.¹³ In addition, if culverts are not properly sized or maintained over time, flooding and roadway degradation can also threaten the safety of humans.

¹³ Route 116 Scenic Byway Corridor Management Plan 2013

The UMass Amherst River and Stream Continuity Project assesses the condition, design, and ability for wildlife to pass culverts and waterway crossings throughout the region and posts the results to a database. In some cases, culverts and crossings have been mapped, but not yet assessed. On Route 63 in Northfield, there are eight crossings mapped, none of which have yet been assessed. There are an additional 21 crossings within a half mile of the byway in Northfield, one of which has been assessed. It is located on Warwick Road and Minot Brook, and is characterized as posing a “significant barrier.” In Erving along the byway, there are three crossings on Route 63, none of which have been assessed. None of the many crossings in Montague have been surveyed or assessed.

Three culverts at Route 47 and the Fort River in Hadley are categorized as allowing “full passage” of wildlife as of 2007. Another culvert at Route 47 and Bachelor Brook in South Hadley is evaluated as an “insignificant barrier” to wildlife as of 2009. There are nine additional crossings along the byway in Hadley and South Hadley that have not been assessed. In Hatfield, the two stream crossings at Cow Path Brook and the Mill River are not assessed.

Threats to Water Quality

The region is generally fortunate to have abundant, clean water supplies. The quality of those supplies, however, can be put at risk by certain types of land uses and other point and non-point sources of pollution. While some of the following protection measures can be applied to the byway corridor, they should also be applied at the town-wide and regional scale due to the interconnectedness of the water system.

Water Runoff from Roads, Agricultural Fields and Turf

As previously noted the Connecticut River Valley has some of the most fertile soil in the nation and the world. The Connecticut River is lined with agricultural fields, some of which have been in productive use for centuries. There can be very little vegetated buffer between the farm fields and the river, resulting in the potential for nutrient and sediment runoff. Such runoff can lead to algae blooms, sedimentation, and cloudiness in the water, negatively altering the river habitat for plants and animals.

Additionally, sand and salt treatments on the roads during the winter can be detrimental to water quality. These roadway treatments can run into rivers and streams, and alter the habitat, particularly for sensitive cold water fish such as trout. Local DPWs have been encouraged in recent years by MassDOT to use salt rather than sand on winter roads, which may increase salinization of rivers and streams along the byway. Chemicals applied to lawns and athletic fields can also run off into storm drains and on into water bodies. The degradation of water quality caused by runoffs from roads, agricultural fields and turf can negatively impact many aspects of life.

Pathogen Contamination

Runoff from development, particularly sewer and septic systems, can introduce pathogens such as *E. coli*, making direct contact with river waters dangerous for recreational users. The risk of pathogen contamination is increased after storm events, when runoff from streets and other areas collect in rivers and streams at high levels. Without regular monitoring of waterways, broken

sewer lines and leaking septic systems contributing to pathogen contamination may go undetected.

In 2010, water quality monitoring conducted by the Pioneer Valley Planning Commission identified very high E. coli levels on Hart's Brook, a tributary of the Fort River in Hadley. The suspected sources were broken septic systems or cattle grazing. Though there has not been follow-up monitoring to date, the Fort and Connecticut Rivers may still be receiving this contamination. The Pioneer Valley Planning Commission, in partnership with the Connecticut River Watershed Council, conducts some water quality monitoring at a few selected recreational sites along the Connecticut River in Hadley and South Hadley, and posts results weekly to connecticutriver.us during the summer months. The closest sampling site to the byway is Brunelle's Marina in South Hadley.

Hazardous Materials

In recent years high-profile accidents in West Virginia and North Carolina have brought new attention to the threat posed by chemical and other types of hazardous material spills. Not only can such events pollute waterways such as the Connecticut River, they could also have potentially damaging outcomes on land and affect the integrity of the byway. Communities with major roadways, such as Routes 63 and 47 may be at a greater risk of hazardous materials spills due to the number and frequency of trucks transporting hazardous materials. According to the 2006 Franklin County Hazardous Material Emergency Plan, Routes 63 and 47 have up to 1 vehicle per hours carrying hazardous materials.

Hadley's comprehensive emergency management plan includes a Model Hazardous Materials Response Plan for such incidents. South Hadley's pre-disaster mitigation plan notes that the transportation of hazardous materials along Route 47, among other roads, is a concern. Both fire districts in town are responsible for responding to hazardous materials incidents.

Other sources of hazardous materials are residential and industrial spills of chemicals such as heating oil and gasoline. Reported releases of such spills along the byway are available on the Massachusetts Department of Environmental Protection website.

Hadley has an aquifer protection overlay district that includes the Callahan Aquifer, over which the byway passes south of Route 9. The ordinance regulates the types of hazardous materials that may be stored in this area and in what manner. There are no local zoning ordinances regulating hazardous materials along the byway north of Route 9 in Hadley. In South Hadley a water supply protection overlay district corresponds with most of the byway. This district prohibits certain land uses that generate or store hazardous materials.

Mercury and polychlorinated biphenyls or PCBs are chemicals that also negatively impact water quality. Mercury contamination in fish is widespread, including in the Connecticut River. PCBs were banned in the U.S. in 1979 amid suggestions that they could have unintended impacts on human and environmental health, but PCBs are still found in soils and waterways throughout the world. The Connecticut River from the Vermont state line to the Holyoke Dam in South Hadley as well as the Millers River from Erving Town Center to its confluence with the Connecticut River were found to have PCBs present in fish, as shown in a previous table. Mercury and PCB

levels in Connecticut River fish may pose a risk to people, particularly subsistence fishers, pregnant women, women of childbearing age who might become pregnant, nursing mothers and children. People should check with the state for specific advisories in their area.

Streambank Erosion

Erosion of stream and river banks can add to sedimentation in a waterway, negatively influencing wildlife habitat and potentially threatening infrastructure such as roads, agricultural lands, and residential areas. Causes of erosion can be natural, due to natural fluctuations in water flow, but other causes include waves of boats, groundwater seepage, and hydroelectric dams. Even attempts to remediate erosion in some areas, such as through rock shoring, can lead to continued erosion elsewhere. Increased storm events due to climate change (see next section) can also exacerbate erosion, which can lead to wider water flows disproportionate to depth and thus higher water temperatures and sedimentation.

Hadley and South Hadley adopted stormwater management bylaws in order to reduce the flow of untreated stormwater into rivers and streams to prevent pollution and erosion during and after construction and site development.

The 2003 Connecticut River Watershed Water Quality Assessment Report (the latest available from Mass DEP) notes that many of the sampling sites along the Mill, Fort, and Connecticut Rivers in the byway area as well as Bachelor Brook had brown/turbid water on most occasions during the water quality sampling season. The Connecticut River, from the Vermont state line to its confluence with Deerfield River was found to have low flow alterations and other flow regime alterations. These alterations are due at least in part to the regular water withdrawals and releases made by the Northfield Mountain Pumped Storage project in Erving. The report also noted that there is a high level of boat usage near the Oxbow in Northampton, which may contribute to erosion on the other side of the river in Hadley and South Hadley.

Climate Change

According to the Massachusetts Climate Change Adaptation Report from 2011, the impacts of climate change will affect water quality due to larger storm events, higher water temperatures, and the proliferation of invasive species. Less predictable seasonal fluctuations, such as earlier snow melt and drier summers, could also affect both wildlife habitat and public water supplies. Such impacts would influence the byway experience by altering habitats, agricultural uses, and the recreational opportunities available to Byway travelers. In addition, drier spring and summer seasons may cause farmers to depend more on water pumped from local streams for irrigation, which could result in reduced flow and associated habitat impacts. There are no restrictions on water withdrawal from these streams for agricultural uses.

In sections of Northfield and Erving, and in most of Sunderland, the byway is located in the Connecticut River's 100-year floodplain. In Hadley and South Hadley, the byway is also located in the floodplain of the Connecticut River, often coming relatively close to its banks. There are sections of the byway that are within other water bodies' floodplains, such as: the Millers River floodplain in Erving and Montague, the Sawmill River and the Cranberry Pond Brook floodplains in Montague, and the Dry and Mohawk Brooks in Sunderland. Because of the

increased risk of floods and associated erosion, the byway and the lands within the floodplain are at risk of damage due to changes in waterways and water quality.

Protecting Water Quality

The following are some measures that could be taken to protect water quality.

Low Impact Design

Best management practices including “low-impact development” (referred to as LID) can be used to preserve and improve water quality in the water bodies along the byway. LID strategies integrate green space, native landscaping, natural hydrologic functions, and various other techniques to capture and infiltrate runoff from developed land.¹⁴ LID systems include rain gardens and bio-retention, green roofs, sidewalk storage of water, vegetated swales and buffers, permeable pavers, rain barrels and cisterns, and reducing impervious surfaces.¹⁵ Such practices can be implemented by DPWs for municipalities and by individuals on residential properties. Stormwater management ordinances in Hadley and South Hadley and DEP stormwater regulations under the Wetlands Protection Act encourage some of these practices.

Culvert Sizing

Appropriately designed and sized culverts that allow for high flow events, including those anticipated due to climate change, are critical to protecting water quality. Designing culverts to accommodate fish and wildlife passage can be done in concert with designing to pass high flows.

Vegetated Buffers

Maintaining or increasing the width of vegetated buffers and/or planting perennial crops as buffers between farm fields or other developed land and water bodies can help capture and filtrate runoff before it enters rivers and streams. Hadley and South Hadley require and/or encourage such practices in their stormwater management ordinance/bylaws.

Organic Practices for Turf

Maintaining lawns, gardens and playing fields using organic methods can reduce the amount of chemicals running off into storm drains and waterbodies. These methods can include the use of non-chemical fertilizers and compost, and altering watering and mowing practices.

Streambank Stabilization Projects

Bioengineering techniques to repair streambank erosion incorporate woody and/or herbaceous plants and plant materials to construct a living system of bank protection. Using bioengineering to stabilize eroding banks has many advantages when compared to traditional armored bank treatments, including: the restoration and enhancement of wildlife habitat, the restoration of aesthetic resource values, and the compatibility of the treatment with on-site environmental

¹⁴ Environmental Protection Agency, *Green Infrastructure, Low Impact Development*, <http://water.epa.gov/polwaste/green/>. Last updated July 8, 2010. Accessed 11/1/10.

¹⁵ Natural Resources Defense Council. *Stormwater Strategies: Community Responses to Runoff Pollution*. Chapter 12, Low Impact Development, <http://www.nrdc.org/water/pollution/storm/chap12.asp>. August 2001. Accessed 11/1/10.

resources. The use of vegetation to stabilize banks also provides a buffer that can reduce the pollutant and sediment loading associated with overland runoff and flood flows.

Water Quality Protection Policy

Towns can enact land use regulations and zoning ordinances that help preserve community open spaces and natural resources in order to reduce stormwater runoff. All communities on the byway as well as Hatfield have adopted water supply protection and/or floodplain overlay districts.

Plant and Animal Species

Plant Species

In general, the forests along the Connecticut River floodplain include silver maple, willows, green ash, American sycamore, and red maple, among others. Eastern cottonwoods are found along the banks. These trees provide protection from erosion during floods as well as scenic demarcation of the Connecticut River.

In Northfield, the byway parallels the Connecticut River and runs through the center of town, which is settled with historic homes, a small grocer and municipal buildings. Long farm fields that stretch to the river lie behind house lots on the west side of the byway, and agricultural land makes up much of the byway area in Northfield. In the southernmost three miles of the byway in Northfield, forest begins to replace development on the eastern side of the road. The predominant forest type in Northfield is the transition hardwoods-white pine forest, according to USDA, with primary tree species such as yellow and paper birch, beech, and sugar and red maple. In addition to this type of forest, major river floodplain forests can be found in two areas in Northfield: on Kidd Island within the Connecticut River and along the Connecticut River near the Pauchaug Brook boat ramp in northern Northfield. Dominant tree species of this forest type include silver maple and cottonwood.

The northern two thirds of the byway in Erving is bordered primarily by forest, with farm fields interspersed along the road. In the southernmost mile of the byway in Erving, residential and other developments are the primary land uses. Forests stretch out to the east behind the roadside development. The mixed forest stands include northern red oak, hickory, red and sugar maple, white pine, and eastern hemlock. The softwood stands are predominantly white pine and eastern hemlock. The riparian corridors often have sandy flats along their banks, which support white pine and northern red oak.

Much of the land in the northern third of Montague along the byway is forested, while in the southern two thirds, farm fields and residential development become more prominent. The hardwood white pine forest is comprised primarily of yellow and paper birch, beech, and sugar and red maple. In drier areas, red oak is the most abundant deciduous species; other oaks and white pine can also be found in these areas.

In the northern section of Sunderland, east of Route 47 the vegetation is primarily forest. To the west the vegetation is primarily farm fields with occasional residential development. The west

and south-facing slopes of Mount Toby support the oak-hickory forest type while the north-facing slopes are dominated by hemlock and northern hardwoods. In general, the dominant species of trees found in Sunderland are hemlock, red oak and sugar maple. Common understory plants include huckleberry, blueberry, shadbush, azalea, and hornbeam.

In addition to the Connecticut River floodplain forests, forests in other areas of Hadley and South Hadley are comprised of eastern hemlock, yellow birch, paper birch, white pine, red maple, and sugar maple. Sugar maples provide scenic and colorful foliage, which attracts visitors to the area in the fall. Understory vegetation commonly includes mountain laurel, witch hazel, and a few species of viburnums and dogwoods. Spring wildflowers are common in the understory in many areas. The northern slopes of the Holyoke Range are comprised of a hemlock-white pine-northern hardwood mix of trees, while the warmer southern slopes are an oak-hickory mix. Most of the upland woodland along the byway in this area is a transition hardwood forest of oaks, maples, hickories, birch, hemlock and white pine. Some of the forest on the Mount Holyoke Range was cut to fuel brick kilns in Holyoke and South Hadley falls, but has since grown back.

In Hatfield, the proposed Byway runs through rich farmland and transitional floodplain forest. Along the byway in Hatfield, much of the vegetation in the adjacent farm fields consists of crops such as corn, squash, tobacco, and potatoes. The fields stretch from the edge of the road to a forested horizon. In some areas tobacco has typically been grown and covered by white netting draped over wooden frames, though tobacco farmers have been transitioning in the last decade to other crops. NHESP notes the transitional floodplain forest located just to the south of the byway where the Mill River enters the Connecticut River is one of the finest examples found in the state. As the byway crosses Cow Bridge Brook in Hatfield, it crosses into a former oxbow of the Connecticut River. To the west past farmland is Great Pond, a remnant of the oxbow that is now a wooded swamp and marsh with 200 acres of open water. Great Pond is home to many rare species and serves as a refuge for migratory birds.¹⁶

Animal Species

There is a large variety of wildlife in along the byway, and the proposed segment in Hatfield. Many species stay year round in their habitats in the lowland areas near the river or the forested and upland portions adjacent to the byway, but some migrate between both as part of their life cycle. The wood turtle and eastern box turtle are examples of species that spend part of their lifecycle in riverine habitat and stream banks, but migrate to mixed forested areas or grasslands during the spring and summer. Along the banks and forests near the Connecticut River, the eastern cottontail, beaver, muskrat, kingfishers, gray squirrel, and numerous songbirds are common, among many other species. The tall trees on the banks of the Connecticut River are habitat for bald eagles, where they can be sited flying over the river or perched in trees nearby the river. The river and surrounding marshlands are home to great blue herons, spotted turtles, mink, silver-haired bats, spring peepers and other amphibians, among other wildlife. Some stretches of the banks of the Connecticut River are relatively intact while others have experienced bank erosion and slumping. An intact riverbank is vital to supporting the habitat of these species and others.

¹⁶ Hatfield OSRP 2014, page 20

Travelers along the byway may stop to view several species of duck on the Connecticut River, including Common Goldeneye, Ring-neck, and Greater and Lesser Scaup, as well as Canada Geese, which are common on the banks and in agricultural fields. Those venturing to fish in the river would encounter shortnose sturgeon and American shad, which migrate up the Connecticut River in the spring and are a popular fish for anglers. Unique to Hadley is its large diversity of freshwater mussel species, including four endangered species.¹⁷ Some of these species include the Yellow Lampmussel, the Dwarf Wedgemussel, and Creepers.¹⁸ Dragonflies are also prevalent along the banks of the rivers and tributaries in the byway; important to their survival is access to clean, free-flowing water and adjacent upland habitat.

In areas consisting of large unbroken tracts of forest such as those of Northfield and Montague, and to some extent Sunderland's Mount Toby area, there is the ability of species requiring large ranges to move throughout the surrounding region. In upland areas of the byway, such as Mount Toby and the Mount Holyoke Range, white-tailed deer, bobcat, red fox, wild turkey, great horned owl, coyote, and red tail hawk species are all prevalent. Such species are also found in the upland areas of Hatfield, but away from the byway on the other side of Interstate 91. In meadows and fields, meadowlarks, vesper sparrows, and ring-necked pheasants are some of the bird species that can be spotted. Birdwatching is an activity that may attract Byway travelers, especially among the adjacent marshes, wetlands, and oxbows.

Natural Heritage and Endangered Species Program (NHESP) and BioMap2

BioMap2 Components

BioMap2 was released in 2010 and replaced NHESP's original BioMap and Living Waters designations. BioMap2 is comprised of two complementary layers: Core Habitats and Critical Natural Landscapes. Core Habitats are areas identified as critical for the long-term survival of rare species and biodiversity. Critical Natural Landscapes are large areas of contiguous landscape minimally impacted by development or fragmentation that provide habitat for a wide range of species.

BioMap2 Core Habitats – The banks of the Connecticut River as well as many other water bodies along the entire Byway are designated as Core Habitat. In Montague, the byway passes an approximately 3,500-acre Core Habitat area, lying just west of Route 63, known as the Montague Plains. Much of this site is permanently protected and owned by the state. Just to the east of Route 63 in Montague lies an approximately 2,100-acre area identified as Forest Core, a sub-component of Core Habitat and defined as large, intact forests that are least impacted by roads and development, and that provide critical habitat for numerous woodland species. Adjacent land including Mount Toby in Sunderland is also identified as Core Habitat. Much of this land is permanently protected.

¹⁷ Hadley OSRP 2014, page 29,
http://www.hadleyma.org/pages/HadleyMA_BComm/Conservation/Project%20Plans/Chpt%204%20EnvInv%202014%20DRAFT.pdf

¹⁸ Ibid.

In Hadley, the byway enters Core Habitat area from the north just above Comins Road and south to the Lake Warner area. In this section of town Core Habitat extends all the way to Hadley's eastern border and Route 116. The proposed Byway in Hatfield is also located in Core Habitat area from the northern town border south to approximately King Street, which includes the Great Pond area and the old oxbow. The byway is enveloped by Core Habitat on either side again as it passes between the Connecticut River and the Holyoke Range into South Hadley, until just after the Stony Brook/Bachelor Brook conservation area.

BioMap2 Critical Natural Landscapes (CNL) – Both banks of the Connecticut River along the byway are identified as CNL. In addition to this CNL, the byway skirts the edges of two substantial CNLs in the southern part of Northfield and on into Erving it. One CNL is a 4,500 acre area to the east in Erving, comprising nearly one half of Erving's total area. The other CNL begins in and around the confluence of the Millers and Connecticut Rivers, and spreads northwest into Gill. Traveling south into Montague, the byway skirts additional CNLs to the east and west. The CNL to the west is made up in part by the land in the Montague Plains.

CNLs tightly correspond with Core Habitats along the byway in Hadley and South Hadley and along the proposed Byway in Hatfield. One notable exception is along the eastern side of Byway in South Hadley, where CNL extends beyond the Core Habitat designation on the north and south sides of Bachelor Brook. This area contains some potentially developable land. CNL also extends beyond Core Habitat in the Russell Cove area of Hadley.

In Hatfield CNL is also identified along the Great Pond to the proposed Byway's west, and Cow Bridge Brook, which the byway crosses, outlining the former oxbow of the Connecticut River. The Holyoke Range is also designated as CNL, as are some of the small rivers and brooks the byway crosses over.

NHESP and BioMap2 Priority Natural Communities

Within BioMap2's Core Habitats are several sub-categories, including Priority Natural Communities. This sub-category consists of various natural communities of biodiversity conservation interest in Massachusetts. Program scientists classify and delineate natural community areas by analyzing on-the-ground field data and available information about the landscape, particularly topographic maps and aerial photographs.

Major River Floodplain Forest: Two 10-acre forests of this type and dominated by silver maple are located along the Connecticut River, one each in Northfield and Sunderland. The forest in Northfield has excellent species diversity but is threatened by some exotic plant species and by people camping within it. The forest in Sunderland also has excellent species diversity but is severely degraded by camping and associated clearings that are trampled and invaded by exotic species. This type of forest is also located in Hadley along the banks of the Connecticut River by Mitchs Way, which is connected to the byway a little north of Russell Cove.

High Energy Riverbank: These communities are sparse, grassy areas found on cobble and sand deposits along fast-flowing rivers that experience severe flooding and ice scour. There is an approximately 3-acre high energy riverbank located in the Connecticut River along Sunderland. It is a high-quality, pristine example of this type of Priority Natural Community.

Calcareous Talus Forest/Woodland: This type of community develops on loose rocky slopes below calcareous cliffs or rock outcrops and contains moist and loamy soils with trees established on lower slopes. There is an approximately 7-acre example of this type of woodland located on the eastern edge of the byway in Sunderland, on the western edge of Mount Toby. It is in relatively good condition, despite its low diversity of species and its proximity to development. It has no exotic invasive species present and no unnatural disturbances, and is a very active talus slope.

Pitch Pine/Scrub Oak Community: These Priority Natural Communities are quite rare and are dependent upon fire for shrub regeneration. The byway passes the easternmost tip of a 1,056-acre example, located in Montague and part of the Montague Plains. It is the State's largest inland occurrence of a pitch pine/scrub oak community and includes rare plants typically found in southeastern Massachusetts. The primary threat to this area is the use of off-road vehicles.

Black Gum/Pin Oak/White Oak Perched Swamp: A Priority Natural Community of this type is located on the banks of the Connecticut River, west of the byway as it enters the pass around the Holyoke Range, and in South Hadley, where the byway crosses Bachelor and Elmer Brooks. This is a basin swamp unique to the Connecticut Valley and Lake Hitchcock deposits that is dominated by red maples as well as black gum, pin oak, and white oak. Another example is located to the south of Elm Street along the proposed Byway in Hatfield, and considered the "largest and best of its kind in Massachusetts" by NHESP.

Small-river Floodplain Forest: This Priority Natural Community is located along the banks of Bachelor Brook and intersects the byway. It is considered by NHESP as one of the best three examples in the state.

Priority and Estimated Habitats of Rare Species

The Natural Heritage and Endangered Species Program, which is administered by the Massachusetts Division of Fisheries and Wildlife, collects and maintains information on over 400 rare and endangered species throughout the Commonwealth. The goal of the NHESP is to protect biological diversity in the state through research, the cataloging of species, environmental impact review, restoration and management of rare species and their habitats, land acquisition, and education.

The sites shown on the Natural Resources Maps represent two distinct categories of habitats regulated under Massachusetts law:

- *Priority Habitat* areas are outlined for rare plant and animal populations protected under the Massachusetts Endangered Species Act (321 CMR 10.00). These areas indicate the approximate geographic extent of rare species populations taken from the NHESP database. These areas should also be used in conjunction with the Rare Species Threshold in the Massachusetts Environmental Policy Act (301 CMR 11.03(2)).
- *Estimated Habitat* areas identify the approximate geographical extent of the habitats used by state-protected rare wildlife in accordance with the Wetlands Protection Act (310

CMR 10.00) and the Forest Cutting Practices Act (304 CMR 11.00). Rare wildlife data for these areas were collected from 1974 through 1998 and were updated in 2008.

Priority and Estimated Habitats and Endangered Species Along the byway

Approximately 17.5 miles of the byway pass through Priority Habitats between Northfield and Sunderland and approximately 18.8 miles pass through Estimated Habitats. Approximately 6.8 miles of the byway pass through or are immediately adjacent to overlapping Priority and Estimated Habitat in Hadley and South Hadley.¹⁹ In Hatfield, the proposed Byway encounters Priority Habitat along 1.25 miles, and Estimated Habitat along .65 miles.

Table 3-2: Table of Documented Rare Animal Species Found within the Corridor

Scientific Name	Common Name	Taxonomic Group	MESA Status *	Town
<i>Acipenser brevirostrum</i>	Shortnose Sturgeon	Fish	E	Hadley, S. Hadley, Hatfield, Sunderland
<i>Agkistrodon contortrix</i> *	Copperhead*	Reptile	E	Hadley, S. Hadley
<i>Alasmidonta varicosa</i>	Brook Floater (Swollen Wedgemussel)	Mussel	E	S. Hadley, Hatfield
<i>Ambystoma laterale</i>	Blue-Spotted Salamander	Amphibian	S	Montague
<i>Ambystoma opacum</i>	Marbled Salamander	Amphibian	T	S. Hadley
<i>Apodrepanulatrix liberaria</i>	New Jersey Tea Inchworm	Butterfly/Moth	E	Montague
<i>Callophrys irus</i>	Frosted Elfin	Butterfly/Moth	S	Montague
<i>Catostomus catostomu</i>	Longnose Sucker	Fish	S	Montague
<i>Cicindela puritana</i> *	Puritan Tiger Beetle*	Beetle	E	Hadley
<i>Euchlaena madusaria</i>	Sandplain Euchlaena	Butterfly/Moth	S	Hadley, S. Hadley, Hatfield
<i>Glyptemys insculpta</i>	Wood Turtle	Reptile	S	Hadley, S. Hadley, Hatfield, Montague
<i>Gomphus fraternus</i>	Midland Clubtail	Dragonfly/Damselfly	E	Hadley, S. Hadley, Hatfield, Northfield, Sunderland
<i>Gomphus ventricosus</i>	Skillet Clubtail	Dragonfly/Damselfly	T	Hadley, S. Hadley, Hatfield, Northfield, Sunderland
<i>Haliaeetus leucocephalus</i>	Bald Eagle	Bird	T	Hadley, Hatfield, Sunderland
<i>Hemileuca maia</i>	Barrens Buckmoth	Butterfly/Moth	S	Montague
<i>Hybognathus regius</i>	Eastern Silvery Minnow	Fish	S	Hadley
<i>Ixobrychus exilis</i>	Least Bittern	Bird	E	Hatfield
<i>Lampsilis cariosa</i>	Yellow Lampmussel	Mussel	E	Hadley, S. Hadley, Hatfield
<i>Ligumia nasuta</i>	Eastern Pondmussel	Mussel	S	Hadley, S. Hadley, Hatfield
<i>Lota lota</i>	Burbot	Fish	S	Hadley
<i>Ophiogomphus aspersus</i>	Brook Snaketail	Dragonfly/Damselfly	S	Montague
<i>Pantherophis alleghaniensis</i>	Eastern Rat Snake*	Reptile	E	Montague, Sunderland

¹⁹ MassGIS NHESP Priority Habitats of Rare Species, Estimated Habitats of Rare Wildlife

Scientific Name	Common Name	Taxonomic Group	MESA Status *	Town
Poocetes gramineus	Vesper Sparrow	Bird	T	Hatfield
Psectraglaea carnosa	Pink Sallow Moth	Butterfly/ Moth	S	Hadley, S. Hadley
Pyrrhia aurantiago	Orange Sallow Moth	Butterfly/ Moth	S	Hadley, S. Hadley
Scaphiopus holbrookii	Eastern Spadefoot	Amphibian	T	Hadley, Sunderland
Speranza exonerata	Pine Barrens Speranza	Butterfly/ Moth	S	Montague
Stylurus amnicola	Riverine Clubtail	Dragonfly/ Damselfly	E	Hadley, S. Hadley, Hatfield, Northfield, Sunderland
Strophitus undulatus	Creeper	Mussel	S	S. Hadley, Hatfield
Terrapene carolina	Eastern Box Turtle	Reptile	S	S. Hadley, Montague, Sunderland
Zale lunifera	Pine Barrens Zale	Butterfly/ Moth	S	Montague
Zanclognatha Martha	Pine Barrens Zanclognatha	Butterfly/ Moth	T	Montague

Massachusetts Endangered Species Act (MESA) Status: E=Endangered, T=Threatened, S=Special Concern

Table 3-3: Table of Documented Rare Plant Species Found within the Corridor

Scientific Name	Common Name	MESA Status	Town
Adlumia fungosa	Climbing Fumitory	S	Hadley, S. Hadley
Aplectrum hyemale	Putty-Root	E	Sunderland
Arisaema dracontium	Green Dragon	T	Hadley, S. Hadley, Hatfield
Boechera laevigata	Smooth Rock Cress	S	Sunderland
Carex grayi	Gray's Sedge	T	Hadley, S. Hadley, Northfield
Carex lupuliformis	False Hop-sedge	E	S. Hadley
Carex tuckermanii	Tuckerman's Sedge	E	S. Hadley
Carex typhina	Cat-tail Sedge	T	Hadley, S. Hadley
Clematis occidentalis	Purple Clematis	S	Hadley
Corallorhiza odontorhiza	Autumn Coralroot	S	Sunderland
Deschampsia cespitosa ssp. glauca	Tufted Hairgrass	E	Hatfield, Sunderland
Desmodium cuspidatum	Large-bracted Tick-trefoil	T	S. Hadley
Elatine americana	American Waterwort	E	Northfield, Sunderland
Eleocharis diandra	Wright's Spike-rush	E	Hadley, Hatfield, Northfield
Eleocharis intermedia	Intermediate Spike-sedge	T	Hadley, Northfield, Sunderland
Eleocharis ovata	Ovate Spike-sedge	E	Hatfield, Northfield
Eragrostis frankii	Frank's Lovegrass	S	Hadley
Haliaeetus eucocephalus	Bald Eagle	T	Hatfield
Ixobrychus exilis	Least Bittern	E	Hatfield
Ludwigia polycar	Many-Fruited False-Loosestrife	E	Northfield

Scientific Name	Common Name	MESA Status	Town
Mimulus alatus	Winged Monkey-flower	E	S. Hadley
Nuphar microphylla	Tiny Cow-lily	E	Hadley, S. Hadley
Panax quinquefolius	Intermediate Spike-Sedge	T	Sunderland
Prunus pumila var. depressa	Sandbar Cherry	T	Sunderland
Rumex verticillatus	Swamp Dock	T	S. Hadley
Salix exigua ssp. interior	Sandbar Willow	T	Hadley, Sunderland
Trichomanes intricatum	Appalachian Bristle-Fern	E	Sunderland

Threats to Plant and Animal Species

Forest Fragmentation

Certain plants and animals are dependent upon habitat that is uninterrupted by roads and other development. Conversion of forest to residential land use causes fragmentation of important forest and wildlife corridors by roads and power lines. In the more rural areas of the byway, development seen in the last 20 years has typically been interspersed throughout forest land, rather than clustered in existing developed areas. Such development particularly impacts mammals dependent upon wide ranges in which to live. Continued forest fragmentation can cause unwanted human/animal interactions, as animals wander into residential properties and/or fragmentation drives animals out of the area altogether.

Invasive Plant Species

Many invasive plant species have colonized along the byway, including in Priority Natural Communities as discussed earlier. The presence of non-native species and the related decline in plant diversity can have a negative impact on wildlife habitat. Exotic plants such as Japanese knotweed and Asiatic bittersweet have established, choking out native plants. In some areas, such as along sections of the Connecticut River in Northfield and the Sawmill River in Montague, Japanese knotweed lines the riverbank and chokes out native plant species. Water chestnut (*Trapa natans*) is found in water bodies along the byway, including in Barton Cove; Hadley Cove, Russell Cove, and Lake Warner in Hadley; and also in The Cove and some ponds upstream of Bachelor Brook in South Hadley.

Climate Change

According to the MA Climate Change Adaptation Report 2011, climate change impacts to New England forests could include changes in forest structure, more frequent droughts associated with forest fires, and invasive insects and diseases. Specific examples include decline in maple syrup production, deterioration of the Eastern hemlock, and spread of exotic, invasive plant and insect species and diseases. Irregular and unseasonal flooding and drought also pose a particular risk to the unique floodplain forests found near the Connecticut River. FEMA recently updated flood maps some towns in the byway. Franklin County flood maps have not yet been updated.

Other Human Disturbances

For the particularly sensitive areas such as those NHESP areas identified in the previous pages, human activities such as camping, mountain biking and off-road vehicle use can degrade the land

and displace wildlife. Degraded areas commonly become vegetated with invasive plant species, which can further displace wildlife.

Protecting Plant and Animal Species and Conserving Biodiversity

Land Protection

Development along the byway has increased in the last 20 years due in part to ANR development. Approval Not Required (ANR) provisions allow for land to be subdivided without formal review as long as the lot has frontage along an accepted right-of-way, meets minimum zoning requirements, and has access. Massachusetts is the only state that allows such development. Residential and other development along the byway has negative impacts on plant and animal species, and will eventually have adverse impacts on the scenic landscapes and rural



1995



2014

character for which the byway is known. The aerial photos from 1995 and 2014 illustrate the progression of development on one portion of the Byway in South Hadley.

Many entities are working diligently to permanently protect agricultural and scenic land along the byway through the purchase of conservation restrictions, agricultural preservation restrictions or the fee interest in land from willing land owners. Local land trusts, municipalities, the State and the regional planning agencies are working to permanently protect agricultural land and open space.

The FRCOG, in cooperation with the Franklin Land Trust, the Massachusetts Department of Transportation (MassDOT), Massachusetts Department of Conservation and Recreation (DCR), and the Massachusetts Department of Agriculture Resources (DAR), have implemented the Scenic Byway Land Protection Project. Funding was previously secured through the National Scenic Byway Discretionary Grant Program to permanently protect land along the Mohawk Trail, Connecticut River and Route 112 Scenic Byways. To date, approximately 400 acres of land critical to the Connecticut River Scenic Byway in the towns of Northfield, Erving, Sunderland, Hadley and South Hadley have been permanently protected.

Additionally, the MA Department of Fish and Wildlife and the MA DAR have permanently protected parcels in Northfield near the Connecticut River. In Erving, MA DCR has protected key parcels near the confluence of the Connecticut and Millers Rivers. There are also numerous permanently protected parcels in Montague, many of them preserved by the State. In Sunderland, many of the preserved parcels are farmland protected through APRs. The Trustees of Reservations preserved a portion of Mount Warner in the northern portion of Hadley, which adds to adjacent land preserved by the state, Kestrel Land Trust and the Porter-Phelps Huntington House Museum. Mount Warner Reservation hosts hiking trails and scenic views that are visible from the byway.

Kestrel Land Trust (KLT) has preserved numerous parcels of land along the byway in Hadley, including the Dyer Preserve (35 acres), Scott Estate (34 acres), portions of the Historic Great Meadow, and the Handrich Conservation Area (19 acres), which was preserved as part of the Connecticut River Scenic Byway Protection Project. Using Scenic Byway funds, KLT also assisted with the protection of several agricultural properties in the Hockanum area of Hadley, including 38 acres of the Thayer Farm and 123 acres of Barstow's Longview Farm. Straddling the border with Sunderland, Kestrel also assisted with the preservation of S&J Farms (70 acres in Hadley, 110 acres in Sunderland) using Scenic Byway funds. Kestrel has identified farmland in the Connecticut River Valley, the Connecticut River and its tributaries, and scenic landscapes and wildlife habitat within the Mount Holyoke Range as some of its focus areas.

The U.S. Fish and Wildlife Service works with numerous local partners in the area to manage the Silvio O. Conte National Wildlife Refuge, which extends into four New England states. Land preservation efforts associated with the Refuge to date have centered on the Fort River. In 2014 a new ADA-accessible nature trail at the Fort River Division of the Conte National Refuge opened off Moody Bridge Road in Hadley, a short drive from the byway corridor.

There are fields and farms in Northfield, Montague and Sunderland that are still unprotected from future development. Additionally, north of the Porter Phelps Huntington House and the Red Rocks area along the Connecticut River in Hadley is in need of land protection. The land north of the Bachelor Brook area to the Mount Holyoke Range in South Hadley is also unprotected and of a high priority.

Along the proposed Byway in Hatfield, agricultural land also remains threatened by development. Outreach to landowners about agricultural preservation restrictions is needed. Such outreach is currently ongoing in Hadley and South Hadley through a partnership with Kestrel Land Trust and the Massachusetts Department of Agricultural Resources.

Land Reserves and Environmental Education Centers

Numerous large protected areas along the byway add directly to the byway experience by offering recreational opportunities as well as a contiguous display of natural habitat and landscape. More information on trails and boat launches is contained in the Recreation Chapter.

Issues and Recommendations

Issues

- The byway passes through and near floodplains, putting the road and its culverts and bridges at higher risk for destructive flood damage due to climate change. There is not complete assessment information on all of the culverts and bridges in need of attention to address this potential safety issue.
- Increased use of salt instead of sand on roadways in winter may have impacts on the cold water fisheries and sensitive habitat areas designated by NHESP that intersect with the byway. Greater awareness of the vulnerabilities of these areas and their wildlife (such as cold water trout) are needed in order to maintain the health of the byway landscape.
- “Approval not required” (ANR) development poses a particular threat to the character of the byway through the increase in development and habitat fragmentation and potentially degrade the surroundings for which the byway is known.
- Though there is past evidence that agricultural and stormwater runoff and erosion are impacting the water quality of the Connecticut River and its tributaries, there is not regular monitoring to track and assess these impacts. The Connecticut River Watershed Council and other organizations do some monitoring of the water quality and the data is available on-line at <http://connecticutriver.us/site/content/sites-list>.
- Informal camping and powerboat access areas are located in environmentally sensitive places along the Connecticut River that are negatively impacting Priority Natural Communities as described in the Major River Floodplain Forest.
- There are invasive plant species colonizing and forcing out native plant species in areas along the byway, including in environmentally sensitive areas along the Connecticut River.

- There are many brooks and lakes where Japanese Knotweed is taking over the vegetation. In particular, it was noted as a problem in Wanamaker Lake and Pauchaug Brook in Northfield where it has caused the water to become silted and resulted in flooding.

Recommendations

- Pursue opportunities to create managed access to natural resources (rivers, forests) surrounding the byway, including increased trail networks and recreational access points to the river, to reduce inappropriate access that can introduce invasive species or other damage to environmentally insensitive areas. (See Recreation Chapter for further details.)
- Pursue land protection through partnerships with state agencies and local land trusts, as well as the potential creation of local land protection funds, in order to protect the surrounding agricultural land and contiguous forest parcels. In particular:
 - Protect the land in the Red Rocks, north Hadley, and Bachelor Brook areas of the byway.
 - Protect agricultural land along the banks of the Connecticut River the byway.
 - Protect the water supply land along the Fort River in accordance with the PVPC's 2014 Land Use Priority Areas for Protection map.
- Provide farm transition and estate planning for farmers to help keep their land in farming, have adequate funds for retirement, and help avoid the development of farmland for other uses. Resources are available through Land for Good, an organization devoted to connecting farmers with land. Land for Good notes that communities can play a role in farm succession planning by hosting information sessions, among other actions.
- Provide farmland matching services that help link farmers looking to sell or lease their land to famers looking for more land. This can help keep land in farming. Existing services include the New Entry Sustainable Farming Project's Farmland Matching Service and New England Land Link.
- Work with PVPC, FRCOG, Connecticut River Watershed Council, NRCS, UMass Extension, farmers and town Agricultural Commissions to implement best management practices (such as fencing, mulching, and green infrastructure) to reduce agricultural runoff and promote increased vegetated buffer areas to reduce erosion and sedimentation of waterways, particularly near tributaries adjacent to the byway.
 - Seek grant funds from programs such as USDA's Regional Conservation Partnership program to implement agricultural runoff best management practices.
- Prioritize the protection of cold water fisheries including, but not limited to, the Four Mile Brook and Fort and Mill Rivers through adjacent land protection and coordination with local conservation commissions.

- Conservation commissions can utilize the provisions in the Wetlands/Rivers Protection Act and its stormwater provisions for the restoration and/or protection of vegetated stream banks.
 - Utilize local knowledge to inform the Department of Fish and Game of additional cold water fisheries.
 - Adopt more stringent local wetlands/riverfront protection bylaws, and conduct educational outreach about them.
- Identify and assess culverts and bridges that have not been evaluated for design deficiencies.
 - Identify opportunities and funding sources to replace culverts with updated designs that accommodate wildlife passage and flooding events.
 - Conduct water quality monitoring and surveys to identify any problem areas associated with agricultural runoff and erosion.
 - Adopt zoning regulations, such as Open Space Residential Development (cluster) zoning, Transfer of Development Rights, and de facto urban growth boundaries, to incentivize smart growth and reduce Approval Not Required development along the byway.
 - Consider strengthening floodplain regulations in order to qualify for FEMA's Community Rating System program, which reduces flood insurance rates for communities (such as the City of Northampton) that voluntarily adopt more stringent floodplain standards.

Outdoor Recreational Resources

CHAPTER 4

Connecticut River Scenic Byway

Introduction

The Connecticut River Scenic Byway area has a wealth of outdoor recreational resources. There are activities for all seasons which create diverse opportunities for recreation. During the winter there are opportunities to cross-country ski and snowshoe, while spring provides warmer weather for hiking and biking. Summer is an excellent time to fish and paddle on the Connecticut River, and autumn provides opportunities to view the Byway's spectacular foliage. This chapter details the outdoor recreational resources along the Byway, and discusses potential issues and concerns that could affect the quality of these resources over time. The chapter concludes with recommendations to protect, maintain, and enhance the Byway's recreational resources.



Resources located directly on or within a half-mile radius of the Connecticut River Scenic Byway are noted with this roadway symbol. While the Corridor Management Plan focuses on resources that are located within a half mile of the Connecticut River Scenic Byway, this chapter also includes recreational attractions that are outside of the study area boundary, but within the towns along the Byway. The activities at each site are shown in italics.



Resources with recreational access for people of all abilities (universal access) are noted with this symbol. More information on sites with universal access is located on page 25.

State Forests, Wildlife Management Areas, and Other Open Spaces

Multiple Towns along the Byway



Connecticut River Greenway State Park (Northfield, Sunderland, Hadley, South Hadley, and Hatfield)

The Connecticut River Greenway is one of Massachusetts' newest State Parks. It connects open spaces, parks, scenic vistas, and archaeological and historic sites along the length of the Connecticut River as it passes through the state. There are more than 12 miles of permanently protected shoreline,



A view of the Connecticut River with Mount Sugarloaf in the background

and numerous river access points along the Greenway, including the:

- Pauchaug Brook boat launch in Northfield (see Pauchaug Brook Wildlife Management Area listing). *Boating, fishing, and picnicking.*
<http://www.mass.gov/eea/agencies/dcr/massparks/region-west/connecticut-river-greenway-state-park.html> • Routes 10/63, 1.5 miles north of the village center
- Dirt road ramp at the end of School Street in Sunderland, Parking is available at the Sunderland Public Library on School Street. *Boating (motorized and non-motorized), boat ramp, fishing, river access.*
<http://www.mass.gov/eea/agencies/dcr/massparks/region-west/connecticut-river-greenway-state-park.html> • 413-586-8706 x12
- Gravel boat ramp and fishing access managed by Mass Department of Fish & Game in Hatfield. Located one mile north of Hatfield Center off of Kellogg Hill Road. Suitable for shallow draft lightweight boats and canoes. Parking for boat trailers.

New England Trail (Northfield, Erving, Hadley, South Hadley)

The New England Trail (NET) is a 215-mile hiking trail that travels through 41 communities in Massachusetts and Connecticut. Comprised primarily of the historic Matabesett, Metacomet, and Monadnock (MMM) Trail system, the NET received its official naming and designation in 2009 as the framework developed by the National Park Service and its partners for trail management and administration. The principal steward for the trail in Massachusetts is the Berkshire Chapter of the Appalachian Mountain Club.

The northern end of the NET starts at the New Hampshire-Massachusetts state border and stretches south through classic New England landscape features, colonial historical landmarks, and many spectacular landscape highlights along the Connecticut River Valley. There are many locations along the Byway that access and intersect with the NET route.

In Northfield parking is available in lots off of Alexander Hill Road and Gulf Road. The Richardson-Zoglar Cabin is located along the trail in Northfield and is available for overnight stays. Reservations are required.

In Hadley and South Hadley, the trail rises and falls along the ridgeline that extends through Mount Holyoke Range and Skinner State Parks. This challenging section of the trail traverses the succession of hills known as the "Seven Sisters" that make up part of the Mount Holyoke Range. The trail can be accessed from the Notch Visitor's Center on Route 116 or from the entrance to Skinner State Park on Route 47. The Mount Holyoke Outing Club is the Trail Adopter for this section of trail, and owns and operates a fully enclosed cabin just off of Old Mountain Road. The cabin is available for public use. To reserve the cabin, visit the Outing Club's website: <https://www.mtholyoke.edu/org/outing/>

Birding, camping, hiking, wildlife viewing. <http://www.newenglandtrail.org/>



J.A. Skinner State Park, Hadley, South Hadley

At the western end of the Mount Holyoke Range, J. A. Skinner State Park involves more than 400 acres of forest on the slopes and summit of Mount Holyoke. The park is owned and managed by MassDCR and has hiking and picnicking and outstanding views of the Connecticut River

Valley. The park is named after Joseph Allen Skinner, a wealthy businessman who donated the hotel and land to the state in 1940.

The Summit House on Mount Holyoke is a historic landmark that in the second half of the 1800s served as a popular mountain-top hotel. It is open for tours and programs on weekends and holidays from Memorial Day through Columbus Day, offering historical displays and special events. Today visitors can enjoy spectacular, panoramic views of the Connecticut River and Pioneer Valley, and learn about the hotel's history. The summit is accessible by automobile from May through mid-October from Summit Road off of Route 47 in Hadley, and year-round by walking the road or hiking the trails. Lithia Springs Road provides access to trails around the Lithia Springs Reservoir.

Birding, hiking, wildlife viewing, mountain biking, cross-country skiing, rock climbing • <http://www.mass.gov/eea/agencies/dcr/massparks/region-west/skinner-state-park-generic.html> • 10 Skinner State Park Road, Hadley • 413-586-0350



The summit of Mount Holyoke in Skinner State Park inspired American landscape painter Thomas Cole to paint his 1836 masterpiece, "View from Mount Holyoke, Northampton, Massachusetts, after a thunderstorm,". The painting depicts the Oxbow of the Connecticut River. The painting is a visitor favorite at the Metropolitan Museum of Art. Source: <http://www.metmuseum.org/toah/work-of-art/08.228>.



Mount Holyoke Range State Park (Hadley, South Hadley)

Mount Holyoke Range State Park is contiguous to Skinner State Park, which together offer more than 3,000 acres of park land and more than 30 miles of marked trails. Managed by MassDCR, Mount Holyoke Range State Park straddles the seven-mile ridge that runs from Hadley to Belchertown. Mostly wooded, the ridge's steep slopes and east-west orientation create a number of forest types, including birch-beech-hemlock on the north side and oak-hickory on the south. Thickets, streams, ponds, and wetlands add to the diversity. The Notch Visitor Center, located on Route 116 in Amherst, is open daily. Displays and interpretive programs are available in season.

Hiking, wildlife viewing, mountain biking, cross-country skiing, snowmobiling, horseback riding, hunting • <http://www.mass.gov/eea/agencies/dcr/massparks/region-west/mount-holyoke-range-state-park.html> • 1500 West Street, Amherst • 413 253-2883



Robert Frost Trail (Montague, Sunderland, Hadley, South Hadley)

The Robert Frost Trail is a 47 mile trail that passes through ten towns on a mixture of state and town conservation lands, state and town roads, and private property. The trail extends from the south side of the Holyoke Range north, crossing through the Mt. Toby State Forest in Sunderland and ending in the Wendell State Forest. The trail is open to hiking, snowshoeing, cross-country skiing and other passive activities. Fishing and swimming are possible at locations along the trail. Parking and access to the trail is available at multiple locations. *Hiking, wildlife viewing, cross-country skiing, fishing, swimming.*

<https://www.amherstma.gov/DocumentCenter/Home/View/610>

Northfield

Northfield State Forest

A network of trails for hiking and skiing is located in the Northfield State Forest at the end of Alexander Hill Road. *Hiking, cross-country skiing, wildlife viewing.*

http://www.northfield.ma.us/files/OpenSpace/trails/hiking_trails.html • Alexander Hill Road, Northfield

Northfield Town Forest

The Northfield Town Forest is a 150-acre conservation and recreation area with a 2.2 mile loop trail and cliff section. Parking is available at the trailhead off of Gulf Road. *Hiking, wildlife viewing.*

http://www.northfield.ma.us/files/OpenSpace/trails/Town-Forest/town_forest_trail.html • Gulf Road, Northfield



Pauchaug Brook Wildlife Management Area

This 161-acre area, formerly known as Pauchaug Meadow, is a nearly level flood plain of the Connecticut River. It is owned and maintained by the Massachusetts Division of Fisheries & Wildlife. The Connecticut River forms the western boundary of the area, and it is a good fishing spot. There is ample parking for trailers and vehicles and boat access on a concrete ramp. Pauchaug Brook, which runs through the area, is stocked with trout. Additionally the area is

stocked with pheasant, woodcock, cottontail rabbit, gray squirrel, raccoon, waterfowl and numerous nongame species. *Boating, fishing, hunting, wildlife viewing.*

<http://www.mass.gov/eea/docs/dfg/dfw/habitat/maps-wma/valley/pauchaugbrookwma.pdf> •

Routes 10/63, 1.5 miles north of the village center, Northfield

Satan's Kingdom Wildlife Management Area

Satan's Kingdom is a very large, 1,305 acres, mostly forested wildlife management area that is owned and maintained by the Massachusetts Division of Fisheries & Wildlife. The area is located in the northwest corner of Northfield, on the western side of the Connecticut River and also includes land in the town of Bernardston. The area is comprised of several disjointed parcels and the topography is highly variable, ranging from steep and mountain tops to nearly flat, seasonally flooded wooded swamps. A trail on an old forestry road is accessible from Old Vernon Road, and leads to the top of a ridge with a view of the valley. *Birding, hiking, hunting, wildlife viewing.* <http://www.mass.gov/eea/docs/dfg/dfw/habitat/maps-wma/valley/satans-kingdom-wma.pdf>. A 3.2 mile trail on an old forestry road is accessible from Old Vernon Road and Northfield and leads to the top of a ridge with a view of the valley. The Satan's Kingdom Trail is highlighted on the Northfield website

http://www.northfield.ma.us/files/OpenSpace/trails/Satans-Kingdom/satans_kingdom.html • Old Vernon Road, Northfield



Northfield Mountain Recreation and Environmental Center

The Northfield Mountain Recreation and Environmental Center is a four-season recreation facility owned and operated by FirstLight Power Resources. Northfield Mountain offers cross country skiing, hiking, rock climbing, and mountain biking on 26 miles of trails; interpretive riverboat cruises and charters on the 44-seat Quinnetukut II; public environmental and recreation programs at the Visitor Center; and school environmental and recreational programs on-site. *Cross country skiing, hiking, mountain biking, boating, rock climbing.*

<http://gdfsuezna.com/recreation/Northfield-Mountain-Nature-Programs/> • 99 Millers Falls Road/Route 63 • 800-859-2960

King Philip's Hill

A bluff overlooking the Connecticut River, King Philip's Hill, is a former lookout post for Native Americans who lived and fought along the Connecticut River. Hikers on this town-owned parcel enjoy a magnificent view of the river. The trailhead is a short walk from the historical marker. The trail is a short, easy loop. There are several historic trenches visible just back from the edge of the bluff, and several historic informational signs along the trail. King Philip's Hill is located on the western side of the Connecticut River, from Old Bernardston Road (off of Route 10). *Hiking and picnicking.*

http://www.northfield.ma.us/files/OpenSpace/trails/KPH/KPH_trail.html • Old Bernardston Road

Bennett Meadow Wildlife Management Area

This wildlife management area is owned by the Massachusetts Division of Fisheries & Wildlife along the Connecticut River, and is open to the public. There are no maintained trails. A parking

area is located on the south side of Route 10, on the west side of the Connecticut River. *Hiking, hunting, fishing.* Parking is available off of Route 10 on the west side of the Connecticut River in Northfield.

<http://www.mass.gov/eea/docs/dfg/dfw/habitat/maps-wma/valley/bennett-meadows-wma.pdf>
http://www.northfield.ma.us/files/OpenSpace/trails/hiking_trails.html

Munns Ferry Boat Access Campground

Munns Ferry in Northfield is a small camping area on the Connecticut River that is accessible only by the water. Four tent sites and an Adirondack shelter are available. Water is not available on site and reservations are required. The site is one of the Northfield Mountain Recreation and Environmental Center facilities operated by GDF SUEZ Energy North America formerly FirstLight Power. Reservations will be taken beginning the first Wednesday in April. Munns Ferry closes Columbus Day. *Boating, camping.* <http://gdfsuezna.com/camping/> • 413-863-9300

Brush Mountain Conservation Area

Brush Mountain Conservation Area is a 46-acre, town-owned recreation area with a trail to the top of the mountain that is part of the New England Scenic Trail. The property contains several cellar holes visible from the trail for the historic Calvin Swan home-site. A parking area is located at the trailhead on Gulf Road. *Hiking, wildlife viewing.*

http://www.northfield.ma.us/files/OpenSpace/trails/Brush-Mtn/brush_mtn_trail.html



Mill Brook Wetlands and Trail

This natural area includes a 1.5 mile wooded loop trail near the center of Northfield Village, just off of the Byway on Holton Street. Parking is at the Northfield Golf Course. *Hiking, wildlife viewing.* http://northfieldgolfcourse.com/?page_id=49 • 31 Holton Street • 413-498-2432

Erving



Erving State Forest

Erving State Forest is located to the north of Route 2 in the town of Erving. This recreational area provides a wide variety of activities including, boating, swimming and fishing at Laurel Lake with its beautiful brick-lined lakeshore, camping, picnicking, hunting, horseback riding and winter sports. There are 8 miles of forest roads, and numerous trails that lead to points of scenic interest throughout the forest. The Erving State Forest has overnight accommodations, toilet facilities and showers. The affordable accommodation and facilities provided at the state park campsites are popular with various groups, and are often sold out on weekends. *Hiking, boating, camping (including shower facilities), picnicking, mountain biking, hunting, fishing, swimming, cross-country skiing and snowmobiling.* <http://www.mass.gov/eea/agencies/dcr/massparks/region-central/erving-state-forest.html> • Laurel Lake Road • 978 544-3939 • 978 544-7745 (campground)

Erving Castle/Hermit's Cave

Located within the Erving State Forest, this vigorous hike (3-4 hours round-trip) leads to a natural "castle" formed by a small cave under an overhanging cliff. The cave was inhabited from 1867-1899 by hermit, John Smith, native of Scotland. From a sign on Mountain Road, follow the white-blazed Mattabesett, Metacomet, and Monadnock (M-M-M) Trails (MMM) Trail for 1.6 miles to a blue-blazed spur trail that descends a steep grade to the cave site and its remnant stonework and gardens, and then reconnects with the M-M-M. *Hiking.*

<http://www.northquabbinwoods.org/entries/62> • Mountain Road • 978-544-3939

Montague

Montague State Forest

Located to the east of Route 63, the Montague State Forest is comprised of over 600 acres.

Hiking, cross country skiing, mountain biking, hunting, fishing, wildlife viewing.



Great Falls Discovery Center

Located off of the Byway in Turners Falls, the Great Falls Discover Center is housed within a complex of old mill buildings. The Great Falls Discovery Center's has exhibits that show the natural, cultural, and industrial history of the Connecticut River watershed. The Center's four acres includes native plants, butterfly gardens, the Canalside Trail Bikeway and open lawn on the banks of the Connecticut River. Inside the main building, walk-through dioramas show the plants, animals, and landscapes of the 410-mile-long river from its source near the Canadian border to the estuary at the Long Island Sound. The Center is a cooperative program between the U.S. Fish and Wildlife Service and the Massachusetts Department of Conservation and Recreation. The building and exhibits are fully accessible and are free and open to the public. There are public restrooms available at the building. *Picnicking, wildlife viewing.*

<http://greatfallsdiscoverycenter.org/> • 2 Avenue A, Turners Falls • 413-863-3221

Turners Falls Fishway

The Connecticut River provides an opportunity to view an incredible natural phenomenon, when the American shad, sea lamprey and other anadromous (ah-nad-rah-mus) fish swim up the river as they begin their annual spring migration. Anadromous fish are born in freshwater, mature in the ocean and return to freshwater to spawn. The Turners Falls ladders help migrating fish get past the Turners Falls dam. These stair-like ladders consist of a series of rising pools, each pool approximately one foot higher than the last. The fish climb these ladders by swimming from pool to pool. Completed in 1980, the Turners Falls ladders are a series of three ladders located along a 2.5-mile stretch of the river. The Turners Falls ladders are located at the Cabot Hydroelectric Station, the spillway (dam) and the gatehouse. The Turners Falls Fishway is open during the spring migration. Underwater viewing windows offer visitors of all ages a chance to see migratory fish during their upriver journey to spawn. The viewing windows are open Wednesday through Sunday from 9:00 a.m. – 5:00 p.m., from mid-May to June. The admission is free and no reservations are required. *Wildlife viewing.*

<http://www.gdfsuezna.com/fishway/> • 15 First Street, Turners Falls, MA 01376 • 800-859-2960

Montague Plains Wildlife Management Area

Located to the west of the Byway in the center of Montague, the Montague Plains is a 1,600 acre, state wildlife refuge and unique ecological area, operated by the Massachusetts Department of Fish and Game. The "Plains" are a rare pine barren, which supports habitat for many rare plants and animals. The Montague Plains area is located on a large sand delta that was formed more than 10,000 years ago when melt water streams from the retreating glaciers emptied into Glacial Lake Hitchcock, a huge lake that covered much of the Connecticut River Valley during the glacial period. There is access from multiple roads. *Nature walks, cross country skiing, bird watching, hunting in season (pheasant, deer and small game), mountain biking.*

<http://www.mass.gov/eea/docs/dfg/dfw/habitat/maps-wma/valley/montagueplainswma.pdf> •

Millers Falls Road, Green Pond Road

Montague Wildlife Management Area

Located east of the Byway off of Chestnut Hill Road, this 1,339 acre area contains mixed terrain varying from gentle to steep slopes, nearly vertical ledges and flat bottom land. A long stretch of Spaulding brook (a wild brook trout stream) is contained within this area. There are also some smaller tributaries of the Sawmill River, a stocked trout water. White-tailed deer, bear, raccoon, gray squirrel, fisher, turkey, ruffed grouse, cottontail rabbit and snowshoe hare, along with numerous non-game species. *Hiking, cross country skiing, mounting biking, fishing, hunting, wildlife viewing.* <http://www.mass.gov/eea/docs/dfg/dfw/habitat/maps-wma/valley/montaguewma.pdf> • Chestnut Hill Road and North Leverett Road.



Unity Park

Located on the banks of the Connecticut River, Unity Park in the village of Turners Falls in Montague is one of the most scenic and popular local parks in the region. The 8.25 acre Town-owned section of the park was recently renovated, and includes a large playground with a water feature in the summer, ball fields, a basketball court, a paved walking path, a butterfly garden, and a picnic area. The section of Unity Park that is on the banks of the Connecticut River is owned by FirstLight Power and has picnic tables, a fish ladder and is the northern terminus of the Canalside Trail Bike Path. *Walking, biking, fishing, wildlife viewing, picnicking, playground.* • First Street, Turners Falls • 413-863-3216

Sunderland



Mt. Toby State Forest

At more than 1,200 feet in height, Mt. Toby looms over the middle Connecticut River Valley offering panoramic views to those who will make the trek on a moderate hiking trail of about 6 miles. There are shorter hiking trails as well. Mt. Toby features cliffs, caves, waterfalls, wetlands and open fields. Cranberry Pond is a small pond at the foot of Mt Toby and offers opportunities for kayaking. Parking is located off Route 47 about one half mile east on Reservation Road. *Birding, hiking, and wildlife viewing.* <http://www.mass.gov/eea/agencies/dcr/massparks/region-west/connecticut-river-greenway-state-park.html> • 413-586-8706 x12

Hadley



Lake Warner Boat Launch, Hadley

Shallow and weedy, Lake Warner has a mean depth of about three feet and a maximum depth of about 10 feet, making the lake most suitable for shallow draft boats. The public launch for paddling and fishing craft is located just off Route 47 at Mount Warner Road. *Boating, fishing, birding, and wildlife viewing* • Mount Warner Road, Hadley

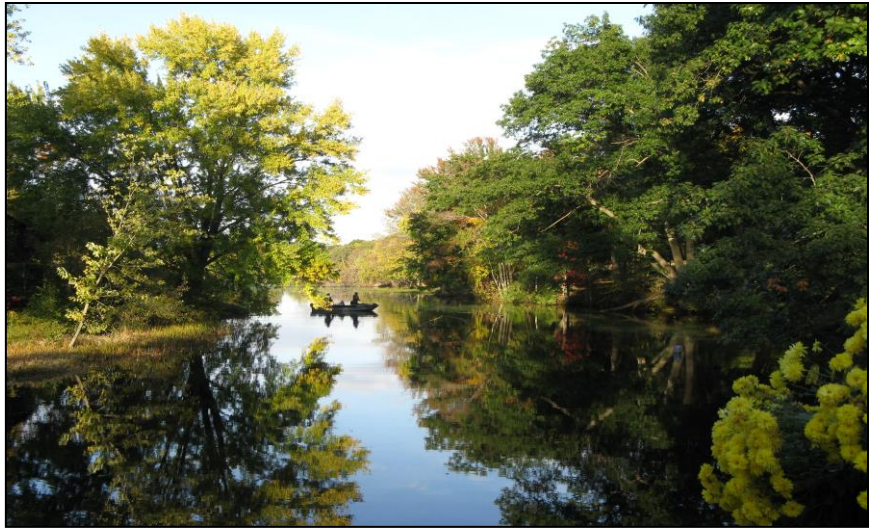


Lake Warner Wildlife

Management Area

This 95-acre tract managed by Mass Fish & Wildlife is on the northeast side of Mount Warner with 825 feet of frontage on Lake Warner and 2,160 feet of frontage on the Mill River.

Topography is variable with primarily mixed hardwood with some white pine. This area is not stocked with fish or pheasant, but typically has deer, aquatic furbearers, raccoon, squirrel, turkey, geese and duck. Nearest street is Stockbridge Road. Currently the site is accessible only by water because the state owned right of way is overgrown.



People fishing on Lake Warner which is approximately 68 acres in size

Boating, fishing, birding, and wildlife viewing •

<http://www.mass.gov/eea/agencies/dfg/dfw/maps-destinations/wildlife-management-areas.html> • 413.323.7632



Mount Warner

Just southeast of Lake Warner in North Hadley, Mount Warner is the second highest point in the town of Hadley. It is a resistant rock outcropping, known as a Monadnock, and has long been recognized as a regionally significant landform. It rises above the flat, fertile floodplain of North Hadley from the bed of ancient Lake Hitchcock, the glacial lake that formed during the melting of the last glacial advance. Archaeologists believe that Mount Warner was actually an island amidst the Glacial Lake Hitchcock ten thousand years ago, and may contain evidences of occupation by Native Americans dating back more than six hundred years.

Mount Warner stands amid a 500-acre swath of protected land linking nearby Lake Warner to the Connecticut River. On a portion of Mount Warner owned and managed by The Trustees of the Reservations (TTOR), the Salamander Loop Trail provides a 2-mile circuit that takes hikers through a sloping woodland along old cart paths and wood roads. Parking and the trailhead are located along Mount Warner Road. The TTOR property is open year-round, daily, sunrise to sunset. Allow a minimum of 1.5 hours. See TTOR webpage to download a trail map.

Hiking/snowshoeing, cross country skiing, birding and wildlife viewing •

<http://www.thetrustees.org/places-to-visit/pioneer-valley/mount-warner.html#t1> • Mount Warner Road, Hadley • 413.532.1631



Alexandra Dawson Conservation Area, North Lane, Hadley

This conservation area provides a walking trail on top of part of the Connecticut River dike system with great river views and a fairly level walking surface. There is a pull off along the middle of North Lane and a brief steep climb to the top of the dyke. It is possible to walk a loop going west to end of dike and then using town roads, from Cemetery Road to West Street and back to North Lane.

Hiking, birding, and wildlife viewing • North Lane, Hadley



Silvio O. Conte National Fish and Wildlife Refuge, Fort River Division

Along the Fort River in Hadley, a new 1.2-mile fully accessible loop trail provides the opportunity to explore multiple habitats, including grasslands, shrub-lands, mixed forest, and wetlands. The trail includes eight elevated boardwalks and seven different viewing decks and is part of 260 acres along the Fort River protected for grassland bird habitat and now part of the Silvio O. Conte National Fish and Wildlife Refuge.

Hunting, fishing, wildlife observation and photography, environmental education, and interpretation • Moody Bridge Road, Hadley



Mass Central Rail Trail - Norwottuck

An 11-mile long pedestrian and bicycle path, the Mass Central Rail Trail – Norwottuck (MCRT - Norwottuck) extends east to west, connecting the communities of Belchertown, Amherst, Hadley, and Northampton. From Northampton to the west, the MCRT – Norwottuck connects to the Manhan Rail Trail in Easthampton and Southampton. In Hadley, the MCRT – Norwottuck crosses Route 47 just north of its intersection with Route 9. Public parking is available at the “Hadley Depot” on Railroad Street in Hadley center, at the Connecticut River Greenway State Park on Damon Road in Northampton, behind the Whole Foods Market on Route 9 in Hadley, and behind the Mountain Farms Mall in Hadley. The path's level terrain provides safe passage for pedestrians, wheelchairs, joggers, skaters, bicyclists, and cross-country skiers of all ages and abilities.

Cycling, hiking, and wildlife viewing. • <http://www.mass.gov/eea/agencies/dcr/massparks/region-west/norwottuck-rail-trail.html>



J.A. Skinner State Park (Hadley, South Hadley)

See description at beginning of this chapter under "Multiple Towns Along the Byway" heading.



Mount Holyoke Range State Park (Hadley, South Hadley)

See description at beginning of this chapter under "Multiple Towns Along the Byway" heading.

South Hadley



J.A. Skinner State Park (Hadley, South Hadley)

See description at beginning of this chapter under "Multiple Towns Along the Byway" heading.



Mount Holyoke Range State Park (Hadley, South Hadley)

See description at beginning of this chapter under "Multiple Towns Along the Byway" heading.



Bachelor Brook/Stony Brook Conservation Resource Area

The largest and most biologically diverse of the properties managed by the South Hadley Conservation Commission, this 284-acre conservation area lies along the Connecticut River and Bachelor Brook north of Ferry Street. A small portion of the property lies south of Ferry Street, along Stony Brook. Walking trails connect the Town Farm property to Bachelor Brook, Stony Brook, and to the Connecticut River. Among the unique features of this property are two of the best examples in the state of small floodplain forests. Using Scenic Byway funding, the Pioneer Valley Planning Commission hired designers to complete plans for the "River to Range," which will link the Connecticut River to the Mount Holyoke Range.

Hiking/snowshoeing, cross-country skiing, horseback riding, fishing, mountain biking, birding and wildlife viewing • <http://www.mass.gov/eea/agencies/dcr/massparks/region-west/norwottuck-rail-trail.html>



Town Farm Fields

Right along the Byway and adjacent to the Bachelor Brook/Stony Brook Conservation Resource Area, Town Farm Fields is home to several ball fields and a community garden. The property also has picnic tables, a water fountain, and portable toilets.

Picnicking

Mount Holyoke College Trails, South Hadley

At the southern end of the Byway, Mount Holyoke College maintains trails in five areas near the college, including Long Farm Trail; Prospect Hill Trails; Upper and Lower Stony Brook Trail; and Upper Lake Loop.

Hiking/ snow shoeing, cross-country skiing, birding and wildlife viewing • https://www.mtholyoke.edu/mwce/campus_trails

Table 4-1: Boating and Public Boat Access Sites

The following locations, described in the preceding pages of this chapter under the State Forests, Wildlife Management Areas, and Other Open Spaces" section, have boating and public boat access:

- Northfield - Connecticut River access, Pauchaug Brook Wildlife Management Area
- Sunderland - Connecticut River access, dirt road at the end of School Street
- Hatfield - Connecticut River access, Mass Department of Fish & Game boat ramp and fishing access off of Kellogg Hill Road
- Hadley - Lake Warner access, Mass Department of Fish & Game has right of way agreement with Town of Hadley for boat ramp and fishing access

See preceding descriptions on these locations for further information.

Using common sense on the river

When swimming, boating, or fishing on a large river like the Connecticut, it is critically important to know about conditions. A fair-weather weekend following heavy rains can be especially deceptive. The flows of these heavy storms can produce hazardous floating debris, including tree limbs and pieces of dock. Because of the Connecticut River's huge watershed, it can take many days after a heavy storm for water levels to drop back to normal. Check with staff at local marinas for the best current information on river conditions. See list below.

Privately operated boating access sites are also located along the Byway. These include the following:

Sportsman's Marina Inc. and Boat Rental Co., Hadley

Located on the southwestern side of the Calvin Coolidge Bridge, Sportsman's Marina has an improved ramp for all boat types that can be use for a fee. The Marina also sells and rents boats. Rentals include kayaks, canoes, pontoon boats, and fishing boats.

<http://www.smihadley.com> • 1 Russell Street (Route 9) • 413-584-7141

Mitch's Marina, South Hadley

Located along the Byway, Mitch's Marina has an improved boat ramp, docks, and a snack bar in a scenic park-like area between the Byway and the Connecticut River.

<https://www.facebook.com/pages/Mitchs-Marina/170266936479291> • 2 Mitch's Way • 413-584-7960

Brunelle's Marina, South Hadley

The marina has a paved boat launch for easy access to the river. There is a launch fee and season passes are available. Riverside picnic areas are available all season for the use of all boaters. Visitors may use the marina's guest dock for up to two hours of courtesy mooring. The marina also operates the Lady Bea, a 49 passenger cruise boat, with daily narrated tours of the Connecticut River. The boat is also available for private events.

<http://www.brunelles.com> • 1 Alvord Street • 413-536-3132

Hatfield (Proposed)



Bashin Beach

Owned by the Commonwealth of Massachusetts as part of the Connecticut River Greenway, this beach and swimming area has few amenities, but is an important recreational facility in Hatfield.

Swimming, birding, and wildlife viewing •

<http://www.mass.gov/eea/agencies/dcr/massparks/region-west/connecticut-river-greenway-state-park.html> • end of Bashin Road, Hatfield



Kellogg Hill Road State Boat Ramp and Fishing Access

The Commonwealth of Massachusetts owns 5.7± acres off of Kellogg Hill Road for use as a public boat ramp and fishing access. This gravel ramp serves as one of the few access points to the Connecticut River from the west bank in this area. It is suitable for smaller boats and parking for boat trailers. Regional as well as local visitors use this area in the three seasons.

Boating, fishing, birding, and

wildlife viewing • <http://www.mass.gov/eea/agencies/dfg/fba/access-sites.html> • Kellogg Hill Road, Hatfield



Kayaks at the state boat ramp off Kellogg Hill Road in Hatfield

Terry Blunt Watershed and Conservation Area

This town conservation area of approximately 600 acres has a 1-mile long walking trail on the southern portion of the property. Access to the south end of the trail is from Rocks Road and access to the north end of the trail is at Reservoir Road. The unpaved path traverses some of the highest elevations in Hatfield under a high open forest canopy, offering a unique outdoor experience in town.

Hiking/snowshoeing, cross country skiing, birding, and wildlife viewing • Rocks Road and Reservoir Road



Smith Academy Trustees Park

Located at the corner of School and Main Streets behind Town Hall, this small municipal park is undergoing renovation to provide a bandstand and more open space.

Picnicking • Main Street

Camping

The following locations which were described in the preceding State Forests, Wildlife Management Areas, and Other Open Spaces section of this chapter have camping:

- Multiple Towns – New England Scenic Trail
- Northfield – Bennett Meadow Wildlife Management Area, Munns Ferry Boat Access Campground
- Erving – Erving State Forest

Cross-Country Skiing and Snowshoeing

The following locations which were described in the preceding section of this chapter as having cross-country skiing and snowshoeing access:

- Northfield - Northfield Mountain Recreation and Environmental Center
- Erving - Erving State Forest
- Montague - Montague Plains Wildlife Management Area
- Hadley, Mt. Warner
- Hadley/South Hadley, J.A. Skinner State Park
- South Hadley - Mount Holyoke Range State Park
- South Hadley - Bachelor Brook/Stoney Brook Conservation Resource Area
- South Hadley - Ledges Golf Course

Further information on these sites is included in the preceding State Forests, Wildlife Management Areas, and Other Open Spaces descriptions.

Golfing

Northfield



Northfield Golf Club

A picturesque nine-hole golf course adjacent to the Mill Brook Wetlands, complete with clubhouse. Designed by Alex Findlay, this “links” style nine-hole course was constructed at the turn of the century and opened in 1901; the current layout opened for play in 1912. The Northfield Golf Club is a well designed and carefully maintained mature course. The fairways are narrow and tree-lined, there is excellent variety of holes, and the small, fast greens keep the course interesting and appealing to both skilled golfers and those just learning how to play the game. An in ground pool and pool house are open in the summer to the public with a daily fee. <http://northfieldgolfcourse.com> • 31 Holton Street • 413-498-2432

Montague

Thomas Memorial Golf and Country Club

A 9 hole municipal golf course in Turners Falls, Montague. 29 Country Club Lane • 413-863-8003

Hadley

Western Massachusetts Family Golf Center

This commercial golf center has a golf driving range, mini golf course, ball park batting, golf simulator, and regular golf clinics.

294 Russell Street/Route 9 • 413-586-2311 • <http://wmassfamilygolf.com/>

South Hadley

Ledges Golf Club

Owned by the Town of South Hadley and managed by International Golf Maintenance, the 244-acre Ledges Golf Club is an 18-hole course with a 6,500 yard layout. There are magnificent views of the surrounding mountain range, natural wetlands, mature forests and abundant wildlife.

www.ledgesgc.com • Mulligan Drive • (413) 532-2307

The Orchards

A private 18-hole course created in 1922 from 160 acres of sloping wooded terrain by noted Scottish designer Donald Ross. Membership is by nomination from other members.

<http://www.orchardsgolf.com> • 18 Silverwood Terrace • (413) 535-2582

Hunting

Hunting is permitted in all of the Massachusetts state forest areas and wildlife management areas along the Byway in accordance with the state's regulations and permitting requirements. There are twelve different hunting seasons. Detailed information regarding these individual seasons and licensing is available from the Division of Fisheries & Wildlife. The following is a list of the locations where hunting is allowed:

- Northfield – Pauchaug Brook Wildlife Management Area, Bennett Meadow Wildlife Management Area
- Erving – Erving State Forest
- Montague – Montague State Forest, Montague Plains Wildlife Management Area, Montague Wildlife Management Area
- Hadley - Lake Warner Wildlife Management Area

<http://www.mass.gov/eea/agencies/dfg/licensing/> • 508-389-6300

Fishing

Fishing is a year-round recreational activity in Massachusetts. Fishing access sites along the Byway corridor include the Connecticut River, Pauchaug Brook, Millers River, Sawmill River, Fort River, and Bachelor Brook. To increase the chances of catching trout, the Massachusetts Division of Fisheries & Wildlife stocks several waterways in the region. The following is a list of stocked waterways in the towns along the Connecticut River Scenic Byway Corridor:

- Northfield - Four Mile Brook, Mill Brook, Roaring Brook, Pauchaug Brook
- Erving - Keyup Brook, Laurel Lake, Millers River
- Montague - Goddard Brook, Sawmill River, West Pond, Millers River
- Sunderland - Russellville Brook, Cranberry Pond, Mohawk Brook
- Hatfield - Mill River
- Hadley - Russellville Brook, Fort River, Mill River
- South Hadley - Bachelor Brook

Fishing locations are also indicated in italics in the State Forests, Wildlife Management Areas, and Other Open Spaces section at the beginning of this chapter.

<http://www.mass.gov/eea/agencies/dfg/licensing/> • 508-389-6300

Bicycling on Roads and Bike Paths

Bicycle touring is an excellent way to explore the byway area. The Connecticut River Valley area is a premier place for bicycle touring and recreational riding, drawing visitors from all over. The rural character, scenic beauty, and low traffic volumes make the region attractive for bicycling. Sections of the Connecticut River Scenic Byway are part of the Franklin County Bikeway and the Connecticut River Byway Tri-State Bikeway, which connects Greenfield, Massachusetts, Keene, New Hampshire and Brattleboro, Vermont. Nearby alternatives exist for some of the more challenging sections of the byway where higher traffic speeds and limited shoulders make bicycling uncomfortable for less experienced cyclists. This section provides information about cycling on Route 63 and Route 47, and also surrounding routes that might provide bicycle touring opportunities for varying levels.

Northfield, Erving, Montague, and Sunderland, Hadley, South Hadley and Hatfield



Connecticut River Scenic Byway Bicycle Routes

Federal Scenic Byway Program funding was awarded in 2012 to develop a print and online bike map of the bicycling resources in the tri-state (Massachusetts, New Hampshire, and Vermont) area of the Connecticut River Scenic Byway, and to install wayfinding signs and bicycle racks to enhance bicycling in the region. The project includes route connections between communities such as Northampton, Amherst, and Greenfield, Massachusetts, Keene, New Hampshire, and Brattleboro, Vermont. The project is meant to build upon the growing bicycle touring industry in the region and enhance economic development related to tourism.



The map details the level of difficulty of the routes as “advanced,” “intermediate,” “easier,” and “off road bike trail” routes are identified on the map, as well as bike shops, public parking and restrooms, picnic areas, ice cream stands, and other points of interest. Trailblazing signs will be added to routes along and adjacent to the byway between Greenfield, Brattleboro, and Keene. Maps were completed in 2014 and are available from the FRCOG, area bike shops, and other locations in the CT River valley. Digital versions of the maps may be downloaded from the

FRCOG's website at <http://frcog.org/program-services/transportation-planning/>. The routes can also be viewed on Google Earth. A link to the Google Earth maps can be accessed from the FRCOG's website.

Northfield, Erving, Montague, and Sunderland



The Franklin County Bikeway





In Franklin County, a region-wide bicycle network has been defined. The network creates connections within the county as well as connection to neighboring counties and states. Based on these routes, three Franklin County Bikeway maps, *Western Franklin County*, *Central Franklin County*, and *Eastern Franklin County*, were created to show the routes. The recommended routes on the maps are rated as “novice”, “intermediate”, or “advanced” based on their suitability for different level bicycle riders.





The Connecticut River Scenic Byway area is included on the *Central Franklin County* and *Eastern Franklin County* bikeway maps. The *Central Franklin County* map includes the routes that were part of the original 44-mile section of the Franklin County Bikeway that is centered along the Connecticut River. This original part of the bikeway consists of both off-road multi-use trails and shared roadway routes. The off-road trails have already been constructed and the shared roadway routes are marked with Franklin County Bikeway logo signs. The routes included on the Eastern and Western Franklin County Maps have not yet been marked with Franklin County Bikeway logo signs. It is anticipated that signs will be installed on these routes in the future. The maps are available from the FRCOG, area bike shops, the Franklin County Chamber of Commerce in Greenfield, and a variety of other locations. Digital versions of the maps may be downloaded from the FRCOG's website at <http://frcog.org/program-services/transportation-planning/>. The routes can also be viewed on Google Earth. A link to the Google Earth maps can be accessed from the FRCOG's website also.



The following describes the Franklin County Bikeway routes within or near the Byway area:

- The ***New Hampshire Connector***  (***3.4 miles, Advanced***) connects from Main Street in Northfield to the Ashuelot and Fort Hill Rail Trails in New Hampshire. These rail trails are not paved, but are constructed of sandy/cinder surfaces. This route has long, steep climbs with no shoulders in some locations, and therefore classified for “advanced” bicyclists.
- The ***Northeastern Franklin County Route***  (***15.5 miles, Advanced***) is accessed from Main Street (Route 63) in Northfield, but does not follow the Byway. Instead, the route travels near Mount Grace State Forest in Warwick, and terminates in downtown Orange. This route is classified as “advanced” because the roads are hilly and windy and have little or no shoulder.

- The ***Northfield Connector***  (14 miles, *Intermediate/Novice*) is located in Northfield, Erving, and Montague, and follows the Byway from Main Street in Northfield south to where it turns onto Pine Meadow Road. The route travels over the East Mineral Road bridge, a bicycle and pedestrian bridge at the confluence of the Millers and Connecticut Rivers. The route stays parallel to the Byway until Millers Falls Road, where it travels west and connects to the Canalside Trail Bicycle Path at Unity Park in Turners Falls. This route also provides a connection to the Northfield Mountain Recreation and Environmental Center.
- The ***Canalside Trail Bicycle Path*** (3.27 miles, *Novice*)  connects the Great Falls Discovery Center and Unity Park in the Village of Turners Falls in Montague, to McClelland Farm Road (located off of River Road) in northeast Deerfield. This is a 3.27-mile off-road bicycle path which travels along an approximately 10-foot wide grass and dirt path adjacent to the Connecticut River Canal in Turners Falls and along an abandoned rail corridor (including a railroad bridge over the confluence of the Deerfield and Connecticut Rivers) in Deerfield and Montague City. The path is part of the larger Franklin County Bikeway, a network of on and off-road bicycle routes that connect villages and attractions in Franklin County. Parking is available at Unity Park, the Great Falls Discovery Center, and on McClelland Farm Road in Deerfield. *Biking, walking.* <http://frcog.org/program-services/transportation-planning/> • First Street or 2 Avenue A, Turners Falls
- The ***Connecticut River Route***  (9.4 miles, *Novice /Intermediate*) is accessed on Greenfield Road in Montague at the intersection of the Canalside Trail Bike Path. This is a shared roadway route that travels near the Connecticut River along low volume scenic roads in Montague and Sunderland. In Sunderland the route turns onto Route 47 at Falls Road and follows the Byway into the village center.
- ***River Road Route***  *northern section in Deerfield and Sunderland* (18.7 miles, *Intermediate*) begins in Deerfield at the southern end of the Canalside Trail Bike Path at the parking area off of McClelland Farm Road. The route travels south on River Road, crosses the Deerfield-Sunderland Bridge, and connects to the Connecticut River Route at Route 47.
- ***River Road Connection into Hampshire County*** (15 miles, *Intermediate*) travels south on River Road from the intersection of Route 116 and River Road, a short distance from the Byway in Sunderland village center. This section of River Road travels into Whately and Hatfield (in Hampshire County). This route provides a link to Hampshire County and Northampton (a regional destination). It is possible to use the parking area at the Mount Sugarloaf State Reservation and cycle east on Route 116 to access either the River Road north or south routes.

- The ***Leverett-Amherst Route***  (13.4 miles, *Intermediate*) travels from Millers Falls Road through Montague Center, crossing the Byway near the intersection of Routes 64 and 47, and continues on to Leverett Center. This route connects to North Amherst in Hampshire County and the University of Massachusetts campus, the University Connector Bike Path, and the Norwottuck Rail Trail.
- The ***Shutesbury Loop***  (20.5 miles, *Intermediate*) travels through Montague, Leverett, and Shutesbury, connecting at both ends to the Leverett-Amherst Route. The route travels to Lake Wyola State Park, where a beach is open to the public for swimming. Caution should be taken on this route because Shutesbury/Leverett Road has high traffic volumes and little to no shoulders.

Hatfield, Hadley, South Hadley

- The ***River Road - Long Plain Road Loop***  (16 miles, *Novice*) stretches through downtown Hatfield's historic districts and beautiful farmland in the Connecticut River's floodplains. Using the parking area at the Mount Sugarloaf State Reservation in Sunderland, cycle east on Route 116 and take River Road south into Hatfield. River Road turns into Main Street and stretches several miles through the town's historic various districts. Turn west on Maple Street and then immediately north onto Prospect Street. Just after intersection with King Street, take right onto Straits Road, which extends into Long Plain Road. Take the route east to Christian Lane and then immediately head north on River Road to complete the loop. It is possible to extend this route from Maple Street or Christian Lane into Haydenville for a much longer ride.
- The ***Hadley- Amherst Loop***  (24 miles, *Advanced - Intermediate*) starts at the Mass Central Rail Trail - Norwottuck in Hadley. Use the parking area at the Hadley Depot on Railroad Street in Hadley center. Proceed east on the MCRT-Norwottuck to the Byway (Route 47) and then head north. Follow the route for 2 miles and then turn east on Stockwell Road. At intersection of Mt. Warner Road, turn south. Follow the route to go east on Breckenridge Road and north on Roosevelt Road, which turns into Meadow Street. Cross intersection with Route 63 onto Pine Street. Follow Pine Street to T intersection with Henry Street and turn south.



The Connecticut River Scenic Byway is popular with local cyclists as well as a cycling destination. This cyclist arrived from Germany to start his bicycling journey in Vermont. He is shown riding on the Byway in Hadley.

Henry Street turns into North East Street and in turn to South East Street. Follow all the way to Bay Road. Turn east on Bay Road and cross Route 116 to follow West Bay Road all the way to Byway/Route 47. Turn north on Byway and follow until looped back to Mass Central Rail Trail.

Mountain Biking

The following locations which were described in the preceding section of this chapter have mountain biking access:

- Northfield Mountain Recreation and Environmental Center (Northfield)
- Erving State Forest (Erving)
- Montague Plains Wildlife Management Area (Montague)
- J.A. Skinner State Park, Hadley, South Hadley - note that no mountain biking permitted on New England Trail
- Mount Holyoke Range State Park, Hadley, South Hadley - note that no mountain biking permitted on New England Trail

Further information on these sites is included in the preceding State Forests, Wildlife Management Areas, and Other Open Spaces descriptions.

Trail Running

Western Mass Athletic Club

The Western Mass Athletic Club primarily caters to area trail runners, and is based out of Adams in Berkshire County. Interested participants can run and hike the rugged terrain surrounding the byway with like-minded group members. This organization hosts running groups, races, as well as snow shoeing events in winter months.

<http://runwmac.com/index.html>

Rock Climbing

Erving

Farley Ledges

Considered by some the “crown jewel of climbing in Massachusetts,” Farley Ledge includes both moderate and highly difficult challenges on sloping horizontals, small edges, and sweeping features. Group climbs are sometimes offered by the Western Massachusetts Climbers Coalition (WMCC). WMCC owns a 16-car parking area and trail access to the ledge, located just west from Holmes Avenue on Route 2 near a gravel pullout on the cliff side of the street. Additional overflow parking is available on Wells Street located just to the east on Route 2, and across the Millers River on Bridge Street (Farley Road) in the small dirt lot. These overflow lots are on private property and should be used respectfully. The Farley Ledges can be heavily visited on weekends and holidays, and users are urged to obey the rules posted at the kiosk and to respect the land. Users must also respect a peregrine falcon closure period, typically in effect from early

March through mid-June. <http://www.northquabbinwoods.org/entries/281>;
<http://www.climbgneiss.org/index.php/farley-ledges>

Rose Ledge

Rose Ledge is owned by FirstLight Power Resources and is part of the trail system at the Northfield Mountain Environmental and Recreation Center. It is a popular destination for rock climbers. It is accessible from a spur off the Rose Ledge Trail, a loop that is frequently used for hiking and snowshoeing. <http://gdfsuezna.com/recreation/Northfield-Mountain-Nature-Programs/>

Hadley, South Hadley

J.A. Skinner State Park

Skinner State Park, owned and managed by MassDCR, has two southeast facing crags that are comprised of basaltic trap rock, the dominant stone of climbing in this area. While most of the trap rock in Massachusetts is highly fractured and unclimbable, some of this "Skinner Stone" is bullet hard and quite challenging. The Western Massachusetts Climbers Coalition notes, "Those familiar with basalt will note the absence of grit or horizontal holds and the corresponding importance of side-pulls, under clings and body position." The two cliffs - a lower tier of hard, bolted routes and upper tier of more moderate top rope problems - top out at 30 feet and yield perhaps 25 routes ranging from 5.8 to 5.13. For more information, see: <http://www.climbgneiss.org/index.php/skinner>

Swimming

The following locations which were described in the preceding section of this chapter to have swimming:

- Erving State Forest (Erving)
- Bashin Beach, Hatfield

Further information on these sites is included in the preceding State Forests, Wildlife Management Areas, and Other Open Spaces descriptions.

Snowmobiling

There is a network of trails through the Byway area where snowmobilers are allowed. Snowmobile trails along the Byway, and in the region, are seasonal trails. Trails on private property are often governed by written agreements with the property owner stipulating maintenance responsibilities in return for access. Up-to-date information on local snowmobile trails, conditions and purchasing a pass can be obtained from the following organizations:

- Northfield Snowmobile Club • 413-498-0259
- Bernardston, Gill, Leyden Snowmobile Club • <http://www.bglsnow.com/>
- Snowmobile Association of Massachusetts • www.sledmass.com • 413-369-8092
- Greater Whately Snowmobile Club • 413-665-3846; 413-397-3637
- Hadley Snowmobile Club • <http://sledmass.com/club/hadley-snowmobile-club/> • 413.586.9864; 413-374-6056; or 413-531-1410

Off-Road Vehicles

Off-road vehicles (ORVs) are allowed in a limited number of the state forests and parks in Western Massachusetts, none of which are located in the Byway Corridor Study Area.

Horseback Riding/Horseback Trails and Access Areas

Sites where horseback riding is permitted are noted in italics throughout the preceding State Forests, Wildlife Management Areas, and Other Open Spaces section. Additional horseback riding and horseback trail descriptions follow.

Northfield

Northbrook Stables

Northbrook Stables is located on 18 acres and offers boarding facilities, an indoor arena, and riding trails. <http://www.northbrookstables.com/> • 850 Old Wendell Road (1.3 miles east of the Byway) • 413-498-4449

Montague

Ledgewood Farm

Ledgewood Farm is an environmentally conscious equine stabling barn that offers boarding, trainings, and private lessons. An extensive trail network is located adjacent to the farm.

<http://ledgewoodfarm.weebly.com/> • 76 Old Sunderland Road (0.7 miles west of the Byway) • 617-480-1226

Universal Access

DCR's Universal Access Program is dedicated to providing outdoor recreation opportunities in Massachusetts state parks for visitors of all abilities. Accessibility to the state parks and forests is achieved through site improvements, specialized adaptive recreation equipment, and accessible recreation programs. DCR Park Interpreters include visitors with disabilities in nature walks and interpretive programs scheduled seasonally around the state. Assistive listening equipment is available upon request at many parks. Recorded brochures, walks, and tours are also available at some parks. 413 545-5353 voice • 413-577-2200 TTY

For information on recorded indoor and outdoor park tours around Massachusetts for visitors who are blind, contact the Universal Access Office.

In the Connecticut River Scenic Byway region, some recreational resources provide universal access to recreational facilities.

- Erving State Forest is identified in DCR's universal access brochure as having fully accessible restrooms, interpretive program, picnicking, and swimming.
- The Great Falls Discovery Center, Canalside Trail Bike Path, and Unity Park in Montague are also accessible facilities within the Byway region.
- The Mass Central Rail Trail – Norwottuck provides 11-miles of accessible trail for pedestrians and bicycles path MassDCR's Universal Access Brochure indicates that there are accessible bathrooms, an interpretive program, and trail opportunities on the MCRT – Norwottuck. DCR runs a universal access program in partnership with All Out

Adventures on the Rail Trail, including an accessible cycling program. for people of all ages with disabilities and their family and friend, a program for people with brain injuries, and a program for seniors.

- The Silvio O. Conte National Fish and Wildlife Refuge, Fort River Division, has a new 1.2-mile fully accessible loop trail that has seven different viewing decks. The trail has won an award from the Stavros Center for Independent Living.

More information about these resources is provided in the preceding section, "State Forests, Wildlife Management Areas, and Other Open Spaces."

Issues and Recommendations

Issues

- There are very few public restrooms available along the Byway.
- There is a lack of official river access locations to the Connecticut River.
- In several locations along the Byway, bike lanes are not adequate for safe passage.
- There are few "formal" access areas from the Byway to the Connecticut River and surrounding forests. Using Scenic Byway grant funds, PVPC and partner communities developed detailed design plans for four new trails, including the River to Range Trail in South Hadley, the Porter Phelps to Mount Warner Trail, the New England National Scenic Trail (new trailhead), and the Red Rocks Trail in Hadley. There are also completed plans for a new car-top boat access area at Ferry Road in North Hadley. Additional funding is needed to construct and maintain these and other new trails.
- There is a lack of funding to maintain the existing recreational facilities. Bashin Basin in Hatfield, in particular, shows evidence of litter and the lack of sanitary facilities. Hatfield State Boat Ramp and Fishing Access OSRP notes that the parcel is large enough to accommodate further picnic or recreational facilities.
- There is no swimming access in Northfield.

Recommendations

- Establish parking, signage, and kiosks at trailheads and recreational areas, where needed.
- Improve access to the New England National Scenic Trail through linked local trail networks.
- Advocate for and seek adequate funding to maintain and operate the existing recreational facilities.
- Seek grant funds to construct new trails, including the River to Range Trail, the Porter Phelps to Mount Warner Trail, the new gateway trail to the New England National Scenic Trail and the Red Rocks Trail, and new CT River boat access areas in Hadley, through state and federal programs such as Recreational Trails Act and Federal Lands Access Program (FLAP).
- Continue to maintain the Western Massachusetts Scenic Byways Website (<http://www.bywayswestmass.com/>) to ensure it covers all recreational resources described within this chapter
- Establish and maintain safe bike routes within the byway towns that connect the village centers and places of interest.

- Continue to encourage towns to permanently protect land for open space, and natural, cultural, and scenic resource protection and for recreation purposes.
- Collaborate with land trusts and state conservation agencies to work with willing landowners on conservation restrictions, agricultural preservation restrictions or land from willing property owners for the protection of recreational and natural resources within the Byway region through existing programs and grant sources.
- Improve access to parks and recreational areas within the Byway region for disabled populations, seniors and children.
- Develop and maintain multi-use and limited-use trails to provide access to natural, scenic and recreational areas.
- Link the Byway with community development and preservation efforts by promoting eco-tourism, heritage tourism, and the marketing of local products.
- Use the byway website to enhance the public visibility of agricultural and forestry businesses in the Byway region and promote the purchase of local farm and forest products.
- Create bike lanes in key locations in Hadley, South Hadley, and Hatfield based on recommendations within the Transportation Chapter of this Plan.
- Support plans for a bikeway/walkway along the river from Hatfield to Northampton, at the proposed Northampton boat house
- Encourage the investment of federal, state, municipal and private dollars for the purpose of developing, maintaining, and expanding recreational areas, facilities and programs within the Byway region. Specific locations include:
 - Bashin Basin in Hatfield, which needs improved maintenance and possibly installation of a portable toilet
 - Kellogg Hill Road state boat ramp both in Hatfield where picnic tables could be an important addition
 - Smith Academy Park in Hatfield Center where additional amenities would provide for greater enjoyment of this historic space
 - Lake Warner Wildlife Management Area in Hadley where the only access by land is now overgrown
- Support plans to build a boat ramp on School Street in Sunderland.
- Explore other feasible locations to develop new or improved river access and seek funding for those projects as they develop.
- Continue to enhance development of the Connecticut River Greenway's Paddlers Trail with development of official river access in towns that are interested and willing. This includes the Ferry Road kayak access site in Hadley mentioned above, as well as access from Hadley Cove and Huntington Road.
- Initiate a promotional campaign on the byway website to market bicycling in the Connecticut River Valley.

Table 4-2: Connecticut River Scenic Byway Recreational Resources Inventory

	Biking – Mountain	Biking – Road	Birding	Boat Ramp	Camping	Cross-Country Skiing	Fishing	Golfing	Hiking/Snowshoeing	Horseback Riding	Hunting	Picnic Area	Playground	Rock Climbing	Snowmobiling	Swimming	Wildlife Viewing
Multiple Towns Along the Byway																	
Connecticut River Greenway State Park (Northfield, Sunderland, Hatfield, Hadley, South Hadley)				✓													✓
New England Trail (Northfield, Erving, Hadley, South Hadley)			✓		✓				✓								✓
J.A. Skinner State Park (Hadley, South Hadley)	✓		✓			✓			✓			✓		✓			✓
Mount Holyoke Range State Park (Hadley, South Hadley)	✓		✓			✓			✓			✓					✓
Robert Frost Trail (Montague, Sunderland, Hadley, South Hadley)									✓								✓
Northfield																	
Northfield State Forest						✓			✓								✓
Northfield Town Forest									✓								✓
Pauchaug Brook Wildlife Management Area				✓			✓				✓						✓
Satan’s Kingdom Wildlife Management Area			✓						✓		✓						✓
Northfield Mountain Recreation and Environmental Center	✓					✓			✓					✓			
King Philip’s Hill									✓			✓					

	Biking – Mountain	Biking – Road	Birding	Boat Ramp	Camping	Cross-Country Skiing	Fishing	Golfing	Hiking/Snowshoeing	Horseback Riding	Hunting	Picnic Area	Playground	Rock Climbing	Snowmobiling	Swimming	Wildlife Viewing
Bennett Meadow Wildlife Management Area							✓		✓		✓						
Munns Ferry Boat Access Campground				✓	✓												
Brush Mountain Conservation Area									✓								✓
Mill Brook Wetlands and Trail									✓								✓
Four Mile Brook, Mill Brook, Roaring Brook, Pauchaug Brook							✓										
Northfield Golf Club								✓									
Northbrook Stables										✓							
Erving																	
Erving State Forest	✓			✓	✓	✓	✓		✓		✓	✓			✓	✓	
Erving Castle / Hermit’s Cave									✓								
Farley Ledges														✓			
Rose Ledge														✓			
Keyup Brook, Laurel Lake, Millers River							✓										
Montague																	
Montague State Forest	✓					✓	✓		✓		✓						✓
Great Falls Discovery Center												✓					✓
Montague Plains Wildlife Management Area	✓		✓			✓			✓		✓						
Montague Wildlife Management Area	✓					✓	✓		✓		✓						✓

	Biking – Mountain	Biking – Road	Birding	Boat Ramp	Camping	Cross-Country Skiing	Fishing	Golfing	Hiking/Snowshoeing	Horseback Riding	Hunting	Picnic Area	Playground	Rock Climbing	Snowmobiling	Swimming	Wildlife Viewing
Unity Park		✓					✓					✓	✓				✓
Thomas Memorial Golf and Country Club								✓									
Canalside Trail Bicycle Path		✓															
Goddard Brook, Sawmill River, West Pond, Millers River							✓										
Legdewood Farm										✓							
Sunderland																	
Mt. Toby State Forest			✓						✓								✓
Russellville Brook, Cranberry Pond, Mohawk Brook							✓										
Hatfield																	
Bashin Beach																✓	✓
Kellogg Hill Road Boat Ramp and Fishing Access				✓			✓										✓
Terry Blunt Watershed and Conservation Area			✓						✓								✓
Smith Academy Trustees Park																	
Mill River							✓										
Hadley																	
Lake Warner Boat Launch			✓	✓			✓										✓
Lake Warner Wildlife Management Area			✓				✓										✓

	Biking – Mountain	Biking – Road	Birding	Boat Ramp	Camping	Cross-Country Skiing	Fishing	Golfing	Hiking/Snowshoeing	Horseback Riding	Hunting	Picnic Area	Playground	Rock Climbing	Snowmobiling	Swimming	Wildlife Viewing
Mount Warner			✓			✓			✓								✓
Alexandra Dawson Conservation Area			✓						✓								✓
Silvio O. Conte National Fish and Wildlife Refuge, Fort River Division			✓						✓								✓
Mass Central Rail Trail - Norwottuck		✓	✓			✓			✓			✓					✓
Sportsman’s Marina Inc. and Boat Rental Co.				✓													
Western Massachusetts Family Golf Center								✓									
Rusellville Brook, Fort River, Mill River							✓										
South Hadley																	
Bachelor Brook/Stony Brook Conservation Resource Area	✓		✓			✓			✓								✓
Town Farm Fields												✓					
Mount Holyoke College Trails			✓			✓			✓								✓
Mitch's Marina				✓													
Brunelle's Marina				✓													
Ledges Golf Club								✓									
Bachelor Brook							✓										

Archaeological and Historic Resources

CHAPTER 5

Connecticut River Scenic Byway

Historical Overview

The Connecticut River Scenic Byway is steeped in local and regional history. The development of the Connecticut River Valley was shaped by the river, the geography, and the geology of the area. The fertile agricultural lands and river resources were significant to the occupation and growth of the area. The architecture and landscapes that exist today provide evidence of this rich history.

This chapter provides an overview of these resources. The chapter includes a brief summary of the history in each town, and a discussion of the current status of historic preservation at the municipal level. Additionally, the chapter is intended to tell the story of the Byway, and to provide insight to shape a future vision for the Byway.

The Connecticut River is New England's longest river. It originates near the Canadian border and flows south 280 miles along the New Hampshire/Vermont border, through Massachusetts and Connecticut. It empties into the Long Island Sound at Old Saybrook, Connecticut. The geography of the Connecticut River and its tributaries influenced the history and development of the area.

The Deerfield River and the Millers River are tributaries to the Connecticut River located in or near the Byway area. All of these rivers served as important transportation corridors. The Connecticut River provided a north south route, and the Deerfield and Millers Rivers provided an east west route. People and goods moved along these routes. Historically, narrows, rapids, and falls of the rivers were places where fish were caught by Native Americans and later European settlers. Significant waterfalls within and near the study area include Millers Falls, Turners Falls, and Holyoke. The waterfalls were significant locations for fishing early in history, and industrial development later, because they served as sources of power.¹

The geology of the Connecticut River Valley, and particularly the broad lowland and the abrupt mountain ranges that rise in several locations, resulted in increased alluvial deposits and the creation of extensive floodplains in Hadley and Deerfield. These flat terraces of flood deposited sediments, provide some of the finest agricultural land in New England, and have attracted

¹ Historical and Archaeological Resources of the Connecticut River Valley, Massachusetts Historical Commission, February 1984.

agricultural settlement since prehistoric times. There are extensive floodplains in Northfield, Deerfield and Hadley.²



The section of Byway on Route 63 in Northfield.

Today, the history of the Connecticut River Valley is reflected in the buildings, structures, and landscapes that survive from various eras. The existence of these resources plays a significant role in understanding the history of the area. It is important to continue to document and preserve important assets.

The Franklin County section of the Byway travels on Route 63 from the New Hampshire/Massachusetts border in Northfield through Erving and onto Route 47 south of Montague Center. The Byway then travels on Route 47 in Montague and Sunderland to the Sunderland/Hadley town line where it enters Hampshire County. In Franklin County, the Byway route travels through or near the historic villages of Northfield, Millers Fall, Montague Center and Sunderland.

The Hampshire County portion of the Byway begins at the Sunderland/Hadley town line and passes south through the town of Hadley and its villages of North Hadley, Hadley Center, and Hockanum, terminating at the town center in South Hadley. Hadley and South Hadley have an intertwined history, with shared populations, roads, agricultural practices, and architectural styles.

Additionally, the northern terminus of the proposed Hatfield portion of the Byway is at the Whately/Hatfield town line on River Road. The proposed route passes south through the Town

² Historical and Archaeological Resources of the Connecticut River Valley, Massachusetts Historical Commission, February 1984.

of Hatfield on River Road, Main Street, Maple Street and Elm Street. It terminates at the border of Hatfield/Northampton at the Interstate 91 overpass. Located on the west side of the Connecticut River, the town has a similar pattern of agriculture and architecture to those of Hadley and South Hadley.

Archaeological Resources in the Greater Connecticut River Valley

Native American Use of Area

The Connecticut River valley is rich in archaeological resources. There are many sites of significance in the Byway area. The Massachusetts Historical Commission (MHC) provided an overview of research completed in *Historic and Archaeological Resources of the Connecticut River Valley* (1984). The area studied in this report covers a broader 69 town region. Much of the discussion about the archaeology focuses on the seven towns that comprise the Byway area, and are located next to the Connecticut River. The report states that, although there has been artifact collecting, site surveys, excavations and problem-oriented investigations, there is only a small body of published information. Although the Connecticut River Valley is rich in archaeological resources there is not a lot of published information. There are many known sites that have been correlated with the existence of certain land forms and soil types. Research indicates that archaeological sites are densest on the alluvial terraces of the Connecticut River Valley, in its tributary rivers and brooks, and on the bluffs overlooking the terraces.

The MHC report provides general archeological information on research completed and artifacts that were identified during the Paleoindian (ca. 12,000-9,000 B.P.), Archaic (ca. 9,000-3,000 B.P.) and the Woodlands (ca. 3,000-500 B.P.) periods. There are sites within the project area that date to the Paleoindian period. Artifacts from this era were located in Montague, Sunderland and Hadley. There were limited artifacts from the Early Archaic period that was attributed to changes in climate and other environmental factors during that time. Sites of the Middle Archaic period are somewhat more numerous, and identified in the towns of Northfield and Hadley on the Byway. Late Archaic period artifacts and sites are somewhat better reported in research literature. Late Archaic components occur in locations near falls, on the banks of large and small streams, on floodplain terraces, on the lake bottom soils and in upland locations. The artifacts have been associated with activities such as fishing and quarrying. Sites from the Woodland period are the best documented. Overall, settlement areas throughout much of prehistory would have been situated in the lowlands, particularly near falls and rapids. This information is important to understanding the archaeological significance of the Connecticut River Valley.

Architectural Resources

The chapter identifies important locations and properties in each town within the Connecticut River Scenic Byway study area (1/2 mile on each side of the Byway). Tables with the significant historic areas and properties in each community are included in the Appendix. Properties listed in the chapter and Appendix are designated according to the definitions in the State Register of Historic Places, 2015, which use the following acronyms:

NRIND	National Register of Individual Property
NRDIS	National Register District

NRMRA National Register Multiple Resource Area (refers to community-wide or area-wide designation that includes nomination of both individual and district properties).

NRAD National Register Archeological District

History of the Communities along the Scenic Byway

The towns along the Connecticut River Scenic Byway have interesting histories that are interwoven, and present the story of the Byway and western Massachusetts. The river as a transportation route and source of food was instrumental to the early history of the area. The following section contains a brief history of the towns along the Byway.

Franklin County

Northfield

Northfield, originally the Squakeg Plantation, was established on the east side of the Connecticut River in 1671. The settlement was abandoned during King Philip's war and reestablished in 1685. Additional lands were granted south of the present day Gill town line. The settlement was abandoned again in 1689, during King William's War, and resettled in 1714 as the town of Northfield. Main Street, the primary north south axis was established, and new house lots were developed between Mill Brook and Maple Street. The final resettling of the town in 1714, led to an expansion from its original layout to the north and the south. During this time Northfield's Main Street settlement was protected from the native populations by several defensive structures and a garrison of provincial soldiers.



The Ebenezer White Tavern (1784) on Main Street in Northfield.



An historic home on the Byway in Northfield.

Shortly after 1760, the settlement expanded both north and south from the Main Street node along what is now Route 63. The Colonial economy in Northfield underwent considerable development from 1675 to 1775. Crop and livestock production was the mainstay, and varied industrial development was conducted by local mills. Several homes from this period have survived in Northfield. Most of the structures are center chimney plan, two-storied structures. During the Federal Period (1790-1830) the civic and educational focus remained along Main Street, the present day Northfield Center. Farming remained the primary activity

along the Connecticut River meadows. Northfield had developed a prosperous agricultural and river-trade economy, with five grist mills in operation by 1830. Many houses and cottages from this period still remain in Northfield. The houses are largely center hall plan, and the cottages are predominately center chimney designs. A number of double pile plan houses, the size of which was a reflection of the town's prosperity, were built in the 1780's and have survived.

During the Early Industrial period (1830-1870) the railroad fueled the economy and growth. The north-south regional railroad connection with Vermont was established. Tobacco farming was introduced in the lowlands as commercial agriculture, and a limited number of upland dairy farms were established. The opening of the regional railroad lines gave Northfield's agricultural products a new market. Main Street continued to be the local civic and commercial center. In addition, a secondary focus developed on North Main Street above Mill Brook. Major new residential construction occurred along Main Street and lower sections of Route 63. Greek Revival and Italianate houses were common in Northfield at this time. The predominant style at this time was the side hall two-story house, and is considered a sign of the town's architectural maturity. In outlying sections cottages were still more common. Side hall and center hall designs were equally popular for cottages as well.

During the Late Industrial Period (1870-1915) and early Modern period (1915-1940) the street system in Northfield was further expanded and the local highway system was improved for automobiles. With Main Street established as the civic and commercial district, North Main Street became an affluent residential district with the founding and development of the Northfield Mount Hermon School. Northfield Mount Hermon was founded by 19th-century evangelist Dwight Lyman Moody as two institutions: Northfield Seminary for Young Ladies in 1879 and Mount Hermon School for Boys in 1881. The schools aimed to educate young people who had limited access to education because they were poor. Moody hoped to create generations of committed Christians who would continue his evangelical efforts. The earliest buildings at Northfield-Mount Hermon were a series of brick Queen Anne and Victorian Gothic structures of the 1880s including East Hall (1880), Talcott Library (1888), Weston (1887), Holton (1885), and



Marquand (1884) Halls. Residential development continued in Northfield, at a slower rate. A majority of the houses and cottages of the period make use of the side hall plan and exhibit Queen Anne styling. Several two-story

The Captain Samuel Hunt residence and tavern located on Main Street.

commercial blocks were built along Main Street in Northfield Center. Agricultural production continued as the dominant land use in the Connecticut River lowlands. Northfield’s historic character is largely intact today, and the lowlands continue to support agricultural uses.

During the Early Modern Period (1915-1940) Northfield’s population grew moderately. Although residential construction dropped off considerably, a number of bungalow and Craftsman style cottages were built in town. On Main Street the construction of this period was infill and institutional. The Georgian Revival Town Hall was built in 1927.

Historic Districts/Sites

In Northfield, there are four structures and sites that are individually listed on the National Register. The structures and sites are the Alexander Simeon House (5/28/91), King Phillip’s Hill (12/16/1981), the



Northfield Center Cemetery (11/13/2004), and the Pine Street School (08/13/02). The Pine Street School also has a preservation restriction on it. Main Street in Northfield Center is also designated as a National Historic District from Moody Street south to the Route 10 intersection. This district retains the appearance of a 19th century village, with thirteen 18th Century and sixty-eight 19th Century buildings.

The Obadiah Dickinson House dates to 1785.

Significant Architecture and Special Places in Northfield

There are many significant historic structures located on the Byway in Northfield. There are



The Robert Lyman Cabinet Shop dates to 1870.



The Captain Richard Colton House dates to 1828.

many surviving houses from the Colonial Period (1675-1775). The Alexander House on lower Main Street dates to 1774, and features a half hip roof which was noted as the mark of a tavern (Massachusetts Historical Commission Reconnaissance Town Report, (1982). The Pomeroy House (1765) is the only extant center hall plan structure known from this period. The Pomeroy House incorporated double interior chimneys, a hip roof and entrance surround with

pediment. Other early houses are the Belding House (1763), the Hunt House (1765) and the Evans House (1759). Cottages from the early part of this period did not survive. The first meeting house was built in 1764. Another tavern also operated during this period and also still stands. It is the Stratton (1763).

There are a considerable number of houses from the Federal Period (1775-1830). The houses include many center hall plan examples with either double interior

or end chimneys, and a few rear-wall chimney houses. The large double pile plan houses built during this time reflect the town's prosperity. These include the Dickenson House (1785), Nevers (1811 Calvin Stearns), Blake White (1784) and Pomeroy Smith House. The Stearns-Field House (1828) is a house of note from this period. The institutional buildings of this time did not survive.

During the Early Industrial Period (1830-1870) major new construction continued to occur along Main Street. Today, Northfield center remains a well intact historic area.

Erving and the Village of Millers Falls (in Erving and Montague)

The Byway travels through the western corner of Erving on Route 63. The town's western and southern borders are delineated by the Connecticut and the Millers Rivers. The village of Millers Falls straddles the Millers River with the northern section in Erving and the southern section in Montague. Millers Falls is at the southern end of the Byway in Erving, and the northern end of the Montague section of the Byway. It is an important historic resource. Numerous Queen Anne, Gothic and Italianate residential structures; 19th century storefronts; and mill housing are still intact. The town of Montague is currently working to prepare the paperwork to nominate the commercial and residential center of the Montague section of Millers Falls to the National Register of Historic Places. The discussion of Millers Falls includes both the Erving and Montague sections, because it is hard to separate the history of this village by town.

The Town of Erving was originally established as Erving's Grant in 1752 by John Erving of Boston. At that time the town's northern boundary was at the Northfield town line (1685) and the southern boundary was along the Millers River with Ervingshire (Wendell). The western boundary was defined along the Millers River with Montague in 1754 and the eastern boundary with Warwick in 1761. In 1837, the eastern Millers River district was annexed to Orange.

During the Contact Period (1500-1620) the Byway area in Erving was part of the major north-south route from the Connecticut Valley (Montague) to Squakeag (Northfield). Fishing occurred at Millers Falls on both the Erving and Montague sides of the river. It was believed that the area was most heavily occupied during the annual spring spawning season, and that fishing encampments were clustered in the areas that are now the present villages along the Connecticut and the Millers Rivers including Millers Falls. However, the late 18th Century development of Millers Falls most likely destroyed archaeological evidence of this occupation. Occupation of the Millers Falls area continued with Millers Falls remaining as an important native fishing area during the Plantation Period (1620-1675).

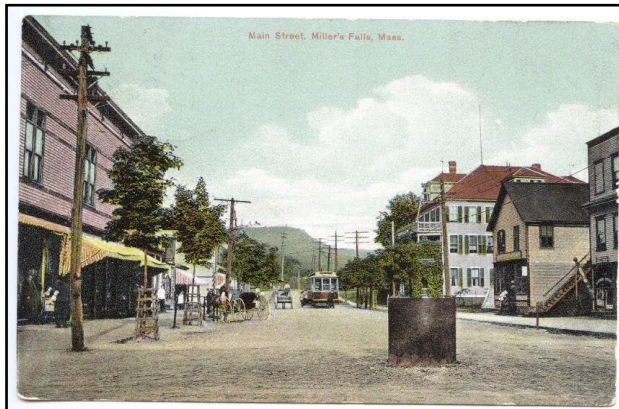
There was no documented settlement during the Colonial Period (1675-1775), but it is believed that some native camps were established adjacent to Millers Falls as part of the large population of hostile "River Indian" who occupied Deerfield, Greenfield and Northfield during King Phillip's War. The Millers River area continued to be used as an important native fishing site. The early colonial occupants of Millers Falls grew crops, livestock, and lumber.

The early Colonial occupants of Millers Falls grew crops and livestock, and harvested lumber. During the Federal Period (1775-1830), the east-west travel route along the Millers River was improved as the construction of the Fifth Massachusetts Turnpike was authorized by a Legislative Act passed on March 3, 1799. This transportation route opened a direct link from Greenfield to the eastern part of the state. The Fifth Massachusetts Turnpike was constructed from Greenfield on a route that traveled to the south of Turners Falls, crossed the Millers River at Millers Falls, and continued east on a route on the north side of the Millers River. Millers Falls

was also a juncture on the north-south highway to Northfield on Forest Street (Route 63).³ The connecting north-south highway to Northfield was Forest Street (Route 63). The secondary connectors from Erving Center to Northfield were located along Keyup Brook as North Road with a bridge constructed over Millers River to Wendell (ca. 1805). Very little residential construction was documented from this time and no buildings are known to have survived.

In 1810, the mail coach departed from Greenfield at 1:00 p.m. on Saturday, and arrived in Boston on Monday afternoon. In 1819, there were two stages per week starting at 3:00 a.m., and arrived in the evening on the same day. By 1924, there were three stages operating per week between Greenfield and Boston, and Martin Grout was operating a tavern at the Millers River on the turnpike line. “The first drinks out of Greenfield going east and on the return trip travelers at one time spent the night here getting into Greenfield in the morning (Taggart).” Grout was born

in Pelham, Massachusetts in 1790. The town became known as Grout’s Corner, until 1868 when the Millers Falls Company was founded in Erving just north of the Millers River and the name was changed.⁴



A postcard from 1917 shows the trolley traveling on East Main Street in Millers Falls.

During the Early Industrial period (1830-1870) the construction of a mainline railroad from Boston to Millers Falls and several other locations in Franklin County was completed. The railroad lines also connected Millers Falls to Vermont and Amherst. This resulted in Millers Falls becoming the cross roads for rail and a center of significant economic activity. By the end of the Civil War in 1865, both Millers Falls and Turners Falls were being

established as major manufacturing centers.

The Millers Falls Company was established in 1868, and a suburban residential district developed on Prospect Street. Housing was constructed in Millers Falls and consisted of side hall and L-plan Italianate cottages and one Gothic Revival cottage with board and batten siding.

During the Late Industrial Period (1870-1915) Erving’s population grew by 101.7%. Much of the growth occurred during the first five years of the period and can be attributed to the new paper mills that went into operation at Millers Falls and Stoneville. Millers Falls continued to expand as a residential district. Almost all of the houses at Millers Falls date from the Late Industrial Period. The residential development was simple side hall workers’ cottages, a few well detailed Stick Style and Colonial Revival houses were built along with several Queen Anne double houses and three flat roofed triple deckers. During this period major industrial buildings were built. A notable construction in Millers Falls during this period was the Book Press Factory (1912) a well detailed two-story brick structure.

³ *The Turnpikes of New England* by Fredric J. Wood, 1997.

⁴ *The History of Montague* by Edward Pearson Pressey, 1910.



A view of the Village of Millers Falls looking west on East Main Street.

A trolley was also established during the Late Industrial (1870 to 1915) and Early Modern (1915 to 1940) periods between Millers Falls and Greenfield. Further improvements to the local highways occurred as they became regional automobile routes. The Main Street business district continued to grow. During the 1920s simple one and two story houses most with hip roofs were constructed. Also the rectilinear plan Erving Graded School was built in 1925.

Historic Districts

As noted, the village of Millers Falls is an important historic resource. There are many significant Queen

Anne, Gothic and Italianate style structures, 19th century storefronts, and mill housing that remain. The town of Montague is currently working to prepare the paperwork to nominate the commercial street of the Montague section of Millers Falls to the National Register of Historic Places. This is an important tool to help preserve the historic structures in the village

Significant Architecture and Special Places in Erving and in the Village of Millers Falls (Erving and Montague)

Millers Falls developed into a commercial and residential village form as the result of the industrial developments (tool and paper factories) located in the “Erving side” section of the village located to the north of the Millers River in the town of Erving. The mills which prompted the growth and expansion of the village during the late 1800s and early 1900, are located in Erving and the commercial core of the village developed in Montague.

Bridge Street connects to the bridge across the Millers River to Erving. The village cross roads is at the intersection of Bridge Street, East Main Street, West Main Street and Church Street. Church Street is a hill that connects to a bridge over the railroad tracks that are to the south and east of the village center.

The Millers Falls Manufacturing Company industrial complex was built with its original wooden cupola dates to the 1860s. It is currently being used as a site for a number of small



The Powers Block on East Main Street in Millers Falls has retained the building’s original architectural features.



The Equi Block in Millers Falls has also retained some of the buildings original architectural features.

businesses.

The residential units in Millers Falls are modest two and two-and-a-half story Stick Style, Queen Anne and Colonial Revival houses built largely during the 1870s. The commercial buildings in Millers Falls were reconstructed after the fire that occurred in November 1895. The village has retained its industrial character. Some of the buildings in the commercial center are currently being rehabilitated.

The Powers Block which is located at 26, 28 East Main Street is a three-story brick, commercial building. The Powers Block was built in 1897 by John S. Powers, an illustrious merchant in Millers Falls. It was one of the first commercial buildings erected in the village following the



A view of the Ross Block on East Main

devastating fire of 1895. It is one of several significant brick commercial buildings in the village. The Equi Block is located at 25, 27, 29 East Main Street is a two story Italianate commercial building. The Augustus Ross building is located at 41 East Main Street. It is a two story Renaissance Revival brick commercial building with a flat roof. The Ross Block was built by Augustus Ross in 1878. The Ross Block housed the telephone exchange, Ward's Bakery, a restaurant, an insurance office, a barber shop, a cobbler's shop, the Miller's Falls Men's Club, a voting hall, living quarters for townspeople and later the town

library.

The Ward Block is located at 28 Bridge Street. It was built by H. J. Ward as a two story building 1899, and in 1930 a mansard third story was added. It is a French 2nd Empire commercial building located at the center of the Millers Falls Village. It is an important building in Millers



The Ward Block building is a focal point of the Millers Falls commercial area.

Falls. This building is an extremely visible and central to the commercial district. Its central location at the village's busiest intersection makes it a focal point of Millers Falls. It is the only building of its style in the area.

Montague

Village of Montague Center

Montague Center is a historically significant village in the Town of Montague. The village is not directly on the Byway, but it is located within the ½ mile project area. The Montague Center Historic District was approved for inclusion in the National Register of Historic Places on November 6, 2001. The district includes Center, Main, North, School and Unions Streets in Montague Center.

Montague Center was settled in the 1750s. A meetinghouse was constructed in 1753, and a regional highway system with a bridge across the Sawmill River was built in 1756. Most of Montague Center's Colonial residents were former inhabitants of Sunderland and Deerfield. The first schoolhouse was constructed in 1757, and the pound (an area used to hold animals) in 1766. The primary occupations of the town's colonial residents were crop production, livestock production, and lumbering.



A view of Montague Center.

During the Colonial Period (1675-1775) a few mills were built along the Sawmill River, and at least three taverns were located nearby. Approximately a dozen houses and cottages from this era have survived. The Root Tavern, located in Montague Center, is the most significant structure still surviving in Montague from the Colonial Period. It was constructed in 1739. It is a center chimney structure three bays wide by two deep. The tavern is notable for its two-story one-bay-wide side ell and for its broken scroll pediment entrance surround.

During the Federal Period (1775-1830) the civic focus remained in Montague Center. The economic activities centered on the farming district along the Connecticut River and the mills along the Sawmill River. In 1800, the completion of the locks and canals on the Connecticut River in Turners Falls resulted in Turners Falls becoming the focus of industrial economic growth and Montague Center remaining a quiet picturesque village with rich historic resources. The houses within Montague Center that have survived from this period are of many different sizes and styles.



The Montague Grange in Montague Center.

A depot was constructed at the Sawmill River for the north-south railroad, from Amherst to Millers Falls, during the Early Industrial Period (1830-1870). Agriculture continued as the primary activity along the Connecticut River lowlands, and tobacco was introduced as a commercially grown crop. The 1838 Community Store and a Greek Revival store from 1860, were established in Montague Center. The residential structures during this period are typically side-hall plan Greek Revival houses and Italianate cottages. Several institutional structures were built in Montague Center during this period. These include the First Congregational Church (1834), Town Hall (1858), Grange (1835), Masonic Hall (1855), and Main Street School (1855).

During the Late Industrial Period, 1870-1915, and Early Modern Period (1915-1940) trolley service was started in Montague Center. These lines were abandoned in the 1920s in favor of improvements to local highways and regional automobile routes such as Route 63. During this period Turners Falls continued to grow, and Montague

Center lost several industries to Greenfield. Emil Weissbrod moved his wallet manufacturing facility in 1887 after being in Montague Center for 17 years. A fire in 1889 destroyed Amos Rugg's Montague Center factory and half of one side of the village street. Mr. Rugg then relocated to Greenfield that year. The residential construction of this period exhibited an elite character that contrasted with the industrial villages of Turners Falls and Millers Falls. Large asymmetrical plan Queen Anne houses were built along Leverett Road, and some modest cottages were built along the more rural roads. From this point on, Montague Center has experienced some residential growth and has maintained its civic focus.



The Town Hall in Montague Center dates to 1858.

Historic District

The Montague Center Historic District was approved for inclusion in the National Register of Historic Places on November 6, 2001. The district includes Center, Main, North, School and Unions Streets in Montague Center. Montague Center is not located directly on the Byway, but is within one half mile of the Scenic Byway in the southern section of Montague.

Significant Architecture and Special Places in Montague and Montague Center

The Root Tavern was constructed in 1739. The First Congregational Church (1834), Town Hall (1858), Grange (1835), Masonic Hall (1855), and Main Street School (1855) are all significant structures in Montague Center.

Sunderland

The Byway travels through the center of the historic Sunderland village center. There are many historic buildings, and a streetscape that is a classic example of a Connecticut River Valley linear town common. Sunderland was originally established as the Swampfield Plantation in 1673, and included the towns of Montague and Leverett. The settlement was abandoned during King Philip's War in 1675. The area was not reestablished as the town of Swampfield until 1714. In 1718, the town's name was changed to Sunderland in honor of Charles Spencer, the Earl of Sunderland and Prime Minister of England. The northern district was established as Montague in 1754 and the eastern district as the town of Leverett in 1774.

Resettlement during the Colonial Period (1675 - 1775), focused on the present site of the village of Sunderland. The initial plan for the Town was laid out house lots on either side of Main Street between the intersections of South Main Street (Route 47) and Old Amherst Road to the south, and North Main Street (Route 47) and Silver Lane to the north. Each of the 39 original families was assigned a 3½ acre lot to build their home. The lots extended to the Connecticut River on the west side, and to wetlands on the east side of the road. This type of plan is known as a "linear street village," and was a common landscape form in the towns in the Connecticut River valley. This area was established as the civic and educational center of the community. The primary focus of Sunderland's colonial residents was crop production, but several period mills operated during this time as well. The mid 18th century houses that are located on South Main Street are symbols of this period of agricultural prosperity.

Sunderland's surviving 18th century houses are historically significant. These include several early houses which date to the 1720s. Although all of the houses have center chimneys, which were typical during the 18th century, there is considerable variation in the styles of the structures.

The center of Sunderland remained the focus of local activities during the Federal Period (1775 – 1830). The Greek revival style town hall and Italianate style houses on that were constructed on Main Street are representative of the activity during this period. During the early Industrial Period (1830 – 1870), Sunderland Center remained the local civic and commercial focus, and a secondary village formed in North Sunderland. The broom industry that had developed and prospered in Sunderland was slowly replaced by tobacco and onion growing. The introduction of commercial tobacco expanded the settlement to the lowland meadows during the early 20th century. Photographs from this era show vast expanses of white tenting covering the fields as shade tobacco became a dominant crop.

Period barns on River Road represent the history of this tobacco industry. Most residential development during the Early Industrial Period (1830 – 1870), occurred as infill in the town center, but also extended into the southern part of town. Several of the town's institutional

buildings date from the Early Industrial Period, including the First Church and Chapel, and the first and second Town Halls.

During the Late Industrial Period (1870 – 1915), and Early Modern Period (1915 – 1940), the town experienced only slight change, but some residential development did occur. Today, Sunderland is characterized by the historic village center area surrounded by active agricultural land. Significant farmland protection has occurred in Sunderland.



View of Sunderland Center from Mount Sugarloaf.

Historic District

Sunderland Center was designated as a National Historic District in 2002, and contains a total of 180 resources, with 144 buildings, sites, and structures that were built between the years of 1714 and 1951. The district includes properties on Main Street (Route 47) from Amherst Road in the south to French’s Ferry Road in the north, and includes Bridge Street (Route 116) and School Street. It is an example of an 18th century linear street village, originally laid out in 1714 with many original allotments still in existence. A few well preserved early colonial style

houses, and an early burial ground at Riverside Cemetery are located on the river terrace along Main Street.

Main Street (Route 47) is a wide street lined with mature deciduous trees. One of the mature trees is the Buttonball tree, which is recognized by the National Association of Arborists as being over 200 years old, and the largest American Sycamore tree in Massachusetts.



Significant Architecture and Special Places in Sunderland⁵

Historic resources in the village center include well-preserved examples of Italianate, Colonial Revival, Tudor Revival, and Craftsman style architecture. One of the notable

The historic Button Ball Tree in Sunderland.

structures is the 1938 art deco Deerfield Sunderland Bridge on which Route 116 passes over the

⁵ Information in this section was provided by the Sunderland Historical Commission, or summarized from the National Register of Historic Places nomination form for the Sunderland Center Historic District, 2002.

Connecticut River. This is the tenth bridge to span the Connecticut River in Sunderland. Previous bridges were located at School Street, where passersby paid a toll at the Toll House (1812), which is still located at 38 School Street.

Many of the town's historic institutional buildings remain in the village center. The Old Town Hall (1867) is located at 112 North Main Street, and was built to replace the previous town hall building which burned. It was designed to accommodate a number of uses including classrooms, offices, and a library. The basement was once used as a lock up for disorderly men and boys to "sober up a bit." The building was remodeled in 1941 when its original Italianate features were changed to Colonial features. The large size of the building is indicative of the relative prosperity of Sunderland in the late 1800's. The library moved out in 1900, and the school in 1922. The building was used as a town hall until 1994, and then was vacant until it was sold to the Blue Heron Restaurant in 2004. In 2004 extensive restorations were completed including restoring the front porch to its original style.⁶



The Old Town Hall, which is the Blue Heron Restaurant.

The Graves Memorial Library (1900) is located at 109 North Main Street. It was built out of yellow brick in the Tudor Revival style. The library was designed by the Allen Brothers of Amherst. A schoolhouse and stores were previously at this location which was important because it was on the road from the bridge. The Graves Memorial Library is currently home to the Swampfield Historical Society.



The Graves Memorial Library. Photo credit: the Sunderland Historical Commission.

The Center School (1922) is located at 12 School Street. It is also a prominent institutional building. It is a brick Federal Revival style building, which was common for school buildings across the country at the time. This site had previously accommodated a large colonial style house that was built by Daniel Montague in 1750. The house was turned into an inn called the Graves-Croft Inn (1910 – 1922). The building was taken down in 1922 to build the grammar school, which originally housed eight grades. The grammar school was closed for school use in 1988 when the present

elementary school was built. It became the town offices in 1995.

⁶ Sunderland Historical Society *History through Houses* exhibition, http://www.townofsunderland.us/history_through_houses/index.html.

The “Old Town House” located at 104 North Main Street was built in 1825, and used as a town hall. It was moved to its present location from South Main Street in 1836. The building was converted to a dwelling in 1849. It is a Greek Revival style, with columns in front, a popular style making reference to the columned public buildings of Ancient Greece, the first and much admired democracy.

Hampshire County

Hadley and South Hadley

The land along the Connecticut River from Hadley to South Hadley was the territory of a core group of Native Americans known as the Norwottucks and their larger regional tribe, the Nipmucks. What is today Route 47 follows much of their original network of trails. The Norwottucks clustered at the South Hadley Falls seasonally for fishing and then ranged along both sides of the Connecticut River as far north as Montague cultivating crops, including corn, beans, squash, and herbs, on the alluvial plain during the summer months.

Hadley Plantation was settled during the Colonial Period in 1659 by families from Wethersfield, Windsor, and Hartford, Connecticut. Their original settlement was laid out into long, narrow house lots of eight acres, along both sides of the Common with open fields beyond. Today the Common retains many of its original landscape features. Hockanum and South Hadley Center were added to the Plantation three years later. The entire area became the grazing and common pasture land for Hadley’s farmers whose animals all roamed freely and proved very hard to round up for the winter. By 1664, Route 47 was laid out as a 20-rod highway.

Early homes in Hadley were generally one-story, two-room structures with thatched roofs. These original homes were gradually replaced by larger one-and-a-half- to two-storied structures with shingled roofs and clapboard siding. Gambrel roofs were a sign of the elite. The earliest residence to survive intact was one of these replacement houses – the Samuel Porter House (26 West Street), constructed in 1713.

Hadley Center grew slowly, but as early as 1670 farmers from Hadley began to farm land to the north. Once a grist mill was established in 1678 on the Mill River, North Hadley was established as a village and continued to thrive through subsequent periods as an agricultural and mill village.

Meanwhile, the first grants of land in South Hadley began in 1675 and were made to residents of Hadley for the establishment of mills, but only one sawmill was operating by 1720. Permanent settlement with houses did not begin until about 1725 when some of Hadley’s second generation began to move to South Hadley rather than to divide the house lots and common land allotments of their parents.

The first settlers to Hockanum came later than those to South Hadley. The pattern of settlement in South Hadley included a common which was larger than the present small park, but the town had not been laid out and settled in linear street fashion with uniform sized lots as many other towns had done. Rather, in 1720 Hadley proprietors laid it out in irregularly shaped lots that were apportioned according to the size of their owners’ estates. In 1728 Old Hadley Cemetery

(Cemetery Road) was established, followed by a meeting house begun in 1732, part of which was moved to 3 Hadley Street and survives in the Yarde Tavern restaurant at the beginning of Route 47, and by a school house in 1738. There were two shops and sawmill on Stony Brook at Lower Lake.

Construction during the Federal Period of an inclined plane canal at South Hadley Falls solidified the distinction between South Hadley Falls as the industrial and commercial center of the town, with South Hadley Center as its civic heart. With the canal to expedite passage on the Connecticut River around the falls, trade and light industry flourished at the village of South Hadley Falls. The village center continued to be the destination of farmers for church, town meetings, a few stores, and school.

Hadley became directly connected to Northampton across the Connecticut River when a bridge was constructed in 1803. Travel was greatly increased along Russell Street (Route 9) and Bay Road (Route 47, in part). The town's population nearly doubled in a 50 year period, reaching 1686 in 1830. The economic base remained agricultural, but gradually gave way to commercial production of broom corn. Broom manufacturing, in fact, became Hadley's first industry. Levi Dickinson of Hadley is credited with the idea of raising broom corn and making brooms, an industry which spread throughout the Connecticut River Valley.

Much of the character that South Hadley Center has today originated in the Early Industrial period with the establishment of Mount Holyoke Female Seminary (today, Mount Holyoke College) in 1837. Founder Mary Lyon, a committed educator, opened the Seminary with 78 students. Lyon's goal was to keep the cost of seminary education low by keeping professor's salaries nominal and by using the students to do the work of running the school. But all was not work, and in 1837 the school began a tradition of "Mountain Day" on which students were encouraged to drop their work and studies on a selected autumn day, go to the top of Mt. Holyoke in Hockanum (now part of Joseph Skinner State Park) to enjoy the view and fresh air.

South Hadley Center's role as institutional center of the town was solidified by the presence of the Seminary. The map of 1850 shows the center to be largely residential with the west side of the common and west side of College Street (Route 47) to have three stores, a hotel, and Post Office. There were two schools, the GA Smith & Co. Paper Mill on the Mill Pond, and a grist mill on the upper pond. On the east side of College Street was the Seminary and a blacksmith shop in addition to the First Congregational Church and 6 houses.

Hadley grew rapidly expanding to eight village centers outside the town center during the Early Industrial period. After 1841, West Street was no longer considered the center of town. The Hadley Town Hall was constructed on Route 47 (52 Middle Street) and the Congregational Church was moved from the common to its present location on Middle Street. North Hadley became a stronger village center at this time as well. The village built its own Congregational Church (243 River Drive) in 1834 and in 1864 -1871 constructed the North Hadley Village Hall (239 River Drive) with three rooms set aside as a school. This period of growth is reflected in the Greek Revival style institutional buildings and residences.

In South Hadley a residential neighborhood grew just north of the Center. The Woodbridge Historic District, listed on the National Register in 1983, extends from the junction of Woodbridge Street and Silver Street, north roughly to Woodbridge Terrace. The majority of buildings in the district are houses that were built in the 18th and 19th centuries. One of the most prominent properties in the district is The Sycamores, constructed in 1768 in the Georgian style. It was built for Colonel Woodbridge, who was a prominent land owner with interests in the South Hadley mill complexes.

During this period in Hadley, agriculture diversified significantly with increasing acreage being devoted to the first cash crops, broom corn and tobacco. Broom corn was raised earlier and more extensively in Hadley, and tobacco was concentrated in North Hadley where the soil proved to be well suited for it. Both villages' farmers built shops for manufacturing brooms or converted rooms in their barns, sheds, and house ells for this purpose; some of these outbuildings are still present today.

The introduction of tobacco as a commercial crop in 1840 changed farming significantly. Although farmers continued their mixed crop and livestock base of agriculture, tobacco as a cash crop began to replace broom corn whose prices were declining. Tobacco became Hadley's chief crop in 1865, the first tobacco barns had appeared in its fields, and sorting shops were built as part of many homesteads.

By 1875 large scale, commercial tobacco farming began with light leaf tobacco for wrappers. This was a labor-intensive crop and farm families soon learned they could not keep up with the demand without outside help. Immigration provided the needed labor. Many of Hadley's farmers and their agents actively recruited the new arrivals at the docks in New York as they were so short-handed raising and processing tobacco. At first, the immigrants, most of whom were single, roomed in farmers' houses, then homes were converted to boarding houses and multifamily tenements were built.

The market shifted to dark leaf tobacco in the 1890s and most farmers made the change. Hockanum was an exception; rather than turning to dark leaf tobacco as Hadley Center and North Hadley farmers did, Hockanum farmers turned to growing asparagus about 1890.

South Hadley Center's population was affected less by immigration, but their market based farming and livestock required fewer outside workers. A fire in 1876 caused a rebuilding of College Street (now Route 47), with new buildings known as "Professor's Row." The expansion of the Female Seminary continued through the 1900s. Other institutional buildings in South Hadley Center, including the First Congregational Church, were also built. The Church was the first in the area constructed in the Romanesque Revival style.

The landscape of Hadley and South Hadley continued to change through the Early Modern Period. Lumbering continued on Mt Holyoke, only slowing down in the 1920s when coal use increased. The mechanization of farming meant fewer farmers could produce more food. Additional storage buildings and barns were constructed and are still present in the landscape today.

In Hadley, residential development took place both north and south of the Center. South Hadley Center grew north with an affluent residential neighborhood filling in from the College along Route 116 to the west. It was largely constructed in the Craftsman and Colonial Revival styles.

Significant Architecture and Special Places in Hadley and South Hadley

Hadley

North Hadley National Historic District

This district is bisected by Route 47. Placed in the National Register in 1993, the district has 202 properties. It includes 18th and 19th century farmsteads, a village center, a dam, workers cottages and early mill site at Lake Warner. In contrast to Hockanum whose farmers concentrated on dairy cattle and in the 20th century on market garden vegetables, North Hadley was at the center of the region's first two 19th century cash crops: broom corn and tobacco. Tobacco was followed by cash crops of onions, potatoes, cucumbers, and other vegetables, and has been revived recently for cigar wrappers. This modest district includes fine examples of Federal and Greek Revival farmsteads, a Stick Style barn, Italianate residences, and a village hall/fire station.

The **Porter-Phelps-Huntington House**, on Route 47 in Hadley, was individually listed on the National Register of Historic Places in 1973. This is a Georgian period house with a long history of ownership by well-to-do farmers and land owners of the Connecticut River Valley. The house is unusual in that it contains the possessions of six generations of the same family. Account books, diaries, and other records created by the generations provide a rare insight into their farming and domestic practices. With this extraordinary collection, the house is maintained as a museum to interpret its owners' role in the valley's agricultural and social life.

The **Charles Porter Phelps Farm** was built by the third generation of the Phelps family and directly across Route 47 from the Porter-Phelps Huntington House in Hadley is the Charles Porter Phelps Farm, a c. 1816, Federal era farmstead which is a potential individual nomination to the National Register. The house, outbuildings and farmland would be eligible for the Register and together with the Porter-Phelps-Huntington House presents a farming node of rare integrity.

Hadley Center and Hadley Center Boundary Increase

This National Register Historic District was first established in 1977 with 17 properties, and later expanded in 1994 to include 785 additional properties. The enlarged historic district includes the town's intact common dating from 1659, the Greek Revival Town Hall, church, and school buildings that constitute the institutional center of town. There are extensive fields, tobacco barns, and other outbuildings. In this district, archaeologists discovered indications of the early palisade erected around the common to protect the settlement during King Phillips's War. The district includes Route 9 up to and including Memorial Bridge, which crosses the Connecticut River into Northampton. On balance, the district contains fine examples of Georgian, Federal, Greek Revival, and Gothic Revival styles.

Hockanum Rural Historic District

This district was listed on the Register in 1993, and includes 47 properties. It follows Route 47 from the border of South Hadley, north along the Connecticut River. The district includes an active agricultural district of Georgian and Federal farmhouses, and 1840 intact schoolhouse, a former inn, and fields, farm lands, and supportive agricultural outbuildings. It has remained virtually unchanged for generations of farm families who followed agricultural practices that characterize the region from the time of the first English settlement to the present.

South Hadley

South Hadley Branch of the US Post Office: Constructed in 1940, this building is individually listed on the National Register of Historic Places. The Post Office was one of a number of post offices placed on the Register in 1986 as exemplary of construction by the Public Works Administration. It was designed by architect Leon Pernice of Springfield and represents the type of federal building erected during the Depression with speedy, efficient construction as a means of stimulating the economy.

The Woodbridge Street Historic District

This district was listed in the Register in 1983 and contains 28 properties. It lies principally on the two sides of Route 116 going north from the South Hadley green. Its central features are Georgian, Federal, and Greek Revival houses with one eclectic Colonial Revival style house. This district was the home of members of the Woodbridge family who dominated South Hadley's early history as second minister, Revolutionary War colonel, and physician; and as the summer home of textile industrial Joseph Skinner whose philanthropy created Skinner State Park on Mount Holyoke in South Hadley and Hadley. Included within the district is a meeting house constructed in 1846 and moved by Skinner from the town of Prescott when it was flooded for the Quabbin reservoir. The move in the late 1930s saved the building from destruction and in its new location it became the Skinner Museum.

A South Hadley Center National Register Historic District would be contiguous with the existing Woodbridge Street National Historic District at Silver Street and extend south along Route 47 to Stony Brook. This potential historic district includes much of the campus of Mount Holyoke College, the site of several of the Center's early industries on the river, and the location of a significant educational institution dating from the 19th century. Campus buildings and structures provide good examples of the work of several Massachusetts architectural firms from the turn of the century, and the landscaping, much of which was laid out in the 19th century, exemplifies the rural/pastoral park and landscape movement. The potential district extends south from the green along the Route 47 corridor to include architecturally significant buildings from the Federal, Greek Revival, Italianate, and Queen Anne periods. Side streets within the corridor which intersect with Route 47 mainly consist of buildings of 20th century design and include fine examples of the Colonial revival, Craftsman, and English Cottage styles. The district would include, but treat as non-contributing for reason of recent construction date, the Graham Gund-designed commercial complex on the west side of the green.

Mount Holyoke College Historic District (SOH.C)

The campus was separately evaluated in 1986 and found to be eligible for the National Register. An historic district here would include campus buildings roughly bounded by Park Street to the north, the shore of Lower Lake to the east, Morgan Street to the south, and Route 116 to the west. The district is one of the oldest women's educational institutions in the country and is representative of late 19th and early 20th century institutional design. It is a well preserved complex of Gothic Revival and Tudor Revival building designed by prominent Hartford, Springfield, and Boston architectural firms.

Hatfield

The proposed Hatfield portion of the Byway begins at the Whatley/Hatfield town line and passes south through the Town of Hatfield along Main Street/Elm Street, terminating at the border of Hatfield/Northampton near I-91. Located on the west side of the Connecticut River, the town has a similar pattern of agriculture and architecture to those of Hadley and South Hadley.

It is likely that the same Native Americans that settled on the east side of the Connecticut River used Hatfield as another resource area, but no reported sites from this period have been found. The Hatfield center area, and south to the town border with Northampton is the most likely location for a potential settlement, but the periodic erosion and flooding from the river has made data recovery here difficult. Part of today's Elm Street and Prospect Street were likely a portion of an early north-south trail network.

The first colonial settlers moved to Hatfield in 1661, with 17 families forming the first community. The inhabitants of Hadley on the west side of the river decided that the frequent necessity of crossing the Connecticut was too much of a hardship and desired to create a separate settlement. The resulting town of Hatfield was incorporated in 1670. Early residents also included settlers from Connecticut. By 1675, there were 50 families. Hadley proprietors laid out the lots in what is now Hatfield along both sides of what became Main Street/Maple Street/Elm Street. Hatfield Center developed first, followed by the Elm Street area to the south, the Upper Main Street area to the north, and the Bradstreet area (around 1700) further north at the Whatley border.

Very early on, Thomas Meekins opened a grist mill on the Mill River. This provided Hatfield one of the earliest industrial complexes in the Connecticut River Valley. The mill served both Hadley and Hatfield. He soon opened a saw mill which was also operated by Meekins. Although, agriculture remained the dominant commercial activity in Hatfield with crops of wheat, corn, oats, and flax, and livestock.

The first meeting house appeared in Hatfield in 1668 followed by its second (c. 1701) and third (c.1750) all in Hatfield Center. Fortifications surrounding the town center went up around 1675 and enclosed most of the center for protection during the Indian Wars. War time affected crop production and livestock as well as the town's overall economy.

The earliest extant residences in Hatfield Center are residences of the Georgian and Colonial styles. These homes were built on narrow lots with shallow setbacks, and have agricultural outbuildings. Slightly later houses, in the Federal style, include more architectural details and are larger 2 ½ story buildings. The population grew with 23 new homes constructed in the Center between 1790 and 1800.

Similar to Hadley and South Hadley, the production of broom corn was a dominant industry. Immigrants helped to define the landscape by expanding the farming industry and constructing new homes north and south of the Center, or altering single family homes into tenements for to house families. Numbers 68, 70, and 72 Elm Street are examples construction oriented to housing new residents.

Growing tobacco was generally located in the northern half of town as few Elm Street area farmers had enough acreage to make it a profitable enterprise. Upper Main Street area residents also raised horses and cows, while onions were also a profitable cash crop in the Bradstreet area.

Significant Architecture and Special Places in Hatfield

The entire proposed Hatfield portion of the Byway is in one of several National Register historic districts as described below.

Elm Street Historic District

This district was listed on the Register in 2000 with 267 contributing resources. The district both residential and agricultural in character, and follows Elm Street from its intersection with Dwight Street to the west, to the start of the Main Street Historic District to the east. The district is significant as the original location of the Capawonk Meadows, an area purchased from the Capawonk tribe to be the first settlement in Hatfield. Elm Street was traditionally the home of an immigrant community, a tradition which continues today. Architecturally, the district is a mix of high style and vernacular housing with agricultural outbuilding and warehouses showing a blend of large scale and small scale farming industries.

Hatfield Center Historic District

The Hatfield Center Historic District includes the civic center of the town, both historically and in present day. It is an example of a 17th century linear village, designed on a single axis for better defense, in an agricultural setting. With its narrow home lots and high style architectural styles, and numerous institutional buildings, the district illustrates the continuing prosperity of this farming community.

Upper Main Street Historic District

Like the Hatfield Center Historic District, the Upper Main Street Historic District is a liner residential area. Here, the district includes modest vernacular farm cottages and agricultural outbuildings, a cluster of high style residential buildings, and other small farm and farm workers' houses. The district is significant for its settlement by immigrant laborers, and its architectural styles which reflect the area's affluence due to cattle grazing, tobacco, and onion production from the 18th through the 19th centuries.

Bradstreet Historic District

The architecture in the Bradstreet district reflects is transition from family based farm labor to hired employee labor, with a mix of farmsteads and tenements. The outbuildings also reflect the mix of emphasis in crops and livestock, including onions and tobacco. This area in particular was

the state's largest producer of those two crops in the 1900-1910s. The unmarked rectangular farm lots have been retained, adding to the integrity of the district.

Historic Bridges

Many of the bridges found within the Byway Corridor are historically significant and add considerably to the historic resources in the area.

Franklin County

Northfield

There are three historic bridges on or near the Byway in Northfield. East Northfield Road crosses over the Boston and Maine Railroad on a 105 foot bridge in the western side of Northfield. This bridge was built in 1909 and it the second oldest Warren through truss design bridge in Massachusetts. Concrete steps leading down the Northeast abutment suggest there may have once been a depot in this location.

The Scenic Byway passes over Mill Brook on a bridge that was constructed in 1941 to replace a concrete T-beam bridge on the same site. This concrete deck arch bridge has stylized Art Deco details. East of this location on Mill Brook, Burnham Road crosses a slightly older bridge built in 1937. The Burnham Road Bridge is one of a number of small interesting Art Deco bridges designed by Charles R. Greco Architects and Engineers in the aftermath of the 1936 flood. The 1937 plans indicate that the present bridge was constructed to replace a small steel truss bridge on the same site.

Northfield is the only town in Massachusetts which is situated on both sides of the Connecticut River. The Schell Bridge crosses the Connecticut River to link the two sections of Northfield. It was given to the town by Francis B. Schell a New York businessman, and Northfield summer resident. The bridge is unique due to the fact that an individual paid for the structure, and also because it connects the east and west sides of the town. Construction of the 352 foot Schell Bridge began in 1901 and was completed in 1903. There are currently preliminary plans being completed to design an historic replica bridge to replace this bridge and serve as a regional bicycle and pedestrian connection. There was a strong interest in restoring the original bridge structure but it far too deteriorated for rehabilitation.

Montague

The Dry Hill Street Bridge passes over the Boston and Maine Railroad. The bridge was built in 1897 by the Edge Moor Iron Co. It is the only known example of a steel 'latticed' through truss bridge located to the South of Millers Falls.

Federal Street, which is also Route 63, passes over a bridge as it intersects with the Boston and Maine Railroad. The bridge is an unusual version of the common steel girder design. It was built by the Boston Bridge Works in 1935.

Sunderland

The Falls Road Bridge and the Whitmore Mills Bridge and Canal are located on Falls Road on the eastern bank of the Connecticut River. The Falls Road Bridge was constructed in 1830 and crosses an outlet of Chard Pond. The structure is an unusual combination of bridge and canal. It

supports the road where it crosses the stream from Chard Pond, but the relatively narrow sides also act as a canal for the water. The Whitmore Mills Bridge and Canal were built between 1774 and 1800, and are located north of the Falls Road Bridge on Falls Road. The canal carries water from Whitmore's Pond, in a waterway known as Slate Stone Brook, to the Connecticut River. The waterway passes by several mill foundations to the east and west of the bridge and canal.

The Connecticut River Bridge connects the town of Sunderland to South Deerfield. The bridge was constructed in 1938. The concrete uprights at each end are in an Art Deco style, and are topped by polished copper light fixtures. This is the tenth bridge to span the Connecticut River at this location. The preceding bridges were all swept away or collapsed due to winds, the force of the river, and ice and floods.

Hampshire County

South Hadley

There are two historic bridges in South Hadley. The bridges are both associated with Mount Holyoke College. The iron truss bridge on Mt. Holyoke College Campus was built in 1870. The Park Street stone arched bridge leads on to Mt. Holyoke College campus. This was built in 1880.

Historic Markers

There are a number of historic markers along the byway that provide information on important historic events and sites within the region. These markers help preserve the history of the area as the landscape changes over time.

Franklin County

Northfield

There are many markers and monuments that commemorate the early history of Northfield. In Northfield there are several state boundary markers due to the fact that the town borders both New Hampshire and Vermont.

- The Eleazer Wheelock marker denotes the state line between Massachusetts and New Hampshire on Route 63, and also marks the route that Eleazer Wheelock took on his way to establish Dartmouth College in 1770.
- The Dickinson Monument is located near the intersection of Routes 10 and 63, and marks the location where Nathaniel Dickinson and his companion Asahel Burt were killed and scalped by Native Americans in 1747.
- A plaque is embedded in the retaining wall in front of the congregational church parking lot at the location where Aaron Belding was killed and scalped by Native Americans in 1748.
- A stone marker commemorates the founding of the American Youth Hostel and the site



The marker commemorating the site of the first American Youth Hostel in Northfield.

of first hostel in Northfield.

- A mill-stone on the west side of Main Street near Glen Road marks the location where the Squakheag's first Grist Mill was built in Northfield in 1685.
- A carved stone marker south of the Grist Mill marks the location of a fort that was built in Northfield in 1686 and rebuilt in 1722.
- A bronze plaque is mounted on the Northfield Town Hall honors 87 citizens who served in World War I.
- The Belcher Memorial Fountain is also located adjacent to the Town Hall.
- A bronze plaque in front of the Elementary School memorializes all of the citizens of Northfield who served God and country in the Armed Forces.
- A marker located is located on the west side of Main Street, near Maple Street, to denote the location of the first settlement of Northfield in 1673. This marker also notes the fort built in 1722, and Council Rock that was located to the southeast of the settlement.



The historic marker for the First Settlement in Northfield.

- A large boulder, on the east side of Routes 10 and 63, marks the location of the first public religious services held in Northfield in 1673.
- A metal tablet is located on a dead-end street on Route to the west of the Byway. It marks King Phillip's Hill, the site where King Philip, successor of Massasoit, camped during the winter of 1675-76. The stump of a large look-out tree and defensive trenches can be found on top of the hill.
- A monument to the South of the Route 10 intersection with Route 63 marks the site on Beers Plain where Captain Richard Beers and his men were ambushed by Native Americans in 1675.
- A tablet located north of South Mountain Road marks the site of the Indian Council Fires. The three large fire rings are actually located two hundred and fifty yards eastward.
- A metal tablet on Route 63 near the community church, and a monument in front of Linden Hill School, on South Mountain Road, also represent the death and burial of Captain Richard Beers.

Erving

There are no historic markers on the Byway in Erving.

Montague

- A box marker is located on Leverett Road which points in the general direction of several cities, including Springfield and Boston.

Sunderland

- A plaque Route 47 provides information on the Buttonball Tree. This Sycamore Tree is several hundred years old and is nationally significant.



A plaque near the Buttonball Tree provides information on the significance of the tree.

Hampshire CountyHadley

- Commemorating the 18th century ferry between Hadley and Northampton is located at the south end of West Street
- Site of the first meeting house in Hadley is located on the Hadley town common
- Site of early mill which led to the settlement of North Hadley is located on Route 47 at Mt. Warner Road, North Hadley
- Commemorating the discovery of palisades dating from King Phillip's War in the 17th century Hadley town common
- Women's Christian Temperance Union watering trough monument is located at the corner of Routes 47 and 9 in Hadley
- Regicides marker commemorating two judges who condemned King Charles I of England to death then fled to Hadley where they lived in hidden exile.
- Hadley Flood marker indicating Connecticut River flood levels during 20th century on Route 47 in Hockanum

South Hadley

- Commemorating 1936 floods from the Holyoke Dam Skinner Museum
- Site of the first South Hadley Meeting House South Hadley town common
- Civil War Soldier's Monument, 1896 South Hadley town common.

Hatfield

- Before 1670 part of Hadley. Thrice attacked by Indians during King Philip's War Elm Street

Review of Issues and Recommendations by Town Noted in Other Plans

In 2010, the Massachusetts Historical Commission (MHC) evaluated all of the municipalities in the Commonwealth as part of the completion of an update of the Statewide Preservation Plan. MHC found that several communities in this region need to complete historic resource survey and inventory forms, and recommend more protection for historic resources. Additionally, other local and regional plans have identified historic preservation related needs. The following is a list of the comments that were issued as part of the Statewide Preservation Plan relevant to the areas

along the Byway. The list also includes preservation related recommendations contained in other planning documents.

Northfield

- There are MHC survey and inventory form that need to be completed for historic resources in Northfield. The Northfield Historic Property Survey has 44 building forms, 1 park and landscape form, and 1 area form submitted recently.
- It was recommended that the Northfield Mount Hermon campus be submitted for inclusion in the National Register of Historic Places.
- Northfield has the Community Preservation Act.
- Northfield does not have a demolition delay bylaw.
- An investigation of other tools to protect the historic resources is recommended, such as a local historic district for the village center.

Erving

- There are MHC survey and inventory form that need to be completed for historic resources in Erving.
- Erving does not have a demolition delay bylaw.

Montague

- There are MHC survey and inventory form that need to be completed for historic resources in Montague, and particularly in the villages of Millers Falls and Lake Pleasant.
- The town has a reconnaissance survey planning website, established with help from MHC.
- Montague does not have a demolition delay bylaw in place.

Sunderland

- Sunderland does not have a demolition delay bylaw.
- Investigate other tools for historic preservation of important resources.

Hadley

The town of Hadley passed the Community Preservation Act in 2004. The Village Center does have design guidelines in place. In 2013, the Building Committee commissioned a study of seven town owned buildings to determine their current condition and future uses. Five of the buildings surveyed (Town Hall, Goodwin Memorial Library, Senior Center, North Hadley Village Hall, Russell School) are included in a National Register district. The report recommended the sale of the Russell School, Town Hall, and the North Hadley Village Hall. As a result of the study, the Town is currently exploring a Preservation Restriction for the North Hadley Village Hall. A demolition delay bylaw is necessary and an investigation of other tools is recommended, including a local historic district surrounding the common. The Cultural Landscape of Hadley was placed on the World Monuments Fund watch list in 2010.

The Hadley Master Plan has several recommendations that pertain to historic preservation, including:

- Implementation of a Preservation Plan;

- Adoption of a demolition delay bylaw;
- Completion of an inventory of all historic landscapes within Hadley;
- Strengthening the historic and cultural role of the Town Common; and
- Pursuing National Register nominations for critical areas.

South Hadley

During 2007, South Hadley received a Survey and Planning grant for a community-wide survey. It resulted in the submittal of 76 building forms. Proposed local historic districts include the Woodbridge Street and South Hadley Falls areas. Study committees have been established, but the districts have not yet been formally created. As of 2014, South Hadley is also considering implementing the Community Preservation Act. The town should also implement a demolition delay bylaw and investigate other preservation tools.

The South Hadley Master Plan notes several recommendations that pertain to historic preservation, including:

- Develop and consolidate a web-based inventory of South Hadley's historic landscapes, districts, and resources, including historic farm fields and structures;
- Develop an oral history of the Town's landscapes, district, and resources;
- Ensure that the expansion/development of municipal facilities minimize impacts on historic landscape features;
- Create and implement a demolition delay bylaw; and
- Create a dedicated funding source, including adoption of the Community Preservation Act.

The South Hadley Reconnaissance Report/Connecticut River Valley Reconnaissance Survey completed by the Department of Conservation and Recreation in 2009 notes several recommendations for historic preservation, including:

- Adopt the Community Preservation Act;
- Add properties to its historic resources survey and bring the survey up to date with properties into the 1960s;
- List the South Hadley Center on the National Register;
- Consider nominating neighborhoods around Mt Holyoke College campus to the National Register;
- Designate the Woodbridge National Register Historic District as a local historic district;
- Enact a demolition delay bylaw based on age; and
- Enact a scenic road bylaw.

Hatfield (Proposed Byway Addition)

The town of Hatfield passed the Community Preservation Act in 2006, with its first project occurring in 2009. A CPA plan is in place. A demolition delay bylaw was passed in 2011. A demolition delay is currently in place for the Center School, located in the Hatfield Center Historic District; it will expire July 2016. The Hatfield Master Plan, adopted in 2009, notes several recommendations that pertain to historic preservation, including:

- Research the utility of creating an historical overlay zoning district in Hatfield
- Expand the review responsibilities of the Hatfield Historical Commission.

The Hatfield Community Preservation Plan, adopted in 2011, notes several recommendations for CPA funded projects:

- Encourage and support efforts by the Town to acquire, preservation and/or restore buildings, land, features, and structures that define the character of the Town's historic districts listed on the State and National Registers;
- Encourage and support efforts to rehabilitate and restore town-owned historic buildings;
- Promote the study and understanding of events, people, features, and documents important to Hatfield's history; and
- Leverage other funding sources to the extent possible.

The Hatfield Reconnaissance Report/Connecticut River Valley Reconnaissance Survey completed by the Department of Conservation and Recreation in 2009 notes several recommendations for historic preservation, including:

- Add the Great Pond to the boundary of the Bradstreet Historic District;
- Establish a local historic district in the Center along Elm, Maple, and Main streets;
- Enact a Transportation Corridor Bylaw for the main streets in the Village center;
- Add properties to the historic resources survey and update old forms to digital format;
- Include heritage landscapes in any updated master plan or open space plan; and
- Create an agricultural preservation district bylaw to protect developable land and support farming operations.

Issues and Recommendations

Issues

- Not all of the Towns in the Byway Corridor have active Historical Commissions, and none have local historic districts.
- Some of the towns in the Byway Corridor have "outstanding survey needs," according to the Massachusetts Historical Commission. This means a town wide inventory of historic resources has not been completed, or the existing inventory is out of date.
- Information available on Massachusetts Historical Commission's (MHC) Massachusetts Cultural Resource Information System (MACRIS) is incomplete and/or out-of-date for several Byway towns.
- Only one of the Towns reviewed as part of the Byway Area has a demolition delay bylaw in place.
- Many of the towns lack sufficient historic preservation bylaws to help preserve historic resources.
- There are properties determined eligible for listing in the National Register of Historic Places, but a nomination has not yet been completed.
- There is a lack of coordination between regional level historic preservation planning activities and those occurring on the town level.
- There are limited preservation programs and financial assistance available to help private, for-profit business owners maintain or restore their historic properties, and there is limited awareness of those programs, like tax credits, that are available to eligible properties.

- There is a lack of resources for preservation planning activities.
- Some historic resources are in need of maintenance and repair but there is a lack of resources available.
- Some historically significant structures along the Byway are suffering from neglect and deterioration. Demolition by neglect of farm building continues to be one of the most pervasive threats to the corridor. There are several important farm houses, at least one 19th century tobacco sorting shop, and a number of livestock and tobacco barns which are being lost for lack of maintenance. If structures are allowed to deteriorate too far, restoration becomes prohibitively expensive, resulting in an eventual loss of the structure.
- Historic details continue to be lost on many houses, including door and window surrounds, porch supports, and eave brackets. In some cases they are replaced by cheaper, mass-produced versions that lack the character of the original. Window alterations, such as the installation of stock bay windows, are also a common, and unfortunate, treatment. This changes the visual integrity of the houses and the patterns of facades.
- Most historic buildings were not built to be wheelchair accessible. The addition of ramps to public buildings as required by ADA is not always appropriate for historic properties.

Recommendations

- Work with willing towns to implement appropriate historic preservation bylaws into town ordinances.
- Encourage the inclusion of demolition delay ordinances to help protect historic resources.
- Encourage and assist the towns to develop Historic Preservation Plans.
- Support the implementation of preservation restrictions or conservation restriction on historically significant structures along the Byway.
- Complete an inventory of the historic farms and historic farm structures and landscapes.
- Explore options for towns interested in adopting barn reuse bylaws.
- Explore options for developing a Massachusetts barn preservation program.
- Encourage the development of new and the support of existing local Historical Commissions.
- Encourage local town Historic Commissions to seek grant funding or volunteer assistance to complete or update MHC inventory forms for historic resources on the Byway with the intension of submission to the MHC for inclusion in the MACRIS system.
- Include outbuildings and farms, as well as the landscapes themselves when updating Historic Inventory Forms.
- Identify potential National Historic District and individual building nominees and develop the information needed for nomination packets and/or set funding needed to complete nomination paperwork. Millers Falls, the Whitmore Mills area in North Sunderland, South Hadley Center and/or Mount Holyoke's campus should be reevaluated for their eligibility based on previous opinions. MHC Survey and Planning Grants and Community Preservation Act funds can both be used to complete such nominations.
- Install markers or signs for individual structures of historic significance along the corridor such as bridges, houses, and cemeteries, to increase awareness of the history of

the Byway. Markers and signs should be uniform to allow for consistency throughout the Byway corridor.

- Develop a historic driving tours booklet or map for the Byway which provides information on individual sites along the way and tells the story of the Byway.
- Assist private owners to secure grant funding, tax incentive and other financial benefits for historic preservation activities such as the Historic Rehabilitation Tax Credit Program.
- Work with willing property owners to identify significant historic structures and develop plans to assist in their restoration and/or preservation.
- Encourage local historical commissions to alert and educate property owners to the federal and state tax credits that are available for restoration work that occurs on income-producing properties listed in the State and National Register of Historic Places.
- Include Historic Preservation in regional and local master planning efforts whenever possible.
- Adopt Demolition Delay Bylaws to provide the time necessary to find alternative uses for unused or under-utilized historic properties under threat of demolition.
- Provide information to historic home owners about historically appropriate materials for renovations.
- Consider implementing the Community Preservation Act in the towns that have not adopted it as a tool for funding Historic Preservation Projects.
- Continue to update CPA plans with goals and priority project for historic preservation in Hadley and Hatfield.
- Develop lists of parcels in the Agricultural Preservation Restriction (APR) program associated with farm buildings in the Historic Resources Inventory. Preservation Restrictions (PR) should then be considered for those farm buildings of historical and architectural significance. Take together, the APR and PR would act in concert to protect an entire farm.
- Consider placing accessibility ramps on a non-primary façade, and reducing ramp widths, as appropriate.
- Support the study committees in South Hadley as they work to establish their local historic district.
- Establish local historic districts in other communities where National Register districts currently exist or are proposed, and as are supported by the local community.
- Explore partnerships between historic societies and other organizations throughout the Byway region to establish a loan program for historic buildings.
- Utilize the Preservation Massachusetts Pre-Development Loan where possible to support early stages of restoration projects.

Historic Preservation Tools

Massachusetts Historical Commission “On the Road” Program

The Massachusetts Historical Commission conducts a program called "On the Road" which is designed to assist Local Historical Commissions and Local Historic District Commissions. The Massachusetts Historical Commission's Director of Local Government Programs is available to visit communities, discuss local historic preservation issues, and offer ways to resolve problems.

Local Historical Commissions

Local historic commissions provide important support and assistance to willing private property owners. A Local Historical Commission is the municipal agency responsible for ensuring that preservation concerns are considered in community planning and development decisions. Local Historic Commissions are established by a vote of the town or city government. They serve as local preservation advocates and as an important resource for information about their community's cultural resources and preservation activities.

National Register of Historic Places Listing

The National Register of Historic Places documents and records the nation's important and irreplaceable buildings, sites, structures, objects, and districts worthy of protection. It is a listing of buildings, structures, sites, objects and districts significant in our nation's history, culture, architecture or archeology that are worthy of preservation. It is a federal designation, administered by the Secretary of the Interior through the Massachusetts Historical Commission as the State Historic Preservation office. Based on local and state surveys, nominations to the National Register are generally initiated by the local historical commission, which works with MHC staff to prepare the form. Nominations are then reviewed by the MHC State Review Board at a public meeting and forwarded to the Keeper of the National Register for approval.

Listing on the National Register of Historic Places recognizes the value of our nation's historical and cultural heritage and provides a basis for making informed planning and development decisions. A listing on the National Register places no constraints on what owners may do with their property when using private funding. The National Register is not a design review program; however, it does provide limited protection from state and federal actions. It is also an eligibility requirement for matching state and federal restoration and research grants, as well as certain federal tax benefits for certified rehabilitation projects.

State Register of Historic Places

The State Register of Historic Places is a master list of designated historic properties in Massachusetts. It provides an added measure of protection to listed properties. Properties are listed on the State Register if they are: included in or determined eligible for listing in the National Register of Historic Places; within local historic districts; local, state, and national landmarks; state archaeological landmarks; or properties with preservation restrictions. The State Register serves as a guide for developers and state agencies in order to determine whether a state funded, permitted, or licensed project will affect historic properties. The State Register review process ensures that listed properties will not inadvertently be harmed by activities supported by state agencies.

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.

Demolition Delay Bylaw

A demolition delay bylaw allows a window of time for alternatives to demolition to be studied. These can include using historic tax credits for rehabilitation, alternate uses, and, as a last resort, moving the structure. The Statewide Preservation Plan recommends a Demolition Delay bylaw be implemented in all towns in the Commonwealth, and recommends at least a 12 month delay.

Corridor Protection Overlay District

Corridor protection bylaws offer another method of protecting a transportation corridor from inappropriate development. These bylaws are often implemented as an overlay district.

Preservation Restrictions

Preservation Restrictions protect historic and archaeological properties from changes that may be inappropriate. A Preservation Restriction (easement) on a property restricts present and future owners from altering a specified portion of that building, structure, or site. A restriction can run for a few years or in perpetuity and may be included as part of the property deed. Preservation restrictions can be donated or purchased by a government body or private preservation organization and are enforced by the holder of the restriction.

Certified Local Government Program

The Certified Local Government Program is a unique partnership that provides a close integration of federal, state, and local preservation activities. Communities that have enacted historic preservation legislation are eligible to apply to the Massachusetts Historical Commission for certification. By extending state and federal programs at the local level, the Certified Local Government program allows communities to participate directly in the review and approval of National Register nominations. Certified Local Governments are eligible to compete for at least 10 percent of the federal funds allocated to MHC.

Federal Historic Rehabilitation Tax Incentives (“Historic Tax Credits”)

Under the Federal Rehabilitation Tax Incentive Program, owners of property that are listed on the National Register or are within a National Register Historic District may deduct 20% of the cost of a major restoration project on their taxes. Restoration must be significant, exceeding the greater of the adjusted basis of the buildings or \$5,000, and work can be phased over a five-year period when there are architect's drawing and specification prepared for the work. Restoration work must follow the Secretary of the Interior's Standards. The program is administered through the Massachusetts Historical Commission (MHC) and the National Park Service. A 10% tax credit is also available for buildings that are not listed in the National Register but were built before 1936.

Massachusetts Historic Rehabilitation Tax Credit

The Massachusetts Historic Rehabilitation Tax Credit is a pilot program that is administered by The Massachusetts Historical Commission. A certified rehabilitation project on an income-producing property is eligible to receive up to 20% of the cost of certified rehabilitation expenditures in state tax credits. There are restrictions, an annual cap, and selection criteria that ensure the funds are distributed to the projects that provide the most public benefit. The MHC certifies the projects and allocates available credits. There is \$50 million dollars currently available annually for certified rehabilitation projects, and the program is set to expire on December 31, 2017.

Revolving Fund for Historic Preservation

A revolving fund is a long-term strategy which has had success in many parts of the country. Usually organized and managed by a non-profit group, an historical society, or community development organization, a revolving fund offers low-interest loans for the rehabilitation of historic properties. Revolving Funds also function by buying historic properties, rehabilitating them, and selling them with preservation restrictions in place. A revolving fund offering low interest rate loans for preservation of historic buildings within the byway corridor would be a welcome tool at a time when grants and tax credits for private home owners are not available. Revolving loan funds can provide funds to act quickly, as land trusts often do, to buy a threatened property.

Preservation Massachusetts, the state-wide preservation non-profit organization, has recently started offering Pre-Development Loans through a Revolving Fund. They anticipate 3-5 loans per year, ranging from \$25,000-\$75,000. Properties need to be listed on or eligible for the National Register, and must comply with the Secretary of the Interior's Standards for Rehabilitation. The loan program is designed to assist with the first stages of a project, including architectural and consultant costs and feasibility studies. More information can be found on their website at preservationmass.org.

Preservation Plan

The purpose of a Preservation Plan is to help a town address identify priority projects, including inventory updates, preservation education, zoning consistency with preservation needs, potential National Register nominations, a preservation timeline, and financial support, as well as integrate historic preservation into other aspects of municipal planning. There are currently no towns on the Byway that have an active, up to date Preservation Plan in place. Hadley's Master Plan calls for the creation of a Preservation Plan to focus on both historic landscapes and structures.

Inventory

An up to date historic resources inventory is the building block of preservation efforts in a community. Without it, it is impossible to place buildings in a context to determine their significance.

Massachusetts Historical Commission Survey and Planning Grant Program

The goal of the Massachusetts Historical Commission's Survey and Planning Grant Program is to support efforts to identify and plan for the protection of the significant historic buildings, structures, archaeological sites and landscapes of the Commonwealth. The program is a federally funded, reimbursable, 50/50 matching grant program which supports historic preservation planning activities in communities throughout the state. Qualified applicants include all local historical commissions and local historic district commissions, Certified Local Governments, municipal planning and community development offices, regional planning agencies, state agencies, educational institutions, and private non-profit organizations. The types of projects eligible for funding include: the completion of cultural resource inventories; the nomination of significant properties to the National Register of Historic Places; the completion of community-wide preservation plans; and the completion of other types of studies, reports, publications and projects that relate to the identification and protection of significant historic properties and sites. Under federal law, MHC is required to pass through grant awards representing 10% of its total annual federal funding allocation to Certified Local Governments.

Massachusetts Preservation Projects Fund

Through the Massachusetts Preservation Projects Fund, state-funded 50% reimbursable matching grants are available to qualifying properties listed on the State Register to ensure their physical preservation. These funds are subject to availability through the State Budget process. When available, funding is available for the restoration, rehabilitation, stabilization, and documentation of historic and archaeological properties owned by municipalities or nonprofit organizations. The applicants also have the option of applying for up to 75% of the total project cost if they are willing to commit an additional 25% toward an endowment fund for long-range preservation and maintenance of the property. The types of projects funded under this program range from the acquisition of an endangered property, to the restoration of an historic building, to research projects such as historic structures reports, archaeological data recovery projects, or study of innovative preservation techniques.

The Community Preservation Act

The Community Preservation Act provides an opportunity for local communities to fund projects related to local historic sites. The Community Preservation Act is statewide enabling legislation to allow cities and towns to exercise control over local planning decisions. All of the decisions related to this program are local. Communities must vote by ballot to adopt the Community Preservation Act. Once adopted the local legislatures must appoint a committee to develop plans for the use of the funds. These plans are subject to local comment and approval. If residents do not feel the Community Preservation Act is working as they expected, they can repeal it. "The acquisition and preservation of historic buildings and landscapes" is one of the three core community concerns that the funding from the Community Preservation Act can be used to address. A minimum of 10% of the annual revenues of the fund must be used for each of the three core community concerns. The remaining 70% can be allocated for any combination of the allowed uses, or for land for recreational use. This gives each community the opportunity to determine its priorities, plan for its future, and have the funds to make those plans happen.

Appendix

Northfield Main Street Historic District

Designation	Name of Feature	Location	Date Built
NRDIS	Rodman Spencer House	8 Chula Vista Lane	r. 1965
NRDIS	Morgan Garage	Main Street	c. 1921; demolished
NRDIS	Dorris Miller Camp	Main Street	c. 1970
NRDIS	Dwight L. Moody and Emma G. R. Graves	Main Street	c. 1899
NRDIS	Belcher Memorial Fountain	Main Street	1909
NRDIS	Aaron Belding Plaque	Main Street	
NRDIS	First Public Religious Service Marker	Main Street	1897
NRDIS	Northfield First Settlement Marker	Main Street	1897
NRDIS	Fort Marker	Main Street	1897
NRDIS	First Grist Mill Monument	Main Street	c. 1941
NRDIS	Charles Leroy Preston Plaque	Main Street	1929
NRDIS	Dwight L. Moody Plaque	Main Street	1937
NRDIS	Thomas Power Esq. Plaque	Main Street	1933
NRDIS	Sons and Daughters in Armed Forces Plaque	Main Street	c. 1949
NRDIS	World War I Marker	Main Street	1919
NRDIS	Route 63 Bridge – Main Street Bridge	Main Street	1941
NRDIS	Morse House	1 Main Street	c. 1968
NRDIS	Richard J. Vielmetti House	2 Main Street	c. 1930
NRDIS	Daniel L. Callender House	4 Main Street	1846
NRDIS	John Wright House	5 Main Street	1847
NRDIS	Wright Stratton House	8 Main Street	c. 1858
NRDIS	Herbert Millard House	9 Main Street	c. 1925
NRDIS	Charles Slate House	12 Main Street	c. 1927
NRDIS	Ebenezer Field House	15 Main Street	c. 1721
NRDIS	John Hogan House	16 Main Street	c. 1970
NRDIS	William Messer House	19 Main Street	c. 1960
NRDIS	Stanley Powers House	20 Main Street	c. 1927
NRDIS	Michael Morgan House	21 Main Street	c. 1940
NRDIS	Powers Barn	22 Main Street	c. 1920
NRDIS	Zechariah Field House	25 Main Street	c. 1795
NRDIS	Isaac Mattoon House	26 Main Street	1801
NRDIS	Ebenezer White Tavern	27 Main Street	c. 1784
NRDIS	Dr. Elijah Stratton House	30 Main Street	c. 1844
NRDIS	Charles Henry Stearns House	31 Main Street	c. 1850
NRDIS	Capt. Samuel Lane House	33 Main Street	c. 1845
NRDIS	George Stearns House	34 Main Street	c. 1843

Designation	Name of Feature	Location	Date Built
NRDIS	Niles Stone House	35 Main Street	c. 1905
NRDIS	Rev. W. W. Coe House	36 Main Street	1928
NRDIS	Horace Wright House	37 Main Street	c. 1822
NRDIS	Dunham Shepard House	38 Main Street	c. 1966
NRDIS	Albert Collins Parsons Store	39 Main Street	c. 1877
NRDIS	Elijah Mattoon House	40 Main Street	c. 1820
NRDIS	Whitney Brothers Gas Station	41 Main Street	c. 1955
NRDIS	A. D. Stearns House	42 Main Street	1852
NRDIS	Oliver Watriss House	45 Main Street	c. 1795
NRDIS	James Mattoon – C. H. Green House	46 Main Street	c. 1868
NRDIS	Dr. Rollin C. Ward House	47 Main Street	c. 1875
NRDIS	Joseph W. Holton House	48 Main Street	r. 1945
NRDIS	A. C. Parsons House and Shop	49-51 Main Street	c. 1855
NRDIS	William Pomeroy House	50 Main Street	c. 1783
NRDIS	Isaac Prior House	55 Main Street	c. 1820
NRDIS	Frank Montague House	56 Main Street	c. 1927
NRDIS	Henry Wright Tin Shop	57 Main Street	c. 1891
NRDIS	William Pomeroy Store	60 Main Street	c. 1839
NRDIS	Reuben Wright House	61 Main Street	c. 1750
NRDIS	Caleb Cook House	65 Main Street	c. 1808
NRDIS	Samuel S. Stearns House	66 Main Street	c. 1828
NRDIS	Rev. Oliver Everett House	68 Main Street	c. 1837
NRDIS	Northfield Town Hall	69 Main Street	1927
NRDIS	R. H. Minot Tin Store	69 Main Street	c. 1871
NRDIS	Newton W. Keet Motorcycle Repair Shop	70 Main Street	1901
NRDIS	First Parish Church of Northfield, Unitarian	72 Main Street	1870
NRDIS	Dr. Medad Pomeroy House	73 Main Street	c. 1765
NRDIS	George Hastings Block	74 Main Street	c. 1848
NRDIS	Arthur W. Proctor Block	75 Main Street	c. 1898
NRDIS	Caleb Lyman House	76 Main Street	c. 1801
NRDIS	Picky's Grill	77 Main Street	c. 1940
NRDIS	Dunnell Fuels Office	78 Main Street	c. 1970
NRDIS	New England Telephone Company Building	79 Main Street	c. 1940
NRDIS	Charles S. Warner House	80 Main Street	c. 1900
NRDIS	Henry J. Glutney House	81 Main Street	c. 1920
NRDIS	Saint Patrick's Roman Catholic Church	82 Main Street	1886
NRDIS	Thomas Lyman House	83 Main Street	1828
NRDIS	Benjamin B. Murdock House	84 Main Street	1840
NRDIS	Northfield Baptist Church	85 Main Street	1961
NRDIS	Northfield Baptist Church Parsonage	87 Main Street	1961

Designation	Name of Feature	Location	Date Built
NRDIS	Mary Gay Swan House	88 Main Street	c. 1807
NRDIS	Dr. Philip Hall House	89 Main Street	c. 1846
NRDIS	First Parish Unitarian Parsonage	90 Main Street	c. 1858
NRDIS	Capt. Samuel Hunt Tavern	91 Main Street	r. 1775
NRDIS	Charles Pomeroy House	92 Main Street	c. 1879
NRDIS	Capt. John Nevers House	94 Main Street	1811
NRDIS	Herbert A. Reed Gas Station	95 Main Street	c. 1930
NRDIS	John A. Quinland House	96 Main Street	c. 1919
NRDIS	Dr. Charles Blake House	97 Main Street	c. 1780
NRDIS	Northfield Center School	98 Main Street	c. 1941
NRDIS	Civil War Tablet	98 Main Street	1911
NRDIS	Lt. Jonathan Belding House	99 Main Street	r. 1750
NRDIS	Spencer Brothers Garage	105 Main Street	c. 1919
NRDIS	Samuel W. Dutton House	109 Main Street	c. 1835
NRDIS	Dr. Allen H. Wright House	111 Main Street	c. 1936
NRDIS	Dr. Norman P. Wood House	112 Main Street	c. 1900
NRDIS	Dickinson Memorial Library	115 Main Street	1897
NRDIS	Obadiah Dickinson House	116 Main Street	c. 1785
NRDIS	House	117 Main Street	c. 1869
NRDIS	Luman Barber House	118 Main Street	r. 1945
NRDIS	Peter Evans House	120 Main Street	1716
NRDIS	Sally R. Tyler Cottage – Missionary I	124 Main Street	1927
NRDIS	Schell Cottage – Missionary House	126 Main Street	c. 1928
NRDIS	Rev. Edward Fairbanks House	130 Main Street	1948
NRDIS	Daniel Callendar House	134 Main Street	c. 1793
NRDIS	U. S. Post Office – Northfield Main Branch	136 Main Street	c. 1970
NRDIS	William C. Billings House	138 Main Street	c. 1820
NRDIS	Greenfield Cooperative Bank	144 Main Street	c. 1974
NRDIS	Albert S. Brigham House	146 Main Street	c. 1899
NRDIS	Trinitarian Congregational Church	147 Main Street	c. 1889; demolished
NRDIS	Trinitarian Congregational Church	147 Main Street	1979
NRDIS	Clifford Sanborn Furniture Store	148 Main Street	c. 1915
NRDIS	William Belcher House	153 Main Street	c. 1788
NRDIS	Eli H. Colton House	154 Main Street	r. 1875
NRDIS	Dr. Samuel Prentice House	155 Main Street	r. 1850
NRDIS	Clifford Field House	158 Main Street	c. 1935
NRDIS	George E. Holton House	159 Main Street	c. 1882
NRDIS	Dr. Roscoe Philbrick House	160 Main Street	c. 1914
NRDIS	Alvin A. Long House	165 Main Street	c. 1850

Designation	Name of Feature	Location	Date Built
NRDIS	Samuel B. Williams House	166 Main Street	c. 1853
NRDIS	John Long House	167 Main Street	c. 1830
NRDIS	Charles C. Robbins Store	168 Main Street	1910
NRDIS	A. J. Phillips House	169 Main Street	c. 1895
NRDIS	Capt. Henry Alexander House	173 Main Street	c. 1836
NRDIS	Francis Fisher House	174 Main Street	c. 1855
NRDIS	Thomas Alexander House	175 Main Street	1848
NRDIS	Robert Lyman Cabinet Shop	176 Main Street	c. 1870
NRDIS	Billiel House	177 Main Street	c. 1970
NRDIS	Robert Lyman House	178 Main Street	c. 1841
NRDIS	George R. Fisher House	179 Main Street	c. 1890
NRDIS	Jean H. Wright House	179R Main Street	c. 1971
NRDIS	Wayside Inn Barn	179A Main Street	c. 1890
NRDIS	Simeon Lyman House	180 Main Street	c. 1923
NRDIS	Capt. Richard Colton House	181 Main Street	c. 1828
NRDIS	Edward B. Buffum House	185 Main Street	c. 1919
NRDIS	Mary S. Rice House	186 Main Street	c. 1900
NRDIS	Merriman Cottage	187 Main Street	c. 1890
NRDIS	Simeon Alexander House	188 Main Street	C 1776
NRDIS	Paul Jordon Gas Station and Garage	190 Main Street	c. 1947
NRDIS	Clarence P. Buffmun General Store	194 Main Street	c. 1910
NRDIS	Charles H. Webster Drugstore	198 Main Street	1903
NRDIS	Arthur Percy Fitt House	201 Main Street	1887
NRDIS	Charles Alexander House	204 Main Street	c. 1890
NRDIS	Northfield Seminary – Revell Hall	206 Main Street	1879
NRDIS	Northfield Seminary – Holton Hall	206A Main Street	c. 1885
NRDIS	Girl Scout's Little House	7 Pentecost Road	c. 1951
NRDIS	Medad A. Moody House	6 Pine Street	c. 1863
NRDIS	Northfield Fire Station	School Street	c. 1952

Other Historic Properties in Northfield

Designation	Name of Feature	Location	Date Built
NRIND	Simeon Alexander Jr. House	496 Millers Falls Road (Route 63)	c. 1774
NRIND	Northfield Center Cemetery	Parker Avenue	1686
NRIND	Pine Street School	13 Pine Street	c. 1903
NRDOE	Schell Memorial Bridge	East Northfield Road	1903

Montague Center Historic District Properties

Designation	Name of Feature	Location	Date Built
NRDIS	Bangs and Ball Grocery and Dry Goods Store	1 Center Street	c. 1850
NRDIS	House	5 Center Street	c. 1830
NRDIS	Montague Center Harness Shop	7 Center Street	c. 1825
NRDIS	Phillips Palmer and Company Pocket Book Factory	9 Center Street	c. 1830
NRDIS	Leonard Cheney General Store	11 Center Street	1838
NRDIS	Montague Old Town Hall	15-17 Center Street	1858
NRDIS	J. H. Root House	21 Center Street	1851
NRDIS	H. Chenery House	24 Center Street	c. 1831
NRDIS	House	25 Center Street	1889
NRDIS	Montague Telephone Switching Station	26 Center Street	c. 1960
NRDIS	W. H. Ward House	27 Center Street	c. 1847
NRDIS	House	28 Center Street	c. 1840
NRDIS	House	30 Center Street	c. 1860
NRDIS	House	32 Center Street	c. 1850
NRDIS	J. Dugan House	34 Center Street	r. 1850
NRDIS	House	35 Center Street	c. 1850
NRDIS	J. W. Dugan House	36 Center Street	c. 1860
NRDIS	House	37 Center Street	c. 1850
NRDIS	Elihu Root House	38 Center Street	c. 1805
NRDIS	Dyke House	39 Center Street	c. 1850
NRDIS	House	40 Center Street	c. 1860
NRDIS	Carl Rollins House	42 Center Street	1912
NRDIS	Elihu Root Chair Factory and Saw Mill	44 Center Street	c. 1840
NRDIS	Dr. D. Bradford House	5 Court Square	c. 1860
NRDIS	House	7 Court Square	c. 1890
NRDIS	Merriam King House	8 Court Square	c. 1870
NRDIS/NRIND	Alvah Stone Mill	400 Greenfield Road	c. 1760
NRDIS/NRIND	Martin Machine Company Tool Crib	400 Greenfield Road	c. 1934
NRDIS/NRIND	Martin Machine Company Die Cutting Shop	400 Greenfield Road	c. 1934
NRDIS/NRIND	Alvah Stone Mill Fire Hydrant House	400 Greenfield Road	c. 1890
NRDIS/NRIND	Alvah Stone Mill Fire Hose House	400 Greenfield Road	1890
NRDIS/NRIND	Alvah Stone Mill Dam	400 Greenfield Road	c. 1830
NRDIS/NRIND	Alvah Stone Mill Intake Raceway	400 Greenfield Road	c. 1910
NRDIS/NRIND	Alvah Stone Mill Penstock	400 Greenfield Road	1900
NRDIS/NRIND	Martin Machine Company – Francis Turbine	400 Greenfield Road	c. 1900
NRDIS/NRIND	Martin Machine Company Electrical	400 Greenfield Road	

Designation	Name of Feature	Location	Date Built
	Generator		
NRDIS/NRIND	Alvah Stone Mill Wheel Pit	400 Greenfield Road	c. 1764
NRDIS/NRIND	Martin Machine Company Tailrace	400 Greenfield Road	c. 1934
NRDIS/NRIND	Martin Machine Company Trash Racks	400 Greenfield Road	c. 1934
NRDIS/NRIND	Martin Machine Company Head Gates	400 Greenfield Road	c. 1934
NRDIS/NRIND	Lawrence Mill Foundations	400 Greenfield Road	c. 1760
NRDIS/NRIND	Lawrence Mill Dam Abutments	400 Greenfield Road	c. 1830
NRDIS/NRIND	Alvah Stone Mill Grinding Stone	400 Greenfield Road	c. 1834
NRDIS	House	428 Greenfield Road	c. 1940
NRDIS	House	431 Greenfield Road	c. 1830
NRDIS	Fiske House	432 Greenfield Road	1941
NRDIS	Montague Highway Directional Marker	Main Street	c. 1770
NRDIS	Main Street Bridge over Sawmill River	Main Street	1895
NRDIS	House	2 Main Street	c. 1870
NRDIS	Montague Water Pollution Control Station	3 Main Street	c. 1980
NRDIS	House	4 Main Street	c. 1920
NRDIS	House	6 Main Street	c. 1920
NRDIS	Edward W. Fox House	7 Main Street	1859
NRDIS	House	8 Main Street	c. 1900
NRDIS	House	12 Main Street	c. 1900
NRDIS	House / Store	17 Main Street	c. 1850
NRDIS	Aaron Gate House	18 Main Street	c. 1805
NRDIS	K. Bancroft House	22 Main Street	1835
NRDIS	R. Brown House	24 Main Street	c. 1870
NRDIS	House	25 Main Street	c. 1830
NRDIS	House	26 Main Street	c. 1880
NRDIS	House	27 Main Street	c. 1800
NRDIS	House	28 Main Street	c. 1960
NRDIS	House	29 Main Street	c. 1850
NRDIS	House	30 Main Street	c. 1880
NRDIS	Montague Village Common	33 Main Street	r. 1750
NRDIS	Montague Village Common Watering Trough	33 Main Street	1915
NRDIS	Montague Village Common War Memorial	33 Main Street	1954
NRDIS	Unitarian Church of Montague	34 Main Street	1834
NRDIS	Montague Schoolhouse	38 Main Street	1837
NRDIS	Montague First Congregational Church Parsonage	39 Main Street	c. 1852
NRDIS	Avery Clapp House	40-42 Main Street	1837
NRDIS	Rev. E. Moody House	41 Main Street	c. 1850

Designation	Name of Feature	Location	Date Built
NRDIS	J. H. Morse House	44 Main Street	c. 1837
NRDIS	Dr. F. A. Deane House	45 Main Street	c. 1850
NRDIS	J. Learned House and Store	46 Main Street	1837
NRDIS	Edward L. Delano House	49 Main Street	1838
NRDIS	Alvah Stone House	50 Main Street	c. 1835
NRDIS	U. S. Post Office – Montague Center Branch	53 Main Street	c. 1960
NRDIS	House	54 Main Street	c. 1960
NRDIS	Clapp, R. N. Tin Shop	55 Main Street	c. 1860
NRDIS	Henry H. Root Grocery Store	58-60 Main Street	1885
NRDIS	George A. Clapp Shoe Factory	59 Main Street	1856
NRDIS	House	63 Main Street	1889
NRDIS	Charles Kellogg House	64 Main Street	1847
NRDIS	N. C. Brewer House	66 Main Street	1842
NRDIS	House	67 Main Street	c. 1910
NRDIS	E. Nettleton House	68 Main Street	1857
NRDIS	House	69 Main Street	1933
NRDIS	Chandler House	70 Main Street	c. 1850
NRDIS	Dr. Anson Cobb House	71 Main Street	1892
NRDIS	House	75 Main Street	c. 1900
NRDIS	House	2 Newton Lane	c. 1960
NRDIS	House	4 Newton Lane	c. 1960
NRDIS	House	5 Newton Lane	c. 1960
NRDIS	House	6 Newton Lane	c. 1980
NRDIS	House	7 Newton Lane	c. 1980
NRDIS	Edward W. Chenery House	2 North Street	c. 1831
NRDIS	Montague First Congregational Church	4 North Street	1834
NRDIS	Edward Benton House	7 North Street	1865
NRDIS	House	11 North Street	1888
NRDIS	Montague Center Schoolhouse / House	15 North Street	c. 1800
NRDIS	House	19 North Street	c. 1920
NRDIS	Chandler House	2 Old Sunderland Road	c. 1840
NRDIS	House	4 Old Sunderland Road	c. 1850
NRDIS	House	10 Old Sunderland Road	c. 1870
NRDIS	House	16 Old Sunderland Road	c. 1850
NRDIS	Joseph Root Tavern	17 Old Sunderland Road	c. 1739
NRDIS	House	23 Old Sunderland Road	c. 1850
NRDIS	Playground	School Street	c. 1910

Designation	Name of Feature	Location	Date Built
NRDIS	T. B. Searle House	3 School Street	1902
NRDIS	House	6 School Street	c. 1890
NRDIS	House	8 School Street	c. 1920
NRDIS	House	9 School Street	c. 1960
NRDIS	House	11 School Street	c. 1890
NRDIS	Public School	15 School Street	1950
NRDIS	Dr. G. Wright House and Office	2 South Street	c. 1830
NRDIS	Joseph Root Tavern Ell	6 Station Street	1739
NRDIS	Montague Fire Department Engine House	9 Station Street	c. 1900
NRDIS	Gas Station	10 Station Street	c. 1920
NRDIS	House	11 Station Street	c. 1970
NRDIS	Blacksmith Shop; Warehouse	12 Station Street	c. 1900
NRDIS	House	13-15 Station Street	c. 1900
NRDIS	House	17 Station Street	c. 1970
NRDIS	Locust Hill Cemetery	Turners Falls Road	c. 1760
NRDIS	C. Lawrence House	547 Turners Falls Road	c. 1830
NRDIS	Z. Taylor House	551 Turners Falls Road	c. 1870
NRDIS	Frank Martin House	555-557 Turners Falls Road	c. 1933
NRDIS	Bus Terminal	7 Union Street	c. 1940
NRDIS	A. C. Stone House	11 Union Street	c. 1860
NRDIS	House	14 Union Street	c. 1856
NRDIS	A. Clapp Jr. House	19 Union Street	1856
NRDIS	George A. Clapp Shoe Factory Worker Housing	20 Union Street	c. 1856
NRDIS	George A. Clapp Shoe Factory Worker Housing	21 Union Street	1856
NRDIS	George A. Clapp Shoe Factory Worker Housing	22 Union Street	c. 1856
NRDIS	George A. Clapp Shoe Factory Worker Housing	23 Union Street	1856
NRDIS	House	24 Union Street	c. 1856
NRDIS	George A. Clapp Shoe Factory Worker Housing	25 Union Street	c. 1856
NRDIS	House	26 Union Street	c. 1856
NRDIS	House	27 Union Street	c. 1925
NRDIS	D. Clapp House	30 Union Street	c. 1856
NRDIS	M. H. Clapp House	33 Union Street	c. 1856
NRDIS	George A. Clapp Shoe Factory Worker Housing	34 Union Street	c. 1860
NRDIS	House	37 Union Street	c. 1920
NRDIS	Clapp Scythe Factory	5 Welch Lane	c. 1900

Designation	Name of Feature	Location	Date Built
NRDIS	Laundry	9 Welch Lane	c. 1900

Sunderland Center Historic District Properties

Designation	Name of Feature	Location	Date Built
NRDIS	Skibiski Building	2 Amherst Road	Ca. 1927
NRDIS	L&M Warner Grain Store	10 Amherst Road	1917
NRDIS	L&M Warner Grain Store	10A Amherst Road	1917
NRDIS	Warner-Miller-Skibiski Building	18 Amherst Road	1917
NRDIS	house	26 Amherst Road	Ca. 1860&1950
NRDIS	James Clary House	34 Amherst Road	Ca. 1855
NRDIS	Connecticut River Bridge	Bridge Street	1938
NRDIS	Ben Toczydlowski House	23 Bridge Street	1947
NRDIS	Edward Tozloski House	17 Bridge Street	1948
NRDIS	Ben Toczydlowski Store	13 Bridge Street	Ca. 1940
NRDIS	Ben's Station	11 Bridge Street	1939
NRDIS	Riverside Cemetery	Cemetery Road	1722-1996
NRDIS	Cemetery storage shed	Cemetery Road	Ca. 1900
NRDIS	house	2 Garage Road	1930-40
NRDIS	Elijah Rowe House	6 Garage Road	Ca. 1790
NRDIS	Henry O. Williams House	243 North Main Street	Ca. 1853
NRDIS	Neo-colonial house	238 North Main Street	Ca. 1950
NRDIS	Edward L. Robinson House	226 North Main Street	Ca. 1904
NRDIS	Williams Farm	225 North Main Street	1919
NRDIS	Equipment shed	225 North Main Street	Pre-1948
NRDIS	Open cow shed	225 North Main Street	Ca. 1930
NRDIS	barn	225 North Main Street	Ca. 1930
NRDIS	Corn crib	225 North Main Street	Ca. 1920
NRDIS	Poultry house	225 North Main Street	Ca. 1930
NRDIS	Samuel Billings/Noah Graves House	207 North Main Street	Ca. 1718-50
NRDIS	Neo-colonial house	200 North Main Street	Ca. 1930
NRDIS	garage	200 North Main Street	Ca. 1930
NRDIS	Israel Cooley House	199 North Main Street	1800-1833
NRDIS	Tobacco barn	199 North Main Street	Ca. 1940
NRDIS	Samuel Graves, Sr. House	187 North Main Street	1804
NRDIS	Converted storage barn	184 North Main Street	Ca. 1950
NRDIS	Colonial Revival house	180 North Main Street	1923
NRDIS	garage	180 North Main Street	Ca. 1923
NRDIS	Harold C. Pomeroy House	178 North Main Street	Ca. 1910

Designation	Name of Feature	Location	Date Built
NRDIS	garage	178 North Main Street	Ca. 1940
NRDIS	Eleazer Warner, Jr. House	171 North Main Street	Ca. 1825
NRDIS	Isaac Graves House	168 North Main Street	Ca. 1730
NRDIS	shop	168 North Main Street	Ca. 1900
NRDIS	Eleazor Warner House	167 North Main Street	1750-1800
NRDIS	barn	166 North Main Street	Ca. 1900
NRDIS	Bungalow house	162 North Main Street	1922
NRDIS	garage	162 North Main Street	1920s
NRDIS	Neo-colonial house	158 North Main Street	Ca. 1930
NRDIS	garage	158 North Main Street	Ca. 1940
NRDIS	Gideon Warner House	157 North Main Street	Ca. 1780
NRDIS	George F. Abby House	154 North Main Street	1875
NRDIS	barn	154 North Main Street	1875
NRDIS	Graham/Beaman House	153 North Main Street	1776
NRDIS	barn	153 North Main Street	Ca. 1850
NRDIS	David Graves House	143 North Main Street	1748-80
NRDIS	barn	143 North Main Street	Ca. 1900
NRDIS	Alvin Johnson House	140 North Main Street	Ca. 1865
NRDIS	Rev. James Taylor House	133 North Main Street	Ca. 1807
NRDIS	barn	133 North Main Street	Ca. 1910
NRDIS	Kenneth Williams House	127 North Main Street	Ca. 1920
NRDIS	Henry F. Sanderson House	126 North Main Street	Ca. 1843
NRDIS	garage	126 North Main Street	Ca. 1930
NRDIS	Mrs. Montague House	123 North Main Street	1925
NRDIS	Ashley Graves House	121 North Main Street	Ca. 1830
NRDIS	shop	121 North Main Street	Ca. 1870
NRDIS	Henry F. Sanderson House	120 North Main Street	Ca. 1843
NRDIS	Craftsman Bungalow house	119 North Main Street	Ca. 1925
NRDIS	garage	119 North Main Street	Ca. 1925
NRDIS	Samuel Jennison House	118 North Main Street	Ca. 1850
NRDIS	Dimo's Restaurant	116 North Main Street	Ca. 1912
NRDIS	Fourth Parish House	115 North Main Street	1917
NRDIS	garage	115 North Main Street	1917
NRDIS	Roman F. Toczydowski House	113 North Main Street	1927
NRDIS	Town Hall	112 North Main Street	1867
NRDIS	Warner's Tobacco Shop	110 North Main Street	1923
NRDIS	Graves Memorial Library	109 North Main Street	1900
NRDIS	Sunderland Bank	108 North Main Street	1825
NRDIS	Town House	104 North Main Street	Ca. 1820
NRDIS	First Congregational Chapel	93 South Main Street	1849

Designation	Name of Feature	Location	Date Built
NRDIS	First Congregational Church	91 South Main Street	1835
NRDIS	Dr. Gustavus Peck House	90 South Main Street	Ca. 1835
NRDIS	Lota & Luther Root House	87 South Main Street	Ca. 1817
NRDIS	Samuel Dorrance House	86 South Main Street	Ca. 1835
NRDIS	Frederick & Ina Kidder House	83 South Main Street	1914
NRDIS	Barn complex	83 South Main Street	1914-1940
NRDIS	garage	83 South Main Street	1914
NRDIS	Equipment shed	83 South Main Street	Ca. 1914
NRDIS	Manufacturing building	83 South Main Street	Ca. 1940
NRDIS	William Russell House	82 South Main Street	Pre-1830
NRDIS	barn	82 South Main Street	Ca. 1850
NRDIS	Third Parsonage	79 South Main Street	Ca. 1842
NRDIS	garage	79 South Main Street	Ca. 1940
NRDIS	Arthur W. Hubbard House	76 South Main Street	Ca. 1910
NRDIS	garage	76 South Main Street	Ca. 1910
NRDIS	Grace Clark Hobart Store	75 South Main Street	Ca. 1895
NRDIS	Austin Lysander Marsh House	71 South Main Street	Ca. 1835
NRDIS	barn	70 South Main Street	Ca. 1900
NRDIS	Elisha Smith House	69 South Main Street	1756
NRDIS	Queen Anne house	66 South Main Street	Ca. 1880
NRDIS	barn	66 South Main Street	Ca. 1900
NRDIS	Seth Warner House	63 South Main Street	1836
NRDIS	barn	63 South Main Street	Ca. 1900
NRDIS	Colonial Revival house	62 South Main Street	Ca. 1890
NRDIS	barn	62 South Main Street	Ca. 1900
NRDIS	Deacon John Montague House	59 South Main Street	Ca. 1800
NRDIS	Louis H. Pomeroy House	51 South Main Street	1904
NRDIS	barn	51 South Main Street	Ca. 1904
NRDIS	Smith/Moline House	50 South Main Street	1847
NRDIS	Nathanial Austin Smith House	47 South Main Street	Ca. 1847
NRDIS	barn	47 South Main Street	Ca. 1900
NRDIS	Catline/Trow House	46 South Main Street	Ca. 1800
NRDIS	barn	46 South Main Street	Ca. 1850
NRDIS	Hepburn/Houle House	41 South Main Street	1922
NRDIS	Manoah Bodman House	38 South Main Street	Ca. 1758
NRDIS	barn	38 South Main Street	Ca. 1900
NRDIS	Deacon Albert Hobart House	37 South Main Street	1850-60
NRDIS	Clark Rowe House	34 South Main Street	Ca. 1831
NRDIS	Warren Graves House	28 South Main Street	Ca. 1834
NRDIS	Millstone Farm Market	24 South Main Street	1929

Designation	Name of Feature	Location	Date Built
NRDIS	Alexander/Taft House	23 South Main Street	Ca. 1800
NRDIS	Tobacco barn	23 South Main Street	Ca. 1930
NRDIS	Equipment shed	23 South Main Street	Ca. 1920
NRDIS	House (converted barn)	22 South Main Street	Ca. 1900
NRDIS	Elias Graves House	18 South Main Street	Ca. 1765
NRDIS	Lillian Dill House	17 South Main Street	Ca. 1900
NRDIS	garage	17 South Main Street	Ca. 1900
NRDIS	Clifford A. Hubbard House	12 South Main Street	1919
NRDIS	garage	12 South Main Street	1919
NRDIS	Appollos Sanderson House	7 South Main Street	1825-60
NRDIS	Benjamin Darling House	4 South Main Street	Ca. 1851
NRDIS	garage	4 South Main Street	Ca. 1920
NRDIS	Benjamin Graves House	1 Old Amherst Road	1753
NRDIS	Frederick E. Walsh House	6 School Street	1921
NRDIS	garage	6 School Street	Ca. 1930
NRDIS	W. D. Chandler House	9 School Street	Ca. 1865
NRDIS	A. C. Delano House	11 School Street	Ca. 1855
NRDIS	Center School	12 School Street	1922
NRDIS	Frederick Beaman House	15 School Street	Ca. 1871
NRDIS	Lawer Shop	23 School Street	Ca. 1880
NRDIS	Mason Armstrong House	28 School Street	Ca. 1855
NRDIS	barn	28 School Street	Ca. 1855
NRDIS	Hunter House	32 School Street	Ca. 1900
NRDIS	Skibiski Vegetable Storehouse	32 School Street	Ca.1920
NRDIS	Queen Anne house	33 School Street	Ca. 1900
NRDIS	garage	33 School Street	Ca. 1940
NRDIS	Toll House	38 School Street	1812
NRDIS	Converted tobacco shed	Warner Drive	Ca. 1940
NRDIS	Maintenance shed	Warner Drive	1948
NRDIS	barn	Warner Drive	1886

Transportation Resources

CHAPTER 6

Connecticut River Scenic Byway

Introduction

The Transportation Resources Chapter contains an overview of the transportation infrastructure on the Connecticut River Scenic Byway in the Towns of Northfield, Erving, Montague, Sunderland, Hadley, and South Hadley. The chapter includes descriptions of the roadway infrastructure, bridges, public transportation services, railway, bicycle, and pedestrian facilities. It also contains a detailed discussion of the operations of the transportation systems and recommends needed improvements.

The information in this chapter is based on a thorough review of the data from state and regional sources including the Massachusetts Geographical Information System (MassGIS), the Massachusetts Department of Transportation (MassDOT), and the MassDOT Registry of Motor Vehicles (RMV). Additionally, the regional planning agencies completing this project, the Franklin Regional Council of Governments (FRCOG) and the Pioneer Valley Planning Commission (PVPC), reviewed previously collected data and also completed site assessments in order to supplement and provide complete transportation information.

Overall, this evaluation of the transportation system considered the safety and efficiency of travel on the Byway while also seeking to maintain or enhance the character and resources of the Byway. The descriptions of the Byway are documented from north to south.

Inventory of the Road Characteristics and Conditions

The Byway follows the eastern shore of the Connecticut River along state-numbered highways Route 63 and Route 47. The total length of the Byway is 37.85 miles and the mileage within each town is: Northfield, 8.79 miles; Erving, 2.16 miles; Montague, 5.82 miles; Sunderland, 7.03 miles; Hadley, 11.25 miles; South Hadley, 2.80 miles. From the New Hampshire state border in Northfield the Byway runs south on Route 63 to the junction with Route 47 in Montague. The Byway continues south on Route 47 to its southern terminus at the junction with Route 116 in the center of South Hadley.

Hatfield has expressed interest in joining the byway, therefore this chapter will also evaluate Main Street in Hatfield from the Whately town line to Maple Street as part of the this report.

Franklin County

The Franklin County section of the Byway is approximately 24 miles long, and travels through varied landscapes and roadway features from the New Hampshire state line to Hadley town line. The Byway passes through rural scenic landscapes as it undulates through wooded areas and working scenic farmland. The corridor also passes through quaint villages with activities and attractions such as antique shops, small retail establishments, and coffee shops.

The Byway connects with three other major routes in Franklin County. Route 63 runs concurrent with Route 10 in Northfield, from Wanamaker Road to the junction 2.45 miles south, where Route 10 continues west into the Town of Gill. The Byway also crosses Route 2, which is the historic Mohawk Trail Scenic Byway and the primary east-west route in Franklin County. A bridge carries Route 2 over Route 63 in Erving, with connecting access between the two routes via local roads Forest Street or Gateway Drive (also know as Semb Drive). The Byway also crosses Route 116 in Sunderland Center. Route 116 travels east and west. To the west of Sunderland Center, Route 116 is a scenic byway.

Hampshire County

The Route 47 Corridor through Hampshire County in the towns of Hadley and South Hadley is approximately 14 miles in length. The majority of the Corridor traverses a mixture of residential, forested, historic districts (villages), and open farmland, providing an almost unlimited opportunity for scenic views. The two major intersections along the byway Route 47 at Route 116 in South Hadley where Route 47 ends at the South Hadley Commons and at Route 9 in Hadley (the town center) are the exceptions; these two locations are commerce centers along the corridor. Route 9 is a major east/west roadway through the pioneer Valley. 2 miles to the west on Route 9 is Interstate 91 exit 18.

Main Street in Hatfield begins at the Whately town line as a winding road traversing farmland with occasional farmhouses along the road. Approximately a mile south from Whately is the Broad Street Historic District with its quaint village feel. From Broad Street Historic district south Main Street winds through more farmland down to just north of King Street where the Hatfield Center Historic district starts. From here to Elm Street Hatfield has the New England village feel, with house built much closer together with similar setbacks from the road.

Ownership and Maintenance

Franklin County

The Route 63 section of the Byway is primarily maintained by MassDOT, with one segment that is maintained by local municipalities. From Forest Street in Erving, south through the village of Millers Falls, Montague, to the intersection of West Main Street and Federal Street, the roadway is under local jurisdiction, although the bridge over the Millers River is inspected and maintained by MassDOT. State maintenance of Route 63

resumes on Federal Street in Montague. The Route 47 portion of the Byway is maintained locally in Franklin County.

Hampshire County

Route 47 in the Hampshire County towns of Hadley and South Hadley are under the jurisdiction of the towns. Main Street in Hatfield is under the jurisdiction of the town.

Functional Classification

Functional classification is the categorization of roadway segments in terms of the service (primarily access and mobility) they provide within the regional network. Functional classification was mandated under the Intermodal Surface Transportation Efficiency Act (ISTEA) of 1991. This categorization has a hierarchy beginning with the highest level at interstates, then arterials, collectors, and local roads.

Franklin County

In Franklin County, the Byway consists of four (4) different functional classifications: Urban Principal Arterial, Urban Minor Arterial, Rural Minor Arterial and Rural Major Collectors. Arterials primarily allow mobility through a corridor, typically serving long-distance trips between activity centers (e.g. town centers). Collectors provide the connection between local streets serving residential neighborhoods and the arterial system. The functional classifications of the sections of Route 116 along the Byway are defined in Table 6.1. Route 63 is a Rural Major Collector at the New Hampshire State Line in Northfield and becomes a Rural Minor Arterial where it meets Route 10 at Wanamaker Road. Route 63 continues in Erving and the classification changes to Urban Principal Arterial from Louis Grueling Circle to Swamp Road in Montague. At Swamp Road in Montague it is a Rural Minor Arterial again. The classification of the Byway changes to Rural Major Collector when it joins Route 47 at North Leverett Road in Montague and again to Urban Minor Arterial at the Montague/Sunderland Town Line, and remains an Urban Minor Arterial through Sunderland into Hampshire County.

Hampshire County

Route 47 in Hadley has two classifications; River Drive is classified as an urban minor arterial, Middle Street, Bay Road, Lawrence Plain Road, and Hockanum Road are all classified as urban principal arterials. In South Hadley, Hadley Street is classified as an urban principal arterial. Main Street in Hatfield is classified as an urban minor arterial.

General Description and Characteristics of the Roadway by County

The primary source of information is the MassDOT Road Inventory File (RIF) database which was verified and supplemented with information collected during site assessments. The layout, character, geometry and road use of the Byway varies along the length. The local street names for the roadway also vary between and within each town.

Franklin County

The Connecticut River Scenic Byway is a two-way, two-lane undivided roadway that runs north-to-south, with intermittent passing zones in each direction. The roadway is generally level with gentle, large-radius curves between straight tangent sections.

Traveling southerly, the Byway begins in Northfield on Route 63 at the New Hampshire border and continues for 0.64 miles before joining Route 10. This segment of the Byway is wooded, with a large farm and several houses alongside the road. The travel lanes are approximately 12 feet wide, with a shoulder up to 10 feet wide on the east side. The speed limit is 50 mph until it drops to 25 mph at the approach to Route 10. This is the lowest-volume segment of the Byway, carrying an average of 1,260 vehicles daily in 2008.

The Route 10/63 section, in contrast, carries the highest volume of traffic on the Byway in Franklin County as it passes through the center of Northfield. North of Moody Street the volume was 5,200 vehicles per day in 2006. In the center of the village the volume was 7,700 vehicles per day south of Parker Avenue in 2008. The roadway in this section consists of 12-foot travel lanes with shoulders up to 6 feet wide. Recently constructed concrete sidewalks are set back from the edge of the roadway, extending from Moody Street to the southern Route 10/63 junction on the west side of the roadway, and from Dickinson Street to Maple Street on the east side. There are multiple marked crosswalks across Route 10/63 within Northfield Center, including locations at: Moody Street, Mill Street, Dickinson Street (library), Northfield Elementary School, between School Street and Parker Avenue, Parker Avenue, and Maple Street. There are also crossings across each side street at the sidewalks. The 40 mph speed limit is reduced to 35 mph approaching the center of town. The speed limit increases to 40 mph south of Maple Street approaching the southern junction of Route 10/63.

Between the Route 10/63 junction and Pine Meadow Road, roadside development decreases and the Byway resumes a rural farm character. Route 63 widens to feature 12-foot lanes and shoulders up to 10 feet wide on both sides, with no sidewalk. South of Pine Meadow Road, the pavement narrows and there is no shoulder. The speed limit varies in this section from 45 to 55 mph. The average daily traffic on this section was 2,600 vehicles per day in 2008.

Entering Erving the speed limit drops from 50 mph to 40 mph. At the Northfield/Erving Town Line, the average daily traffic was 2,400 vehicles per day in 2012. At this location the roadway width is the same as the preceding section, with 11-to-12 foot lanes and little to no shoulder. There are sidewalks on the west side of the roadway from Erving Elementary School, and on the east side from Park Street to the Montague town line. This section of the Byway is a residential area. The intersections of Route 63 and Forest Street and Route 63 and Gateway Drive (also known as Semb Drive) provide access to Route 2 eastbound and westbound, respectively. There are crosswalks at Forest Street, at Veteran's Field, at Central Street, and at Bridge Street. At Gunn Street, the Byway (Route

63) turns to the left, and crosses over the Millers River Bridge into the Town of Montague in the Village of Millers Falls.

The first Byway segments in Montague pass through the village of Millers Falls, also a residential and commercial area with closely-spaced buildings. Between the Erving/Montague Town Line and Bangs Street, there is ornamental street lighting and concrete sidewalks on both sides of the roadway; the sidewalk on the east side ends at Bangs Street while the sidewalk on the west side continues further south until Green Pond Road. There are crosswalks across Route 63 at Newton Street, Crescent Street, East/West Main Street, Church Street, and Federal Street. There are also crosswalks on each side street approaching the Byway. This section of the roadway is approximately 24 feet wide, with 12-foot travel lanes, no shoulders, and granite curbs; the paved width of Bridge Street is wider to provide on-street parallel parking. The speed limit is 20 mph on the Bridge Street and West Main Street segments, increasing to 35 mph on Federal Street.

The Federal Street section of the Byway becomes more rural heading south, with houses spaced further apart. The roadway widens slightly to accommodate 12-foot lanes and shoulders up to 10 feet wide south of South Lyman Street and across the bridge over the New England Central Railroad and Pan Am Southern Railroads. South of this bridge, the roadway narrows until there is no shoulder south of Highland Street. There is a sidewalk segment on the west side of the road from north of South Lyman Street (across from the Route 63 Roadhouse), across the bridge, ending at Highland Street. South of Highland Street, the speed limit increases to 40 mph, then 50 mph. The roadway crosses over the New England Central Railroad again about ½ mile south, heading through the village of Lake Pleasant into the village of Montague Center. In this vicinity south of Swamp Road, pavement is even narrower, with lane widths of approximately 11 feet in each direction.

At North Leverett Road, the Byway turns off of Route 63; North Leverett Road connects the Byway to Route 47. The most recent traffic count on this street was in 2002, when the volume was 2,600 vehicles per day. There is no posted speed limit on North Leverett Road, nor is there on the Sunderland Road segment of Route 47 between North Leverett Road and the Montague/Sunderland Town Line; the speed limit is 40 mph both north and south of this segment. Traffic counts from 2006 show a volume of 3,100 vehicles per day. This section of the road features multiple large radius curves. The paved roadway remains narrow, with 11 feet lanes and no shoulder entering Sunderland.

The character of the Byway as it enters Sunderland remains rural, with farms and wooded areas and homes spaced far apart. North of Falls Road, the speed limit drops to 35 mph. To the south, the roadway becomes straighter, and the paved width remains narrow. Approaching North Silver Lane, the character becomes more residential, with houses closer together and an asphalt sidewalk separated from the west side of the roadway by a wide tree belt. South of North Silver Lane, there is a sidewalk on both sides of the road, with crosswalks on the side streets. The speed limit drops to 30 mph as the Byway enters the center of town and intersects with Route 116, also a scenic byway and a major north-south route in Franklin County, although it is oriented east-west when it intersects Route 47. The intersection is controlled by a traffic signal and crosswalks are provided on all

four legs. Traffic counts conducted at the Route 47/Route 116 intersection in 2014 showed volumes of 4,700 vehicles per day on Route 47 north of Route 116 and 4,600 vehicles per day on Route 47 south of Route 116.

The residential village center character of the Byway continues south of Route 116, maintaining the asphalt sidewalk and wide tree belt. The sidewalk on the west side of the roadway ends at Old Amherst Road, and from there the sidewalk on the east side is adjacent to the roadway, terminating at Sugarloaf Estates. The paved road width is wider in this segment, allowing for 12-ft lanes and shoulders up to 2 feet wide. From Route 116 past Old Amherst Road the speed limit is 35 mph, then increasing to 45 mph. South of Old Amherst Road, approaching Hadley Road, the roadside features more farms and cultivated fields and fewer homes. The roadway again becomes narrower, with 11-ft lanes and no shoulders. The average traffic volume on the Hadley Road segment of the Byway was 2,500 vehicles per day in 2007. Entering the Town of Hadley, the speed limit is 40 mph.

Hampshire County

Within Hampshire County, the Route 47 Corridor extends 14 miles from the Sunderland/North Hadley Town Line to the intersection of Hadley Street (Route 47) with College Street (Route 116) in South Hadley. All of Route 47 through Hampshire County is under the jurisdiction of the Towns.

Main Street in Hatfield extends approximately 4 miles from the Whately Town Line to Maple Street in Hatfield and is under town jurisdiction.

The AADT of Route 47 varies depending on what part of the corridor you are. The roadway is characterized by its relatively narrow layout (21 to 24 feet from curb to curb), rolling hills, and curving geometry.

Route 47 experiences the highest volumes near Route 9 in the center of Hadley on Bay Road (9,000 AADT). Bay Road is used as a bypass for vehicles traveling to points east and west of Hadley without using Route 9. Coincidentally the lowest traffic volumes were also located in the center of Hadley on Middle Street south of Route 9 (2,200 AADT).

For this analysis Route 47 was divided into 5 segments. The first segment is the 5.6 mile River Drive segment which was observed to be relatively flat with some isolated areas of rolling terrain with 12 foot travel lanes and 1 to 2 foot shoulders. River Drive provides one lane of travel in each direction. Traveling from north to south, Route 47 traverses farmland with occasional areas of mixed residential and farm development. Farmland is the dominant fixture on the northern and middle portion of River Drive, while the southern section has more of a residential feel providing occasional river views near its terminus at Middle Street. Speed limits were observed to be 40 mph on the more straight open sections of roadway and as low as 25 mph in the more developed areas and those locations with poor visibility do to roadway alignment. Pavement markings consist of double yellow center lines and single white edge lines and were observed to be in fair

condition. Guardrails were observed on curves and portions of the roadway where steep slopes were present along the shoulder of the roadway. The lack of adequate shoulders on this section of roadway could potentially cause safety concerns with the amount of farm equipment using the roadway. However, good sight distance and relative low traffic volumes make this less of a concern.

The second segment is Middle Street which is approximately 1.1 miles in length and is almost entirely residential with the exception of the businesses and municipal buildings located at Route 9 in Hadley. The majority of Middle Street can be described as quintessential New England farm town. With equal setbacks for the residential structures and large tree lined front yards. Sidewalks are provided on the east side of Middle Street and Run from the Hadley elementary school all the way to Bay road. The sidewalk also connects the school and Town Center with the Norwottuck rail trail. Speed limits ranged from 30 to 35 mph and lane widths were observed to be 12 feet with 2 to 4 foot shoulders. Double yellow center lines and single white edge lines were observed to be in fair condition. A parking lot on the west side of Middle Street was observed just south of the intersection with Route 9. No markings were present but it appeared to be able to accommodate 10 to 12 vehicles. PVRTA Route Blue 43 can be accessed on this segment near the intersection with Route 9. The Blue 43 provides service between Smith College in Northampton and Amherst College in Amherst. Other stops for the Blue 43 are Hampshire Mall and UMass.

The third segment is the Bay Road segment of the corridor which is approximately 0.6 miles in length and is similar to southern portion River Drive with a mix of Residential and Agricultural land uses, the exception being that Bay Road experiences significantly higher traffic volumes (highest volume on Route 47). Bay Road also has the farm town feel with larger tree lined yards and similar setbacks from the road with large agricultural fields behind the houses. 12 foot travel lanes and 2 foot shoulder were present for the majority of this segment. A sidewalk was observed on the north side of Bay Road extending from Middle Street east half way to East Street. Double yellow center line and single white edge lines were in fair condition and speed limit were 30 to 35 mph. A mix of galvanized and loose tension guardrails are provided on either side of the bridge over the Fort River and were observed to be in poor condition. PVRTA Route 39 and 39 express buses provide service between Smith College, Hampshire College, and Mount Holyoke College during the school year. This service is not provided when the Colleges are on break.

The fourth segment is the Lawrence Plain/Hockanum Road segment of the corridor which is 3.8 miles in length and provides one lane of travel in each direction. Lane width varies on this section of roadway, the majority of the segment was observed to have 11 foot travel lanes and 1 foot shoulder. The Lawrence Plain section of this segment has a more agricultural feel with some newer homes and subdivisions mixed in. The Hockanum Road section of this segment was observed to be more forested with less development. Traveling southbound the elevation begins to change a mile south of Bay Road. Lawrence Plain becomes increasingly hilly and windy on the southern section near Hockanum Road. Guardrails were present along curved sections of roadway and steep

slopes along the shoulders of the roadway and were in fair condition. Double yellow center lines and single white edge lines were observed to be in fair condition and speed limits were 35 to 45 mph.. Occasional river views were observed on this section as well. PVRTA Route 39 and 39 express buses provide service between Smith College in Northampton, Hampshire College in South Amherst, and Mount Holyoke College in South Hadley during the school year. This service is not provided when the colleges are on break.

The fifth segment is Hadley Street which is approximately 2.7 miles in length. Shoulder and lane width become more uniform on this segment of Route 47 with one 12 foot travel lane provided in each direction and 2 foot shoulders. Hadley Street begins with hills and curves and becomes more flat and residential on the southern section near Route 116. A sidewalk was observed on the east side of the road near the village center, the speed limit drops here from 40 mph to 30mph as well. Double yellow center lines and single white edge lines are provided and were observed to be in fair condition. Galvanized guardrails and curbing are present on much of this segment. The last half mile of Hadley Street has that village feel with similar setbacks and mature trees. Hadley Street ends at Route 116 (College Street) at the second busiest intersection on the corridor. PVRTA Route 39 and 39 express buses provide service between Smith College in Northampton, Hampshire College in South Amherst, and Mount Holyoke College in South Hadley during the school year. This service is not provided when the Colleges are on break.

Main Street in Hatfield was divided into two segments for this analysis. The first segment starts at the Whatley Town Line and runs south for 2.7 miles ending at the Hatfield Center Historic District just north of King Street. This section of road can be characterized as being relatively flat and straight with significant curves near the water treatment facility. Double yellow center lines and single white edge lines were observed and speed limits ranged from 35 to 45 mph. A single 12 foot travel lane is provided for each direction of travel with 2-4 foot shoulders on either side. A mix of galvanized and loose tension guardrails were observed along curves on this section. Agriculture is the theme for of this segment of roadway with the exception of the Broad Street Historic district which has more of a village feel. The segment becomes more residential near the southern end of this segment.

The second Main Street segment consists of the Hatfield Center Historic district and continues south 1.2 miles to Maple Street. This section of roadway traverses the village center of Hatfield. The majority of the houses have equal setbacks from the Road, there are many mature trees along this section of road; and sidewalks are present of both sides of the roadway for the majority of this section. One 12 foot travel lane is provided in each direction, shoulders varied in width from 1 foot at the northern end to 6 feet at the southern end. 14 foot shoulders were observed on both sides on Main Street in front of the town offices providing parking for residents. Double yellow center lines and single white edge lines were observed to be in fair to poor condition.

Table 6-1: Summary of Road Layout Details in Franklin County

Seg #	Route #	Alternative Roadway Name	Town	Segment Length [mi]	From	To	Transit Route	Functional Class	Jurisdiction	Speed Limit	Surface Width [ft]	Right of Way [ft]	Shoulder Width [ft]	Sidewalks	Terrain
1	63	Hinsdale Road	Northfield	0.64	New Hampshire State Line	Route 10 (Wanamaker Road)	No	Rural Major Collector	MassDOT	50	24	60	0-10	no	Level - Rolling
2	10 / 63	Main Street	Northfield	0.54	Hinsdale Road	Moody Street	No	Rural Minor Arterial	MassDOT	40	24	65	2-6	no	Rolling - Level
3	10 / 63	Main Street	Northfield	0.47	Moody Street	Holton Street	No	Rural Minor Arterial	MassDOT	35-40	24	65	2-6	yes	Level
4	10 / 63	Main Street	Northfield	0.37	Holton Street	Dickinson Street	No	Rural Minor Arterial	MassDOT	35	24	135	2-6	yes	Level
5	10 / 63	Main Street	Northfield	0.38	Dickinson Street	Parker Avenue	No	Rural Minor Arterial	MassDOT	35	24	135	6	yes	Level
6	10 / 63	Main Street	Northfield	0.37	Parker Avenue	Maple Street	No	Rural Minor Arterial	MassDOT	35-40	24	135	0 - 6	yes	Level
7	10 / 63	Main Street	Northfield	0.32	Maple Street	Route 10	No	Rural Minor Arterial	MassDOT	40	24	135	0	yes	Level
8	63	Millers Falls Road	Northfield	0.83	Route 10	Upper Farms Road	No	Rural Minor Arterial	MassDOT	40-55	24	135	10	no	Level - Rolling
9	63	Millers Falls Road	Northfield	1.76	Upper Farms Road	Pine Meadow Road	No	Rural Minor Arterial	MassDOT	55	24	80	10	no	Level
10	63	Millers Falls Road	Northfield	2.26	Pine Meadow Road	Lower Farms Road	No	Rural Minor Arterial	MassDOT	45-55	22 - 24	60	0 - 10	no	Level
11	63	Millers Falls Road	Northfield	0.83	Lower Farms Road	Erving Town Line	No	Rural Minor Arterial	MassDOT	45-50	22	60	0	no	Level
12	63	Northfield Road	Erving	0.79	Northfield Town Line	Louis Greuling Circle	No	Rural Minor Arterial	MassDOT	40-50	22	50	0	no	Level
13	63	Northfield Road	Erving	0.53	Louis Greuling Circle	Erving Elementary School	No	Urban Principal Arterial	MassDOT	40	22-24	50	0	no	Level
14	63	Northfield Road	Erving	0.20	Erving Elementary School	Forest Street	No	Urban Principal Arterial	MassDOT	40	24	50	0	yes	Level
15	63	Moore Street	Erving	0.27	Forest Street	Park Street	No	Urban Principal Arterial	Town	35	24	50	0	yes	Level
16	63	Moore Street	Erving	0.12	Park Street	Prospect Street	No	Urban Principal Arterial	Town	35	22	50	0	yes	Level
17	63	Lester Street	Erving	0.19	Prospect Street	Gunn St / Montague Town Line	No	Urban Principal Arterial	Town	25	22 - 24	50	0	yes	Rolling
18	63	Bridge Street	Montague	0.19	Erving Town Line	West Main Street	No	Urban Principal Arterial	Town	20	24	44	0	yes	Level
19	63	West Main Street	Montague	0.08	Bridge Street	Federal Street	No	Urban Principal Arterial	Town	20	24	45	0	yes	Level
20	63	Federal Street	Montague	0.27	West Main Street	South Lyman Street	No	Urban Principal Arterial	MassDOT	35	24	70	0-10	yes	Level
21	63	Federal Street	Montague	0.12	South Lyman Street	Highland Street	FRTA #22 FRTA #23	Urban Principal Arterial	MassDOT	35	24	70	4-10	yes	Level
22	63	Federal Street	Montague	1.88	Highland Street	Lake Pleasant Road	FRTA #22 FRTA #23	Urban Principal Arterial	MassDOT	40-50	24	70	0	no	Level
23	63	Federal Street	Montague	0.41	Lake Pleasant Road	Swamp Road	FRTA #22 FRTA #23	Urban Principal Arterial	MassDOT	45-50	24	70	0	no	Level - Rolling
24	63	Federal Street	Montague	1.09	Swamp Road	South Street	FRTA #22 FRTA #23	Rural Minor Arterial	MassDOT	50	22	70	0	no	Rolling - Level
25	63	Federal Street	Montague	0.91	South Street	North Leverett Road	No	Rural Minor Arterial	MassDOT	50	22 - 24	70	0	no	Level
26	47	North Leverett Road	Montague	0.15	Federal Street	Sunderland Road	No	Rural Major Collector	Town	n/a	22	55	0	no	Level

27	47	Sunderland Road	Montague	0.80	North Leverett Road	Sunderland Town Line	No	Rural Major Collector	Town	40	22	37	0	no	Level
28	47	Montague Road	Sunderland	2.39	Montague Town Line	Falls Road	No	Urban Minor Arterial	Town	35-40	22	45	0	no	Level - Rolling
29	47	North Main Street	Sunderland	0.95	Falls Road	North Silver Lane	No	Urban Minor Arterial	Town	35	22	50	0	no	Level
30	47	North Main Street	Sunderland	0.50	North Silver Lane	Route 116	No	Urban Minor Arterial	Town	30-35	22	50	0	yes	Level
31	47	South Main Street	Sunderland	0.46	Route 116	Old Amherst Road	PVTA #31 PVTA #46	Urban Minor Arterial	Town	35	26	50	1	yes	Level
32	47	River Road	Sunderland	1.49	Old Amherst Road	Hadley Road	PVTA #31 PVTA #46	Urban Minor Arterial	Town	35-45	22 - 26	48	0	no	Level
33	47	Hadley Road	Sunderland	1.24	River Road	Hadley Town Line	No	Urban Minor Arterial	Town	40-45	22	48	0	no	Level

Table 6-2: Summary of Road Layout Details in Hampshire County

Seg #	Route #	Alternative Roadway Name	Town	Segment Length [mi]	From	To	Transit Route	Functional Class	Jurisdiction	Speed Limit	Surface Width [ft]	Right of Way [ft]	Shoulder Width [ft]	Sidewalks	Terrain
1	47	River Drive	Hadley	5.6	Sunderland Town Line	Middle Street	No	Urban Minor Arterial	Town	25-40	24	60	1-2	No	Level
2	47	Middle Street	Hadley	1.1	River Drive	Bay Road	PVTA #B43	Urban Principal Arterials	Town	30-35	24	90	1-2	Yes	Level
3	47	Bay Road	Hadley	0.6	Middle Street	Lawrence Plain Road	PVTA #39, #39X	Urban Principal Arterials	Town	30-35	24	40	1-2	Yes	Level
4	47	Lawrence Plain Road / Hockanum Road	Hadley	3.8	Bay Road	Hadley Street	PVTA #39, #39X	Urban Principal Arterials	Town	35-45	22	60	0-2	No	Rolling
5	47	Hadley Street	South Hadley	2.7	Hockanum road	College Street	PVTA #39, #39X	Urban Principal Arterials	Town	30-40	24	60	2	Yes	Rolling
6		Main Street	Hatfield	2.7	Whatley Town Line	Hatfield Center Historic District	No	Urban Minor Arterial	Town	35-45	24	48	2-4	No	Level
7		Main Street	Hatfield	1.2	Hatfield Center Historic District	Elm Street	No	Urban Minor Arterial	Town	25-35	24	55	1-6	Yes	Level

Sources: MassDOT Road Inventory File (RIF) year end 2013, MassDOT Transportation Planning, and verified by field survey by FRCOG, and PVPC staff.

Roadside Features: Curbing, Guardrails, Retaining Walls and Signs

For the purposes of maintaining and enhancing the scenic qualities of the Byway, roadside features such as curbing, guardrails, retaining walls, and signage were reviewed. These features are important considerations to ensure that the scenic and rural qualities of the Byway corridor are maintained.

Curbs

Curbing is sporadic along the Byway. It is located primarily in the developed areas/town centers. In the locations where it is used in Franklin County, it is generally granite or asphalt curbing installed as part of a sidewalk. There is granite curb along both sides of the roadway in Northfield from the northern junction of Routes 10/63 into the town center.

Guardrails

Guardrails are an important safety feature along the road, preventing or mitigating crashes in dangerous areas alongside the road. There is a limited amount of guardrail along the Byway. It is installed at locations where there are steep slopes past the edge of the road and where culverts pass under the roadway. The guardrail along the Byway appears to be in good condition. All guardrails along the Byway are standard gray galvanized steel rail on steel posts. Future replacement of the existing guardrail should consider using rails more in keeping with the rural character of the Byway while still maintaining the required level of safety, such as weathered steel that has a brown color that blends into the surroundings.

Retaining Walls

Roadside retaining walls are used to restrain the soil from areas that are at a higher elevation than the roadway. They serve an important structural purpose while also contributing to the aesthetic character of the road. There are several stone retaining walls along the Franklin County portion of the Byway.

Signs

Signs are an important tool that can encourage tourism and exploration along the Byway. It is important that travelers can identify their location and navigate to sites along the way. Traffic safety/warning signs serve the important function of keeping the Byway safe. However, signs can also clutter the rural streetscape of the Scenic Byway, and disrupt the view-shed.

The Western Massachusetts Scenic Byway Marketing Project is currently underway and includes the creation and installation of wayfinding signs for each of the seven Scenic Byways in western Massachusetts. The intention of the installation of a system of wayfinding signs for all of the Byways is to create signs that are easily identifiable as part of the Scenic Byway system, and also to help visitors to navigate the Byways and the

attractions along the way. As part of that project a logo has been developed for the Connecticut River Scenic Byway and wayfinding signs will be installed along the route.

As part of the development of this plan, signs were assessed for their condition, location and the number of signs. Most of the signs along the roadway in Franklin County are standard traffic signs that have been installed in accordance with the Manual on Uniform Traffic Control Devices (MUTCD), and approved by MassDOT. There are not an excessive number of signs; however, there may be an opportunity at several intersections to consolidate some of the signs. Warning signs for such things as intersections and sharp curves are appropriately provided, as are speed limit signs. Route markers appear to be provided at all the appropriate decision points, and periodically along the Byway to assure drivers that they are still on the correct route. At the major intersections, there are large sized route number signs to inform drivers of their options and major destinations.

For the most part, the signs along the byway are in good condition, but there are some that appear to be nearing the end of its useable life and should be considered for replacement. Some signs may not have the required level of retro reflectivity to be visible with headlights in the dark. Additionally, in several locations, roadside vegetation was obstructing the signs. A more detailed assessment of the signs could assess the number, positioning and condition of the individual signs in order to determine where improvements could be made.

Pavement Conditions and Pavement Management Analysis

Generally, there are two causes of pavement deterioration: the natural environment and traffic use. It is important to distinguish these distresses because the source of the deterioration helps to determine the solution. Pavement deterioration is influenced by weather, traffic loading, construction quality, materials, and interim maintenance tasks. Effective and timely maintenance will extend the life cycle of pavement.

Pavement Management System (PMS) is a planning method that is used to collect and monitor information on current pavement conditions, and to evaluate and prioritize alternative maintenance, rehabilitation and reconstruction (repair) strategies. It is an effective tool because as pavement deteriorates the cost to restore it to excellent condition increases significantly. It is more cost effective to complete routine or smaller scale repairs than to wait for the roadway to deteriorate to very poor condition. FRCOG and PVPC complete PMS planning programs to monitor the conditions of their regional roadways.

Franklin County

The FRCOG has completed pavement management since the early 1990s. In 1997 the FRCOG concluded a three-year contract with MassDOT (formerly MassHighway) that included the survey and analysis of nearly 500 miles of Federal-Aid and State Transportation Program (STP) funded roads in the 26 towns in Franklin County. FRCOC recently restarted its pavement management program and is currently surveying roadways throughout Franklin County, including those along the Byway. Once windshield surveys

have been completed, pavement condition reports will be produced that will aid the towns in planning for long-term pavement management. Surveys will be conducted on a three-year rotating schedule throughout the county.

Pavement markings are an important part of the pavement infrastructure, delineating the boundaries of the travel lanes and edge of road, indicating where passing is allowed, indicate which movements are allowed at intersections, and marking the locations of pedestrian crossings and bicycle lanes. The pavement markings present on the Byway provide the appropriate information, but the majority of the markings are faded or not sufficiently retro-reflective.

Hampshire County

PVPC has a system in place for managing pavement for all Federal-Aid eligible roadways in the Pioneer Valley region. Route 47 is a functionally classified roadway, which relies on federal funding for much of its pavement maintenance activities.

PVPC staff surveyed the 14 miles that comprises the Route 47 corridor from the Sunderland town line to South Hadley, as well as the 4 miles of Main Street in Hatfield. The study area was divided into 7 roadway segments. Overall Condition Index (OCI) is a measurement of roadway serviceability and is a method to establish performance criteria. The average OCI for Route 47 in February of 2015 was rated at 50 (Fair) in Hadley, 82 (Good) in South Hadley and a 55 (Fair) in Hatfield. The OCI condition survey analysis of roadway segments is broken down as follows for Route 47: 14% of the segments have an OCI greater than 89.5 (excellent), and 27% of the roadway segments have a PCI less than 47.5 (poor). On Main Street in Hatfield 17% was rated as good, 33% as Fair and 50% as Poor. Table 6-3 lists Route 47 corridor and Main Street OCI ratings.

Table 6-3: Summary of OCI Ratings for Hampshire County

Seg #	Route #	Town	Street Name	From	To	OCI	
1	47	Hadley	River Drive	Sunderland Town Line	Middle Street	47	Poor
2	47	Hadley	Middle Street	River Drive	Bay Road	61	Fair
3	47	Hadley	Bay Road	Middle Street	Lawrence Plain Road	52	Fair
4	47	Hadley	Lawrence Plain Road / Hockanum Road	Bay Road	Hadley Street	44	Poor
5	47	South Hadley	Hadley Street	Hockanum road	College Street	83	Good
6		Hatfield	Main Street	Whatley Town Line	Hatfield Center Historic District	61	Fair
7		Hatfield	Main Street	Hatfield Center Historic District	Maple Street	52	Fair

Traffic Volumes

FRCOG, PVPC, and MassDOT have collected traffic volume data at a number of locations along the Byway in the recent past. The count locations consist of traffic volume data collected during a period of at least two consecutive weekdays, but often encompassing a full seven days. For each location, the collected weekday count data was averaged to calculate an Average Weekday Traffic (AWT) volume, which was then multiplied by a seasonal adjustment factor to produce an Average Annual Daily Traffic (AADT) volume, which is meant to reflect the average daily volume as if the count had been conducted over a full year.

Franklin County

Table 6-4 provides traffic volume data for the Byway in Franklin County that has been collected over the past twelve (12) years. Traffic volumes along the Byway vary from about 1,260 vehicles per day on Route 63 near the New Hampshire State Line in Northfield to 7,700 vehicles per day between Parker Avenue and Maple Street in the center of Northfield. The highest volumes are in this Route 10/63 section of the Byway. On the remainder of the Byway, traffic volumes are relatively consistent, between 2,400 to 3,400 vehicles per day, although the volume at the intersection with Route 116 in Sunderland is notably higher at 4,600 to 4,700 vehicles per day.

Hampshire County

The Pioneer Valley Planning Commission (PVPC) collects daily traffic count information at sample locations across the 43 cities and towns in Hampden and Hampshire Counties under contract with the Massachusetts Department of Transportation (MassDOT). MassDOT requests specific traffic count locations each year as part of PVPC's 3C contract. Additional counts are conducted for member communities on an as requested basis (up to 2 free counts per calendar year) and for private businesses for a nominal fee. The PVPC also selects its own traffic count locations to supplement data collection activities required as part of ongoing corridor studies, the regional congestion management system, the regional pavement management system, and the regional transportation model. In addition, the PVPC houses shared traffic counts performed by a member community.

Table 6-5 provides traffic volumes for the Hampshire County portion of the Byway. As can be seen from the table, volumes along the corridor vary greatly from 9,000 vehicles per day on Bay Road to 2,200 vehicles per day on Middle Street (south of Route 9). On Main Street in Hatfield volumes are higher on the southern portion of the roadway near the Town Center.

Table 6-4: Connecticut River Scenic Byway Traffic Volume Data in Franklin County

Seg #	Route No.	Town	Street Name	From	To	AADT	Count Year
1	63	Northfield	Hinsdale Road	New Hampshire State Line	Route 10 (Wanamaker Road)	1260	2008
2	10 / 63	Northfield	Main Street	Hinsdale Road	Moody Street	5200	2006
6	10 / 63	Northfield	Main Street	Parker Avenue	Maple Street	7700	2008
7	10 / 63	Northfield	Main Street	Maple Street	Route 10	7600	2008
8	63	Northfield	Millers Falls Road	Route 10	Upper Farms Road	2600	2008
12	63	Erving	Northfield Road	Northfield Town Line	Louis Greuling Circle	2400	2012
14	63	Erving	Northfield Road	Erving Elementary School	Forest Street	2400	2007
17	63	Erving	Lester Street	Prospect Street	Montague Town Line	3300	2008
25	63	Montague	Federal Street	South Street	North Leverett Road	3400	2002
26	47	Montague	N. Leverett Road	Federal Street	Sunderland Road	2600	2002
27	47	Montague	Sunderland Road	North Leverett Road	Sunderland Town Line	3100	2006
30	47	Sunderland	North Main Street	North Silver Lane	Route 116	4700	2014
31	47	Sunderland	South Main Street	Route 116	Old Amherst Road	4600	2014
33	47	Sunderland	Hadley Road	River Road	Hadley Town Line	2500	2007

Sources: Data collected by FRCOG and the Transportation Data Management System provided online by MassDOT

Table 6-5: Connecticut River Scenic Byway Traffic Volume Data in Hampshire County

Seg #	Route #	Town	Street Name	From	To	AADT	Count Year
1	47	Hadley	River Drive	Sunderland Town Line	Middle Street	2300	2002
2	47	Hadley	Middle Street	River Drive	Bay Road	2200	2002
3	47	Hadley	Bay Road	Middle Street	Lawrence Plain Road	9000	2001
4	47	Hadley	Lawrence Plain Road / Hockanum Road	Bay Road	Hadley Street	4795	2013
5	47	South Hadley	Hadley Street	Hockanum road	College Street	4394	2014
6		Hatfield	Main Street	Whatley Town Line	Hatfield Center Historic District	1400	2002
7		Hatfield	Main Street	Hatfield Center Historic District	Maple Street	1900	2003

The AADT volume from different years at the same location is used to calculate an average Annual Growth Rate (AGR), which quantifies the percent of traffic volume growth over time. It is important to note that, while the methodology for calculating AADT volumes follows a standard procedure, the seasonal adjustment factors used to calculate it rely on data from over 200 permanent count stations located throughout the State and may not reflect the true seasonal variability of a specific location. To try and minimize the impact of the seasonal adjustment factors, every attempt is made to conduct the counts during the same time period in different years.

As part of the development of the *Franklin County 2012 Regional Transportation Plan*, traffic count data for locations throughout Franklin County was compiled, and a regional average AGR was calculated. This calculation showed an average AGR of negative two percent (-2%) per year for the region between 2005 and 2009. In other words, traffic volumes have declined at a rate of approximately two percent per year.

Level of Service Analysis

Level of Service (LOS) analysis quantifies how well a section of roadway is operating under peak hour traffic volumes based on the driver's expectations. The classification is based on calculating the quality or efficiency of the traffic flow for the motorist. A delay is calculated based on the difference between the travel time actually experienced and the travel time that would have been experienced under ideal road conditions. *The Highway Capacity Manual* (HCM) provides a methodology for calculating the LOS for rural two-lane roadways such as Routes 63 and 47. Overall there are three classes of two-lane highways defined as Class I, Class II and Class III.

The Level of Service calculation analyzes the geometry of the road, peak hour traffic volumes and environmental conditions, including the lane and shoulder widths, amount of available passing, and the mix of vehicle types in order to calculate the performance rating. LOS is based on a scale "A" through "F" (with "A" being the best and "F" being the worst), according to the following general definitions:

- LOS A – Describes the highest quality of service, when drivers are able to drive at their desired speed. The passing frequency required to maintain these speeds has not reached a demanding level with drivers delayed less than 40 percent of the time.
- LOS B – The demand for passing to maintain desired speeds become significant, with drivers being delayed in platoons (multiple vehicles following closely) up to 50% of the time.
- LOS C – Traffic volumes are increasing, resulting in a noticeable increase in platoon formation and size. Passing opportunities begin to become infrequent although traffic flow remains stable, in that reasonable travel speed is maintained. Slow moving and turning traffic may cause congestion. Time spent following other vehicles will likely be up to 65% of the time.
- LOS D – Traffic flow is unstable and the opposing flows begin to operate separately as passing opportunities become very limited. Passing demand is high, but passing

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capacity approaches zero. Turning vehicles and roadside distractions cause major interruptions in the traffic stream. Platoon size increases to between five and ten vehicles on average delaying vehicles up to 85% of the time.

- LOS E – Average travel speeds will likely be less than 40 miles per hour and greater than 85% of the time is spent in platoons behind slower or turning vehicles as passing becomes virtually impossible.
- LOS F – Traffic flow is heavily congested as traffic demand exceeds the capacity of the roadway.

In general, it is desirable to maintain traffic conditions at a LOS C or better.

Franklin County

In Franklin County, the Byway is defined as Class II and Class III in different sections. A Class II two-lane highway is defined as a highway where motorists do not necessarily expect to travel at high speeds. A two-lane highway that functions as an access routes to a Class I facility, (Interstate 91 is defined as a Class I facility) serves as scenic or recreational route, or passes through rugged terrain is defined as Class II. Class III two-lane highways are highways that serve moderately developed areas. The Byway is a Class III roadway through the Northfield and Sunderland town centers, the Millers Falls area of Montague and in the southern segment in Erving.

A LOS analysis was completed using the HCM methodology for the Franklin County sections of the Byway with required information readily available. The Byway was split up into segments of similar roadway and traffic characteristics. Table 7-6 provides the results of the LOS analysis for the various segments of the Byway and reflects conditions a driver would experience during the weekday morning peak hour (typically sometime between 7:00 and 9:00 AM) as well as the afternoon peak hour (typically sometime between 4:00 and 6:00 PM) when the highest one-hour volumes were recorded. The analysis shows that, along the majority of the Byway, drivers would experience an acceptable LOS C or better during these peak periods. There are two pairs of segments that would experience LOS D: Northfield town center and Sunderland town center.

In addition to calculating an LOS, the Highway Capacity Software provides a methodology to calculate the capacity of the roadway. The capacity of a roadway is defined as the maximum number of vehicles that can pass a point on a roadway in an hour. To determine how close to capacity a roadway is operating, the peak hour volume is divided by the capacity to produce the volume/capacity or “v/c” ratio of 0 to 1.00. A v/c ratio equal to 1.00 indicates a roadway operating at total capacity, meaning no additional traffic can be added without causing total gridlock. In general, a lower v/c ratio reflects a less congested roadway and therefore a more enjoyable and free-flowing route to drive. Additionally, the lower the v/c ratio, the more traffic that can be added to the roadway before changes would need to be made. The volume/capacity ratio is included in Table 7-6 for each of the analyzed roadway segments. It can be seen from the table that there is plenty of spare capacity available along the Byway, with the majority of the Byway operating between 5% and 25% of capacity during peak travel periods.

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There are six intersections along the Byway in Franklin County where drivers would be required to come to a stop or make a left or right turn which may impact the LOS of the Corridor at these intersections. The intersections are:

- Route 63 (Hinsdale Road) / Route 10 (Wanamaker Road) / Route 10/63 (Main Street), Northfield;
- Route 10/63 (Main Street) / Route 10 / Route 63 (Millers Falls Road), Northfield;
- Route 63 (Lester Street) / Route 63 (Bridge Street) / River Street, Erving;
- Route 63 (Federal Street) at Route 47 (North Leverett Road), Montague;
- Route 47 (North Leverett Road) / Route 47 (Sunderland Road) / Main Street, Montague; and
- Route 47 (North & South Main Street) at Route 116 (Amherst Road),Sunderland.

Congestion has been reported as an issue on Route 47 in Sunderland during peak hours and during elementary school dismissal time. The delay is associated with the traffic signal at the intersection of Route 47 and Route 116, where it may take 5 cycles of the signal to clear traffic queues at the intersection. This intersection was the location of a Road Safety Audit (RSA), which is discussed further in the Safety Analysis and Crash Data section of this report.

Hampshire County

For Hampshire County, PVPC utilized the same LOS analysis for Route 47 and Main Street in Hatfield as FRCOG used for its portion of Route 116. The results of the LOS analysis (table 6.7) indicate the roadway is operating at a LOS of “XX”. The v/c ratio for the Hampshire County section of Route 47 averages XX indicating the roadway .

MassDOT project 604035 consist of a new signal equipment as well as minor geometric improvements at the intersection of Middle Street (Route 47) and Russell Street (Route 9). This project is expected to result in a net improvement for congestion and safety at the intersection.

Table 6-6: Connecticut River Scenic Byway Level-of-Service (LOS) and Volume-to-Capacity (v/c) Ratios, Franklin County

Seg #	Route No.	Town	Street Name	From	To	Peak Period	Class	LOS	v/c
1	63	Northfield	Hinsdale Road	New Hampshire State Line	Route 10 (Wanamaker Road)	PM	II	A	0.05
2	10 / 63	Northfield	Main Street	Hinsdale Road	Moody Street	PM	II	C	0.24
6	10 / 63	Northfield	Main Street	Parker Avenue	Maple Street	PM	III	D	0.26
7	10 / 63	Northfield	Main Street	Maple Street	Route 10	PM	III	D	0.28
8	63	Northfield	Millers Falls Road	Route 10	Upper Farms Road	PM	II	B	0.09
12	63	Erving	Northfield Road	Northfield Town Line	Louis Greuling Circle	PM	II	A	0.09
14	63	Erving	Northfield Road	Erving Elementary School	Forest Street	PM	III	C	0.10
17	63	Erving	Lester Street	Prospect Street	Montague Town Line	PM	III	C	0.18
27	47	Montague	Sunderland Road	North Leverett Road	Sunderland Town Line	PM	II	C	0.12
30	47	Sunderland	North Main Street	North Silver Lane	Route 116	PM	III	D	0.19
31	47	Sunderland	South Main Street	Route 116	Old Amherst Road	PM	III	D	0.18
33	47	Sunderland	Hadley Road	River Road	Hadley Town Line	PM	II	B	0.12

Table 6-7 Connecticut River Scenic Byway Level-of-Service (LOS) and Volume-to-Capacity (v/c) Ratios, Hampshire County

Seg #	Route No.	Town	Street Name	From	To	Peak Period	Class	LOS	v/c
1	47	Hadley	River Drive	Sunderland Town Line	Middle Street	Pm			
2	47	Hadley	Middle Street	River Drive	Bay Road	Pm			
3	47	Hadley	Bay Road	Middle Street	Lawrence Plain Road	Pm			
4	47	Hadley	Lawrence Plain Road / Hockanum Road	Bay Road	Hadley Street	Pm			
5	47	Hadley	South Hadley Street	Hockanum road	College Street	Pm			
6		Hatfield	Main Street	Whatley Town Line	Hatfield Center Historic District	Pm			
7		Hatfield	Main Street	Hatfield Center Historic District	Maple Street	Pm			

Safety Analysis and Crash Data

According to the *Highway Safety Manual* (HSM)¹ the term “safety” refers to the crash frequency or crash severity, or both, and collision type for a specified time period, a given location, and a set of geometric and operational conditions. A crash, according to the HSM, is defined as a set of events that result in injury or property damage due to the collision of at least one motorized vehicle and may involve collision with another motorized vehicle, a bicyclist, a pedestrian, or an object. Collisions are inherently random and rare events with a complex number of factors contributing to each crash, making them unique events. The circumstances that lead to a crash in one event will not necessarily lead to a crash in a similar event and this is due to the different factors contributing to crashes, which are grouped into the following three primary categories:

- Human Factors – The behavior of humans including age, judgment, driver skills, attention, fatigue and sobriety;
- Vehicle Factors – The design and maintenance of vehicles; and
- Roadway/Environment Factors – The condition of the roadway and roadside environment including geometric alignment, cross-section, traffic control devices, surface friction, grade, signage, weather, and visibility.

Crash data is available from the Massachusetts Registry of Motor Vehicles (RMV) and also local Police Departments. Massachusetts law requires that all vehicular crashes that result in \$1,000 or more of property damage or an injury or a fatality must be reported to the RMV and the local Police Department within five days, using a standardized *Motor Vehicle Crash Operator Report* form. The RMV maintains a database from these crash reports which provides basic details on all crashes reported to them, such as location, severity, weather and road conditions and type of collision. This data is the most readily available data for the Corridor, and was reviewed to determine if there are any locations or sections along the Byway experiencing a high number of crashes.

Below is a summary of the crash data and findings for locations along the Byway in Franklin and Hampshire County based on the RMV data. The most recent three-year period for which RMV crash data was available is the period from 2010 through 2012. An overview of crashes that occurred along the Byway during this period by segment is in Table 6-8 and 6-9. Crashes are summarized according to the Byway segment on which they were reported. The location of some crashes could not be pinpointed to a specific Byway segment with the information provided in the RMV crash data. These crashes are summarized by town in the columns labeled U*.

¹ American Association of State Highway and Transportation Officials (AASHTO), *Highway Safety Manual*, Washington, DC, 2010.

Table 6-8: Connecticut River Scenic Byway Crash Summary, Franklin County (2010-2012)

SEGMENT	1	2-3	4-5	6-7	8	9-10	11	U*	12	13	14-16	17	U*	18-19	20-21	22	23	24	25	26	27	U*	28	29-30	31	32	33	Total	%
TOWN	Northfield (44 crashes)								Erving (12 crashes)					Montague (50 crashes)								Sunderland (41 crashes)							
Total Reported Crashes	3	10	5	11	3	8	1	3	3	2	0	2	5	6	4	4	0	4	8	4	11	9	15	15	2	5	4	147	
Segment Length (mi)	0.64	1.01	0.75	0.69	0.83	4.02	0.83	8.77	0.79	0.53	0.20	0.19	2.1	0.27	0.39	1.88	0.41	1.09	0.91	0.15	0.80	5.90	2.39	1.45	0.46	1.49	1.24	23.8	
Crashes per Mile	4.7	9.9	6.7	15.9	3.6	2.0	1.2	0.3	3.8	3.8	0.0	10.5	2.4	22.2	10.3	2.1	0.0	3.7	8.8	26.7	13.8	1.5	6.3	10.3	4.3	3.4	3.2	6.2	
% of Crashes at an Intersection	0%	80%	60%	36%	100%	13%	0%	0%	33%	0%	-	0%	0%	50%	75%	0%	-	25%	88%	0%	36%	11%	0%	53%	50%	0%	50%	34%	
Crash Severity																													
Property Damage Only	1	7	3	7	3	4	1	1	2	2	-	1	3	6	3	2	-	3	6	2	8	8	11	12	2	4	3	105	71%
Non-Fatal Injury	2	2	2	2	0	2	0	2	0	0	-	1	2	0	1	0	-	1	2	2	2	1	4	3	0	1	1	33	22%
Unknown	0	1	0	2	0	2	0	0	1	0	-	0	0	0	0	2	-	0	0	0	1	0	0	0	0	0	0	9	6%
Fatality	0	0	0	0	0	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	0	0	0	0	0	0	0%
Manner of Collision																													
Single Vehicle Crash	3	4	1	6	1	6	1	1	2	2	-	1	4	3	2	4	-	3	1	1	6	6	7	5	0	3	1	74	50%
Rear-End	0	3	1	3	2	0	0	2	1	0	-	0	0	1	2	0	-	0	2	0	2	0	3	5	1	0	1	29	20%
Angle	0	2	3	2	0	0	0	0	0	0	-	0	0	0	0	0	-	0	4	3	1	1	1	2	1	2	2	24	16%
Sideswipe, same direction	0	0	0	0	0	0	0	0	0	0	-	0	1	1	0	0	-	1	0	0	0	0	1	1	0	0	0	5	3%
Sideswipe, opposite direction	0	1	0	0	0	0	0	0	0	0	-	1	0	1	0	0	-	0	1	0	1	0	1	0	0	0	0	6	4%
Head-On	0	0	0	0	0	1	0	0	0	0	-	0	0	0	0	0	-	0	0	0	1	1	2	1	0	0	0	6	4%
Unknown	0	0	0	0	0	1	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	1	0	0	0	0	0	2	1%
Roadway Condition																													
Dry	1	9	4	10	3	5	0	3	1	0	-	2	3	3	3	4	-	2	5	1	4	5	5	11	1	4	2	91	62%
Snow/Slush/Ice	0	1	0	1	0	2	1	0	0	1	-	0	1	2	1	0	-	2	1	2	4	3	9	2	1	1	1	36	24%
Wet	0	0	1	0	0	1	0	0	2	1	-	0	1	1	0	0	-	0	1	1	3	1	1	2	0	0	1	17	12%
Sand, mud, dirt, oil, gravel	2	0	0	0	0	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	0	0	0	0	0	2	1%
Other/Unknown	0	0	0	0	0	0	0	0	0	0	-	0	0	0	0	0	-	0	1	0	0	0	0	0	0	0	0	1	1%
Lighting Condition																													
Daylight	2	7	3	7	2	5	0	2	1	2	-	2	0	4	2	2	-	1	8	3	7	6	8	10	1	1	2	88	60%
Dark - Roadway not lighted	1	1	0	0	0	3	1	1	1	0	-	0	4	0	0	2	-	1	0	1	3	2	6	3	1	4	2	37	25%
Dark - Roadway lighted	0	1	2	3	1	0	0	0	1	0	-	0	0	2	1	0	-	2	0	0	0	1	0	0	0	0	0	14	10%
Dawn/Dusk	0	1	0	1	0	0	0	0	0	0	-	0	1	0	1	0	-	0	0	0	1	0	1	2	0	0	0	8	5%

Source: Registry of Motor Vehicles Crash Data System

U* indicates crashes reported on the Byway for which a precise location could not be determined.

Table 6-9: Connecticut River Scenic Byway Crash Summary, Hampshire County (2010-2012)

SEGMENT	1 River	2 Middle	3 Bay	4 H/L	5	6
	Hadley (68 total reported crashes)				South Hadley (33 total reported crashes)	Hatfield (13 total reported crashes)
Total Number of Reported Crashes	20	20	13	15	33	13
Segment Length (miles)	6.8	1.1	0.6	3.8	2.7	3.9
Crashes/Mile	2.94	18.18	21.67	3.95	12.22	3.33
Crash Severity						
Property Damage Only	8	12	8	9	23	8
Non-Fatal Injury	11	8	5	6	7	5
Unknown	1	0	0	0	3	0
Fatality	0	0	0	0	0	0
Manner of Collision						
Single Vehicle Crash	9	0	3	5	13	10
Rear-End	5	13	7	4	7	0
Angle	5	5	3	2	10	2
Sideswipe, same direction	0	2	0	2	1	0
Sideswipe, opposite direction	0	0	0	1	0	0
Head-On	1	0	0	1	2	1
Roadway Condition						
Dry	13	17	7	10	20	13
Snow/Slush/Ice	3	1	0	2	8	0
Wet	4	1	6	3	4	0
Other/Unknown	0	1	0	0	1	0
Lighting Condition						
Daylight	16	16	10	10	20	7
Dark – Roadway not lighted	2	0	0	4	0	6
Dark – Roadway lighted	2	4	2	1	10	0
Dawn/Dusk	0	0	1	0	2	0
Other/Unknown	0	0	0	0	1	0

Franklin County

As shown in Table 6-8, there were a total of 147 reported crashes along the Byway in Franklin County between 2010 and 2012. The highest number (34%) of the reported crashes occurring along the Byway took place in Montague, which also had the highest number of crashes per mile (8.47 crashes/mile). A majority (71%) of the crashes resulted in Property Damage Only (PDO). Approximately 22% of the crashes resulted in a non-fatal injury, and no fatal injuries were reported during the three-year period.

The most common type of collision was a single vehicle crash accounting for 50% of reported crashes. Crashes with only a single vehicle typically involve a vehicle that leaves the roadway and crashes into a roadside object, such as a tree or guardrail. This crash type was the most prominent mode for crash types not occurring at an intersection. Most of the remaining crashes were either rear-end (20%) or angle crashes (16%). Rear-end crashes generally involve two vehicles traveling in the same direction, the first vehicle slows to make a turn and the following driver does not react in time and hits the back of the first vehicle. Rear-end crashes were the most common crash type occurring at intersections. Angle type crashes generally involve a turning vehicle (making a left-turn for example) from one direction colliding with or being hit by a vehicle coming from the opposite direction and are most common at intersections. The majority (66%) of crashes occurring along the Byway happened along the roadway and not at an intersection. Additionally, the majority of crashes occurred on dry pavement and in daylight conditions.

The majority of injury crashes reported on the Byway were not at an intersection. Crashes involving vehicles leaving the travel lane at non-intersection locations are known as lane departure crashes. These types of crashes often involve vehicles traveling at higher rates of speed. Lane departure crashes account for a disproportionate number of incapacitating or fatal injuries in Massachusetts. For the period from 2004 to 2011, 24% of incapacitating injuries and 55% of fatalities from roadway crashes resulted from lane departures.² Lane departure crashes have been identified as a strategic emphasis area in the 2006 Massachusetts Strategic Highway Safety Plan (SHSP) and in the 2013 update to the SHSP. Statewide strategies to address lane departure crashes include incorporating safety criteria in the highway project selection process, conducting Road Safety Audits, and increasing the quality of crash information in data systems.

The lack of shoulders on much of the Byway may contribute to the high incidence of lane departure crashes. With no paved shoulders, vehicles that depart the travel lane to the right have nowhere to recover before potentially striking roadside objects. There is also nowhere to accommodate rumble strips, which have been shown to reduce the frequency and severity of lane departure crashes.

Road Safety Audits (RSAs) are a formal safety examination of a road or intersection by a multidisciplinary team to identify potential safety issues and make recommendations for

² Massachusetts Department of Transportation (MassDOT), *Massachusetts Strategic Highway Safety Plan*, June 2013

roadway safety improvements. They can focus on a particular location with a high incidence of crashes or on a particular crash type within a given study area. In recent years, FRCOG has cooperated with the MassDOT Safety Division to address safety issues at identified high-crash locations. The intersection of Route 47 and Route 116 in Sunderland was identified as a high-crash location in Franklin County for the three-year period 2008-2010 and was the subject of an RSA in July 2014. The RSA identified multiple safety issues, including roadway congestion, sight-distance obstructions, and inadequate pedestrian accommodations; and made recommendations for long-term, mid-term and short-term safety improvements to be implemented by the Town and/or MassDOT.

Hampshire County

Table 7-9 shows a total of 114 reported crashes along the Byway in Hampshire County between 2010 and 2012. The vast majority of crashes (67%) were identified as single vehicle or rear end type crashes, (60%) of the crashes occurred during daylight hours, and (70%) of the crashes happened while the roadway surface was dry. The majority of crashes (60%) resulted in Property Damage Only (PDO). Approximately (37%) of the crashes resulted in a non-fatal injury; there were no fatalities reported during this time frame.

A crash involving only one vehicle which typically indicates a lane departure crash, this type of crash was the most common type of crash along the corridor (35%) followed closely by rear end crashes (32%) this indicates that driver error and in some cases roadway geometry influenced crashes along Route 47. Middle Street (Route 47) at Russell Street (Route 9) has been identified as crash cluster with an Equivalent Property Damage Only (EPDO) of 50 based on the 2010-2012 crash data. Route 47 at Route 9 was the only location along the corridor with a crash rate (7.55) higher than the state wide average of 3.35 per million vehicle miles traveled.

Of the 13 crashes identified in the Hatfield 5 (40%) of the crashes were located in the vicinity of the "S" curves near the water treatment plant. All 5 of the where single vehicle crashed indicating lane departure crashes.

Bridge Inventory

Bridges are a critical component of any transportation system. Maintaining the safety and functionality of bridges is a top priority. Bridges are predominantly under the domain of MassDOT. Bridges are inspected by MassDOT and are ranked according to standards established by the American Association of State Highway and Transportation Officials (AASHTO). The purpose of the AASHTO rating is to provide a standard to compare the status of bridges in a region and across the country. The ratings are based on factors such as the bridge's structural integrity, the road's functional classification, and the designed purpose of the bridge. The ratings are used to determine eligibility for reconstruction or replacement.

Bridges that have a span of 20 feet or more are part of the National Bridge Inventory (NBI) and are inspected every two years. Bridges that span less than 20 feet but more than 10 feet are not part of the NBI and are inspected less frequently. MassDOT does not typically make AASHTO ratings available for these bridges as they may be based on incomplete or out-of-date information. Bridges that are not in the NBI are generally not eligible for federal aid Bridge Program funds; any non-NBI bridges on the Connecticut River Scenic Byway would be eligible for federal Surface Transportation Program funds due to the roadway functional classification.

Bridges are also further classified as *structurally deficient* or *functionally obsolete*. These classifications can raise the bridges' position on the priority list for repair/replacement. Bridges are determined to be structurally deficient if they fall below specific thresholds. A structurally deficient classification may indicate that a vital, but relatively minor, repair is needed or that a bridge is in need of more serious rehabilitation. Safety concerns are paramount.

A bridge that is classified as functionally obsolete is inadequate to fulfill its current function. An example would be a four-lane road leading to a two-lane bridge. The bridge itself may be structurally sound, but the use is limited in some capacity.

Information regarding whether a bridge has a posted weight or height limit is important in assessing a region's transportation network. These restrictions are important determinants affecting freight routes and should be addressed to improve a region's accessibility to goods, people and economic opportunities. It is also important for local fire departments with heavy fire equipment.

The historic character and design of the bridges within the Byway study area should be taken into consideration during any rehabilitation/reconstruction work. Table 7-9 provides data for each of the bridges located within the Byway study area, as listed in the 2014 MassDOT Bridge Listing. This information includes the condition rating, structural evaluation, and bridge status.

Franklin County

Table 6-10 lists the bridge structure inventory for the seven bridges located along the Byway in Franklin County. Three of these bridges, all in Northfield, span less than 20 feet and as such are not listed in the NBI. The remaining four bridges are NBI structures and are not deficient.

Hampshire County

Table 6-11 provides data for each of the 4 NBI bridges along the Byway in Hampshire County. All of the NBI bridges located within the study area are maintained by MassDOT. Two of the bridges along Route 47 were constructed before 1938. According to the 2014 MassDOT Bridge Listing, none of these bridges are categorized as structurally deficient, one bridge is functionally obsolete. One non-NBI bridge (H-01-007) was identified on River Road at the crossing of the Russellville Brook. This structure will be replaced as part of MassDOT resurfacing project 607886. Project

consists of the resurfacing and culvert replacement on River Drive from Comins Road to Old River Drive. Project has an estimated construction year of 2021.

Table 6-10: Bridges Structure Inventory – Franklin County

Town	Bridge Number	Bridge ID	Year Built / Rebuilt	Location	Crossing	Owner	AASHTO Rating*	Deficiency*	Fed Aid Eligible
Northfield	N-22-01	5NV	1929	Rt. 63 (Millers Falls Road)	Four Mile Brook	Town	n/a	n/a	No**
	N-22-05	5P3	1938 / 1954	Rt. 63 (Hinsdale Road)	Perchog Brook	DOT	n/a	n/a	No**
	N-22-16	5NU	1975	Rt. 63 (Millers Falls Road)	Millers Brook	DOT	n/a	n/a	No**
	N-22-21	0W5	1941	Rt. 10/63 (Main Street)	Mill Brook	DOT	96.4	None	Yes
Erving	E-10-02	0W3	1953 / 2007	Rt. 63 (Lester Street)	Millers River	DOT	93.5	None	Yes
Montague	M-28-06	14D	1935 / 1998	Rt. 63 (Federal Street)	RR - BMRR & NECRR	DOT	84.5	None	Yes
	M-28-33	0W4	1935	Rt. 63 (Federal Street)	Sawmill River	DOT	85.5	None	Yes

Table 6-11: Bridges Structure Inventory – Hampshire County

Town	Bridge Number	Bridge ID	Year Built / Rebuilt	Location	Crossing	Owner	AASHTO Rating*	Deficiency*	Fed Aid Eligible
Hadley	H-01-002	AXW	2002	Mt. Warner Road	Mill River	Town	85.9	None	Yes
Hadley	H-01-001	12K	1937	River Drive	Mill River	DOT	94.5	None	Yes
Hadley	H01007	5ML	n/a	River Drive	Russellville Brook	Town	31.1	n/a	No**
Hadley	H-01-005	12J	1935	Bay Road	Fort River	DOT	53.8	Functional Obsolete	Yes
South Hadley	S-18-007	AQG	2008	Hadley Street	Bachelor Brook	DOT	96.5	None	Yes

Source FRCOG, PVPC: 2014 MassDOT National Bridge Listing.

*Current AASHTO rating not provided for bridges not in NBI

**Bridges on Byway not in NBI are eligible for Surface Transportation Program

Rail Facilities

Franklin County

There are two rail lines carrying freight within the vicinity of the Byway in Franklin County. The New England Central Railroad (NECR) Central Vermont Line runs north-south to the west of Route 63. The Freight Main Line, also known as the Patriot Corridor, runs along the lines of the former B&M Railroad and is now owned and operated by Pan Am Southern (PAS). It is a major east-west freight line from New York to eastern Massachusetts. In Franklin County, the line crosses under the Byway in Montague and runs along Route 63 to Miller Falls, where it follows the Millers River to points east.

Hampshire County

There are no active rail facilities in the immediate vicinity of the Route 47 Byway in Hampshire County. Located across the Connecticut River from the Byway is the Knowledge corridor rail line. Passenger service was reinstated on this line in December 2014 after a significant investment by Massachusetts to bring the rail infrastructure up to current standards. The closest stop along the Byway would be in Northampton. Currently there is one northbound and one southbound trip a day, additional intercity rail trips are in the planning but additional funding will be needed to implement the additional trips.

The former Central Massachusetts Rail Road Central branch, now known as the Norwottuck Rail Trail crosses Middle Street just north of Route 9. Three roundtrip passenger trains as well as numerous freight trains utilized this branch in the 1920's until the line was phased out by automobiles and trucks in 1932. The line was dormant until the early 1990's when the rail corridor was converted into the 11 mile Norwottuck Rail Trail.

Public Transportation Services

Franklin County

The Franklin Regional Transit Authority (FRTA) is the primary transit authority serving Franklin County. The FRTA serves 40 towns in Franklin, Hampshire, Hampden and Worcester counties. Twenty-three of the twenty-six Towns in Franklin County (all except Monroe, Sunderland, and Leverett) are members of the FRTA. Sunderland and Leverett are members of the Pioneer Valley Transit Authority (PVRTA). Both the FRTA and PVRTA provide paratransit service to their respective towns with the level of the service varying significantly by community.

The FRTA operates three fixed routes through the study area. FRTA Route 22 makes eight daily round trips between the FRTA hub at the John W Olver Transit Center in Greenfield and local points in Montague, including Montague Center and Millers Falls, with a fixed stop on Federal Street. FRTA Route 23 provides two daily round trips between the hub in Greenfield and Amherst; it makes the same stops in Montague as

FRTA Route 22. The FRTA Route 32 makes seven round trips per day between Greenfield and Orange, travelling through Montague and Erving with stops in Millers Falls and in Erving at the French King Bowling Alley (on Semb Drive). The FRTA does not provide fixed-route service on weekends.

The Pioneer Valley Transit Authority (PVRTA) also operates two fixed routes through the Byway study area. PVRTA Route 31 provides frequent service throughout the day between South Amherst and Sunderland, making stops on South Main Street and at the Sugarloaf Estates apartment complex on Route 47 in Sunderland every fifteen minutes on weekdays and on a reduced schedule on weekends. PVRTA Route 46 provides six weekday-only round trips between UMass Amherst, South Deerfield and the MassDOT Park and Ride lot on Route 5/10 in Whately; five of these trips are express routes but there is one trip leaving UMass at 9:46 p.m. that also stops at Sugarloaf Estates in Sunderland.

Hampshire County

PVRTA is the primary transit authority for the Hampshire county portion of the byway. PVRTA serves 24 municipalities and currently operates 48 routes through Hampden, Hampshire, and Franklin (Sunderland and Leverett) counties. PVRTA also provides door to door paratransit services for all member communities.

PVRTA operates 2 fixed routes in the vicinity of Route 47. Route 39/39express on Bay Road between Smith College in Northampton and Mount Holyoke College in South Hadley via Bay Road and Hampshire College. Limited express service is provided directly between Smith College and Mount Holyoke College via Route 47. Both services are offered during the times of year when the colleges are in session. The Blue 43 runs on Route 9 from Smith College in Northampton to Amherst College via Hampshire Mall and UMass is one of the busiest transit routes in the region. Service is offered every 20 minutes during peak periods and is offered year round, though at reduced levels when College is out of session. The Blue 43 can be accessed near the intersection of Route 47 with Route 9.

Park and Ride Lots

Franklin County

There is one formal MassDOT park and ride lot within the Byway corridor, located on North Main Street just north of School Street in Sunderland. It consists of eight perpendicular parking on-street spaces. Intended to provide parking for PVRTA Routes 31 and 46, it is approximately 0.15 miles north of the nearest bus stop on South Main Street.

Hampshire County

Park and rides lots are a great tool which help reduce the number of single occupancy vehicle trips per day. Currently there are 4 official park and ride lots in the Pioneer Valley region, the closest of which is located west of the Byway in Northampton where the Norwottuck rail trail intersects with Damon Road.

Transportation of Wide Loads

Interstate 91 and Route 2 are the major freight moving corridors in western Massachusetts. The Byway area crosses Route 2 in Erving. The Commonwealth of Massachusetts Commercial Motor Vehicle Center permits the transportation of non-reducible (or wide) loads that are greater than twelve (12') feet in width. If a freight transporter wishes to move a wide load along the corridor, they must apply for a daily trip permit.

In Franklin County, wide loads are generally permitted on Interstate 91, Route 2, and Route 116. MassDOT District 2, which has jurisdiction over state-maintained roads in the Byway study area, does not recommend moving wide loads over 12 feet wide on Route 63 as the travel lanes are 12 feet wide and have little to no shoulder over much of the route, though they may be permitted with adequate provisions for traffic safety, including an escort of two State Police troopers and a pilot vehicle with flashing lights, flags, and signs. Although Route 47 is not a state highway, the travel lane and shoulder conditions are similar and the same safety provisions are recommended for wide loads.

In Hampshire County, wide loads are not recommended on Route 47. Route 47 is a relatively narrow road that lacks adequate shoulder width to allow wide-loads to traverse the roadway in a safe manner. Rolling hills and curves add to the potential for conflicts between wide-loads and other users of the roadway. Interstate 91 is the most logical option for transporting wide loads north and south through the region.

Pedestrian Access

Franklin County

In Franklin County, the primarily rural nature (low density of development) of the Byway means that there is limited pedestrian infrastructure for large stretches of the Byway. The pedestrian activities on the Franklin County portion of the Byway are primarily in the town centers, including Northfield center, Ervingside in Erving, Millers Falls in Montague, and Sunderland center.

A streetscape project in Northfield center was completed in 2010. The existing sidewalks were repaired and connections were made to provide continuous sidewalk on both sides of the roadway within the historic town center that met current ADA standards. Safe pedestrian crossings with attendant signage were constructed. The sidewalk is separated from the edge of the road by a wide grass strip and follows the terrain of the adjoining land, in keeping with the historic village character.

In Erving, sidewalks extend on the west side of the roadway from Erving Elementary School and on the east side from Park Street across the Millers River Bridge into Millers Falls, Montague. There is currently a project under design to improve the streetscape in this area, including repairs to existing sidewalks, construction of wheelchair ramps and additional streetscape elements; construction is expected to begin in 2017.

The Millers Falls village center in Montague was also the site of a streetscape project that was completed in 2007. The work included construction of new sidewalks along West and East Main Street, Bridge Street and Federal Street, along with granite curbing, wheelchair ramps, and signage. Ornamental street lighting and brick pavers between the sidewalk and the edge of road also enhanced the downtown character of the area.

In Sunderland, there are sidewalks on both sides of the Byway from North Silver Lane to Old Amherst Road, with the sidewalk on the east side extending to the Sugarloaf Estates apartment complex on South Main Street. A Complete Streets assessment was recently completed that includes recommendations for traffic calming and pedestrian improvements.

Traffic Calming and Complete Streets Initiatives

Traffic calming consists of engineering and other measures that are implemented on roads in order to slow down or reducing motor-vehicle traffic. Traffic calming measures improve safety for pedestrians and bicyclists. Traffic calming techniques are most frequently utilized in residential neighborhoods or village centers where speeding and/or aggressive driving behavior has been documented.

These techniques can be used to slow traffic at the approaches to town centers or villages as the roadside environment changes from a higher speed rural roadway to a lower speed pedestrian oriented area. Traffic calming measures that help retain the character of the Byway should be considered to slow traffic, warn motorists of a changing roadside environment and improve the Byway's aesthetic appeal.

Complete streets are designed with all roadway users in mind. They strive to achieve a better balance between the needs of the motor vehicle and other modes of transportation such as bicycles, pedestrians, and transit users.

A Complete Streets assessment was conducted in Sunderland center by FRCOG in 2014. This analysis identified pedestrian improvements at the intersection of Route 47 and Route 116 in order to make it more pedestrian and bicycle friendly. Of particular concern is to make it safer and more comfortable for pedestrians to cross Route 116. The assessment noted that crosswalks at the intersection are faded and pedestrian signals and wheelchair ramps are not ADA-compliant. Sidewalks along Route 47, particularly those on South Main Street, were also noted to be in poor condition.

The recommendations were also intended to better connect the Route 5/10/116 commercial corridor to South Deerfield center. The Complete Streets Plan recommended intersection improvements, the development of a gateway to the village center on Route 116 and improved pedestrian and bicycling infrastructure.

Hampshire County

In Hampshire County, the majority of pedestrian activity and amenities are located near Route 9, from the Hadley Elementary School south to Bay Road including access to the Norwottuck Rail Trail, and in South Hadley at College Street (Route 116). The end of

the byway at College Street (Route 116) has significant pedestrian infrastructure, providing access between the various shops and restaurants and Mount Holyoke College. A short section of sidewalk was noted in north Hadley Center and was noted to be in fair to poor condition. The primarily rural nature (low density of development) of the rest of the Byway means that there is limited pedestrian infrastructure, such as sidewalks and crosswalks, for large stretches of the Byway.

In Hatfield the majority of the pedestrian amenities are found on the southern segment of Main Street from King Street to Elm Street. From King south to North Street a sidewalk is provided on the east side of Main Street. From North Street South to Elm Street sidewalks are provided on both sides of the Main Street.

Crosswalks were observed on both the north and south sides of School Street as well as on School Street. Just south of School Street, a mid block crosswalk is provided on Main Street in front of the Town Hall. At the intersection of Billings Way with Main Street a crosswalk was provided on Billings Way. All crosswalk markings were observed to be in fair condition at the time of the survey. A single yellow pedestrian warning sign was observed at each approach to the crosswalks.

Hatfield received a \$360,000 MassWorks grant for Main Street Pedestrian improvements. The improvements include but may not be limited to sidewalk replacements, new crosswalks, and bike lane markings.

Bicycle Access

There are many opportunities for bicycling on the Byway and also on routes that connect to the Byway. Generally, the Connecticut River Scenic Byway has gentle terrain that creates opportunities for cyclists to enjoy nature and the rural character of the area. Bicycling can be one of the best ways to experience the solitude of the roadway and the small town neighborhoods of the Byway.

There are some variations in bicycling conditions along the Byway. The traffic volume levels and the road geometry changes along the Byway. Bicycling on some areas of the Byway are more challenging because of the lack of shoulders and higher traffic volumes.

Franklin County

Opportunities for bicycling vary greatly along the 24 miles of the Byway in Franklin County. Route 63 north of Pine Meadow Road in Northfield is part of the Franklin County Bikeway, and also the Connecticut River Bikeway. Route 47 south of Falls Road in Sunderland to the Route 116 intersection is also part of the Franklin County and Connecticut River Bikeways.

The section of Route 47 to the north of the Route 116 intersection was identified in the 2014 Sunderland Master Plan Transportation Chapter for the possible addition of bike lanes to better accommodate the large number of cyclists using this route. From the Route

116 intersection, the Connecticut River Bikeway continues south along Route 47 into Hadley. There are several other opportunities to connect to the Franklin County Bikeway system. These Bikeway routes are detailed in the Recreational Resources Chapter.

Schell Bridge Replacement Project

There is a project in the preliminary planning and design stage to replace the historic Schell Bridge in Northfield with a new bicycle and pedestrian bridge across the Connecticut River. The Schell Memorial Bridge in Northfield is a 515 foot long steel cantilever truss bridge spanning the Connecticut River. It was built in 1903 and served to connect the east and west Northfield. The bridge was closed to traffic in 1985 due to deterioration and safety concerns. It was deemed too costly to rehabilitate the bridge, and the Town approved demolition of the bridge in 1987. The Friends of the Schell Bridge formed in 2004, with the mission of restoring the bridge as a recreational link for a network of hiking, walking and biking trails. However, due to severe deterioration it was determined that it was not possible to rehabilitate the existing structure and replacement is the only viable option. In 2013, a plan to remove the existing bridge and replace it with a pedestrian and bicycle bridge designed to pay homage to the original structure was supported by the Massachusetts Department of Transportation (MassDOT), the town and the Friends of the Schell Bridge.³

The project to reconstruct the Schell Bridge is currently in the preliminary design stage. According to MassDOT, construction of the new bridge is anticipated expected to take place in 2020. Once the bridge is in place, it will provide a scenic river crossing and connect the Connecticut River Bikeway and Franklin County Bikeway routes on each side of the Connecticut River in Northfield.

Hampshire County

The Route 47 Scenic Byway has many different characteristics to the roadway depending on what section you are on. In places the byway is a quiet roadway, with rolling terrain creating an exceptional opportunity for cyclists to enjoy nature, the byways is also a busy urban roadway with high vehicle volumes. Bicycling is one of the best ways to experience the quiet solitude of the winding roadway and the small town neighborhoods of the Byway.

The Pioneer Valley Planning Commission evaluated Route 47 in the towns of Hadley and South Hadley as well as Main Street in Hatfield for its suitability for bicycle travel through a process that involved measuring travel lane width, shoulder width, vehicle speed, traffic volume and available parking along each roadway segment. Using this information, each roadway segment was evaluated using the Level of Traffic Stress (LTS) criteria. Table 6-12 provides the descriptions for each LTS level and Table 7-13 provide the matrix for determining the LTS for each segment of roadway. Table 7-14 provides the LTC classification for each segment of Route 47 in Hadley and South Hadley and Main Street in Hatfield.

³ “New Life for Schell Bridge?” David Rainville, *The Recorder*. May 23, 2013.

As can be seen in Table 6-14 all but segment 4 (Lawrence Plain and Hockanum Road) have a LTS factor of 3, segment 4 received a LTS 4. The primary reason for these scores is the lack of sufficient shoulder and the relative higher speeds on sections of segment 4.

Table 6-12 Level of Stress Descriptions

LTS 1	Presenting little traffic stress and demanding little attention from cyclists, and attractive for a relaxing bike ride. Suitable for almost all cyclists, including children trained to safely cross intersections. On road sections, cyclists are either physically separated from traffic or are in an exclusive bicycling zone next to a slow traffic stream with no more than one lane per direction, or are in mixed traffic with a low speed differential and demanding only occasional interaction with motor vehicles. Next to a parking lane, cyclists have ample operating space outside the zone into which car doors are opened. Intersections are easy to approach and cross.
LTS 2	Presenting little traffic stress but demanding more attention than might be expected from children. On road sections, cyclists are either physically separated from traffic or are in an exclusive bicycling zone next to a well-confined traffic stream with adequate clearance from a parking lane, or are on a shared road where they interact with only occasional motor vehicles with a low speed differential. Where a bike lane lies between a through lane and a right-turn lane, it is configured to give cyclists unambiguous priority where cars cross the bike lane and to keep car speed in the right-turn lane comparable to bicycling speeds. Crossings are not difficult for most adults.
LTS 3	Offering cyclists a mostly exclusive cycling zone (e.g., bike lane) requiring little negotiation with motor traffic, but in close proximity to moderately high speed traffic; or mixed traffic requiring regular negotiation with traffic with a low speed differential. Crossings may be stressful, but are still considered acceptably safe to most adult pedestrians.
LTS 4	Requiring riding in close proximity to high speed traffic, or regularly negotiating with moderately high speed traffic, or making dangerous crossings.

Table 6-13 Traffic Stress Criteria for Bicycles on Roadways

		LTS 1	LTS 2	LTS 3	LTS 4
Along a Parking Lane	Street Width (through lanes per direction)	1	-	2 or more	-
	Reach from curb (sum of bike and parking lane width, including marked buffer and paved gutter)	15 ft or more	14 or 15 ft	13.5 or less	-
	Speed limit or prevailing speed	25 mph or less	30 mph	35 mph	40 mph or more
	Bike lane blockage (typically occurs in commercial areas)	rare	-	frequent	-
Not along a parking lane	Street width (through lanes per direction)	1	2, if directions are separated by a median	more than 2, or 2 without a median	-
	Reach from curb, including marked buffer and paved gutter	6ft or more	5.5 or less	-	-

Speed limit or prevailing speed	30 mph or less	-	35 mph	40 mph or more
Bike lane blockage (typically applies in commercial areas)	rare	-	frequent	-

On non-commercial streets with speed limits equal or less than 25 mph, any reach is acceptable for

Table 6-14 Traffic Stress Criteria for Bicycles on Roadways - Results

Seg #	Route #	Town	Street Name	From	To	LTS
1	47	Hadley	River Drive	Sunderland Town Line	Middle Street	3
2	47	Hadley	Middle Street	River Drive	Bay Road	3
3	47	Hadley	Bay Road	Middle Street	Lawrence Plain Road	3
4	47	Hadley	Lawrence Plain Road / Hockanum Road	Bay Road	Hadley Street	4
5	47	South Hadley	Hadley Street	Hockanum road	College Street	3
6		Hatfield	Main Street	Whatley Town Line	Hatfield Center Historic District	3
7		Hatfield	Main Street	Hatfield Center Historic District	Elm Street	3

Emergency Planning

A substantial amount of emergency planning has occurred within the past few years to identify evacuation routes and vulnerabilities in the transportation network. As a result of these efforts, the following areas of the Byway have been identified as being important evacuation routes or are areas that are vulnerable to flooding. According to the 2013 Western Massachusetts Regional Evacuation Plan, the Byway is identified as a secondary evacuation route within the Franklin County Byway study area. A secondary evacuation route is defined as a main arterial road through towns that carries traffic where primary routes do not exist, or provides an alternate route to the primary route.

Flooding is one of the most common natural hazards in the region. A large portion of the Byway runs parallel to the Connecticut River, and the Byway crosses the Millers Rivers as well as numerous tributaries. The hilly terrain surrounding the Byway creates the conditions for flash floods during large rainstorms, causing erosion, road washouts, and potential personal property damage. Some of the farmland along the Byway is within the 100-year floodplain. Many of the villages and town centers in the region are also located adjacent to rivers, which once powered mills, and are susceptible to flooding. These areas may need to be evacuated during large flood events. Flooding also can make evacuation difficult due to washed out roadways. Even primary routes are susceptible to damage from flooding, as demonstrated by Tropical Storm Irene, when both Interstate 91 and Route 2 were impacted in the region.

Issues and Recommendations

Franklin County

Issues

- Traffic volumes along the Byway generally vary from 2,500 to 5,000 vehicles per day, with peaks of 4,600 vehicles per day in Sunderland center and the highest volume in Northfield center at around 7,700 and the lowest volume, 1,260 vehicles per day at the New Hampshire state line.
- There is ample capacity along the majority of the Byway to accommodate growth in traffic without changes to the existing infrastructure.
- There is evidence of congestion in Northfield center and at the intersection of Route 47 and Route 116 in Sunderland.
- There is limited access to public transportation services in Franklin County, except in Sunderland center where public transit service to Amherst runs frequently.
- There is suitable pedestrian infrastructure in most town centers, although accommodations in Erving and Sunderland do not meet current ADA (Americans with Disabilities) standards, posing safety hazards for pedestrians and other non-motorized users of the Byway.
- There is little to no shoulder along the edges of the roadway for the majority of the Byway.
- Reported motor vehicle crashes were distributed along the Byway, with the highest concentration on the Federal Street segment of Route 63 and on Route 47 in Montague.
- Lane departure crashes are a traffic safety concern along the length of the Byway.
- Some existing traffic signs are in poor condition and do not meet MUTCD requirements for retro reflectivity.
- Pavement markings are in poor condition and may not meet MUTCD requirements for retro reflectivity.

Hampshire County

- Signage along the corridor was noted to be reaching the end of its effective life and may not meet MUTCD requirements
- Guardrails long the corridor along the corridor appear to be aging and in some locations damaged
- Pavement markings were noted to be in fair to poor condition along the corridor.
- Pavement conditions in Hadley and Hatfield were found to be in fair to poor condition. Poor pavement decreases the enjoyment and safety for all modes of transportation

- Roadway shoulders do not provide minimum required reach to accommodate non vehicular traffic.
- Sidewalks were observed to be in fair to poor condition and do not meet ADA standards
- The intersection on Route 9 and Route 47 is anticipated to be reconstructed as part of the Federal Fiscal Year 2015 Transportation Improvement Program (TIP).
- The Crash rate at Route 9 at Route 47 exceeded the state wide crash rate and is identified as a MassDOT crash cluster. Crash rate is expected to be reduced significantly based on improvements made by TIP project.
- Farm equipment was observed on the roadway at several locations along the corridor in Hadley and South Hadley, potentially resulting in reduced travel times and safety issues.
- It was noted that there is a lack of amenities such as pull offs along the byway to allow for vehicles to safely stop and enjoy the byway.

Recommendations

Franklin County

- Continue to monitor traffic volumes and patterns along the Byway.
- Continue to monitor the performance of key intersections along the Byway.
- Perform a Road Safety Audit for lane departures from Federal Street in Montague to North Silver lane in Sunderland.
- Conduct an evaluation of the condition of traffic signage.
- Refresh pavement markings, including lane markings and crosswalks.
- Ensure that all improvements to the roadway infrastructure are in line with the scenic character of the Byway to the maximum extent possible, including guardrails.
- Widen or restripe the roadway to include appropriate shoulder widths for safety and bicycle accommodation.
- Pavement improvements should include rumble strips where appropriate, considering noise impact on abutting residences.
- Complete proposed streetscape project for pedestrian accommodations on Route 63 in Erving.
- Implement recommendations from Road Safety Audit at Route 47/Route 116 in Sunderland center.
- Implement Complete Streets recommendations in Erving and Sunderland center to better accommodate pedestrians and bicycles on the Byway.

Hampshire County

- Signage should be evaluated to ensure it meets MUTCD standards for both placement and retro reflectivity.
- Municipalities should implement a pavement marking management program to ensure pavement markings meet minimum requirements of the MUTCD
- Consider context sensitive design when upgrading roadway infrastructure to ensure improvements are in line with the character of the roadway
- Explore opportunities to improve the pavement conditions along the byway
- Roadway shoulders should be extended to provide for improved safety for motorized and non motorized vehicles.
- When considering roadway upgrades explore opportunities to provide minimum required standards from the MassDOT GreenDOT Healthy Transportation Policy Directive. MassDOT's Healthy Transportation Policy Directive requires all state transportation projects to increase bicycling, transit and walking options. On roadway projects this includes minimum travel lanes (11 feet on the byway) and minimum shoulder widths (5 feet on the byway).
- Continue to monitor vehicle volumes along the corridor.
- Continue to monitor performance of key intersection along the corridor.
- Explore opportunities to improve Sidewalks and upgrade them to meet ADA requirements.
- Additional evaluation should be made for the purpose of identifying logical locations along the byway where either paved or unpaved pull offs could be added for farm equipment to pull off the roadway to allow motorists to pass.
- Additional evaluation should be made to identify locations where it may be beneficially to install pull offs and other amenities to enhance to the byway experience. Ideally these pull offs would tie into the other features of the byway such as hiking trails and scenic viewpoints. Funding may be available to fund turnoffs through the Federal Land Access Program (FLAP).
- Additional evaluation should be made to identify locations on the byway where it may be more practical to provide an off road bicycle / Pedestrian facility to accommodate non vehicular traffic. A local example of an off road connector is the UMass Extension to the Norwottuck Rail Trail.

Community Planning

CHAPTER 7

Connecticut River Scenic Byway

Introduction

The existing land uses along the Connecticut River Scenic Byway are predominately agricultural lands with village centers, commercial, and residential development scattered along the way. The corridor is marked by development patterns and cultural resources that define the character of the scenic Byway – close-knit historic village centers, tobacco barns in misty fields, and historic homes under stately trees. This chapter evaluates the zoning and land use regulations and resource protection measures that are currently in place, and their adequacy in maintaining the character of the Byway.

The development of the corridor management plan is intended to identify measures that will protect and enhance the area through which the scenic Byway travels. Land use and zoning directly abutting the roadway, as well as within the Byway corridor (half-mile on each side of the roadway) have a significant impact on the experience of current and future Byway travelers. Zoning and other regulatory requirements can shape scenic vistas and panoramic viewsheds, active farmland, as well as historic village centers in a manner that keeps the Byway an interesting and enjoyable experience.

The Community Planning Chapter is based on information gathered from a variety of sources. The land use and protected open space data is from the Massachusetts Office of Geographic Information (referred to as MassGIS) and town Open Space and Recreation Plans. Mass Audubon's 2015 *Losing Ground* report is also utilized. Individual town zoning information was reviewed. Additionally, information from field observations, communications with local officials and residents, and discussions at the Connecticut River Scenic Byway Committee meetings is included. Recent updates to Community Development Plans, Master Plans, and Open Space and Recreation Plans were also examined.

Land Use

The Connecticut River Scenic Byway study area is defined as Route 63 in the towns of Northfield, Erving, and Montague, and Route 47 in Montague, Sunderland, Hadley, and South Hadley with a half-mile buffer along each side of the road. There is also a proposal to expand the Byway in the town of Hatfield and the route is north to south on Main, Maple, and Elm Streets. This proposed section of Byway is included throughout this chapter. The proposed Byway in Hatfield runs north to south on Main, Maple, and Elm Streets, consecutively. The land uses within the Scenic Byway study area are fairly consistent along the Scenic Byway in Hampshire County. Small village centers give way to expanses of farm fields in Hadley and Hatfield, while the forest of the Mt. Holyoke Range dominates the landscape at the border of Hadley and South Hadley. In the background a continuous line of trees marks the presence of the Connecticut River, offering glimpses of its waters through small gaps in the vegetation.

In Franklin County the land uses along the Byway are active farmland and pasture, rolling forestland, historic villages, and scattered homes and some roadside businesses. In Hampshire County, the land uses within the Scenic Byway study area are consistent with small village centers giving way to expanses of farm fields in Hadley and Hatfield. Near the border of Hadley and South Hadley the forest of the Mt. Holyoke Range dominates the landscape. Along the route, there are often glimpses of the Connecticut River between the trees that line the river bank.

As indicated in Table 7-1, an estimated 48% of the overall Byway study corridor is forest land (MassGIS, 2005). Agricultural lands comprise 26.2% of the Byway, and residential uses comprise the third largest land use category at 12.4%. Other open space and recreation areas make up approximately 4.3% of the Byway corridor. Industrial and transportation, and commercial uses comprise about 2% of the Byway area. In the proposed Byway in Hatfield, agriculture is the largest use after water and wetlands, comprising approximately 42.4% of the corridor. There is a much smaller percentage of forestland in Hatfield than along the rest of the Byway, but similar residential and slightly more industrial/transportation uses. Statistics on industrial/transportation uses in Hatfield are likely influenced by the presence of I-91. More detailed information on land use within the individual Byway towns is provided later in this section.

Table 7-1: Land Uses within the Scenic Byway Corridor Study Area* (2005)

Land Use Type	Acres in Byway Corridor	Percentage in Byway Corridor	Acres in Proposed Byway** Corridor (Hatfield)	Percentage in Proposed Byway Corridor
Agriculture	5,651.7	26.2%	1,707.8	42.4%
Commercial	200.9	0.9%	39.3	1.0%
Forest	10,355.3	48.0%	854.4	21.2%
Industrial & Transportation	231.3	1.1%	82.5	2.0%
Other Open Space & Recreation	930.3	4.3%	103.1	2.6%
Residential	2,668.9	12.4%	451.8	11.2%
Water & Wetlands	1,553.1	7.2%	609.9	15.1%
Total Acreage	21,591.5	100.0%	3,848.8	100.0%

Source: MassGIS 2005 Land Use Data.

*Study area is defined as including ½ mile on each side of Routes 47 and 63, from Northfield to South Hadley. See Byway Map for more details.

** Proposed Byway corridor include ½ mile on either side of Elm, Maple, and Main Streets in Hatfield.

The land use figures presented in this chapter are based on data provided by MassGIS, which classifies land uses based on aerial photography interpretation. Statewide data are available for 1971, 1985, 1999, and 2005. MassGIS used 38 land use classifications in the 2005 data, an increase from the 21 codes used in the 1999 and 1971 datasets. These 38 classifications have been grouped into seven broader categories for the purposes of this plan: forest; agriculture; water and wetlands; residential; commercial; industrial and transportation; and other open space and recreation. The forest category includes all land classified as forest by MassGIS.¹ The agriculture category includes cropland, pasture, orchards and nurseries. The water and wetlands category contains all areas classified as water or as wetlands by MassGIS.¹ The residential land use category includes single-family homes and multi-unit housing complexes and structures. The commercial land use category contains all land defined as commercial by MassGIS. The industrial and transportation category includes light and heavy industry, mining and waste disposal facilities, junkyards, and transportation infrastructure (such as highways, airports, railroads, and freight storage). The open space and recreation category includes abandoned agriculture, areas of no vegetation, areas under power lines, brushland, parks, cemeteries, public and institutional green spaces and buildings, 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).

Importantly, 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 protection is found later in this chapter.

Franklin County

Northfield

The Town of Northfield, population 3,033,² is the only town in Massachusetts with land on both sides of the Connecticut River. Northfield is largely forested, but also has an abundance of rich farmland. Approximately 31% of the Byway study area (compared to 13% town-wide) is active agricultural land, stretching outward from the banks of the Connecticut River. The Byway area has a lower percentage of forested area than the town as a whole, as it travels through the village center where historic homes, civic buildings, and a small number of commercial uses are located.

Table 7-2: Acreages for Different Land Uses, Northfield (2005)

Land Use Type	Acreage in Byway Study Area*	Percentage of Byway Study Area*	Acreage in Town	Percentage of Town
Agriculture	1,537	30.9%	2,834	12.9%
Commercial	32	0.6%	43	0.2%

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

² All population data comes from the U.S. Census, American Community Survey, 2009-2013 five-year estimates.

Forest	2,227	44.8%	16,373	74.6%
Industrial & Transportation	47	0.9%	335	1.5%
Other Open Space & Recreation	387	7.8%	709	3.2%
Residential	576	11.6%	1,157	5.3%
Water and Wetlands	164	3.3%	509	2.3%
Total	4,968	100.0%	21,960	100.0%

Source: MassGIS 2005 Land Use Data.

*The Byway study area is defined as ½ mile on each side of Route 63 in Northfield. See Byway Base Map for more details.

Erving

Erving's population is 1,784, and is the second smallest town in Franklin County in terms of land area. Erving is hilly and has a large percentage of forestland (72%) compared to other communities along the Byway. The Northfield Mountain Pumped Storage Facility, owned by GDF Suez Energy, includes a man-made 300-acre upper reservoir that is capable of storing 5.6 billion gallons of water, and is located in Erving. The Byway study area encompasses the section of Erving that is called Erving'side. Erving'side is a village with a concentration of homes, businesses, parks, the Erving Senior Center, elementary school and library. From the Northfield border to the junction with Route 2, the Byway area also includes more than a third of the Town's active agricultural land.

Table 7-3: Acreages for Different Land Uses, Erving (2005)

Land Use Type	Acres in Byway Study Area*	Percentage of Byway Study Area*	Acres in Town	Percentage of Town
Agriculture	54	4.0%	136	1.5%
Commercial	21	1.5%	29	0.3%
Forest	972	72.4%	7,714	83.9%
Industrial & Transportation	23	1.7%	127	1.4%
Other Open Space & Recreation	67	5.0%	362	3.9%
Residential	173	12.9%	386	4.2%
Water and Wetlands	33	2.4%	439	4.8%
Total	1,342	100.0%	9,194	100.0%

Source: MassGIS 2005 Land Use Data.

*The Byway study area is defined as ½ mile on each side of Route 63 in Erving. See Byway Base Map for more details.

Montague

Montague is the second most populous town in Franklin County. It has a population of 8,422. Montague has large forested areas with few residences to the east of the Byway. The Byway is adjacent to the Montague Plains, the largest inland Pitch-Pine Scrub Oak community in southern New England, and the only large remnant of this ecosystem in the Connecticut River Valley. The Byway study area passes through three of Montague's five villages: Millers Falls, Lake Pleasant, and

Montague Center. Millers Falls is the densest of the three villages, with a mix of commercial, industrial, and residential uses. The other two villages are mostly residential. Montague Center is the site of the Town's original settlement where the first town hall, congregational church, and grange still line the town common. The agricultural land is located around Montague Center and south along Route 47 to the Sunderland town border.

Table 7-4: Acreages for Different Land Uses, Montague (2005)

Land Use Type	Acres in Byway Study Area*	Percentage of Byway Study Area*	Acres in Town	Percentage of Town
Agriculture	360	10.1%	1,537	7.6%
Commercial	36	1.0%	98	0.5%
Forest	2,515	70.6%	14,418	71.7%
Industrial & Transportation	77	2.2%	311	1.5%
Other Open Space & Recreation	62	1.8%	1,118	5.6%
Residential	349	9.8%	1,528	7.6%
Water and Wetlands	165	4.6%	1,100	5.5%
Total	3,565	100.0%	20,109	100.0%

Source: MassGIS 2005 Land Use Data.

*The Byway study area is defined as ½ mile on each side of Route 63 and 47 in Montague. See Byway Base Map for more details.

Sunderland

The Town of Sunderland is the third smallest town in Franklin County in terms of land area, but the fifth largest in terms of population. The population is 3,692. Sunderland borders the east side of the Connecticut River and has a rich farming history. Within the Byway study area, 32% of the land is in agricultural land use, and over half of the town's farmland acreage is located within the Byway study area. The Byway travels adjacent to the Mount Toby State Forest in the northern section of town. South of Falls Road, the Byway follows the Connecticut River and is flanked by farmland and residences on both sides. Roughly 2/3rds of the town's residential land use is located within the study area. The Town Center includes a mix of homes, businesses, and civic uses such as the town hall and library. **There are also densely developed apartment complexes.**

Table 7-5: Acreages for Different Land Uses, Sunderland (2005)

Land Use Type	Acres in Byway Study Area*	Percentage of Byway Study Area*	Acres in Town	Percentage of Town
Agriculture	1,181	32.3%	1,929	20.5%
Commercial	30	0.8%	51	0.5%
Forest	1,562	42.7%	5,676	60.2%
Industrial & Transportation	22	0.6%	200	2.1%

Other Open Space & Recreation	57	1.5%	176	1.9%
Residential	507	13.9%	770	8.2%
Water and Wetlands	303	8.3%	598	6.3%
Total	3,662	100.0%	9,431	100.0%

Source: MassGIS 2005 Land Use Data.

*The Byway study area is defined as ½ mile on each side of Route 47 in Sunderland. See Byway Base Map for more details.

Hampshire County

Hadley

Land uses in Hadley along the Byway are predominantly forest (32%) and agricultural (37%). While Hadley's agricultural land is relatively consistent along the Byway, its forest uses are concentrated along the river, at Mt. Warner, and in the Mt. Holyoke Range. Residential uses comprise about 13% of land along the Byway, compared with only 10% town-wide. Residential uses are mostly single-family homes strung along the roadside, and due to the proximity to the Byway residential uses can dominate the scenery. Commercial uses are also a small percentage of the Byway corridor (1%), but the traffic associated with increased development along the Route 9 commercial corridor in recent years creates a noticeable, but brief, change of environs at the intersection with the Byway.

Table 7-6: Acreages for Different Land Uses, Hadley (2005)

Land Use Type	Acreage in Byway Study Area*	Percentage of Byway Study Area*	Acreage in Town	Percentage of Town
Agriculture	2,276	37%	6,207	39%
Commercial	67	1%	343	2%
Forest	1,954	32%	5,023	32%
Industrial & Transportation	24	<1%	172	1%
Other Open Space & Recreation	193	3%	890	6%
Residential	814	13%	1,539	10%
Water & Wetlands	783	13%	1,619	10%
Total	6,111	100%	15,793	100%

Source: MassGIS 2005 Land Use Data.

**Byway study area is defined as including ½ mile on each side of Route 47 in Hadley. See Byway Base Map for more details.*

South Hadley

The top three land uses in the South Hadley portion of the Byway are forest (57.9%, including Skinner State Forest), water/wetlands (5.5%), and residential and agricultural uses tied for about 12%. The experience from the Route 116 intersection is at first commercial/residential, with the Village Commons and somewhat closely spaced single-family homes lining the route, but then giving way to open fields and wetlands before becoming more forested as the road approaches the Mount Holyoke Range. The road is generally tree-lined until it approaches the Mount Holyoke Range, where open fields provide a stunning view of the range in the background before the road starts climbing.

Table 7-7: Acreages for Different Land Uses, South Hadley (2005)

Land Use Type	Acre in Byway Study Area*	Percentage of Byway Study Area*	Acre in Town	Percentage of Town
Agriculture	243.7	12.5%	968.9	8.1
Commercial	15.9	0.8%	114.7	0.9
Forest	1,125.3	57.9%	6,120.6	51.7
Industrial & Transportation	38.3	1.9%	389.5	3.3
Other Open Space & Recreation	164.3	8.5%	715.1	6.1
Residential	249.9	12.9%	2,746.7	23.2
Water & Wetlands	106.1	5.5%	760.7	6.4
Total	1,943.5	100%	11,816.2	100%

Source: MassGIS 2005 Land Use Data.

**Byway study area is defined as including ½ mile on each side of Route 47 in South Hadley. See Byway Base Map for more details.*

Hatfield (proposed Byway extension)

Land uses in the Hatfield portion of the proposed Byway are predominantly agricultural (27%), though travelers exiting onto the proposed Byway from I-91 would at first experience mostly residential surroundings. Approximately 7% of the Byway corridor is residential, which is higher than the other Hampshire County portions of the Byway. The homes along the proposed Byway in Hatfield, particularly in the town center area, are stately and set back from the road. Further north the proposed Byway curves and comes into large expanses of agricultural fields that are punctuated with clusters of residential homes. Some areas have newer houses that are set back far from the road. Large tracts of forest are predominantly located in association with wetlands and surrounding agricultural fields.

Table 7-8: Acreages for Different Land Uses, Hatfield (2005)

Land Use Type	Acres in Proposed Byway Study Area*	Percentage of Proposed Byway Study Area*	Acres in Town	Percentage of Town
Agriculture	1,707.8	42.4%	3,052.7	28.4%
Commercial	39.3	1.0%	92.7	0.9%
Forest	854.4	21.2%	5,106.4	47.4%
Industrial & Transportation	82.5	2.0%	350.0	3.3%
Other Open Space & Recreation	103.1	2.6%	171.6	1.6%
Residential	451.8	11.2%	1,064.0	9.9%
Water & Wetlands	609.9	15.1%	928.0	8.6%
Total	3,848.8	100.0%	10,765.4	100%

Source: MassGIS 2005 Land Use Data.

*Proposed Byway study area is defined as including ½ mile on each side of Elm, Maple, and Main Streets in Hatfield. See Byway Base Map for more details.

Land Use Changes for the Entire Byway

The land use change figures presented in this section are based on data provided by MassGIS. As mentioned previously, statewide data is available for 2005, 1999, 1985, and 1971. For the years 1999, 1985 and 1971, the analysis was conducted through manual interpretation of aerial photos. In 2005, changes were made to the method of interpreting the data and semi-automated methods were used. Because of these different data collection methodologies, the 1999 and 2005 land use maps are not directly comparable. As a result, this section describes the land use changes that occurred between 1971 and 1999.

Land Use Changes From 1971 to 1999

The Connecticut River Byway has changed over the past few decades, but the traveler experience is still dominated by a landscape of working farmland and forests. The route is predominantly agricultural and rural in nature, although there are more homes lining the route. The major trend during this time period is a loss of agricultural lands and forest, and an increase in developed land uses. Roughly 1,042 acres were converted from undeveloped land uses (defined for this study as agriculture, forest, open space and recreation, and water and wetlands) to developed uses (commercial, industrial and transportation, and residential). Most notably, residential uses increased by approximately 931 acres, or 39%, between 1971 and 1999. Although commercial uses still comprise less than 1% of the Byway corridor, they have increased by 51 acres, or 55%. This change most likely reflects the growth on Route 9 in Hadley and the intersection with Route 116 in South Hadley. Industrial and transportation uses also increased by roughly 61 acres, a 54% increase, which represents a change that could be less compatible with the enduring character of the Byway, depending on the specifics of the development and industrial use.

During this time period, agricultural land uses decreased by 729 acres, a -7% change, and forest uses decreased by 375 acres, a -3% change. Open space (defined as active recreational uses such as ballfields, stadiums, swimming pools, and undeveloped cleared land) increased by approximately 65 acres, an increase of 5%. These changes in land use reflect an overall trend of agricultural and forest uses giving way to residential, commercial, and industrial uses.

Table 7-9: Land Use Changes within the Byway Study Area*, 1971 – 1999

Land Use Type	1971 Acres in Byway Study Area	1971 Percentage of Byway Study Area	1999 Acres in Byway Study Area	1999 Percentage of Byway Study Area	Change in Acreage, 1971 - 1999	% Change in Acreage, 1971-1999
Agriculture	10,786.2	34.1%	10,057.0	31.8%	-729.2	-6.8%
Commercial	93.2	0.3%	144.0	0.5%	50.8	54.5%
Forest	14,789.2	46.8%	14,414.1	45.6%	-375.0	-2.5%
Industrial & Transportation	114.0	0.4%	175.2	0.6%	61.2	53.6%
Other Open Space & Recreation	1,250.1	4.0%	1,315.5	4.2%	65.4	5.2%
Residential	2,401.7	7.6%	3,332.2	10.5%	930.6	38.7%
Water & Wetlands	2,151.3	6.8%	2,151.7	6.8%	0.4	0.0%
Total	31,585.7	100.0%	31,589.7	100.0%		

Source: MassGIS 1971 and 1999 Land Use Data.

*Byway study area is defined as including ½ mile on each side of Routes 47 and 63, from Northfield to South Hadley. See Byway Base Map for more details.

In Hatfield, the overall trends are similar, except that Hatfield did not see as large an expansion in industrial uses along the proposed Byway (though it did see expanded industrial uses elsewhere in town).

Table 7-10: Land Use Changes within the Proposed Byway Study Area* (Hatfield), 1971 – 1999

Land Use Type	1971 Acres in Byway Study Area	1971 Percentage of Byway Study Area	1999 Acres in Byway Study Area	1999 Percentage of Byway Study Area	Change in Acreage, 1971 - 1999	% Change in Acreage, 1971-1999
Agriculture	2,988.41	51.05%	2,868.00	49.00%	-120.41	-4.03%
Commercial	23.60	0.40%	36.66	0.63%	13.06	55.35%
Forest	1,474.93	25.20%	1,473.22	25.17%	-1.71	-0.12%
Industrial & Transportation	169.12	2.89%	174.76	2.99%	5.64	3.34%

Other Open Space & Recreation	125.66	2.15%	132.91	2.27%	7.26	5.77%
Residential	455.11	7.77%	551.27	9.42%	96.16	21.13%
Water & Wetlands	616.81	10.54%	616.81	10.54%	0.00	0.00%
Total	5,853.63	100.00%	5,853.63	100.00%		

Source: MassGIS 1971 and 1999 Land Use Data.

*Byway study area is defined as including ½ mile on each side of Elm, Maple, and Main Streets in Hatfield.

Growth and Development Since 2000

Since 2000, many of the towns along the Byway have experienced growth in residential construction, mostly in the form of single-family residences. Building permit data collected for each town between 2000 and 2014 shows an average increase in housing units of 5.8% (Table 7-11). The economic downturn beginning in 2008 resulted in a slowdown in building permits that has only recently begun to rebound. For example, in the wake of the downturn, Hadley had as few as 4 building permits issued for new single family homes, where the average previously had been 10.

Table 7-11: New Residential Construction in Communities along the Scenic Byway, 2000-2014

Community	Housing Units (2000 U.S. Census)	Number of Housing Units Authorized through Building Permits, 2000 - 2014	Housing Growth (%), 2000-2014
Northfield	1,262	141	11.2%
Erving	630	74	11.7%
Montague	3,844	92	2.4%
Sunderland	1,668	75	4.5%
Hadley	1,953	153	7.8%
South Hadley	6,784	397	5.8%
Total	16,141	932	5.8%

Sources: 2000 U.S. Census and Census Building Permit Data.

Table 7-12: New Residential Construction along the Proposed Scenic Byway, 2000-2014

Community	Housing Units (2000 U.S. Census)	Number of Housing Units Authorized through Building Permits, 2000 - 2014	Housing Growth (%), 2000-2014
Hatfield	1,454	123	8.4%

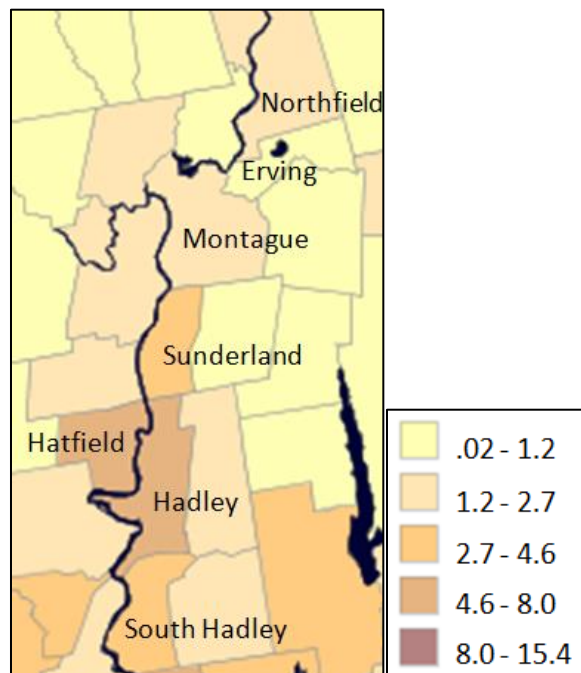
Sources: 2000 U.S. Census and Census Building Permit Data.

In the town of Northfield it was noted during a Scenic Byway Committee meeting that much of the land directly on the Byway is already developed with historic homes. Therefore, much of the recent development has occurred in the neighboring hills off of the Byway.

Development and Conservation 2005-2013

Mass Audubon’s *Losing Ground Report, Fifth Edition (2014)*, analyzes changes in development and conservation statewide. Past editions of the report utilized MassGIS land use data, but its most recent 2014 report utilized satellite imagery from Boston University. Below are two visual excerpts from the Losing Ground mapping application centering on the Byway area. According to Mass Audubon’s data, the largest increases in development town-wide were found in Hatfield and Hadley (both experienced 5 acres of new development per square mile), with the lowest increase in Erving (1 new acre of development per square mile) (see Image 1). This data corresponds with the on-the-ground experience along the Byway, where approval-not-required development has continued lot by lot since this plan was last completed in 1998, leading to a more “developed” feel along some stretches. Hadley and Hatfield in particular experienced more growth as nearby Amherst and Northampton continued to mature into regional job centers and builders encountered increased land and price constraints.

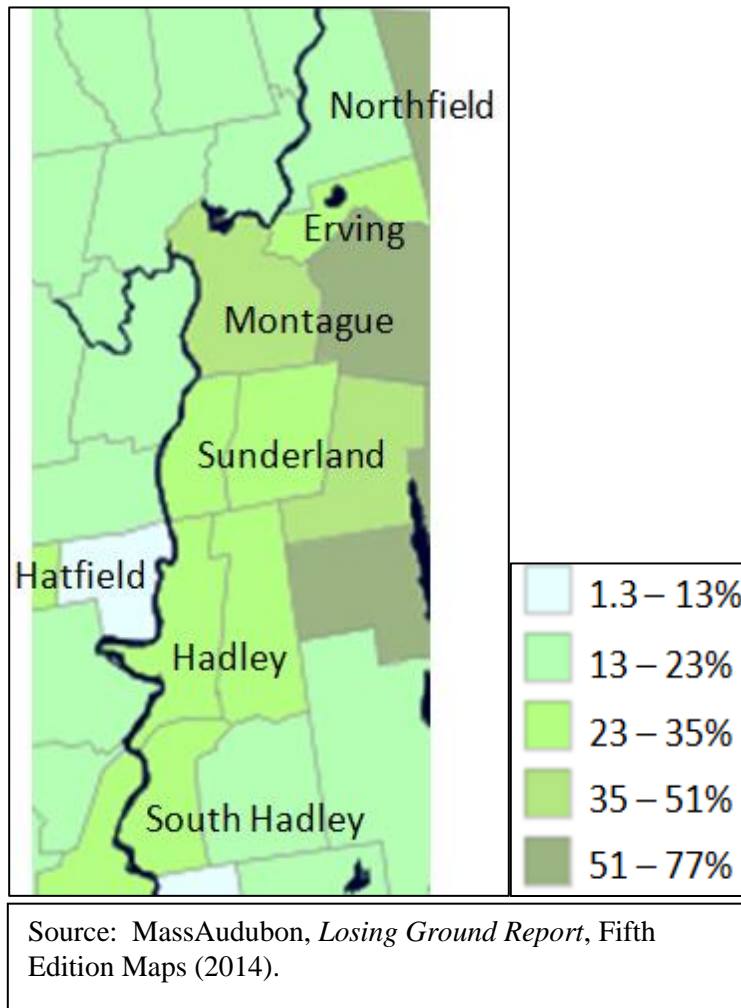
Significantly, Hadley, South Hadley, and Sunderland had a quarter to a third of their total land area (30%, 25%, and 35%, respectively) protected from development between 2005 and 2013 (Image 2), which undoubtedly contributes to the continued scenic experience among most of the Byway. Montague had the most protected land (37%). Hatfield has the least amount of land protection (9%), and indeed many of the wide expansive views of working agricultural fields the traveler currently enjoys are at risk of development and fragmentation should market conditions currently supporting these landscapes change.



Area of New Development, 2005-2013 (acres per square mile) Byway Study Area*, 1971 – 1999.

Source: MassAudubon, *Losing Ground Report, Fifth Edition Maps (2014)*.

Image 2: Overall percent protected, 2013



Agricultural Resources along the Byway

The Connecticut River Scenic Byway is defined by its agricultural resources. The communities within the Byway corridor in particular have some of the most fertile soils in the world, running 12 feet deep in some areas. This is also the case along the proposed Byway in Hatfield, where fields run from road’s edge to the river along long stretches. These valley towns have a very active farming community and produce a wide range of agricultural products, such as potatoes, corn, strawberries, asparagus, onions, tobacco, and much more. There are also maple syrup production facilities, which rely on surrounding forestland.

Local Zoning along the Byway

The future pattern of growth along the Connecticut River Scenic Byway will be influenced by zoning and the nature of the land available for development. The zoning along the Byway differs throughout the towns and is summarized in this section. The discussion focuses on the zoning in each town and how it benefits and protects the Byway's character (historic, rural, natural, scenic and recreational resources) while promoting economic development. The discussion recognizes that zoning changes are a local issue and require a 2/3 majority vote at Town Meeting.

Table 7-15 provides a snapshot of the zoning bylaws in the Byway towns. More details on the specific zoning districts within the Scenic Byway corridor are provided under the zoning discussion for each town. Development along the Byway over the past 15+ years has been predominantly due to Approval Not Required residential development, as well as substantial commercial development on Route 9 in Hadley in more recent years. Such development trends will continue, most likely in an incremental fashion, which is in many respects harder to confront than large-scale development. While the towns are better prepared in terms of regulatory mechanisms to preserve surrounding agricultural, forest, and scenic land, it is important that these mechanisms promote the common vision of the Byway.

Table 7-15: Zoning Summary for the Byway Communities

Town	Number of Zoning Districts Total (not including overlay districts)	Number of Zoning Districts in the Byway corridor	Village zoning district(s) with higher densities and/or more allowed uses to promote development in the district(s)	Open Space Residential Development (also known as a Conservation Subdivision) provision	Flag Lot allowed	Accessory Apartment allowed	Site Plan Review	Wireless Telecommunications Facility and Solar Bylaws	Types of Overlay Districts in the Byway Corridor
Northfield	2	2	No	Yes, with Site Plan Review	No	No	Yes	Yes - both	Floodplain Overlay District, Water Supply Protection District
Erving	4	4	Yes	Yes, by Special Permit	No	Yes	Yes	Yes - both	Floodplain District, Groundwater Protection Overlay District
Montague	14	9	Yes	No	No	Yes, by Special Permit	Yes	Yes - both	Water Supply Protection District, Floodplain Overlay District, Agricultural Business Overlay District
Sunderland	5	4	Yes	Yes	Yes	Yes	Yes	Yes - both	Prime Agricultural District, Critical Resource District, Planned Unit Development Overlay, Wireless Communications Facilities District
Hadley	6	4	Yes, Village Center Overlay District	No	No	Yes	Yes, Commercial Site Plan Approval	Yes - both	Farmland Preservation & Receiving Overlay, Village Center Overlay, Aquifer Protection Overlay, Floodplain Protection Overlay
South Hadley	12	4	Yes, Flexible Residential Development	Yes	Yes, by special permit	Yes	Yes	Yes - both	Yes – Wireless and Solar (but not grounded solar) Water Supply Overlay District
Hatfield*	8	6	Yes, Mixed Use District	Yes	No	Yes	Yes	Yes - both	Solar Array Bylaw; no specific Wireless Facility Bylaw Floodplain, Mixed Use, Riverfront

Source: Scenic Byway Communities' Zoning Bylaws

* Proposed Byway

Franklin County

Northfield

Northfield has two zoning districts, both falling within the Byway corridor study area, though the majority of the corridor is located within the Residential-Agricultural (RA) district.

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

District	Minimum Standards					
	Lot Size (sq. ft.)*	Area for each additional housing unit (sq. ft.)	Lot Frontage (ft.)	Front Yard (ft.)	Side Yard (ft.)	Rear Yard (ft.)
Residential-Agricultural (RA)	50,000	N/A	150	25	25	25
Residential-Agricultural-Forested (RAF)	100,000	N/A	250	25	25	25
Lots served by municipal sewer	35,000	12,000**	150	25	25	25

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

** Beyond two units.

Source: Northfield Protective Bylaw, April 15, 2015

Single-family and two-family homes are allowed by-right in both zoning districts. Multi-family homes (3-4 units) are allowed by special permit in areas served by municipal sewer only. Business and commercial uses require a special permit in both districts. There are two overlay districts within the Byway corridor study area. The Floodplain Overlay District encompasses the 100-year floodplain in Northfield, and limits development to uses that will not increase flood levels during the occurrence of a 100-year flood. Within the Water Supply Protection District, uses are regulated to avoid contamination of the Town's drinking water supply. The Northfield zoning bylaw includes an Open Space Residential Use provision that allows for flexibility in lot size, frontage, setbacks, and access requirements for developments over 10 acres in size where at least 35% of the land area is protected as open space.

Two of the strategies identified in the 2014 Northfield Master Plan to preserve the historic character of Main Street while enhancing economic diversity are to establish a village center zoning district, where certain desirable commercial uses would be allowed by-right instead of requiring a special permit, and to develop design guidelines for commercial and residential properties.

Erving

Erving has four zoning districts, all of which fall within the Byway corridor study area. Table – 17 lists the dimensional requirements for each district.

Table 7-17: Zoning Districts within the Erving Section of the Byway Study Area

District	Minimum Standards					
	Lot Size (sq. ft.)*	Area for each additional housing unit (sq. ft.)	Lot Frontage (ft.)	Front Yard (ft.)	Side Yard (ft.)	Rear Yard (ft.)
Rural Residential (RR)	87,120	0	225	50	50	50
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	100	50	50

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

Source: Erving Zoning Bylaws, November 4, 2013.

Single-family homes are allowed by-right in all four districts. Two-family homes and accessory apartments are allowed by-right in the French King Commercial district and the Rural Residential district, and by Special Permit in the Central Village and Village Residential districts. Multi-family homes are allowed only in the Central Village district by Special Permit. The Bylaw has a provision for the Zoning Board of Appeals to reduce by Special Permit the front, side, and rear yard setbacks for non-conforming lots in the Central Village and Village Residential districts if the proposed structure is consistent in scale and setback with abutting parcels and the immediate neighborhood. A variety of commercial uses are allowed by-right or by Special Permit, and all industrial uses require a Special Permit.

The Erving Groundwater Protection Overlay district falls within the Byway corridor study area. This district further regulates uses in order to protect existing and potential sources of drinking water and to prevent contamination of the environment. The Floodplain Overlay District encompasses the 100-year floodplain in Erving, and limits development to uses that will not increase flood levels during the occurrence of a 100-year flood. Erving has two optional methods of development, Flexible Development for Small Projects and Conservation Development, which help preserve open space, natural resources, and the character of the town. Erving also utilizes Site Plan Review for larger developments to ensure new development is harmonious with its surroundings.

Montague

Nine of Montague's 14 zoning districts fall within the Byway corridor study area. Table 7-18 outlines the dimensional requirements for each district.

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

District	Minimum Standards					
	Lot Size (sq. ft.)*	Area for each additional housing unit (sq. ft.)	Lot Frontage (ft.)	Front Yard (ft.)	Side Yard (ft)	Rear Yard (ft.)
Agriculture-Forestry 2 Acres (AF-2)	87,120	22,500	200	25	15	30
Agriculture-Forestry 4 Acres (AF-4)	174,240	22,500	250	25	15	30
Central Business (CB)	10,000	5,000	75	sidewalk /no more than 10 ft.	15**	30
General Business (GB)	22,500	22,500	150	25	15**	30
Neighborhood Business (NB)	10,000	5,000	75	25	10	30
Public/Semi-Public (SP)	22,500	N/A	150	25	15	30
Recreation Education (RE)	22,500	N/A	150	25	15	30
Residential (RS)	22,500	22,500	150	25	15	30
Rural Business (RB)	43,560	22,500	200	75	50** *	30

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

** Non-residential uses do not need a side yard when abutting other non-residential uses provided that there is access to the rear of the lot from a driveway of at least 12 feet in width.

*** For residential uses. 15 feet for non-residential uses.

Source: Montague Zoning Bylaws, January 30, 2014.

The Montague Zoning Bylaw allows exceptions to the above dimensional requirements by Special Permit where public water and sewer are available for residential uses. Single family homes are allowed by-right in the Agricultural-Forestry, Neighborhood Business, Residential, and Rural Business districts, and by Special Permit in the General Business district. Two-family homes are allowed by Special Permit in these same districts, except in the Neighborhood Business district where they are allowed by-right. Multi-family homes are allowed by Special Permit in the General Business, Neighborhood Business, and Rural Business (up to 4 units) districts. In the Central Business district, one and two-family homes are allowed by-right as part of mixed use development, where the street level is devoted to commercial use. Multi-family homes are allowed by Special Permit in the CB district as part of a mixed use development where the street level is also devoted to commercial use.

The Water Supply Protection Overlay District encompasses area around Lake Pleasant/ Millers Falls and Montague Center. In areas where sewer is not available, the minimum lot size for a

single family home is increased to 45,000 square feet, and to 67,500 square feet for a two-family home. The Flood Plain Overlay District regulates development within the 100-year flood plain in Montague. Permitted uses are allowed if they meet certain standards, including certification from a Registered Professional Engineer that the development will not result in an increase in flood levels during a 100-year flood, and State Building Code standards for building within the floodplain.

The town's zoning bylaws help promote the preservation of open space and farmland through the Back Lot Development Bylaw, which allows for lots within the Agricultural Business Overlay District that do not have adequate frontage, to be built upon by Special Permit in exchange for protecting farmland along roadways that is vulnerable to approval not required (ANR) development. Back lots are accessed via a common driveway, and are located on areas of a parcel with the least agricultural value. The intent is to avoid development of prime farmland soils and to maintain contiguous parcels of agricultural land. Additionally, a recommendation from the 2010 Montague Open Space and Recreation Plan is to consider conservation subdivision, also known as open space design or natural resource protection zoning, in the rural areas of town to allow for new housing while also protecting large areas of forest or farmland.

Sunderland

Sunderland has five zoning districts, four of which are located in the Byway corridor study area. Table 7-19 lists the zoning districts and the lot and frontage requirements.

Table 7-19: Zoning Districts within the Sunderland Section of the Byway Study Area

District	Minimum Standards					
	Lot Size (sq. ft.)*	Area for each additional housing unit (sq. ft.)	Lot Frontage (ft.)	Front Yard (ft.)	Side Yard (ft)	Rear Yard (ft.)
Village Residence (VR)	20,000	10,000	120	25	15	15
Rural Residence (RR)	32,000	16,000	150	30	20	20
Village Center (VC)	20,000	10,000	120	25	15	15
Commercial 1	32,000	16,000	200	25	40	40

* 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 Sunderland Zoning Bylaw, October 2012.

In all four of Sunderland's zoning districts, single family homes are allowed by right, while two-family or multi-family (3 or 4 units) residential buildings require a special permit. Both residential and commercial uses are allowed together in the Village Center and Commercial 1 districts. Commercial uses in these districts are allowed either by right or by special permit, depending on their intensity of use. The Village Residence and the Rural Residence districts do not allow commercial uses.

Sunderland has four overlay districts within the Byway study area. The Prime Agricultural District and Critical Resource District are intended to protect lands critical to the environmental quality of the Town by ensuring that alternatives to development are considered prior to actual physical development of a site. The Wireless Communications Facilities District is meant in part to protect the historic and residential character of the town by minimizing adverse impacts of wireless communication facilities. The Planned Unit Development Overlay district encompasses the Commercial 1 and Village Center districts, and provides for flexible design for clustering buildings in order to encourage a less sprawling form of development.

Sunderland has adopted several other zoning measures to support desired types of development and protection of open spaces. These include: Flexible Developments, Site Plan Review, Major Residential Development, and a Transfer of Development Rights (TDR) provision. According to the 2014 Sunderland Open Space and Recreation Plan, the TDR provision has only been used once since its adoption in 1975. The Plan suggests that the provision could be revised to make it more effective in preserving Sunderland's critical resources. Sunderland's zoning was most recently updated in 2012 to include regulations on Large-Scale Ground-Mounted Solar Electric Installations.

Hampshire County

The majority of the Byway in Hadley and South Hadley goes through rural residential or agricultural zones. In Hatfield, the proposed Byway traverses rural residential, town center, agricultural, and industrial zones. In Hadley and South Hadley, zoning has been updated to address many of the issues raised in the last corridor management plan (1998), and many land protection mechanisms are in place to help protect from runaway growth along the Byway.

Hadley

Hadley has five underlying zoning districts, four of which are located in the Byway corridor study area. Table 7-20 lists the zoning districts and the lot and frontage requirements.

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

District	Minimum Standards					
	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)
Agricultural-Residential	22,500	Only one unit/lot allowed.	175	50	15	40
Limited Business	30,000	Only one unit/lot allowed.	175	50	15	40
Business	30,000	Only one unit/lot allowed.	175	50	15	40
Local Business	30,000	Only one unit/lot	175	50	15	40

		allowed.				
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** 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 Hadley Zoning Bylaw, May 2007.

The zoning district through which the Byway passes in Hadley is predominately Agricultural-Residential, which allows for single-family residential and other agricultural uses, but no other uses that do not require a special permit. The Local Business district, which is intended to allow businesses that serve surrounding residential uses, hugs either side of the Byway south of the Village Center area around Route 9. The Village Center and Senior Housing Overlay districts span lengths of Route 9 starting to the south of the rail trail to just south of Route 9. North of Route 9, most of the Byway is fronted by Limited Business with Agricultural-Residential in the fields behind. The Business district straddles Route 9.

Of particular relevance to tourism along the Byway, bed and breakfast facilities are allowed by special permit in the Agricultural/Residential, Limited Business, and Local Business zones. Bed and breakfast facilities are allowed by right in the Business zone. In all cases, bed and breakfasts must be owner-occupied, incorporated into the single-family dwelling (only one kitchen allowed), and include no more than six units; functions such as weddings are not allowed. Restaurants, hotels, and motels are allowed by right only in the Business district, and not in any other zone.

Hadley’s permitted uses in the Limited Business, Local Business, Business, and Agricultural/Residential zones generally conform with the character of the scenic Byway. Automobile service shops are still permitted in the Business zone along the Byway, however, which could negatively influence the road’s scenic character at the Route 9 intersection and the middle-southern section of the Byway. Offices and small businesses are allowed in the Limited Business district by special permit. Businesses in the Limited Business area must conform to “the historic, scenic and agricultural-residential nature of the district” due to the Village Center Overlay district. Retail uses are allowed in the Limited Business district with a special permit (with a preference for businesses related to agriculture) and Business District by right. Retail businesses in the Limited Business district are not to exceed 2,500 square feet and are subject to commercial site plan approval. It does not appear that automotive repair shops or fast food establishments are allowed in the Limited Business District, though convenience stores may be allowed with special permit by the Planning Board.

Wireless towers are regulated under the Wireless Communications Services District, and are allowed by special permit within the scenic Byway area (in the Business and Limited Business Districts). An 80 foot wireless tower was recently approved off River Road in 2013. The Town should consider imposing restrictions on future towers by eliminating areas along or in view of the scenic Byway.

A solar bylaw was adopted in 2012. Small-scale grounded solar arrays (<1 acre) are allowed in any zoning district with an administrative review. Large-scale solar arrays between 1 and 10 acres in size are allowed in the Agricultural/Residential district, but must have a 100 foot setback along the Byway and be screened with landscaping from public ways. Solar arrays may have

significant impact on the scenic views of the Byway, particularly of agricultural fields, and also the agricultural economy. While solar energy should be encouraged, the Town may consider developing prohibitions on locations of prime farmland and criteria for large-scale grounded arrays that are visible from the Byway.

Construction, exterior alteration, expansion, or change in use of commercial structures within Limited Business and Business Districts are subject to Commercial Site Plan approval. Design standards are not specified, however, except in the Village Center Overlay district, which covers the center of Hadley. Commercial uses subject to site plan approval are required to locate parking to the side or rear of the structure.

Signs

Sign regulations in Hadley regulate the type and size of sign per zoning district and use. Billboards, electronic/digital, or flashing/moving signs are not allowed, which conform to the Byway's character. In residential areas, signs must not exceed two square feet in area. In the Business District, wall signs up to 40 square feet (per business) and a ground sign up to 64 square feet (per lot) are allowed. Respective signs in the Limited Business District are allowed up to 20 and 40 square feet. There are no restrictions on materials, including plastic.

Residential Development Control

Since the completion of the 1998 Corridor Management Plan, Hadley has adopted several innovative residential control bylaws. These include a transfer of development rights bylaw (known as the Farmland Preservation Bylaw), a Rate of Development bylaw, and a Village Center Overlay District.

The Farmland Preservation Bylaw was one of the first of its kind adopted in Massachusetts. It designates developable farmland in the Agricultural/Residential as sending areas from which developers can purchase development rights (through Agricultural Preservation Restrictions) and build 2,000 square feet of additional commercial or industrial space (with reduced parking requirements) in designated receiving areas, which are the Business and Industrial zones that front Route 9, North Maple Street, or Mill Valley Road. Developers can also pay an in-lieu fee that contributes to a fund to purchase APRs, which is what developers of four projects opted to do as of 2010. The fee is determined by the by-acre cost of farmland easements over the past three years. The Farmland Preservation Bylaw is considered a success in Hadley, with a large proliferation of commercial and business development being directed to the Route 9 corridor and increased funding for APRs.

The Rate of Development (ROD) Bylaw, added in 1988, amended in 2004, and expired on January 1, 2014, affected subdivision developments in common ownership. Developments with a maximum potential of less than 10 units were allowed to build one unit per year, while developments with a maximum potential greater than 10 units were allowed to build 1/10 of that maximum per year. Between 2005 and 2013 there were no subdivision applications. The rate of development bylaw did not limit the transfer of development rights from sending areas. In a 2004 legal test to Hadley's ROD bylaw, the Commonwealth's land court ruled that such a limitation on growth cannot remain indefinitely. The Town has thus lost this protection against accelerated development, including large subdivisions.

The Flood District Overlay district serves to protect the floodplain (through which the Byway passes) from levels of development that would increase flood levels. Because of the special provisions of the flood plain district, development in this zone is more expensive, though not impossible or prohibited. The town should consider maximizing the stringency of the Flood District Overlay to consider expanding the district to the 500-year flood plain, as climate change will result in greater frequency of these floods, and prohibiting the construction of any building within the floodway.

Despite these controls, residential development averages about 10 single family units a year in Hadley. Approval Not Required (ANR) lots are responsible for the majority of residential development along the Byway. (ANR lots do not require subdivision review if they have sufficient roadside frontage.) ANR development continues to be the largest threat to the Byway’s scenic nature, but requires an act of the state legislature to better control, as it would affect all towns in the Commonwealth.

An Open Space Preservation/Cluster Development Bylaw is another mechanism to reduce the amount of land consumed by residential subdivisions. This allows developers the option to leave large areas of a subdivision (preferably areas of agricultural or contiguous forest land) undeveloped while permanently protecting open space that might otherwise be developed in traditional subdivisions. This is achieved by offering developers the option of smaller lot sizes (15,000 square feet as opposed to 30,000 to 40,000 square feet) and smaller road frontage requirements. An Open Space Preservation Bylaw proposed at town meeting in Hadley in 2012 did not pass.

South Hadley

South Hadley has revised its zoning code, site plan review, subdivision regulations, parking regulations, and other aspects of its regulatory structure in response to the goals of its 2010 Master Plan. These efforts have greatly improved the potential outcome of any new development along the Byway, as they allow for more flexibility and consideration of the surrounding context.

South Hadley has 12 zoning districts, 4 of which are located in the Byway corridor study area. Table 7-21 lists the zoning districts and the lot and frontage requirements.

Table 7-21: Zoning Districts within the South Hadley Section of the Byway Study Area

District	Minimum Standards					
	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)
Agricultural	40,000 (80,000 for flag lot; 2,000 for Flexible)	.90 x acreage	150 (20 for Flex Development)	40 (15 for Flex Development)	20 (0-7 for Flex Development)	25 (10 for Flex Development)

	Development)					
Residence A1	40,000 (80,000 for flag lot; 2,000 for Flexible Development)	1.2 x acreage	125 (15 for Flex Development)	40 (15 for Flex Development)	20 (0-7 for Flex Development)	25 (10 for Flex Development)
Residence A2	40,000 (80,000 for flag lot; 2,000 for Flexible Development)	2.0 x acreage	100 (20 for Flex Development)	25 (10 for Flex Development)	10 (0-5 for Flex Development)	20 (8 for Flex Development)
Business A	10,000	3,000sq ft/unit (single family), 2,000 sq ft / townhouse/ condo unit	50	10	6	10

* 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 South Hadley Zoning Bylaw, as amended through November, 2013.

The South Hadley segment of the Byway incorporates Residential A-1, Residential A-2, Business A, and Agricultural Districts. The segment almost entirely falls within the Water Supply Protection District, and the majority of it is zoned agricultural. The Residential A1 and A2 districts generally cover areas where there is existing development along the Byway, and the Business A District covers the Village Commons shopping area at the intersection of Route 116.

Aside from retail uses that are allowed by special permit with planning board review at the intersection of the Byway and Route 116, the rest of the Byway in South Hadley is mainly limited to single-family residential uses, particularly in the agricultural zone. As in Hadley, ANR development is also an issue in South Hadley. Flag lots are allowed only by special permit, and multi-family residential, retail, and all business/commercial uses are not allowed in the agricultural zone (except in a Flexible Development). One exception is earth removal, which is allowed by special permit and pursuant to the conditions of the Water Supply Protection Overlay district. There is an existing gravel mining operation along Route 47 in the agricultural zone; however, mining is prohibited in the area to the east of Route 47 extending to the Hadley and Amherst town lines. The Water Supply Protection Overlay means that lot sizes along the Byway are larger than required elsewhere in town.

Special permit criteria, which were updated in 2013, require that applications are suitable for the property on which the project is proposed, its ability to be buffered, and its compatibility with the surrounding neighborhood (including its historic and scenic context). This provides some measure of protection from proposed developments that may be out of scale or character with the surrounding agricultural landscape.

Wireless communication towers are allowed by special permit, but not in the area of the Holyoke Range except in special circumstances as deemed by the Planning Board. In those cases, provisions must be made to protect scenery. Solar arrays are allowed in South Hadley, but only those mounted to buildings and used for heating/cooling. Grounded solar arrays are not addressed in the bylaw. South Hadley Electric & Light, the municipal utility, does not allow net metering, so there is currently no pressure to build ground mounted units (though that could change). The Town may wish to review its zoning to ensure grounded solar arrays are sited appropriately in town, particularly to avoid agricultural or forest land in ways that protect open space, agricultural economy, and scenic views in the Byway area.

Parking regulations have been revised and are flexible in that they account for the peak demand of the use, other modes of transportation likely to be used, and the availability of other nearby parking areas or on-street parking. Parking must also be located behind uses or otherwise screened with vegetation. These regulations are well suited to help preserve the character of the Byway.

South Hadley allows for “Flexible Development,” which promotes more varied site design (such as zero lot development and smaller setbacks) in exchange for the preservation of open space or unique natural qualities and features of a site. These developments must follow the same process as subdivision regulations require, and demonstrate the features to be preserved. To incentivize this type of development, density bonuses are allowed. The minimum acreage for a Flexible Development is 5 acres; there are several undeveloped parcels along the Byway that are of that size. Frontage on an existing road is not required, which is beneficial to promoting back-lot development and thus preserving scenery along the Byway.

The town’s floodplain regulations do not allow any construction within the “floodway,” as designated on FEMA maps, or within 10 feet of the top line of the flood plain. Any construction within the floodplain must be elevated above the base level 100-year flood. In addition to floodplain regulations, the Town’s wetlands bylaw does not permit land disturbance within 100 feet of a wetland, stream, or waterway. The Byway and its adjacent lands in South Hadley do not traverse much floodplain, except where it crosses Stony Brook. In the Stony Brook area development would be limited as the Town owns land to the west and south of Stony Brook, though there is potential for some lots to be further subdivided and developed on the eastern side of the Byway in this vicinity.

Currently there are no controls to prevent development on steep slopes, such as some of the parcels that are still in private ownership in the Holyoke Range. A ridgeline overlay protection district could discourage hillside or ridgeline residential development in this area, as several of the lots are not in permanent protected status.

Hatfield

The proposed Byway in Hatfield goes through several zones: Rural Residential, Town Center, Agricultural, and Industrial. Along the way there are spot parcels zoned Town Center Business, Industrial, and Business zones. Portions of the proposed Byway and the lands adjacent fall within the Riverfront Overlay District and Floodplain Overlay District; there are also a small number of

designated Mixed Use Zoning Overlay District parcels. The zoning code currently in effect was adopted in 2003 and revised throughout the following decade, with the extensive assistance of the Pioneer Valley Planning Commission (including the adopting of the Mixed Use Zoning Overlay District in 2012).

Hatfield has eight zoning districts, six of which are located in the Byway corridor study area. Table 7-22 lists the zoning districts and the lot and frontage requirements.

Table 7-22: Zoning Districts within the Hatfield Section of the Proposed Byway Study Area

District	Minimum Standards					
	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)
Agriculture	60,000	N/A	200	35	15	30
Business	45,000/60,000	4,000/unit	200	35	20	50
Industrial	60,000	N/A	200	50	50	50
Town Center	45,000	15,000 add'l for 3 units, 4,000 for each unit thereafter	200	35	15	15
Town Center Business	45,000	15,000 add'l for 3 units, 4,000 for each unit thereafter	200	35	15	15
Rural Residential	45,000	15,000 add'l for 3 units, 4,000 for each unit thereafter	200	35	15	30

* 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 Hatfield Zoning Bylaw, as amended through May 2015.

Minimum lot sizes and frontages are large in Hatfield, at over one acre in the zones along the Byway. Setbacks are also large, but in many areas of the Byway this conforms with existing surrounding development.

Uses permitted in the Agricultural and Rural Residential areas are generally limited. In the Agricultural District, which covers many of the fields on the northern portion of the proposed Byway, single-family residential housing is allowed with an administrative review of the site plan. Two-family and multi-family residences are not allowed in the agricultural zone; they are allowed by right and special permit, respectively, in the Rural Residential area. Open Space

Communities are allowed by special permit in the Agricultural and by right in Rural Residential districts.

Retail uses are not allowed in the Agricultural or Rural Residential zones, and only by special permit in all other areas. Large-scale retail developments (over 10 acres or 30,000 square feet) are subject to Major Development Review in the Business District with special permit and site plan approval. Farm stands are allowed in all zones. Bed and Breakfast homes, which are allowed only up to three guests, are allowed in the Rural Residential, Town Center, and Agricultural areas with special permit or site plan review.

In general there are only a few allowed uses in the zones through which the proposed Byway passes that may conflict with its character. These include uses allowed in the Industrial Zone, a large segment of which lies in between the proposed Byway and the Connecticut River. This area also falls within the Floodplain Overlay District, however, limiting development potential for large industrial uses. Offices, car repair shops, warehouses, and convenience stores (the latter only if part of a planned industrial development) are allowed in the Industrial zone, but all such uses are subject to either special permits or site plan review. In the Business zone, gas stations are allowed with site plan approval. While this use can be visually detrimental to the Byway character, it also provides a service to Byway travelers. Commercial earth excavation is also allowed in the Rural Residential zone with special permit, which could be detrimental to the visual scenery. Additional information is needed as to whether such activity is likely in the area, however.

Billboards are not allowed in Hatfield. Wireless towers, however, are allowed in all zones. Grounded solar installations are restricted by Special Permit with Site Plan Approval and/or Site Plan Review. A large number of the uses allowed in Hatfield along the proposed Byway require site plan approval or special permits. Such approvals require public hearings. Criteria for approval includes consideration of whether the proposed use/site plan is detrimental to the surrounding neighborhood, protects open space and natural areas/features, and has landscape screening from the roadways. This is an advantageous feature that should allow future development to better conform to the proposed Byway's character.

Hatfield has a farmland development program that uses a transfer of development rights mechanism. The designated "sending areas" include the Rural Residential and Agricultural zones, while the "receiving" include sewered areas of the Business and Industrial districts. A density bonus is allowed to incentivize such development. Developers make a contribution to the Hatfield Agricultural Preservation trust so that the town may purchase APRs. As of 2010, the TDR program had not been used.

Other development control mechanisms in Hatfield include the Floodplain Overlay District, which restricts all new structures (including single-family) without a special permit. While this makes development more difficult, it does not prevent it outright. Much of the Byway on Maple and Main Streets is covered by the Floodplain Overlay District on either side. Hatfield also has an Open Space Development bylaw, which is allowed by right in the Agricultural and Rural Residential zones and allows for smaller lot sizes as long as the average lot size is that required by the zoning district (40,000 square feet in Rural Residential, and 52,500 square feet in

Agriculture). Open Space Development is not allowed in the floodplain, which eliminates much of the agricultural land on the Byway from this development type. Hatfield also has a density bonus for Planned Business and Industrial Developments if they cluster buildings.

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.

Franklin County

Northfield

The Byway corridor encompasses Northfield's historic village, forested areas, and agricultural land. Some of which is temporarily protected from development through the Chapter 61 program. Very little farm and forest land within the Byway corridor is permanently protected from development. The village center area and the former Northfield Mount Hermon Campus are served by public water and sewer systems.

The former Northfield Mount Hermon campus at the northern end of Main Street in the village center has the greatest potential for development at this time. The 217-acre campus is currently owned by a private non-profit, which is conducting an ongoing search for new users of the campus. The 2014 Northfield Master Plan recommends that the Town collaborate with the current and future owner(s) of the campus to promote its redevelopment. In addition to the campus, the Master Plan identifies several "commercial clusters" along Main Street (Routes 63/10) where new commercial uses could be encouraged. The plan documents support from town residents for more locally-owned businesses that cater to community needs in the village center, and recommends amending the Northfield zoning bylaws to create a village center zoning district that would allow certain business related uses by-right. Currently all business uses must go through the Special Permit process in town.

Erving

There are several former industrial buildings within the Byway corridor in Erving that the Town would like to see redeveloped. The former Millers Falls International Paper facility in Erving is vacant and available for redevelopment. The Town of Erving acquired the property in 2014, and is conducting a feasibility study to help guide redevelopment options for the site. The Renovator's Supply, Inc. building in Erving is also underutilized and available for lease. Industrial use, office, artist studios and rehearsal space, distribution and manufacturing are some possible uses.

The Town of Erving owns a 17-acre site to the west behind the new Erving Senior Center in Erving that is planned for a senior housing development. Preliminary designs call for 20 units of senior housing on the site. Currently there is very little protected land within the study area that would limit development along the Byway.

Montague

Redevelopment efforts in Montague within the Byway corridor have focused around the existing village centers. In 2015, the Town transferred a tax-title property on the corner of East Main Street in Millers Falls to a developer that has committed to rehabilitating three currently dilapidated mixed-use buildings. Plans for redevelopment include a mix of residential and commercial uses. In 2010, the Town amended the zoning map to create a Neighborhood Business District in Montague Center, allowing for multi-family uses by special permit, in an effort to support redevelopment of the Montague Center School building. A local developer has plans to convert the former school building into 22 apartments, and is in final negotiations with the Town to purchase the property.

The town of Montague is also working to nominate the village of Millers Falls to the National Register of Historic Places which will allow redevelopment efforts to take advantage of tax credits that are available.



Renovations on an historic building in Millers Falls.

Outside of the village centers, a

significant portion of the Byway in Montague is within the Rural Business zoning district. The purpose of the district is “to allow small and natural resource-based businesses that are compatible with existing agricultural and residential uses and scenic character.” About a third of the Byway study area is either permanently protected from development, or temporarily protected through the Chapter 61 program.

Sunderland

The portion of Sunderland that falls within the Byway corridor south of Falls Road is mostly flat terrain and composed of rich farmland, which is easily developable. Much of the agricultural land on the Byway is permanently protected. Some significant parcels were protected with funding provided through the Scenic Byway Land Protection Program. The current village center is composed of mostly single family residential homes, municipal and religious buildings, and some commercial uses. The Town convened an Economic Development Committee from 2006-2008. The committee’s final report concluded that a decreasing percentage of Sunderland’s tax revenue is coming from businesses and that the Town must encourage business development for economic sustainability. As a result, the Town rezoned to expand commercial districts and

created a Village Center district centered at the Route 116/47 intersection. A major goal of the 2014 Transportation and Circulation Chapter of the Sunderland Master Plan is to create a pedestrian-oriented, village atmosphere within the town center that would be a destination for residents and visitors.



Land permanently protected in Sunderland with funding through the Scenic Byway Land Protection Program.

Natural resource protection goals outlined in the 2014 Sunderland Open Space and Recreation Plan include protecting agricultural land, especially in the southern part of town, and protecting wildlife habitats, especially around Mount Toby in the northern part of town. Another major goal of the

plan is to preserve Sunderland's rural character by protecting scenic resources and enhancing historic and cultural sites, buildings, and landscapes.

Hampshire County

Hadley

According to the 2005 Master Plan, Hadley was expected to continue growing faster than Hampshire County as a whole by 2010.³ The economic downturn starting in 2008 likely slowed much residential development, but Hadley's 2010 population grew at an almost 10% change from 2000. Commercial development along Route 9 continues to expand. ANR development along the Byway continues to be the largest threat to its scenic nature, as well as continued encroachment on the surrounding agricultural lands by subdivisions. Barring a change in the state legislature for ANR development, potential solutions include creating compelling incentives for back-lot with open space set-aside bylaws, and the integration of development incentives (such as an increase in units) in exchange for open space preservation in an adopted open space preservation bylaw. Open space development should be encouraged in agricultural areas by allowing it by right. In addition, the Town's solar bylaw could make clear that prime agricultural land and mature forest land is not an appropriate site for medium- and large-scale solar facilities.

³ http://www.hadleyma.org/pages/HadleyMA_Admin/HadleyMasterPlan.pdf, page 14

South Hadley

South Hadley's updated zoning has many provisions to protect the unique scenic resources along its portion of the Byway. There still remains developable open space along the middle portion of the South Hadley Byway segment, though some of it is located in back lots. In addition, several lots on the Mt. Holyoke range are in private ownership and not protected from development. The largest ongoing challenge will be mitigating the impacts of ANR development, which could continue to fill out the remainder of open space along the Byway, particularly since required lot sizes and frontages are large. South Hadley is currently working with UMass to develop a design review bylaw; special design review provisions for the Byway corridor that promote context-sensitive residential development and protect viewsheds should be incorporated into this effort.

Hatfield

Hatfield is increasingly an attractive community for residential development. According to the draft 2014 OSRP, although the number of residential units has been relatively low since 2000 (averaging 10 per year), the rate of development (11.5%) has been higher than its neighbors due to the Town's small numbers of available parcels. In addition, the large lot sizes and residential market have resulted in more land being consumed per residential development than had historically been the case. Development pressures along the Byway are acute in agricultural land, particularly due to ANR development. Single-family housing in the Agricultural zone is allowed with site plan review; multi-family and duplex housing is not allowed in agricultural areas.

Protected Open Space

The permanent protection of natural, agricultural, and/or historic landscapes will preserve and enhance the scenic value of the Byway. There are a number of ways that land can be permanently protected from development. Federal, State, municipal agencies, or land trusts can purchase property in fee or acquire a conservation restriction or agricultural preservation restriction from willing landowners in order to permanently protect land from development. Land with important resources such as a water supply recharge area, scenic vista, wildlife habitat, farms and forests are a priority for protection.

A conservation restriction (CR) is a legally binding agreement between a landowner and the CR holder, usually a public agency or a private land trust, whereby the landowner agrees not to 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).

The Massachusetts Agricultural Preservation Restriction (APR) Program is a tool for permanently protecting active farmland. It is administered by the Massachusetts Department of Agricultural Resources (MDAR) and can be used to purchase a development restriction on agricultural land that meets the requirements of the program. Funding is available through the APR Program to purchase the development rights of prime farmland which permanently protects the land for agriculture. The APR is recorded with the Registry of Deeds and continues in perpetuity with the land.

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, agricultural or recreational use for a certain period of time. The Chapter 61 Program provides many public benefits, including maintaining wildlife habitat, recreational open space and sustaining rural character and economies.

The Chapter 61 Program also provides towns with an opportunity to permanently protect the land. When land that is enrolled in the Chapter 61 Program is put up for sale and will be converted to a use that would make it ineligible for Chapter 61, there is a 120-day waiting period during which the town 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 within the short time frame. However, towns can assign their right of first refusal to a land conservation organization (land trust), which may have more capital available.

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

Community	Acreage within entire Community	Level of Protection			
		Land with Permanent Protection (Chapter 97)	Land with Temporary Protection (Chapter 61)	Percentage of Land in Town that is Permanently Protected	Percentage of Land in Town that is Temporarily Protected
Northfield	21,960	4,028	4,848	18%	22%
Erving	9,194	2,967	155	32%	2%
Montague	20,109	7,392	2,296	37%	11%
Sunderland	9,431	3,981	2,012	42%	21%
Hadley	15,971	4,885	159	31%	1%
South Hadley	11,816	2,973	125	25%	1%
Hatfield	10,766	320	59	3%	1%
Total*	88,481	26,226	9,595	30%	11%

*Total does not include Hatfield.

Sources: MassGIS open space data, town Open Space and Recreation Plans, and updates by RPA staff. *The Byway study area is defined as ½ mile on each side of Routes 47 and 63 from Northfield to South Hadley, and the proposed Byway on Elm, Maple, and Main Streets in Hatfield. See Byway Base Map for more details.

Table 7-14: Protected Open Space Acres within the Byway Corridor, by Community

Community	Acreage within Scenic Byway	Level of Protection			
		Land with Permanent Protection (Chapter 97)	Land with Temporary Protection (Chapter 61)	Percentage of Land in Byway that is Permanently Protected	Percentage of Land in Byway that is Temporarily Protected

			61)	Protected	Protected
Northfield	5,316	221	1,008	4%	19%
Erving	1,351	88	15	7%	1%
Montague	3,643	1,009	316	28%	9%
Sunderland	3,669	1,579	316	43%	10%
Hadley	12,019	2,742	86	23%	1%
South Hadley	5,592	769	43	14%	1%
Hatfield	5,854	321	59	5%	1%
Total*	31,590	6,408	1,784	20%	6%

**Total does not include Hatfield.*

*Sources: MassGIS open space data, town Open Space and Recreation Plans, and updates by RPA staff. *The Byway study area is defined as ½ mile on each side of Routes 47 and 63 from Northfield to South Hadley, and the proposed Byway on Elm, Maple, and Main Streets in Hatfield. See Byway Base Map for more details.*

There are 31,590 acres within the Byway study area, and 20% (6,408 acres) of these acres are permanently protected. In Hatfield, there are 5,854 acres in the proposed Byway area and 5% (321 acres) are permanently protected. In addition, 6% of the Byway study area is temporarily protected under Chapter 61 regulations. (It is important to note that Chapter 61 protections are very limited as they require significant advance communication with landowners and fundraising by municipalities and non-profits to take advantage of the right of first refusal.) One percent of land is temporarily protected in the proposed Byway study area in Hatfield. In addition to the environmental and economic benefits of land protection such lands provide, protecting farmland and undeveloped open space is key to maintaining the scenic beauty and natural qualities that make the Connecticut River Valley unique.

A scenic assessment was completed as part of this plan (see Chapter 2), which methodically reviewed the scenic and natural qualities that are visible from the Byway. Based on that assessment, a number of areas along the Byway were identified as priority scenic areas. These areas should be prioritized by the Byway towns for protection.

Many communities along the Byway have Open Space and Recreation Plans (OSRP). The purpose of the OSRP is to identify the town's unique agricultural, historical, recreational, natural, and scenic resources and to provide a framework for the town's future decisions regarding land conservation and development. The OSRP includes a Seven-Year Action Plan which identifies steps to guide decision-making regarding open space and recreation needs, including objectives and actions to permanently protect additional open space in town. All towns along the Byway and proposed Byway currently have adopted or are developing OSRPs. A current OSRP also makes a town eligible for many state conservation and recreation grants that could support the goals of the Connecticut River Scenic Byway Corridor Management Plan.

Below is a description of the status of each of the communities' protected open space and measures they may have taken to protect their resources.

Franklin County

Northfield

There are more than 4,000 acres, or roughly 18% of the town, in Northfield that are permanently protected from development. Approximately 22% of land in town is under temporary protection. Northfield's 2013 Open Space and Recreation Plan notes the recent progress made by the Town, private landowners, and local land trusts to protect more land in town. Since the last OSRP in 2005, four farms have been protected through the Agricultural Preservation Restriction (APR) program, and three conservation restrictions were placed on forested land. Additionally, over 2,000 acres in town are state forest lands. Only 4% of land, or 221 acres, is permanently protected within the Byway study area, while 19% (1,008 acres) is temporarily protected from development. Northfield passed the Community Preservation Act in 2008, and in 2014 utilized CPA funds along with National Scenic Byway and other sources of funding to protect the 142-acre Alderbrook Meadow Sanctuary located just off of Route 63 two miles south of the town center.⁴ In addition, 18 acres of land on the Connecticut River were protected with funding from the Scenic Byway Land Protection Project.

Erving

According to the 2010 Erving Open Space and Recreation Plan, approximately 32% of land in town, almost 3,000 acres, is permanently protected. The Erving State Forest, located in the eastern section of town, makes up a large percentage of this land. Only 2% of land in Erving is temporarily protected through the Chapter 61 program. Roughly 7% of land (88 acres) within the Byway study area is permanently protected.

Montague

Over 7,000 acres are permanently protected from development in Montague, accounting for 37% of the total land area in town. A large amount, over 5,000 acres, is forestland owned by the State. Almost 3,000 acres, or 11% of land in town, are temporarily protected. Roughly 1,227 acres of farmland were permanently protected as of the last Montague Open Space and Recreation Plan, updated in 2010. Within the Byway study area, approximately 28% of land, or 1,009 acres, is permanently protected. Much of this land is forested. Another 9%, or 316 acres, is temporarily protected and includes farms and forestland.

Sunderland

Approximately 42% of Sunderland's total land area is permanently protected from development, and another 21% is temporarily protected. This is the highest percent permanently protected land in the communities along the Connecticut River Scenic Byway. Within the Byway study area, approximately 43% of land is permanently protected, and 10% is temporarily protected. In 2014, the Town of Sunderland completed an update to the Sunderland Open Space and Recreation Plan. It highlights the recent progress the Town and private landowners have made towards preserving open space throughout the community. Specifically, 260 acres of prime farmland were recently permanently preserved to bring the total to more than 1,100 acres of permanently protected agricultural land. In 2010, Sunderland approved the Community Preservation Act (CPA), which provides a source of local money and state matching funds that can be used toward preserving additional open space. The Sunderland Town Meeting has approved the transfer of CPA funds to the Town's Conservation Fund for use in acquisitions and

⁴ Mount Grace Land Conservation Trust website: <http://www.mountgrace.org/community-conserves-northfield-land-accessible-trail-follow>.

preservation of open space. Additionally, 389 acres of agricultural land in Sunderland was enrolled in the Massachusetts Agricultural Preservation Program (APR) using funds from the Scenic Byway Land Protection Project.

Hampshire County

Hadley

Hadley faces tremendous growth pressures due to its location between the larger communities of Northampton and Amherst, and its wealth of flat and well-drained agricultural land. Between 1971 and 1999, Hadley lost about 925 acres of open space, while residential land conversion increased by 582 acres. According to Hadley's draft 2014 Open Space and Recreation Plan, about half of Hadley's protected land (2,695 out of 5,490 acres) is protected through the Agricultural Preservation Restriction (APR) program. This represents about half (46%) of Hadley's 5,800 acres of active farmland. Lands protected by state, federal, and non-profit owners totals 1,858 acres. Perhaps the most high-profile protected land in Hadley is Skinner State Park and Mt. Warner. Lands identified in the OSRP as important for protection include lands along the Byway, including land in the Hockanum section of southern Hadley along the Connecticut River; the Fort River watershed; and the Great Meadow.

Hadley is a Community Preservation Act community, and in recent years has used CPA funding to purchase APRs. Hadley also utilizes funding from its Transfer of Development Rights program to purchase APRs in its sending area to offset development occurring in its receiving area. Agricultural land north of Route 9 is particularly important for preservation, as it is considered some of the most fertile in the country.

Proposed tools for land preservation listed in the seven-year action plan include a scenic overlay district for Route 47 and Mt. Warner; refining the solar bylaw to protect prime farmlands; and emphasizing the importance of agricultural uses in the zoning bylaw. The plan also lists continued use of APRs, particularly in the Great Meadow area, and adding viewshed protection as a purpose in conservation restrictions obtained by local land trusts.

South Hadley

Forest rather than agricultural land characterizes most of the Byway in South Hadley. As of 2012, most of South Hadley's agricultural land was under only limited protection in Chapter 61. Along the base of the Holyoke Range, there are 200 acres protected under the federal Forest Legacy program, which protects private forest land through conservation restrictions. Another key parcel of forest land north of the Byway and abutting Skinner State Park was protected in 1994, totaling 59 acres. Land to the west of the Byway and adjacent to the river was also purchased from Northeast Utilities by the town in 2005, creating the 284-acre Bachelor/Stony Brook Conservation area. Town-owned land with recreation fields abuts this property, creating the potential to add additional space to the conservation area.

Despite these protections, the OSRP calls for several actions that would increase land protection along the Byway. These include ensuring that town-owned land on the Holyoke Range are put into permanent protection status; adopting the Community Preservation Act; and continuing to pursue conservation restrictions and acquisition on the Holyoke Range. The plan also includes

information about the establishment of agricultural protection or open space protection districts that allow clustered zoning.

Hatfield (proposed Byway)

Like Hadley, Hatfield has some of the most fertile agricultural land in the country. Approximately 395 acres of its agricultural land is permanently protected, considerably less than its neighbor across the river. In fact, most of Hatfield's other protected open space is located in West Hatfield around important water supply and forest areas. The other concentration of protected open space is located in the northern portion of the town, particularly to the east of the Byway. The total loss of farmland in Hatfield between 1971 and 1997 was about 266 acres, or 7 percent. MassAudubon notes that 87 acres of "open land" (including agricultural areas) was converted to development between 2005 and 2013 (Losing Ground Report, Fifth Edition, 2014). The overall trend shows increasing loss of farmland without further protection. Hatfield's draft 2014 OSRP notes that additional effort is needed to increase the number of APRs on valuable farmland in town. This includes the establishment of a local APR program to address farms less than five acres in size.

Scenic Views 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 along the Byway appears in the Scenic Resources Chapter of this plan.

Several factors were considered when assessing the scenic qualities of a medium- or long-range 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 means the differences seen in the vista, such as landscape differences. Focal points are elements in the landscape that draw the eye.

Along much of the Byway, farmland, old barns, and wooded forests are important features of the route. These are important viewsheds to protect. The quaint, historic nature of the village centers along the route is also vital to the nature of the Byway. The historic character of this area should be maintained and supported through rehabilitation and infill development that is compatible with the surrounding buildings and landscapes.

Community Planning Tools and Funding Sources to Preserve the Scenic Byway Resources

This section provides an overview of tools and funding sources that can be used by towns and regional organizations to help preserve historic, scenic, and open space resources and enhance tourism along the Connecticut River Scenic Byway. The strategies fall into three categories: land protection, historic preservation, and local zoning bylaws and planning activities.

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 landowner. A donation of such a 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 (APR) Program protects prime farmland from development. The APR Program is a voluntary program that offers a non-development alternative to farmers and other owners of prime agricultural land and other farmland of statewide importance that 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 protected 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 least 10 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 a Chapter 61 program is being sold or converted to another use. 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.

Funding Sources for Land Protection

Community Preservation Act (CPA)

Signed into law in 2000, the Massachusetts Community Preservation Act (M.G.L., Chapter 44B), gives communities a funding source to preserve open space and historic resources, create affordable housing, and develop outdoor recreational facilities. Municipalities adopt the 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. The state provides an annual match distribution that also goes into this fund. Monies accrued in this fund are to be spent on historic resources, open space, affordable housing, and recreational lands, with at least 10% of the annual receipts going toward each of the first three categories. This spending can be deferred until needed. Up to 5% annually can be allocated for administrative and operating

expenses of the community preservation committee. The community determines how it would like to distribute the balance of funds to any or a combination of the categories, including recreational lands.

For the first six years of the program, from 2002 through 2007, the State CPA Trust Fund matched all communities that adopted the CPA at a rate of 100%. As more communities adopted the CPA and the economy slowed, the base match percentage fell in recent years to below 30%. Communities that have passed the CPA at the maximum 3% surcharge receive a higher match than communities with a lower surcharge. In addition, communities at the 3% surcharge that have smaller populations and lower property values receive a higher match from the trust fund. Consequently several towns within the region have continued to receive a 100% match from the State CPA Trust Fund in recent years.

Forest Legacy Program

The Forest Legacy program is a federal funding mechanism through the U.S. Forest Service (administered through DCR's Forest Legacy program) for conservation restrictions on large blocks of forestland (not necessarily contiguous). Areas must be designated as "Forest Legacy Areas" (FLAs) in order for CR projects to be eligible for Forest Legacy funding. The towns of Northfield, Erving, and Montague are within the North Quabbin FLA. Portions of the Holyoke Range and Hatfield are currently designated as FLAs, and a small number of Forest Legacy projects have taken place in these areas.

Landscape Partnership Program

The Landscape Partnership Program, administered through the Executive Office of Energy and Environmental Affairs (EEA) seeks to preserve large, unfragmented, high-value conservation landscapes including working forests and farms, expand state-municipal-private partnerships, increase leveraging of state dollars, enhance stewardship of conservation land, and provide public recreation opportunities. The program offers competitive grants to municipalities, non-profit organizations, and EEA agencies acting cooperatively to permanently protect a minimum of 500 acres of land.

Local Acquisitions for Natural Diversity Grant Program (LAND) (formerly called 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, and the Town must have an up to date Open Space and Recreation Plan to apply. 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.

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.

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, or any city regardless of size, which has an authorized park or recreation 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 and the Town must have an up to date Open Space and Recreation Plan. The grants reimburse a significant portion of total project costs. The grants range in size from \$50,000 to \$500,000.

Historic Preservation

Historic 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 landscape areas. 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. 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.

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 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.

Local Historical Commissions

A Local Historical Commission is the municipal agency responsible for ensuring that preservation concerns are considered in community planning and development decisions. Local Historic Commissions are established by a vote of the town or city government. They serve as local preservation advocates and as an important resource for information about their community's cultural resources and preservation activities.

National Register of Historic Places Listing

The National Register of Historic Places documents and records the nation's important and irreplaceable buildings, sites, structures, objects, and districts worthy of protection. It is a federal designation, administered by the Secretary of the Interior through the Massachusetts Historical Commission as the State Historic Preservation office. Based on local and state surveys, nominations to the National Register are generally initiated by the local historical commission, which works with MHC staff to prepare the form. Nominations are then reviewed by the MHC State Review Board at a public meeting and forwarded to the Keeper of the National Register for approval. Listing on the National Register of Historic Places recognizes the value of our nation's historical and cultural heritage and provides a basis for making informed planning and development decisions. A listing on the National Register generally places no constraints on what owners may do with their property when using private funding. The National Register is not a design review program; however, it does provide limited protection from state and federal actions. It is also an eligibility requirement for matching state and federal restoration and research grants, as well as certain federal tax benefits for certified rehabilitation projects.

State Register of Historic Places Listing

The State Register of Historic Places is a master list of designated historic properties in Massachusetts. It provides an added measure of protection to listed properties from state involved projects. Properties are listed on the State Register if they are: included in or determined eligible for listing in the National Register of Historic Places by the National Park Service; within local historic districts; local, state, and national landmarks; state archaeological landmarks; or properties with preservation restrictions. The State Register serves as a guide for developers and state agencies in order to determine whether a state funded, permitted, or licensed project will affect historic properties. The State Register review process ensures that listed properties will not inadvertently be harmed by activities supported by state agencies.

Funding Sources for Historic Preservation

Community Preservation Act (CPA)

See the description of the CPA above under the Land Protection section.

Massachusetts Preservation Projects Fund

The Massachusetts Preservation Projects Fund is a state-funded 50% reimbursable matching grant program established in 1984 to support the preservation of properties, landscapes, and sites (cultural resources) listed in the State Register of Historic Places. Eligible activities include pre-development, development, and acquisition projects.

MHC Survey and Planning Grant Program

The program is a federally funded, reimbursable, 50/50 matching grant program to support historic preservation planning activities in communities throughout the state. Annual grants are contingent on Massachusetts' federal budget allocation. MHC is required to pass through grant

awards representing 10% of its total annual federal funding allocation to Certified Local Governments. Eligible activities include completion of cultural resource inventories, nomination of significant properties to the National Register of Historic Places, completion of community-wide preservation plans, and other types of studies, reports, publications and projects that relate to the identification and protection of significant historic properties and sites.

National Trust Preservation Fund

National Trust for Historic Preservation administers the National Trust Preservation Funds program, which supports planning studies and other activities to protect historic places and may be used to conduct feasibility studies to determine how historic facilities could appropriately be returned to productive use. Funding may not be used for construction or property acquisition. This is a competitive grant program open to non-profit organizations and members of the National Main Street Network.

Preservation Massachusetts Predevelopment Loan Fund

Preservation Massachusetts administers the Predevelopment Loan Fund, which offers financing to conduct predevelopment work, such as architectural or feasibility studies, for an historic redevelopment project. The applicant must have site control and sites must be on or eligible for the National Historic Register.

Historic Preservation Tax Credits

Both federal and state governments maintain historic rehabilitation tax credit programs. The Federal Historic Preservation Tax Incentives Program is administered by the U.S. Department of the Interior's National Park Service and the U.S. Department of the Treasury. The tax incentives may be applied to costs incurred for renovation, restoration, and reconstruction of eligible buildings. Generally, the percentage of these costs that can be taken as a credit is 10% for buildings placed in service before 1936, and 20% for certified historic structures.

The Massachusetts Historic Rehabilitation Tax Credit Program is managed by the Massachusetts Historic Commission under the Secretary of the Commonwealth. Under this program a certified rehabilitation project on an income-producing property is eligible to receive up to 20% of the cost of certified rehabilitation expenditures in state tax credits. There is an annual limit on the amount of tax credits available through the Commonwealth's program, so selection criteria is employed to ensure that funds are distributed to the projects that provide the most public benefit. In past years, projects in Downtown Greenfield and Turners Falls have received awards. In the 2014- 2015 rounds, the Brady Sullivan Orange Properties LLC project at 16-36 West River Street, and 58 South Main Street were awarded \$1.4 million in tax credits for their \$9.9 million project to develop housing.

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.

Architectural Preservation Districts (also referred to 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 (see Historic Preservation, above) 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 directs future growth and development to those areas and therefore helps preserve rural and open space areas elsewhere in town. Village center zoning also preserves the historic character of existing villages by aligning the dimensional and use requirements with what already exists. This helps remove many lots from a “pre-existing non-conforming” status to a conforming status under the zoning, and encourages the types of buildings and uses that historically have been present in village centers, promoting the continued use of historic structures and supporting revitalization.

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. Village center districts typically have higher densities (smaller lot sizes and frontage) and encourage a mix of residential and commercial uses to locate in the village centers instead of elsewhere in town.

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 if many properties do not meet the dimensional standards.

Open Space Residential Development/ Natural Resource Protection Zoning

Open space residential development (OSRD), also known as Natural Resource Protection Zoning (NRPZ), is a type of residential development that preserves open space and can reduce residential development costs. Instead of using a cookie-cutter approach to residential development, an OSRD/NRPZ approach first identifies the natural, scenic, historic, or recreational features on a site to be preserved, and then determines the best location for buildings and roads. Building lots are then drawn in, and the remaining open space is permanently protected from development. Dimensional requirements for house lots are flexible to allow for clustering of homes. Many of the communities along the Byway have adopted provisions to allow OSRD, either by-right or by special permit.

In 2012 the State began promoting the use of Natural Resource Protection Zoning (NRPZ) as a response to findings that many OSRD bylaws in place were either not being used or were not

meeting natural resource protection goals. The new model calls for NRPZ to be the by-right option for residential development in undeveloped areas of a town. Developers seeking to create a more conventional development would need to go through a special permit process. NRPZ also raises the required percent of protected open space within a development to at least 65%, and encourages contiguity with adjacent protected open spaces to increase the natural resource benefits.

Creative Development / Flexible Development

Creative or flexible development bylaws utilize the same principles as Open Space Developments by allowing more flexibility in lot sizes and other dimensional requirements, but may or may not have an open space protection requirement. Creative or flexible developments may also utilize common driveways. The purpose of this approach is to preserve open space and encourage structures to be situated on the site in a manner that minimizes their visual impact. In particular it can be an alternative to typical Approval Not Required (ANR) development along an existing public way. Creative or flexible developments can also offer incentives for open space and farmland preservation, affordable housing, or other options that promote the goals of the community.

Transfer of Development Rights (TDR)

TDR provides options to direct growth away from lands that should be preserved, to areas well suited for higher density development, such as village centers and areas with adequate infrastructure. A TDR bylaw allows development rights to be purchased in a designated Sending Area and transferred to a designated Receiving Area for use in more compact residential or business development projects, with the approval of a Special Permit. Project proponents can either purchase development rights directly from farmers or landowners, or can make a cash contribution to the community for purchasing agricultural or open space preservation restrictions. Adoption of this bylaw can provide a community with another option for farmland protection, and give developers more options for development in already existing growth centers. TDR programs require a certain amount of administrative capacity, which may make it difficult for smaller towns with limited staffing to implement.

The Town of Hadley has completed a total of ten TDR projects, generating a total of \$338,772 in TDR funds. This money has been used to offset the match requirements for APR purchases in the community, and has leveraged \$3.8 million in state APR dollars. As a result, Hadley has been able to protect over 356 acres of prime farmland using TDR.

Sign Regulations

Most 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. 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 lighting 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.

Community Planning and Development Resources

Conservation Assistance for Small Communities

The Conservation Assistance for Small Communities Program, administered through the Executive Office of Environment and Energy Affairs, offers reimbursement funding for Open Space & Recreation Plans (OSRPs), other plans to facilitate land conservation, and/or appraisals contracted in order to apply to the LAND or PARC grant program (see Land Conservation above). The program is available to all communities with a population of 6,000 or fewer. Funding is non-competitive; all eligible applicants will receive contracts on a rolling basis until all available funding is allocated.

District Local Technical Assistance Program (DLTA)

Established by Chapter 205 of the Acts of 2006, the DLTA Program enables the Commonwealth's 13 Regional Planning Agencies (RPA) to provide technical assistance to communities. Funding is provided by the Massachusetts Legislature and Department of Housing and Community and Development (*DHCD*) to provide assistance in two broad areas: 1) sustainable development and preservation, and 2) regional collaboration in service delivery or procurement. The Franklin Regional Council of Governments (FRCOG) and the Pioneer Valley Planning Commission (PVPC) serve as the regional planning agencies for the towns within the Connecticut River Scenic Byway. Typical DLTA projects include Open Space and Recreation Plans, master planning, and updates and revisions to zoning bylaws and subdivision regulations.

Massachusetts Downtown Initiative

The Massachusetts Downtown Initiative offers the Technical Assistance Site Visit Program to municipalities. Professional consultant services valued up to \$10,000 are provided at no cost to the community for specific issues related to a downtown revitalization effort. The categories of eligible activities include: Business Improvement District (BID), Design, Creative Economy, Economics of Downtown, Housing, Parking, Small Business Support, Walkability, and Wayfinding/Branding.

Brownfields Assistance

There are a number of programs to assist in the cleanup and redevelopment of brownfields sites. Most of the communities along the Scenic Byway contain properties that have been identified as brownfields, many of these brownfields being located in or near historic town centers where industries were traditionally located. Brownfield cleanup is 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 Pioneer Valley Planning Commission (PVPC), and the Franklin Regional Council of Governments (FRCOG) coordinate a regional Brownfields Site Assessment Program for Hampshire, Hampden and Franklin County funded through the Environmental Protection Agency. This Program provides services (as resources allow) to conduct environmental site assessments on eligible properties and at no cost to the property owner. These assessments determine if the site is contaminated, and if so to what extent.

MassWorks Infrastructure Program

The MassWorks Infrastructure Program consolidates six public infrastructure grant programs (Public Works Economic Development (PWED) Grants, Community Development Action Grant (CDAG), Growth District Initiative (GDI) Grants, Massachusetts Opportunity Relocation and Expansion Program (MORE), Small Town Rural Assistance Program (STRAP), and the Transit Oriented Development (TOD) Grant Program) formerly administered by different agencies into one administrative program under the Executive Office of Housing and Community Development. The program provides grant funding for publicly owned infrastructure including, but not limited to sewers, utility extensions, streets, roads, curb-cuts, parking facilities, site preparation, demolition, pedestrian walkways, streetscape, and water treatment systems.

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 Community 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, and may apply regionally with one lead community.

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. 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 requires the 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 the MassWorks Infrastructure Program and brownfields funding. PVPC and the FRCOG provide technical assistance to towns exploring designation through Expedited Permitting (Chapter 43D).

Findings and Recommendations

Findings

Recommendations

- Municipalities and concerned citizens should work with area land trusts to conduct outreach and seek funding to purchase conservation restrictions and/or Agricultural Preservation Restrictions from willing property owners in important scenic and natural areas. Agricultural land protection is particularly important.
- Review and revise zoning regulations to support development and redevelopment that is consistent with the character of the Byway.
- Investigate incentives to strengthen existing TDR programs and other zoning measures that help preserve open space.
- Enhance the public visibility of agricultural and forestry businesses in the Byway towns and promote the purchase of local forest and farm products.
- Encourage appropriate and sustainable economic development.
- Encourage commercial establishments to have signage, external lighting, building characteristics, and landscaping that complement the scenic, historic, and natural characteristics of the Byway.
- Create a model corridor overlay district for consideration and adoption by Byway towns.
- Pursue options to preserve and promote historic resources along the Byway, such as the development of architectural guidelines for historic structures to assist property owners when completing historic renovation or restoration projects.
- Appeal to state legislators to approve pending zoning reform legislation, and in particular to revise Approval Not Required development regulations.

Northfield Recommendations⁵

- Assist landowners to protect their land through the APR program or a conservation restriction.
- Develop design guidelines for commercial and residential properties on Main Street.
- Establish a village center zoning district.
- Preserve the Northfield campus buildings and landscapes and encourage redevelopment.

Erving Recommendations

- Consider adopting the Community Preservation Act (CPA) to help fund open space protection, historic preservation, community housing, and recreational facilities in town.
- Amend the zoning bylaw to allow Conservation Development by-right within the Rural Residential zoning district.
- Continue to work towards redevelopment of the former Millers Falls International Paper facility and the Renovator's Supply property in Erving.

⁵ Northfield recommendations are derived from the *2014 Northfield Master Plan*.

- Work with willing landowners to protect open space along the Byway north of Route 2.

Montague Recommendations

- Adopt natural resource protection zoning in the Agriculture-Forestry zoning districts.
- Consider adopting the Community Preservation Act (CPA) to help fund open space protection, historic preservation, community housing, and recreational facilities in town.
- Review and revise the Back-Lot Development bylaw to include incentives to make this alternative form of development more attractive to developers.
- Continue to support redevelopment of historic structures in Millers Falls.

Sunderland Recommendations

- Consider making the Transfer of Development Rights provision in the zoning bylaws more robust by specifying approved receiving districts, lowering the unit threshold for when it can be used, and providing a fee in lieu option for developers to pay into the Town's Conservation Fund.
- Implement recommendations from the 2014 Sunderland Transportation and Circulation Chapter that support a more pedestrian-oriented village center around the intersection of Route 47 and 116.

Hadley Recommendations

- Eliminate future construction of wireless towers within view of the scenic Byway.
- Review zoning to ensure that the installment of solar arrays is adequately addressed for agricultural or rural lands along the Byway. Develop viewshed analysis requirements and criteria for large-scale grounded solar arrays visible from the Byway.
- Consider revising the Open Space Preservation bylaw to meet community consensus and re-introduce for adoption. Or consider adopting a Creative Development Bylaw.
- Restrict uses in the Limited Business district that may have negative appeal to the Byway (such as auto repair shops, fast food, etc.).

South Hadley Recommendations

- Review zoning to ensure that the installment of solar arrays is adequately addressed for agricultural or rural lands along the Byway. Develop viewshed analysis requirements and criteria for large-scale grounded solar arrays visible from the Byway.
- Evaluate the need for a ridgeline overlay protection district.

Hatfield Recommendations

- Limit the distance between wireless towers and do not allow wireless towers or commercial earth excavation in the Agricultural, Town Center, or Rural Residential zones (such as through a corridor exclusion) along the proposed Byway.
- Create site plan review criteria for the proposed Byway that describes its specific character and scenic and natural features to be considered and protected in the review process.
- Develop incentives to encourage use of TDR program.

Tourism and Traveler Services

CHAPTER 8

Connecticut River Scenic Byway

Introduction

Visitors are drawn to the Connecticut River Scenic Byway corridor for the scenic, natural, recreational, historic, and cultural resources. These resources provide a portrait of past and present rural New England life. The byway is defined by the landscape of the Connecticut River Valley, which shaped the area's farming heritage and present-day agricultural economy. Additionally, the region's many college and private educational institutions attract a large number of visitors. The five colleges of Amherst, Mount Holyoke, Hampshire, Smith and the University of Massachusetts at Amherst as well as the many private schools including Deerfield Academy and Northfield Mount Hermon are located near the byway. The cultural resources, agricultural assets, recreational features and beautiful landscapes of the byway area attract visitors beyond the campus borders.

The goals of this chapter are to provide information on existing resources, services, and attractions available to the byway traveler; to identify unmet needs related to tourism; and to propose recommendations and identify potential projects to enhance and improve tourism along the byway. The chapter contains an inventory of the existing tourism services including the location of visitor centers and information agencies, as well as websites and publications that provide additional traveler information. A summary of attractions and resources along the byway, including scenic and natural attractions, outdoor recreation opportunities, historic and cultural resources, events and festivals, and public restroom facilities, is also provided. Resources that have not been detailed in previous chapters of the Corridor Management Plan are included in this chapter.



While the Corridor Management Plan focuses on resources within a half-mile radius of the byway (Route 63 and Route 47), this chapter also includes attractions that are located outside of the study area boundary, but within the towns along the byway. The resources that are located directly on or within a half-mile radius of the Connecticut River Scenic Byway are noted with the "America's Byway" symbol. Due to the increased density of tourist resources in Hampshire County, only attractions located directly on the byway in Hadley, South Hadley, and the proposed Byway extension in Hatfield are included.

Tourism Related Statistics

Tourism plays an important role in the Franklin and Hampshire County towns along the byway. The Massachusetts Office of Travel and Tourism (MOTT) provides tourism statistics by county on direct spending by tourists and total number of tourism-related jobs, payroll and local tax revenue generated (see Table 8-1). In 2013, direct expenditures related to tourism in Franklin and Hampshire Counties totaled \$183 million. Tourism generated a total of 1,250 jobs, \$36 million in payroll, and \$5.2 million in local tax revenue.

Table 8-1: 2013 Domestic Travel Impact Statistics by County

County	Direct Expenditures	Number of Jobs	Payroll	Local Tax Revenue Generate
Franklin	\$58.9M	370	\$10.2M	\$1.9M
Hampshire	\$124.1M	880	\$25.8M	\$3.3M
TOTALS	\$183.0M	1,250	\$36.0M	\$5.2M

Source: Massachusetts Office of Travel & Tourism (MOTT).

Tourist Information Centers

There is one visitor information center currently under development along the byway at the Porter Phelps Huntington House Museum. This seasonal exhibit area will include information the byway and the surrounding area, as well as an area to obtain brochures on local attractions.

Upper Pioneer Valley Visitor Information Center

The Upper Pioneer Valley Visitor Information Center provides brochures and other promotional materials for nearby attractions. The Visitor Information Center is located approximately nine miles west of the byway in Greenfield. 18 Miner Street, Greenfield, MA (off the rotary at Interstate 91 and Route 2) • 413-773-9393

Franklin County Chamber of Commerce

The Franklin County Chamber of Commerce provides information for visitors and new residents on local cultural, recreational attractions, dining and accommodations. The Chamber of Commerce is located approximately eight miles from the byway in downtown Greenfield. www.franklincc.org/ • 395 Main Street, Greenfield, MA • 413-773-5463

The Great Falls Discovery Center

The Great Falls Discovery Center is housed within a complex of old mill buildings in historic Turners Falls, Massachusetts. Admission is free and the Great Falls Discovery Center is operated by the Massachusetts Department of Conservation and Recreation. The center exhibits show the natural, cultural, and industrial history of the Connecticut River watershed. The Center's four acres of native plants, butterfly gardens, and open lawn nestle into a bend in the Connecticut River to provide a pleasant, relaxed atmosphere and the perfect place for fun and learning. <http://greatfallsdiscoverycenter.org/> • 2 Avenue A, Turners Falls, MA 01376 • 413-863-3221

Amherst Area Chamber of Commerce

Accessible to visitors travelling from the east to the byway, the Amherst Area Chamber of Commerce provides information for visitors on lodging, dining, attractions, recreation, shopping and transportation. Located in downtown Amherst, it is approximately 3.5 miles from the byway. <http://www.amherstarea.com/> • 28 Amity Street, Amherst, MA • 413-253-0700

Greater Northampton Chamber of Commerce and Visitor Center

Accessible to visitors traveling from the west to the byway, the Greater Northampton Chamber of Commerce and Visitor Center provides information for visitors regarding local cultural and recreational attractions as well as amenities, such as dining and accommodations. It is located approximately three miles from the byway in Hadley. www.explorenorthampton.com/ • 99 Pleasant Street, Northampton, MA • 413-584-1900

Porter Phelps Huntington House Museum Byway Exhibit

An exhibit about the byway, its history, and its attractions will be set up on a seasonal basis in the corn barn of the Porter Phelps Huntington House Museum beginning in the spring/summer of 2016. The exhibit features three informational panels telling the story of the byway area's geology, history, and agrarian past that visitors can view along with brochures and other information on Byway attractions.

<http://www.pphmuseum.org/> • 130 River Drive, Hadley, MA • 413-584-4699

Sources of Print and On-Line Tourist Information

Western Massachusetts Scenic Byway Promotional Campaign Project and Website

As part of the Western Massachusetts Scenic Byway Promotional Campaign project, a comprehensive marketing campaign and website was developed for all seven of the scenic byways in western Massachusetts. The Connecticut River Scenic Byway is included as part of the promotional campaign and website. The website contains pages for each of the seven scenic byways. <http://bywayswestmass.com>



Scenic Byway
Logo

Massachusetts Department of Conservation and Recreation (DCR)

The Massachusetts Department of Conservation and Recreation (DCR) conserves and protects the natural, cultural, and recreational resources of the Commonwealth. DCR's website has information on trails, parks, camping, and special events. Brochures and park maps can be downloaded directly or requested from this site. Within the byway corridor, DCR owns and manages fourteen state parks and forests. See the Recreational Resources

chapter for more information on individual state parks and forests.

<http://www.mass.gov/dcr/> • 617-626-1250

Massachusetts Department of Fish and Game

Massachusetts Department of Fish and Game (MA DFG) has jurisdiction over the Commonwealth's marine and freshwater fisheries, wildlife species, plants, and natural communities, as well as the habitats that support them. The DFG runs many environmental education programs and sponsors year-round outdoor events in order to introduce the public to new activities and enhance existing skills. The Massachusetts Department of Fish and Game's website maintains a wide array of information that is essential to the outdoor enthusiast including a calendar of events, information on the state's fisheries, boating access, camping, and fishing and hunting permits.

<http://www.mass.gov/eea/agencies/dfg/>

Massachusetts Office of Travel and Tourism (MOTT)

This state office promotes tourism throughout the Commonwealth. MOTT's website provides information and on-line maps for local attractions along the byway and in the greater region. <http://www.massvacation.com/westernMass/> • 800-227-MASS

Mass Traveler

The Mass Traveler website is sponsored and maintained by the University of Massachusetts Regional Traveler Information Center (RTIC), the local Chambers of Commerce, visitor bureaus and organizations, and the state tourism offices. The website provides travel and traffic information for Franklin, Hampshire, Hampden and Berkshire Counties. This website provides some real time road and traffic conditions and public transportation information. www.masstraveler.com

Northfield Area Tourism and Business Association

The Northfield Area Tourism and Business Association (NATBA) website provides visitor information for the towns of Northfield, Bernardston, and Gill. The site features an interactive map that identifies food, lodging, shopping, recreation and other attractions in Northfield, Bernardston and Gill. NATBA also produces a brochure which is available for download. <http://www.visitnorthfieldarea.com/index.html>

Turners Falls RiverCulture

RiverCulture is a partnership of leaders from the Arts and business communities, committed to enhancing and promoting cultural programming in Turners Falls, a village in Montague located roughly four miles west of the byway. The website includes information on cultural events, artist exhibitions, area attractions, and local businesses.

<http://www.turnersfallsriverculture.org/> • 413-835-1390

Hampshire County Regional Tourism Council

This website includes visitor information about lodging, restaurants, shopping, activities, and sites for the cities and towns of Hampshire County. The Council is a partnership between the Amherst area, Greater Northampton, and Greater Easthampton Chambers of Commerce. <http://visithampshirecounty.com/>

Other Travel Information Sources

The following local and regional publications and websites provide listings of upcoming local activities and attractions in the Towns along the byway.

The Recorder (Greenfield)

<http://www.recorder.com/> • 14 Hope Street, Greenfield • 413-772-0261

The Montague Reporter (Montague, Erving, Gill, Leverett, Wendell)

<http://montaguereporter.org/> • 177 Avenue A, Turners Falls • 413-863-8666

Daily Hampshire Gazette (Hampshire and Franklin Counties)

<http://gazettenet.com/> • 115 Conz Street, Northampton • 413-584-5000

The Valley Advocate (Hampshire, Franklin, and Hampden Counties)

<http://www.valleyadvocate.com/> • 115 Conz Street, Northampton • 413-529-2840

Town Websites

Town of Northfield • <http://www.northfield.ma.us/>

Town of Erving • <http://www.erving-ma.org/>

Town of Montague • <http://www.montague.net/Pages/index>

Town of Sunderland • www.townofsunderland.us/

Town of Hadley • www.hadleyma.org

Town of South Hadley • www.southhadley.org

Town of Hatfield • www.townofhatfield.org

Scenic and Natural Resource Attractions

Scenic and natural resources are regular features along the byway, making what might otherwise be regular tourist attractions even more appealing. Scenic and natural resources serve as tourist attractions in themselves. The scenic resources are documented in the Scenic Assessment chapter of the plan, and natural resources are described in the Natural Resources chapter.

Outdoor Recreational Activities and Facilities

The diverse outdoor recreational activities available along or near the Connecticut River Scenic Byway include camping, hiking, mountain biking, horseback riding, hunting, fishing, rock climbing, cross-country skiing, canoeing, kayaking, road bicycling, bird watching, and more. An extensive list of the recreational resources in the towns along the byway is included in the Recreational Resources Chapter of this plan.

Historic and Cultural Sites

Historic and cultural sites and museums draw tourists to the towns along the Connecticut River Scenic Byway. The Historic and Archeological Resources Chapter includes brief histories of the communities along the byway; an inventory of archaeological, architectural, and historic resources; and a discussion of historic preservation tools. While the Historic and Archeological Resources Chapter contains general information on significant resources, sites that are open and accessible to the public and have an interactive or educational experience for interested individuals or groups are included in this chapter. Historic districts, when located directly on the byway, are noted in this chapter and described in more detail in the Historic and Archeological Resources Chapter.

Northfield

D. L. Moody Birthplace and Museum

Dwight Lyman Moody was an evangelist and the founder of the Northfield Seminary for Young Ladies (1879) and Mount Hermon School for Boys (1881), now the Northfield Mount Hermon School. The religious conferences he held at this site in the late 1800s attracted thousands of people to Northfield every summer, helping transform the town into a summer resort. The D. L. Moody Birthplace and Museum is open by appointment only. Moody Street.

Northfield Center Historic District



The Northfield Center Historic District includes 13 18th century and 68 19th-century Federal and Greek Revival buildings. The Northfield Center Cemetery on Parker Avenue, also on the National Register of Historic Places, has gravestones from the town's early history dating back to the 1700s. Main Street between Moody Street and Route 10

King Philip's Hill

A bluff overlooking the Connecticut River, King Philip's Hill was a lookout post for Native Americans who lived and fought along the Connecticut River. The trailhead is a short walk from the historical marker. The trail is a short, easy loop. There are several historic trenches visible just back from the edge of the bluff, and several historic informational signs along the trail. King Philip's hill is located on the western side of the Connecticut River, off of Old Bernardston Road.



The banks of the Connecticut River

http://www.northfield.ma.us/files/OpenSpace/trails/KPH/KPH_trail.html • Old Bernardston Road

Quinnnetukut II Riverboat Cruise

The Quinnnetukut II, Northfield Mountain Recreation and Environmental Center's 44-seat riverboat has been cruising the Connecticut River for nearly a quarter of a century. The "QII" makes 12-mile round trips through the enchanting French King Gorge and on to historic Barton Cove—home to nesting bald eagles and the site of a former dinosaur track quarry. An on-board interpreter narrates each cruise, offering information on the culture, habitats and natural history of this spectacular stretch of river. Call ahead for reservations. <http://www.gdfsuezna.com/riverboat-cruise/> • 99 Millers Falls Road • 800-859-2960

Erving

French King Bridge

The French King Bridge soars 135 feet above the Connecticut River in the narrow and scenic French King Gorge. The graceful 3-span arch design was erected in 1931 -1932 by the cantilever method. It was named the most beautiful bridge of its class in the nation by the American Institute of Steel Construction. Parking areas are located on either side of the bridge. Route 2.

Montague

Montague Center Historic District



Montague Center is the site of the town's original settlement in the early eighteenth century. Today the district has many different residential architectural styles and community buildings such as the Congregational Church (1834), Town Hall (1858), Grange (1835), Masonic Hall (1855), and Main Street School (1855). Center, Main, North, School, and Union Streets

Great Falls Discovery Center

Housed within a complex of old mill buildings in historic Turners Falls, Montague's largest village, the Great Falls Discovery Center's exhibits show the natural, cultural, and industrial history of the Connecticut River watershed. The Center's four acres includes native plants, butterfly gardens, and open lawn on the banks of the Connecticut River. The building and exhibits are fully accessible and are free and open to the public. There are public restroom facilities. <http://greatfallsdiscoverycenter.org/> • 2 Avenue A, Turners Falls • 413-863-3221

Historic Downtown Walking Tour

Free self-guided walking tour of downtown Turners Falls, featuring distinctive 19th century architecture. Free tour booklets are available at the Carnegie Library, Town Hall, and The Great Falls Discovery Center. Avenue A, Turners Falls

Sunderland

Sunderland Center Historic District



Sunderland Center Historic District is a mixed-residential and commercial district that includes a burial ground and a 1930's art deco bridge spanning the Connecticut River. The principal streetscape, Route 47, is a broad thoroughfare bordered by mature deciduous trees, homes set back from the road with cultivated fields and agricultural buildings to the rear. The district contains a well-preserved collection of large and moderately-scaled houses that date from ca. 1715 through the 1940s. North Main Street, South Main Street, Amherst Road, Bridge Street, Cemetery Road, Garage Road, Old Amherst Road, School Street, Warner Drive

Sunderland's History through Houses



The Sunderland Historical Society's website hosts a self-guided tour of houses and other buildings along Main Street which help demonstrate the architecture and history of the town. http://www.townofsunderland.us/Pages/SunderlandMA_Bcomm/Historical/houses
 • North and South Main Streets (Route 47)

The Sunderland Buttonball Tree (American Sycamore)



The largest American Sycamore (*Platanus occidentalis*) in Massachusetts grows in Sunderland. Located on North Main Street (Route 47), just north of the Route 116 intersection, this tree is listed as a Massachusetts Champion Tree, a designation based on a tree's trunk circumference, height and crown spread. See the Natural Resources chapter for more information. 133 North Main Street (Route 47)

Hadley

North Hadley Historic District



The North Hadley Historic District was placed on the National Register in 1993. It includes a cluster of homes and buildings between Mount Warner and the Connecticut River that represent Federal, Greek Revival, and Italianate styles, ranging in age from the 1780s to 1940s. The street is curved and narrower than the main street in Hadley Center, with houses and buildings set closer to the road. The village is surrounded by agricultural fields to the west and south. The district includes French, Meadow, River (Route 47), Mount Warner, and Stockwell Streets.

Porter Phelps Huntington House Museum



The Porter Phelps Huntington House Museum is located on Route 47 just to the southwest of Mount Warner. The house, built in 1752 and passed down through the female members of the family, includes a collection of the family's belongings and

archives from the 17th century until the mid-20th century. The museum is surrounded by approximately 350 acres of protected land. The museum is open from May to October, and holds weekly concert series and other community events on its grounds.

<http://www.pphmuseum.org/>

Hadley Farm Museum



The Hadley Farm Museum displays farm tools and machinery in use from the late 1700s to the early 20th century. It is located in a barn built in 1782 and is open from May to October. <http://www.hadleyfarmmuseum.org/> • Intersection of Routes 9 and 47 • 413-586-1160

Hadley Center Historic District

The Hadley Center Historic District encompasses approximately 2,500 acres follows Route 47 on the north and south sides of Route 9. The wide boulevards, tall established trees, and houses dating from the 17th to mid-20th centuries are anchored by an expansive town green. The oldest house, the Samuel Porter house, dates from 1713. The district includes East, West, Middle (Route 47), Russell (Route 9) Streets, and Bay Road.

Hockanum Rural Historic District

The Hockanum Rural Historic District designates the historic, working agricultural landscape at the base of Mount Holyoke running to the banks of the Connecticut River. The designation includes Hockanum Cemetery, the summit of Mount Holyoke (including the Summit House), and borders Skinner State Park. Forty-seven properties, including farmhouses and an 1840 school house, are located within the district. The main thoroughfare through this district is Hockanum Road (Route 47).

South HadleyMount Holyoke College Botanic Gardens

The Botanic Gardens at Mount Holyoke College is located throughout the college campus, and includes an arboretum and greenhouse as well as other local gardens. <https://www.mtholyoke.edu/botanic/gardens>

Mount Holyoke College Art Museum

The Mount Holyoke College Art Museum houses collections ranging from ancient sculpture to contemporary pieces. One of its most famous items is *Hetch Hetchy Canyon* by Albert Bierstadt. The museum is located on the Mount Holyoke campus and maintains regular hours. <https://www.mtholyoke.edu/artmuseum/>

Woodbridge Street National Historic District

Slightly to the east of the byway on Route 116/Woodbridge Street is the Woodbridge Street National Historic District. It features homes built in the 18th and 19th centuries, as well as Mount Holyoke College's Skinner Museum.

HatfieldBradstreet Historic District

This historic district encompasses homes and buildings centered on the intersection of Depot Road and Main Street (proposed Byway). The homes mainly date from the late 19th century and include Italianate, Queen Anne, and Colonial Revival styles. The former

farming village is still surrounded by old tobacco barns. The area encompasses Depot Road, Main Street, and Old Farm Road.

Elm Street Historic District

This district represents the history of the rural farming way of life that was and is still common in Hatfield, and the fields to the south of Elm Street are included in the district. The youngest homes in this district originate in the 1940s. The Elm Street Historic District encompasses Elm, Scotland, Sunset, Little Neponset, and Brook Hollow streets.

Hatfield Center Historic District

The center of Hatfield was designated as a historic district in 1994. The meandering road features large stately homes set back from the roadway under mature canopy trees in many areas. It is also the current heart of the town, with the town hall and Center School, an impressive building no longer in operation. The district also includes the 1894 Dickinson Memorial Hall and Library, Hatfield Historical Museum, and the Hatfield Farm Museum (on Billings Way off Main Street). Streets within the district include Main (proposed Byway), Elm (proposed Byway), Maple, Day, and School.

Mill-Prospect Street Historic District

This historic district follows Prospect Street north from Elm Street, and includes a mill site where Prospect Street crosses the Mill River, not far off of the proposed Byway. The former Shattuck Gun Factory is now the Old Mill Inn, a higher-end bed and breakfast. This area was an industrial center of the town, and while many of the original buildings from the 18th century do not remain, many homes and buildings date from the late 19th century.

Annual Events and Festivals

Northfield

The Great River Challenge Off-Road Triathlon



Held on the last Sunday in September, the Great River Challenge was created in 2014 to help foster greater awareness of the Upper Pioneer Valley's cultural and natural resources and healthy active lifestyle. The race is held at the Northfield Mountain Recreation and Environmental Center, and is a paddle, run, and bike event utilizing the Connecticut River, trails, and rural roads. <http://greatriverchallenge.com/> • 99 Millers Falls Road

Northfield ArtsFest



Annual end of summer outdoor art show featuring a range of artists and crafts, food, live music and more. Main Street. <http://www.franklincc.org/index.php/savor-our-flavor/fairs-and-festivals>

A Special Day in Northfield Holiday Celebration

Annual day of traditional crafts, horse-drawn surrey rides, holiday foods and shopping on historic Main Street and artist studios. Contact Centennial House B&B, 413-498-5921.

Northfield Drive-In Movie Theatre

The Northfield Drive-in Movie Theatre straddles the Northfield, Massachusetts, and Hinsdale, New Hampshire, town and state lines. The drive-in opened on August 2, 1948, and is one of less than 20 remaining drive-in theaters in New England. It is open weekends throughout the summer.

<http://www.northfielddrivein.com/> • 941 Northfield Road, Hinsdale, NH • 603-239-4054.



The Northfield Drive-in Movie Theatre.

Erving**Montague**Montague Old Home Days

Held the third weekend of August in the village of Montague Center, the festival features games, an auction, food, music, parade and a 5.5-mile foot race.

<http://www.franklincc.org/index.php/savor-our-flavor/fairs-and-festivals>

Turners Falls Block Party

Street party featuring food, community art, street vendors, kids' activities and more.

The block party is held the second Saturday in August.

<http://www.turnersfallsriverculture.org/category/riverculture-events/>

Mutton and Mead Medieval Festival

This medieval festival features food, games, entertainment, and crafts for all ages. The festival is held annually in June. <http://www.muttonandmead.org/> • 210 Turners Falls Road

Franklin County Pumpkinfest

The Pumpkinfest includes everything from pumpkin fried dough to pumpkin fries. The festival has a full array of local crafts, local restaurants, music crafts and carved pumpkins. It is held on the fourth Saturday in October.

<http://www.franklincc.org/index.php/savor-our-flavor/fairs-and-festivals> • Avenue A, Turners Falls • 413-522-0712

Sunderland

Sunderland Fall Festival



The Fall Festival has included such events as a pie baking contest, local farmer's displays, pedal tractor pull, century bike race, and a craft fair. The Festival centers on the Sunderland's Town Ball Field, located behind the Sunderland Public Library.

http://www.townofsunderland.us/Pages/SunderlandMA_Bcomm/FallFestival/index • 20 School Street

Mike's Maze at Warner Farm



From September through October Mike's Maze is open at the Warner Farm in Sunderland. Every year the maze is a different picture cut into the corn field. To maneuver through the maze visitors must solve a series of questions based on the theme of the picture. <http://mikesmaze.com/> • 23 South Main Street • 413-665-8331

Hadley

WGBY Asparagus Festival



This annual festival celebrates one of the Pioneer Valley's most famous crops, asparagus. Held on the Town Common in Hadley, the festival features a local food dinner, children's activities, yoga/pilates, live music, and a tasting of local breweries. The festival in part is a fundraiser for WGBY, the area's local PBS station, though general admission is free. The festival is held in early June. <http://www.wgby.org/asparagus> • Route 9 and West Street

North Hadley Sugar Shack Annual Harvest Moon Pumpkin Festival and Tractor Parade



The North Hadley Sugar Shack holds an annual fall festival in mid-October, and includes pumpkin painting, family games, food, and a tractor parade.

<http://www.northhadleysugarshack.com/calendar-of-events.html> • 181 River Drive • 413-585-8820

Porter Phelps Huntington House Museum Wednesday Folk Traditions



Each Wednesday in June and July the Porter Phelps Huntington House Museum hosts an outdoor folk music concert. The museum also hosts afternoon teas on Saturdays in July and August. <http://www.pphmuseum.org/> • 130 River Drive • 413-584-4699

South Hadley

Concerts on the Common



Concerts take place on the Town Common at the intersection of the byway and Route 116 on Thursday evenings in the summer. <http://www.southhadley.org/686/Summer-Concert-Series> • South Hadley Town Common

Columbus Day Tag Sales



On Columbus Day weekend, tag sales flourish on a one-mile stretch from the Town Common (at the intersection of the byway) up Route 116, and many side streets as well. The event draws increasing amounts of visitors each year.

Summit House Sunset Concert Series



Sponsored by the Friends of the Mount Holyoke Range, concerts by local musicians are featured on Thursday evenings in July at the Summit House. <http://www.friendsofmhr.org/summer-concert-series.html> • Summit House on the Mount Holyoke Range

Hatfield

Hatfield Fall Festival

The Hatfield Historical Society sponsors an annual fall festival and antique car show, including parade, on the first Sunday in October. The event is located at the Hatfield Historical Museum on Main Street. • <http://hatfieldhistory.weebly.com/events.html>

Annual Luminarium

Hatfield has held a luminarium event for over 30 years. It is held on the Sunday before December 24th. As part of the event Main Street is decorated with paper lanterns, luminaria and holiday lights, followed by a caroling concert.

Pick-Your-Own Farms, Farm Stands, Farmers Markets, and Local Products¹

There are a number of farms and businesses that provide opportunities to pick and/or buy fruits and vegetables, and that offer locally produced agricultural and forest products in the Franklin County section of the byway. Maple sugaring outfits are listed in their own section, directly following this section.

¹ Sources consulted include CISA, NOFA, MassGrown, and Shelburne Falls Area Business Association

Information on other farms, farm stands and local products in the byway towns is available at:

- <http://buylocalfood.org>
- <http://www.mass.gov/agr/massgrown/>
- <http://theorganicfoodguide.com/>

Northfield

Northfield Farmers Market



The Northfield Farmer's Market occurs on Thursdays, from 3:00 p.m. until 6:00 p.m. from the end of May until early October at Northfield Coffee and Books. 105 Main Street, Northfield, MA

Balky Farm



This three-generation farm offers meats, wool products and mulch hay. Pasture raised goat, lamb, pork and fresh eggs are available at the farm stand, as well as 100% wool yarns in natural and hand-dyed colors, and wool blankets, hats, scarves, needle felted items and sheepskins. The farm also produces vegetables, blueberries and jams. 15 Main Street • 413-498-2077

Five Acre Farm

Five Acre Farms is a wholesale and retail garden center operation selling annuals, perennials, fruit and vegetable plants, and herbs grown in their fields and greenhouses. The Retail Garden Center is open from 8:00 am to 5:00 pm, 7 days a week from April through October. <http://www.fafgrowers.com/> • 108 Hinsdale Road • 800-221-2049

Four Star Farms, Inc.

Four Star Farms is a family-owned and operated farm located along the banks of the Connecticut River, and has been growing and selling quality turf throughout New England for more than 25 years. Over the years the farm has diversified to include whole grains, flours and cornmeal milled on-site, and hops. Products can be purchased online, through local retailers, and by ordering over the phone and picking up at the farm. <http://fourstarfarms.com/> • 496 Pine Meadow Road • 413-498-2968

Northwoods Forest Products

A family-owned sawmill and logging operation offering retail and wholesale native local band sawn lumber, custom milling, lumber planing, firewood, slab wood, sawdust and shavings. Other farm products offered seasonally. Open year-round. 675 Gulf Road • 413-498-5335

Rock Ridge Farm



Quality farm stand featuring field-grown perennials, bedding and vegetable plants, hanging baskets, shrubs and seasonal produce. PYO cut flowers, fall decorations, compost, bark mulch, loam, firewood, worm castings, hay and straw, Christmas trees, wreaths and more. Season runs April-December. 2 Main Street • 413-498-5520

Erving

Dan's Veggies and Poplar Mountain Maple



Locally grown vegetables, cord wood, maple syrup and camp wood are for sale.
151 Northfield Road • 413-423-3242

Montague

Brook's Bend Farm

The working farm produces humanely raised lamb and pork as well as beautiful Shetland woolens, including rugs and yarns in many natural colors.

<http://brooks bend farm.com/index.cfm> • 119 Old Sunderland Road • 413-367-2281

Red Fire Farm

Red Fire Farm is a certified organic farm that produces a wide diversity of vegetables, flowers, fruit, and a selection of vegetable and bedding plant flowers in the spring. The farm stand is open from May 1 - October 31, 7 days a week. The farm stand also carries bread, eggs, milk, honey, butter, cheese, maple syrup, chips, pickles and other products from local producers. <http://www.redfirefarm.com/index.html> • 504 Turners Falls Road

Turners Falls Farmers Market

The Turners Falls Farmer's Market is held on Wednesdays from 2:00 p.m. to 6:00 p.m. May through October, on the Great Falls Discovery Center lawn in downtown Turners Falls, Montague. Accepts SNAP, WIC, Seniors Coupons. 2nd Street and Avenue A

Waidlich Farm

This small family farm, established in 1920, sells hay (most suitable for horses), sweet corn, and maple syrup. 156 E. Mineral Road • 413-522-2334

Sunderland

D. A. Smiarowski Farms



This farm specializes in asparagus, hay, potatoes, pumpkins, straw, and sweet corn and is located near the Connecticut River in the northern part of Sunderland. 85 Falls Road • 413-665-7522

Hubbards Dry Brook Farm

This farm specializes in asparagus, pumpkins, and squash. 611 Amherst Road • 413-665-8349

Jamie Bagdon Farm

Organic butternut squash, lettuce, and peas are some of the vegetables offered at this farm. 33 Bull Hill Road • 413-665-3229

John Bagdon Farm

The fields of the John Bagdon Farm yield such produce as bok choy, squash, and tomatoes. 442 Amherst Road • 413-665-2751

The Kitchen Garden

This is a Certified Organic family-run farm. Kitchen Garden does not currently have a farm stand, but they do have special events such as their annual Chilifest. Check their website for information. <http://kitchengardenfarm.com/> • 131 South Silver Lane • 413-387-5163

Kulessa Farms

Kulessa Farms operates a farm stand at the Sugarloaf Frostie and offers such produce as beans, cucumbers, pumpkins, squash, strawberries, sweet corn and even offers corn for heating stoves. 132 Russell Street • 413-665-2590

Laurenitis Farm

This stand specializes in annuals, hanging plants, mums, perennials, and vegetables. With greenhouses in operation almost all year round, Laurenitis grows all their own plants. <http://www.laurenitisfarm.com/> • 475 Amherst Road • 413-665-4860

Little Brook Farm

Little Brook Farm is a small family farm that practices sustainable, low environmental impact agriculture and offers a selection of healthy products. At the heart of the farm are its sheep and Border Collies. The sheep are primarily Border Leicesters, famous for their soft lustrous wool. Little Brook Farm is also home to llamas, donkeys, horses, ducks, geese and goats. Visitors can purchase all-natural freezer lamb, hand spinner fleeces, wool blankets, ducks and duck eggs, and more. There are Border Collie herding demonstrations and petting zoos and farm parties. <http://littlebrookfarm.com/> • 334 Russell Street • 413-665-3802

Millstone Farm Market



A small grocery store offering a full service meat department, fresh deli meats and cheeses sliced to order as well as local produce, local dairy products and dry goods, and local crafts and artisan products. 24 South Main Street • 413-665-0543

Mount Toby Farm



This family farm which wholesales milk to Cabot Creamery has diversified and now also sells compost, hay, and pumpkins. 225 North Main Street • 413-665-4327

M&S Robinsons



This farm grows and sells cucumbers, peppers, squash, and tomatoes. Call ahead for hours and availability. 393 Hadley Road • 413-665-2482

Patterson Farm



The farm stand at Patterson Farm features sweet corn and other vegetables. 159 Montague Road • 413-665-5100

Riverland Farm



Riverland Farm is a 25-acre certified organic vegetable operation on the banks of the Connecticut River in Sunderland. They grow over 60 different vegetable crops and 140 different varieties. All the food grown is purchased and consumed within 75 miles of the farm. Riverland Farm grows affordable, high quality, chemical free produce for local communities. <http://www.riverlandfarm.com/> • 206 River Road • 413-665-5781

Scotts Farm



This farm grows and sells corn, peppers, squash, and tomatoes. Call ahead for hours and availability. 252 Hadley Road • 413-665-4791

Smiarowski Farm and Creamery



This farm offers farm fresh vegetables, fruits and cut flowers. The Smiarowski Farm and Creamery is also known for its Polish food and soft-serve ice cream and frozen yogurt that they serve at their farm stand. They are open from May through October, from 8am to 9pm daily. <http://www.farmfresh.org/food/farm.php?farm=1811> • 320 River Road • 413-665-3830

Sugarloaf Nurseries



Grasses, perennials, shrubs and trees are for retail sale at Sugarloaf Nurseries in Sunderland. 25 Amherst Road • 413-665-2200

Thomas Farm



Thomas Farm has a variety of vegetables, herbs, and flowers available. 64 Hadley Road • 413-896-4268

Warner Farm

Warner Farm is one of the oldest and longest running family farms in New England! Ten generations of Warners have operated the farm in Sunderland since the 1720's. Produce is available at the Warner Farm stand; along with pick your own strawberries. The farm stand is open daily from June through September. Visitors can also experience Mike's Maze, an eight-acre corn maze that attracts over 8,000 visitors to the farm each year. See their website for hours and more information. <http://warnerfarm.com/> • 159 Old Amherst Road • 413-665-8331

Hadley

Below is a list of working farms along the byway in Hampshire County. Features or attractions at these destinations that may be of interest to tourists are explained in more detail.

Twenty Acre Farm



This farm features greenhouses selling annual flowers and wholesale vegetables. 351 River Drive • (413) 549-5708

Devine Farm

Devine Farm is a local dairy farm selling milk to regional distributors. It also sells wreaths and hanging baskets. 56 Knightly Street • (413) 549-4431

Lakeside Pick Your Own Strawberries



This farm features pick-your-own strawberries when in season. 264 River Drive • (413) 237-2615

Twin Oaks Farm

This farm sells wholesale vegetables. 116 Stockbridge Street • (413) 549-0016

Four Rex Farm, Inc.

This wholesale and retail vegetable farm sells annual and perennial flowers, tomatoes, squash, and melon, among other produce. The farm was founded in 1984.
110 West Street and 75 Bay Road • (413) 584-5982

Garden of Delights

This pesticide-free farm sells corn, berries, and herbs, and includes a bed and breakfast.
20 Rocky Hill Road • (413) 584-8970

Megan's Valley Garden and Landscape Supply

Integral to gardens and yards in the byway area, this garden supply store stocks vegetable starts, mulch, plants, and seasonal products such as pumpkins and Christmas trees.
8 Mill Valley Road • (413) 582-1263

Hadley Garden Center

A local landmark since 1963, Hadley Garden Center features a full range of garden supplies, plants, and hosts workshops on gardening techniques and lawn care.
285 Russell Street • (413) 584-1423

Cook Farm and Flavors of Cook Farm

Cook Farm was founded in 1909. Today it encompasses 150 acres and produces local milk and dairy products. The farm also features a homemade ice cream stand and café. There is a fall festival on the farm in October. Farm tours are available.
129 South Maple Street • (413) 584-2224

Barstow's Dairy Store and Bakery at Barstow's Longview Farm



This dairy farm features a large café and ice cream shop that sells local produce from area farms as well. The store and café are opened year round. The Barstow Farm also features an anaerobic digester, a source of renewable energy, and offers tours of it monthly.
14 Barstow Lane • (413) 586-2142

Copperhead Farm

The main product at this small 2-acre farm is meat (goat, chicken, and turkey). Farm tours are available by appointment.
4 East Street • (413) 584-2984

South Hadley

South Hadley Farmers Market



The South Hadley Farmers Market takes place on Thursday afternoons on the Town Common.
Hadley Street at College Street

Hatfield (proposed Byway)

Teddy C. Smiarowski Farm

A farm stand in Hatfield sells asparagus and pre-picked strawberries.
487 Main Street • (413) 247-5181

Skawski Farms

Greenhouses at Skawski Farms offer potted plants, flowers, and vegetable starts. The farm is open seasonally during the growing season.
455 Main Street • (413) 247-9484

Prospect Meadow Farm

Prospect Meadow Farm is a non-profit enterprise that also serves as a rehabilitation center for people with disabilities. The farm stand is open year-round and located a short distance from the byway. It sells vegetables, eggs, and meat products.
103A Prospect Street • (413) 887-9441

Pop's Farm

Flowers, vegetables, and fall ornamentals are available at this family-owned farm stand a short drive off the byway.
62 Chestnut Street • (413) 247-9029

Wendolowski Farm

This farm sells asparagus, onions, corn, melons, and other vegetables.
118 Prospect Street • (413) 247-5476

Pioneer Valley Farm and Vineyard

This vineyard started in 2004, selling locally made wines, jams, and jellies.
41 School Street • (413) 247-3007

Bardwell Farm Stand

A farm stands selling local vegetables during the spring, summer and fall.
49 Main Street •



A farmstand in Hatfield

Maple Sugaring

Maple sugaring is a New England tradition and, from late winter through early spring, farmers tap trees, gather sap from sugar maple trees, and boil it down to maple syrup. Tourists can often observe boiling in process and can enjoy maple syrup products and breakfasts at some of the maple sugaring businesses. Maple syrup products are available at many farm stands and stores but only those locations that produce maple syrup are listed in this section. Note: ***Only those maple sugaring businesses within the half-mile***

corridor are included in the following list. Information on other farms, farm stands and local products in the byway towns is available at:

- <http://massmaple.org/>
- <http://www.mass.gov/agr/massgrown/maple.htm>
- <http://buylocalfood.org>

Northfield

Quinn's Sugarhouse 

Quinn's is a small family-run sugarhouse producing high quality Massachusetts maple syrup for sale year-round. Open to the public from the last week of February to the first week of April. 13 Parker Avenue • 413-498-0259

Severance's Maple Products 

Call ahead for boiling times. 52 Pierson Road • 413-498-2032

Erving

Dan's Veggies and Poplar Mountain Maple 

Dan's has locally grown vegetables, cord wood, maple syrup and camp wood. 151 Northfield Road • 413-423-3242

Montague

Old Homestead Farm 

388 Federal Street (Route 63) • 413-367-2802

Sunderland

Gothic Top Farm Sugarhouse 

This is a small family-run sugarhouse operated by father and sons in a shed with a wood fired evaporator. 21 Russell Street • 413-665-7256

Hadley

North Hadley Sugar Shack and Boisvert Farm

During sugaring season from February to April, this destination serves pancake breakfasts, and then operates a creamery during the summer months with maple-flavored

soft serve. Vegetables, local farm produces, and Christmas trees are also available, and the farm hosts a pumpkin festival in the fall. There is also an interpretative area about farm animals geared towards children that includes mini-golf and a baby chick hatchery. <http://www.northhadleysugarshack.com/> • 413-585-8820

Other Scenic Byways in the Region

Western Massachusetts is home to seven scenic byways, some of which intersect with the Connecticut River Scenic Byway and others which are nearby. Travelers visiting the Connecticut River Scenic Byway can easily access other Byways, as described below. More information on all seven scenic byways can be found online at <http://www.bywayswestmass.com/>.

Jacobs Ladder Scenic Byway

The overarching theme of this Byway is an unspoiled, scenic, and historic rural area. The Jacob's Ladder Scenic Byway is unique as the first of the "great mountain crossovers" with its early traveler history, sites, and the people associated with its development. The byway is also unique because the Westfield River, the first National Wild and Scenic River in southern New England, runs parallel to it through the towns of Russell, Huntington, and Chester. Features along the Jacobs Ladder Scenic Byway include Jacob's Pillow Dance Festival, Chester-Blandford State Forest, and the Westfield River. Route 20 from Westfield to Lee

Mohawk Trail Scenic Byway – Eastern Section (Athol to Greenfield)



The eastern section of the Mohawk Trail Scenic Byway travels through the communities of Athol, Orange, Erving, Gill and Greenfield. The overarching theme of this section of the byway is related to the industrial development of the area. Historically, the scenic and natural resources, including the rugged forested hillsides and the Millers, Connecticut and Green Rivers, shaped the development of the communities and the region as a whole. The rivers powered the mills that transformed local timber and other natural resources into products that, in turn, fueled the economy of the region and helped towns to prosper and grow. The industrial heritage of the area is still evident today and very much a part of the towns and villages along the byway. Features along the Eastern Section of the Mohawk Trail Scenic Byway include the Millers River, mills of the byway region, and historic downtowns. Route 2 from Athol to Greenfield • Access from the Connecticut River Scenic Byway via Gateway Drive in Erving

Mohawk Trail Scenic Byway - Western Section (Greenfield to Williamstown)

The theme of the western section of the Mohawk Trail Scenic Byway is strongly rooted in the history and development of the road itself. The development, construction, and

improvement of the Mohawk Trail over the years were driven by history and the prominent events that were occurring. Native American habitation in the region during the early settlement period; the industrial revolution and the resulting growth of manufacturing and rail transportation; and auto tourism all greatly influenced the byway and the surrounding area. These large scale historic events shaped the form and function of the physical characteristics of the road and the neighboring environment during these distinct periods of history. Features along the western section of the Mohawk Trail Scenic Byway include the byway itself as a scenic driving route, arts and culture, and outdoor recreation. Route 2 from Greenfield to Williamstown

Mount Greylock Scenic Byway

The main theme of this Byway is the outstanding scenic views. The scenic byway overlooks the Hoosic River Valley and the Hoosac Range to the east, and the Green River Valley and the Taconic Mountains to the west. From the Mount Greylock summit the panoramic views extend to other mountain ranges in the distance including: the Green Mountains to the north, the White Mountains to the northeast, and the Catskills and Adirondacks to the west. A secondary theme is the unique ecology of Mount Greylock, the state's highest peak. Features along this Byway include the summit of Mount Greylock, the trail system, and MassMoCA. Route 7 in Lanesborough to Route 8 in North Adams

Route 116 Scenic Byway



The Route 116 Scenic Byway winds through small historic town centers and agricultural and forested landscapes. This Byway offers small-town hospitality along with a mix of cultural and outdoor recreation opportunities. Features include commanding views of Mount Greylock in Cheshire, the Ashuwillticook Rail Trail in Adams, quaint local businesses and eateries in Ashfield and Conway, and abundant natural and outdoor recreation areas within state forests and wildlife sanctuaries, including views of the Connecticut River Valley at the top of Mount Sugarloaf in Deerfield. Route 116 from Sunderland Center to downtown Adams • Access from the Connecticut River Scenic Byway at the intersection of Route 47 and Route 116 in Sunderland Center

Route 112 Scenic Byway

The overarching theme of the Route 112 Scenic Byway is the diverse landscape of mountains, river valleys, rural farmland, and forests. There are also a number of small New England towns, with histories rooted in agriculture and industry and diverse cultural and tourist resources. Features along this Byway include Shelburne Falls Village, Upper Buckland Historic Area, Arthur A. Smith Covered Bridge in Colrain, farms and farmers' markets, and fairs. Route 112 intersects with the Mohawk Trail Scenic Byway, Route 116, and the Jacobs Ladder Trail.

Restaurants

There are a number of places to eat along or near the Connecticut River Scenic Byway. These establishments include traditional New England restaurants and diners, seasonal maple syrup sugarhouses, pizza places, cafes, and family style restaurants. There are also ice cream vendors, farm stands, and convenience stores selling food along the byway, along with a large number of independent restaurant and fast-food and national chains located in Hadley. An inventory of restaurants within the towns of the Connecticut River Scenic Byway is shown in Table 8-2, although due to the large amount of restaurants located in Hadley and South Hadley, only “landmark” establishments or restaurants located in close proximity to the byway are highlighted.

Lodging

Travelers have the choice of several places to stay while visiting the Connecticut River Scenic Byway. Lodging includes bed and breakfasts, hotels/motels, inns, and camping. An inventory of lodging within the towns of the Connecticut River Scenic Byway is shown in Table 8-3. See the Outdoor Recreational Resources chapter for more information on campgrounds along the byway.

General Stores and Retail Establishments

There are a number of general stores and retail establishments along or near the Connecticut River Scenic Byway. They include antique stores, gift shops, convenience stores, and more. In Hadley and South Hadley there are a large number of independent and national-chain retail establishments. These are mainly found along Route 9, which intersects with the byway at the Hadley town center, and in the Village Commons in South Hadley. In the past decade Route 9 has grown from a road with a mixture of homes and agricultural fields interspersed with retail and restaurants to a major commercial east-west thoroughfare connecting Amherst and Northampton. Many formerly struggling malls and strip shopping centers are now flourishing with diverse retail and restaurant offerings, and many remaining agricultural and residential sites are being converted to commercial use. Though the route offers a varied and interesting array of stores for the traveler, traffic congestion has also become a concern. An inventory of general stores and retail establishments within the towns of the Connecticut River Scenic Byway is shown in Table 8-4, but due to the large number of establishments in Hadley and South Hadley, only selected “landmark” establishments are highlighted.

Restroom Facilities

There are public restrooms available directly on the byway at the Dickinson Memorial Library in Northfield, the Erving Public Library in Erving, and the Millers Falls Library in Montague. The Goodwin Memorial Library in Hadley offers public restrooms on the byway where it intersects with Route 9, and the Hampshire Mall also offers public restrooms although it is located approximately 3 miles off the byway on Route 9. The

Village Commons shopping center in South Hadley, at the southern terminus of the byway, also offers public restrooms.

WiFi and Mobile Data Access

There are several WiFi hotspots where tourists can access the internet along the byway. An inventory of locations where there is free WiFi available along the Connecticut River Scenic Byway is shown in Table 8-5. Many other private retail establishments also offer WiFi, particularly along Route 9 in Hadley and at the Village Commons in South Hadley. In addition, the byway is served by the major mobile voice and data service providers, including Verizon and AT&T. Sprint and T-Mobile also offer mobile data and voice service in the byway area but less so along parts of the route in Franklin County, particularly north of Montague.

Table 8-2: Connecticut River Scenic Byway Restaurant Inventory, Franklin County

Restaurant Name	Street Address	Phone	Website	Cuisine	Within Byway Corridor
Northfield					
Mim's Market	60 Main St. (Route 63)	413-498-9900		Café, deli	✓
Northfield Coffee and Books	105 Main St. (Route 63)	413-498-0095	www.coffeeandbooks.net	Café	✓
Northfield Creamie	62 Main St. (Route 63)	323-459-5499	www.northfieldcreamie.com	Ice cream	✓
Northfield Pizza House	198 Main St. (Route 63)	413-498-5000		Pizza	✓
The Notch	77 Main St. (Route 63)	413-498-0100		American	✓
Rooster's Bistro	74 Main St. (Route 63)	413-225-1956	http://roostersbistroma.com	American	✓
Erving					
A & R Boxcar Restaurant	3 East Main St.	413-422-2405	http://theboxcarrestaurant.weebly.com	American	
Christina's Pizzeria and Tavern	20 French King Hwy. (Route 2)	413-422-1161		Italian, pizza	✓
Crooked Tap	7 West Main St. (Route 2)	978-633-2014		Pub fare, café	
Franklin Grocery & Package Store (Prondecki's)	1 West High St.	413-423-3907		Pizza, deli	✓
Freight House Antiques & Café	11 East Main St. (Route 2)	413-422-2568		Café, ice cream	
French King Bowling Center	55 French King Hwy. (Route 2)	413-423-3047	http://bowling4fun.wstemp01.com	Pizza	✓
French King Restaurant & Motel	129 French King Hwy. (Route 2)	413-423-3328	www.frenchkingrestaurant.com	American	
Pocket Saver Market	5 West Main St.	978-633-2010		Deli	
Weatherheads Convenience Store / Dunkin Donuts	63 French King Hwy. (Route 2)			Donuts, café	✓

Restaurant Name	Street Address	Phone	Website	Cuisine	Within Byway Corridor
Montague					
2 nd Street Baking Co.	4 th St.	413-863-4455	www.2ndstreetbakingco.com	Café, deli	
The Alvah Stone	440 Greenfield Rd.	413-367-5345	http://thealvahstone.com	American	
Black Cow Burger Bar	125 Avenue A	413-863-5183		Burgers	
Ce Ce's Chinese Restaurant	51 Avenue A	413-863-8988	www.ceceschineseturnerfalls.com	Chinese	
Great Falls Harvest	50 3 rd St.	413-863-0023	www.greatfallsharvest.com	Farm to table	
Hubie's Tavern & Restaurant	66 Avenue A	413-863-8938	http://hubiestavern.com	American	
Kali B's Wings & Things	166 Avenue A	413-325-6000		American	
The Lady Killigrew	442 Greenfield Rd.	413-367-9666	http://theladykilligrew.com	Café, pub	
Miller's Pub	25 East Main St.	413-659-3391		Pub	✓
The Rendezvous	78 3 rd St.	413-863-2866	http://rendezvoustfma.com	Eclectic	
Route 63 Roadhouse	32 Federal St. (Route 63)	413-659-3384	www.route63roadhouse.com	Pub fare	✓
Shady Glen Diner	7 Avenue A	413-863-9636		Diner	
Subway	57 Avenue A	413-863-9694		Sandwiches	
Turners Falls Pizza House	119 Avenue A	413-863-8000	http://turnersfallspizza.com	Pizza	
Sunderland					
Blue Heron Restaurant	112 North Main St. (Route 47)	413-665-2102	http://blueherondining.com	Farm to table	✓
BridgeSide Grill	9 Amherst Rd. (Route 116)	413-397-8101	www.bridgesidegrille.com	American	✓
Bub's Bar-B-Q	676 Amherst Rd. (Route 116)	413-548-9630	www.bubsbbq.com	Barbeque	
Dimo's Restaurant	118 North Main St. (Route 47)	413-665-4444		Family style	✓
Dove's Nest Restaurant	283 Amherst Rd. (Route 116)	413-665-7969		Family style	
Frontier Pizza	283 Amherst Rd. (Route 116)	413-665-7066	www.frontierpizza.com	Pizza	

Restaurant Name	Street Address	Phone	Website	Cuisine	Within Byway Corridor
Goten of Japan	104 Old Amherst Rd.	413-665-3628	http://gotenofjapan.com	Japanese	
Subway	45 Amherst Rd. (Route 116)	413-665-0900		Sandwiches	✓
Subway	5 Clark Mountain Rd.	413-665-0900		Sandwiches	
Sugar Loaf Frostee	116 Amherst Rd. (Route 116)	413-665-7585		Ice cream	
Hadley					
North Hadley Sugar Shack	181 River Drive	413-341-4076	www.northhadleysugarshack.com	Ice cream, breakfast	✓
Donut Man	142 Russell Street	413-585-8881		Doughnuts	✓
Hillside Pizza	173 Russell Street	413-585-0003	www.hillsidepizza.com	Organic pizza, salads	
Gohyang Korean Restaurant	113 Russell Street	413-586-8848	www.gohyangrestaurant.com	Korean	
Primo Pizzeria	103 Russell Street	413- 585-0950	www.primorestaurants.com	Pizza	
Alina's Ristorante	96 Russell Street	413- 584-8000	www.myalinas.com	Italian	
Esselon Cafe	99 Russell Street	413- 585-1515	www.esselon.com	Sandwiches, Coffee, Pastries	
Barstow's Dairy Store	172 Hockanum Road	413-586-2142	www.barstowlongviewfarm.com	Sandwiches, Ice cream	✓
Flayvors of Cook Farm	129 S. Maple Street	413-584-2224	www.flayvors.com	Ice cream	
South Hadley					
Yardehouse	3 Hadley Street	413- 315-4339	yardetavernsouthhadley.com	Pub fare	✓
Tailgate Picnic	7 College Street, Village Commons	413-532-7597	Tailgatepicnic.com	Deli, Sandwiches	✓
Autentica Mexican Restaurant	9 College Street, Village Commons	413-315-6474	autenticamexicanfood.com	Mexican	✓
Iya Sushi and Noodle Kitchen	15 College Street, Village Commons	413-538-8222	iyasushi.com	Japanese, Asian	✓
Main Moon Chinese	11 College Street, Village	413-533-8839	newmainmooncafe.com	Chinese	✓

Restaurant Name	Street Address	Phone	Website	Cuisine	Within Byway Corridor
Restaurant	Commons				
South Hadley Berkshire Yogurt	Village Commons	413-315-3151		Frozen Yogurt	✓
Food 101 Bar & Bistro	19 College Street, Village Commons	413-535-3101	food101bistro.com	Upscale American	✓
Johnny's Bar & Grille	23 College Street, Village Commons	413-534-8222	johnnysbarandgrille.com	Pub fare	✓
Dockside Restaurant	1 Alvord Street	413-536-2342	www.dock-side.com	American	✓
Hatfield					
Grill 'n Chill	127 Elm Street	413-247-5044	hatfieldgrillnchill.com	Pub fare	✓
Fishtales Bar & Grill	5 School Street	413-349-9804	fishtalesbargrill.com	Casual American	✓
Double B's Bar and Grill	4 Prospect Ct.	413-247-8349		Casual American	
Smithsonian Café and Chowderhouse	1 West Street	413-247-5157	smithsonianchowderhouse.com	Soups, Sandwiches	
Subway	10 West Street	413-247-6387		Sandwiches	
Double D's Diner	34 West Street	413-247-9106		Casual American	
Mill District Coffee	87 School Street	413-247-3301	Milldistrictcoffee.com	Sandwiches, Coffee	✓

Table 8-3: Connecticut River Scenic Byway Lodging Inventory, Franklin County

Lodging Name	Street Address	Phone	Website	Type	Within Byway Corridor
Northfield					
Centennial House Bed & Breakfast	94 Main St. (Route 63)	413-498-5921	www.thecentennialhouse.com	B&B	✓
Erving					
French King Restaurant & Motel	129 French King Hwy. (Route 2)	413-423-3328	www.frenchkingrestaurant.com	Motel	
Montague					
None available					
Sunderland					
None available					
Hadley					
Hadley Meadow B&B	113 Rocky Hill Road	413-256-5454	www.hadleymeadow.com	Hotel	✓
Knights Inn Hadley	208 Russell Street	413-586-4851	http://www.knightsinn.com/hotels/massachusetts/hadley/knights-inn-hadley/hotel-overview	Hotel	✓
Comfort Inn Hadley	237 Russell Street	413-585-1552	http://www.choicehotels.com/ires/hotel/ma090	Hotel	✓
Hampton Inn Hadley	24 Bay Road	413-549-1937	http://hamptoninn3.hilton.com/en/hotels/massachusetts/hampton-inn-hadley-amherst-area-HADMAHX/index.html	B&B	✓
Garden of Delights	20 Rocky Hill Road	413-584-8970		B&B	✓
South Hadley					
Daniel Stebbins House B&B	25 Woodbridge St.	413-533-2149	www.danielstebbinsbedandbreakfast.com	B&B	✓
Grandmary's B&B	11 Hadley St.	413-533-7381	www.grandmarys.com	B&B	✓

Lodging Name	Street Address	Phone	Website	Type	Within Byway Corridor
Hatfield					
The Old Mill Inn	87 School Street	413-247-3301	http://oldmillinn.ma/	Inn	✓
Scottish Inns	20 West Street	413-247-5601		Motel	

Table 8-4: Connecticut River Scenic Byway General Stores and Retail Establishments Inventory

Establishment Name	Street Address	Phone	Website	Type	Within Byway Corridor
Northfield					
Mim's Market	60 Main St. (Route 63)	413-498-9900		Convenience	✓
Northfield Coffee and Books	105 Main St. (Route 63)	413-498-0095	www.coffeeandbooks.net	Books	✓
Northfield Country Corner	40 Maple St.	413-498-5458		Gift shop	✓
Northfield Food Mart (IGA)	74 Main St. (Route 63)	413-498-2638		Grocery	✓
Northfield Mountain Antiques	1026 Millers Falls Rd. (Route 63)	413-498-2414	www.northfieldmountainantiques.com	Antiques	✓
Old School Gifts	230 Millers Falls Rd. (Route 63)	858-663-9049		Gift shop	✓
Tom White Pottery	205 Winchester Rd.	413-498-2175	www.tomwhitepottery.com	Pottery	
Erving					
Freight House Antiques & Café	11 East Main St. (Route 2)	413-422-2568		Antiques	
Pocket Saver Market	5 West Main St.	978-633-2010		Convenience	
Weatherheads Convenience Store	63 French King Hwy. (Route 2)			Convenience	✓
Franklin Grocery & Package Store (Prondecki's)	1 West High St.	413-423-3907		Convenience, beer & wine	✓
Montague					
Aubuchon Hardware	200 Avenue A	413-863-2100		Hardware store	
Basically Bicycles	88 3 rd St.	413-863-3556	http://basicallybicycles.com	Bicycle shop	
Carriage House Designs	65 Canal St.	413-863-9499	www.signedinstone.com	Sculpture/stonework	
Carroll's Market	33 East Main St.	413-659-0172		Grocery	✓
Element Brewing Company	30 Bridge St.	413-835-6340	www.elementbeer.com	Beer	✓
Food City	250 Avenue A	413-863-9591		Supermarket	
FUNK*SHUN	38 3 rd St.	413-863-0003		Art	

Establishment Name	Street Address	Phone	Website	Type	Within Byway Corridor
LOOT found+made	62 Avenue A	413-863-9500	www.loottheshop.com	Arts & crafts	
Madison on the Avenue	104 Avenue A			Vintage	
The Montague Bookmill	440 Greenfield Rd.	413-367-9206	www.montaguebookmill.com	Used books	
Montague Mini Mart	60 Main St.	413-367-9551		Convenience	✓
Nina's Nook	125A Avenue A	413-834-8800	www.ninastudio.net	Art	
Rite Aid Pharmacy	240 Avenue A	413-863-3107		Pharmacy	
Scotty's Convenience Store	106 High St.	413-863-9634		Convenience	
Salvation Army Thrift Store	206 Avenue A	413-863-8726		Thrift store	
Sawmill River Arts Gallery	440 Greenfield Rd.	413-367-2885	http://sawmillriverarts.com	Arts & crafts	
Turn It Up!	440 Greenfield Rd.	413-367-0309	www.turnitup.com	Music	
Sunderland					
7-Eleven	668 Amherst Rd. (Route 116)	413-549-2729		Convenience	
7-Eleven	283 Amherst Rd. (Route 116)	413-665-3901		Convenience	
Billy's Beer and Wine	13 Bridge St. (Route 116)	413-665-2727		Beer & wine	✓
Millstone Farm Market	22 South Main St. (Route 47)	413-665-0543		Grocery	✓
Mt. Sugarloaf Treasures	283 Amherst Rd. (Route 116)	413-665-7070		Antiques	
New 2 You Family Boutique	283 Amherst Rd. (Route 116)	413-665-3222		Thrift store	
Phoenix Games Inc.	289 Amherst Rd. (Route 116)	413-665-7967		Toys	
Sunderland Corner Store	101 North Main St. (Route 47)	413-397-2002		Convenience	✓
Hadley					
North Hadley Sugar Shack	181 River Drive	413-341-4076	northhadleysugarshack.com	Grocery	✓
Here We Grow	123 Russell Street	413-584-3726	herewegrowhydro.com	Garden Center	
Fonzie's Beer and Wine	103 Russell Street	413-582-0374		Beer & Wine	
Cumberland Farms	109 Russell Street	413-584-4756		Convenience / Gas	
Kim's Oriental Market	113 Russell Street	413-586-2682		Grocery	
Grey Matter Books	47 East Street	413-387-0160	greymatterbookstore.com	Bookstore	
Valley Bike and Ski Werks	173 Russell Street	413-582-0733	valleybikeandskiwerks.com		

Establishment Name	Street Address	Phone	Website	Type	Within Byway Corridor
Sam's Outdoor Outfitters	227 Russell Street	413-582-9820	Samsoutfitters.com	Outdoor gear and clothing	
Southern New England Spice Market	35 Lawrence Plain Road	413-586-2633	snespiceco.com	Spices	✓
Olde Hadley Flea Market	45 Lawrence Plain Road	413-586-0352		Flea Market	✓
Barstow's Dairy and Bakery	172 Hockanum Road	413-586-2142	barstowslongviewfarm.com	Bakery, Grocery	✓
South Hadley					
Odyssey Bookshop	9 College Street (Village Commons)	413-532-4943	odysseybks.com	Bookstore	✓
Comfort Shoes	15 College Street (Village Commons)	413-540-0900	adcshoes.com	Shoe store	✓
Crazy Moon Fashions	21 College Street (Village Commons)	413-534-8108		Clothing and gift shop	✓
Arts Unlimited Art Gallery	25 College Street (Village Commons)	413-532-7047	arts-unlimited.com	Art gallery	✓
Hatfield					
Main Street Market	60 Main Street	413-247-5599		Grocery mart	✓

Table 8-5: Connecticut River Scenic Byway Wireless (WiFi) Access Inventory

WiFi Hotspot	Street Address	Phone	Website	Within Byway Corridor
Northfield				
Northfield Coffee and Books	105 Main St. (Route 63)	413-498-0095	www.coffeeandbooks.net	✓
Dickinson Memorial Library	115 Main St. (Route 63)	413-498-2455	www.northfieldpubliclibrary.org	✓
Rooster's Bistro	74 Main St. (Route 63)	413-225-1956	http://roostersbistroma.com	✓
Erving				
Erving Public Library	17 Moore St. (Route 63)	413-423-3348	www.erving-ma.org/library	✓
Montague				
Carnegie Public Library	201 Avenue A	413-863-3214	http://montaguepubliclibraries.org	
The Lady Killigrew Café	442 Greenfield Rd.	413-367-9666	http://theladykilligrew.com	
Millers Falls Library	23 Bridge St. (Route 63)	413-659-3801	http://montaguepubliclibraries.org	✓
The Montague Bookmill	440 Greenfield Rd.	413-367-9206	www.montaguebookmill.com	
Montague Center Library	17 Center St.	413-367-2852	http://montaguepubliclibraries.org	✓
Sunderland				
Sunderland Public Library	20 School St.	413-665-2642	www.sunderlandpubliclibrary.org	✓
Hadley				
Goodwin Memorial Library	50 Middle St.	413-584-7451	http://www.hadleyma.org/pages/hadleyma_library/index	✓
South Hadley				

The Village Commons (multiple stores)	Route 47		http://www.thevillagecommons.com/Home.aspx	
Hatfield				
Hatfield Public Library	39 Main Street	413-247-9097		✓

Issues and Recommendations

Issues

- The limited number of public restrooms along the northern portion, many in the town public libraries, have limited hours, especially during the summer.
- The local historical societies and museums have limited hours of operation.
- There are few gas filling stations along the northern sections of the byway.
- There are many opportunities to purchase fresh and local agricultural products along the byway, but only a few picnic areas for use by travelers.
- The farms stands, agricultural attractions and historic sites/districts located a short distance off of the byway route are not always apparent to travelers.
- Mobile data service is spotty in northern areas of the byway, making information about free WiFi access points more important.
- Lack of awareness of the Byway as a tourism attraction.

Recommendations

- Identify potential locations for public restrooms and picnic areas to serve the byway.
- Provide information to Byway travelers about where gas stations are located along the byway at informational kiosks and the byway website.
- Create materials to educate tourism promotional organizations and tourist-related businesses about the Connecticut River Scenic Byway.
- Add small directional signage to existing sign posts pointing to landmarks located just off the byway.
- Educate the local public about the heritage and culture of the Connecticut River Scenic Byway by coordinating with existing events and landmarks as well as seasonal activities (such as sugaring season) occurring along the route.
- Coordinate marketing efforts among festivals, chambers of commerce, and local tourism boards along the byway.
- Promote cycling in the Connecticut River Valley to tourist.
- Promote the farming businesses.
- Keep the Scenic Byway website updated.
- Help the local cultural organizations to promote themselves.
- Promote the use of Amtrak train service to recreational visitors to the Connecticut River Valley for bicycling and skiing.

Economic Development

CHAPTER 9

Connecticut River Scenic Byway

Introduction

Much of what drives the economic vitality of the Byway region is apparent when traveling on it. The farmland and farm-stands, educational institutions, historic village centers, shops, and restaurants all contribute to the character and economic vitality of the area. These sectors also contribute to the quality of life that residents appreciate and that fuels the regional tourism industry. It is important that future projects and activities foster a robust economy that supports both the preservation of the existing Byway resources, as well as the continued economic vitality of the area. One of the overall goals of this Byway planning process is to develop recommendations that nurture growth in businesses that enrich the experiences of visitors and also provide economic opportunity for residents.

The intent of this chapter is to consider the preservation and enhancement of the Byway resources (scenic, recreational, natural, historic, culture and tourism) in the context of the regional economy. The commercial sectors and resources that could potentially leverage business development and economic activity are described in the chapter. Additionally, descriptions of the village centers along the Byway are included with details of potential opportunities for economic development. The chapter also includes a list of tools that support business growth and economic development. Finally, issues and recommendations intended to support economic development as well as enhance the Byway story are identified. Please note that the descriptions of the Byway resources that are contained in this chapter are brief because there are more detailed write-ups in the other chapters of the plan.

Economic Development Resources

Existing regional resources that support the tourism industry are an important component of the Byway area's economy. Local businesses, business development organizations, and industry-specific groups focus their efforts on particular niches of the tourism sector including outdoor recreation/natural resources-based tourism, cultural tourism related to heritage or the arts, and agri-tourism. The tourism related segments of the economy are discussed and means to further develop the economy of the Byway region are proposed in this section of the chapter. Additionally, the Byway corridor is home to businesses and industries that are not tourism related, which provide employment opportunities for residents and contribute to the municipal tax base. Overall, it is important that these industries continue to operate and grow in a manner that is sensitive to the Byway character.

Environmental, Recreational and Scenic Resources as Economic Stimuli for the Local Economy

As described in previous chapters, there are many environmental, recreational, and scenic resources along the Byway. These resources include facilities that are open and available to the public, such as state forests, public parks, public boat access, historic sites, and bicycling and hiking trails. Additionally, there are businesses that provide outdoor recreation activities, including but not limited to golf, paddling, and cross-country skiing. The Corridor Management Plan recommends preserving and enhancing these resources by encouraging business development and practices that are sensitive so that the natural resources can be enjoyed in the future.

Generally, the tourism sector benefits from the existence of a “cluster” of businesses and educational programs that have similar goals and objectives. This creates a pool of skilled workers and innovative business owners. For example, Greenfield Community College (GCC) offers a one-year certificate program for Outdoor Leadership, which provides professional training and certifications for a variety of adventure activities, such as backcountry travel, whitewater kayaking, skiing, challenge courses and rock climbing. GCC also offers a certificate program for Farm and Food Systems, which develops skills for food cultivation, processing, and safety. By training skilled workers to provide a quality service for their employers and clients, these programs strengthen the regional tourism sector. In addition, some of the program’s graduates may choose to start their own businesses in the region.

Ensuring that visitors can connect to all types of businesses and services will help to promote this area as a destination for outdoor recreation. The natural, recreation, and scenic based tourism activities are often seasonal. Additional tourism activities could be encouraged and promoted by developing specific events or activities that encourages tourists to visit the area during “shoulder” and off peak seasons. This will make the tourism sector more sustainable year round.

In 2011, the FRCOG prepared a brief summary highlighting strategies implemented in other regions to support the growth of outdoor recreation tourism¹. The summary noted that while the quality of the natural environment plays a key role in drawing visitors to rural areas, natural amenities alone are not enough to bring tourists to a region. It was noted that tourists to rural areas are increasingly looking for a broader experience that combines outdoor recreation with quality accommodations, shopping and cultural opportunities. Infrastructure such as roads, trails, parking, and signs, as well as supporting businesses including lodging, restaurants, and equipment stores or rental services must be in place to promote this type of tourism. Marketing and promotion activities including web-based materials, maps, guidebooks, and advertising are also needed.

¹ “Recreation/Nature-Based Tourism in Rural Areas: Literature Review and Case Study”, FRCOG, 2011. http://www.frcog.org/pubs/economic/Rec_Tourism2011.pdf

Encouraging businesses that serve visitors, such as restaurants, lodging and retail operations will support growth in this sector. Further, tourism service related businesses would best be accommodated in the village centers along the Byway. By having a cluster of destinations and amenities in a specific area, the visitor is more likely to park their car and walk around the community, thus creating more opportunities to generate economic activity.

Architectural, Historic and Cultural Resources as Economic Stimuli for the Local Economy

There are an abundance of historic and cultural resources along the Byway. These resources were detailed in previous chapters and include historic districts, museums, performance venues, and annual festivals. These resources vary in terms of how often they are open, if there is an entrance fee, and how they are staffed (some use volunteers and others have paid professional staff). Attractions such as the Porter-Phelps-Huntington House Museum in Hadley or Mount Holyoke College Art Museum in South Hadley have programming and established hours of operation, while the volunteer run local historical societies may not have regular hours and staffing.

A coordinated marketing program for the seven designated Scenic Byways in western Massachusetts (including the Connecticut River Scenic Byway) was created. The website, www.bywayswestmass.com, and related advertising materials were published to highlight the various attractions available to travelers. This coordinated information about the Byways' resources seeks to encourage travelers to visit these destinations. Additionally, the marketing elements also target specific segments, such as residents who choose to spend free time participating in activities close to home ("stay-cation") or college students seeking adventure activities or cultural experiences. The western Massachusetts Scenic Byways website provides information on attractions and Byway resources.

Coordinated sharing information about events and sites along and near the Byway would be advantageous for all attractions and businesses seeking customers. For example, this would ensure that restaurants and accommodations are prepared for additional customers during special events. It would also be beneficial for attractions that are only open periodically to be open at the same times as other attractions in their community, or to coordinate with other attractions to create a common theme and encourage visitors to attend more than one destination during a visit to the Byway. This can be facilitated by continuing to enhance the coordination among business and visitor associations, tourism councils, and other entities with community calendars.

In addition to these attractions, the region has a thriving creative economy, and is home to performers, artisans and craftspeople. It is important that the products created are available for sale at local shops and attractions that have retail operations. Events, from studio tours to local festivals, are another important venue for making these products available for residents and visitors to purchase. By supporting the local creative economy, it further promotes the unique character of this region to visitors and contributes to the quality of life for residents.

Agriculture and Related Businesses as Economic Stimuli for the Local Economy

As previously noted the Connecticut River Valley has superior quality soils for farming, and consequently the region has a strong agricultural heritage. There are numerous farms, farm-stands, and agri-tourism attractions along the Byway. These businesses help maintain the Byway's scenic rural landscape. It is important to provide support and sustain these agricultural operations. The farms grow a variety of crops for wholesalers, local food producers, and for retail sale. In addition, many of the farms operate farm-stands, pick-your-own operations, maple sugar houses, as well as interactive entertainment activities like hayrides and corn mazes to diversify their revenue sources.

Some of the farms have also extended their operations to include locally produced processed foods. To support these operations the non-profit Franklin County Community Development Corporation operates the Western Mass. Food Processing Center in Greenfield. This commercial kitchen facility has equipment to process, bottle and freeze. The adding of value to locally grown produce may be completed by the farmers themselves, restaurants or retail stores seeking to label their own products, or new food business start-ups.

Communities can boost the local agricultural sector by establishing local farmers markets, and supporting "buy local" campaigns at the individual and institutional level. There are several existing organizations that support the region's agricultural industry and promote the purchase of local products by residents, institutions, and visitors. Community Involved in Sustaining Agriculture (CISA), Berkshire Grown and the Massachusetts Department of Agriculture all have active websites with searchable "buy local" data base that lists local farms, agricultural businesses, farm stands and restaurants that serve local produce. They also publish local farm products guides that are widely distributed.

Another way to support agricultural operations is the permanent protection of active farmland through the purchase of development rights from willing land owners. Regional land preservation organizations, such as the Franklin Land Trust, Mt. Grace Land Trust and Kestrel Trust, have played a vital role in identifying important parcels and facilitating protection of agricultural land. In the past, funding was available through the National Scenic Byway Program for land protection, and approximately 500 acres of active farmland on the Connecticut River Byway have been protected to date with this funding.

Educational Resources as Economic Stimuli for the Local Economy

As has been identified in this and other chapters, there is a significant presence of college and independent school students (many of whom are boarding students) in the region. In the communities of the Byway corridor and adjacent to it, there are over 36,000 college

students in seven institutions² of higher education, and over 2,300 are enrolled at eight independent schools³ that host both day and boarding students. Families of current or prospective students who travel to the region from far away are an important segment of the tourism profile for the region. In addition to students, visiting faculty, returning alumni, and attendees at special events and programs come to the region. It is essential to ensure that these students, their families, faculty, alumni and others are connected to visitor services and the resources in the region.

Town Centers and Identities

The six municipalities of the Connecticut River Scenic Byway corridor are home to nearly 40,000 people, which range from the small town of Erving (1,784 population) to South Hadley, the most populous community and home to the Mount Holyoke College (17,723 population).⁴ Within these municipalities are the seven village centers located on or adjacent to the Byway. While each of these areas can be defined as a village center, they vary in size and scope. Some village centers have small shops, restaurants, offices, public services, and attractions, while others mostly retain only their historic public facilities. To the extent that local residents and visitors can be encouraged to shop at these establishments, local businesses will become more successful, and others may be inspired to open.

Table 1: Byway Town Centers

Town Center	Municipality	County
Northfield Village Center	Northfield	Franklin
Millers Falls/Erving side Village Center*	Montague and Erving	Franklin
Montague Center**	Montague	Franklin
Sunderland Village Center	Sunderland	Franklin
North Hadley Village Center	Hadley	Hampshire
Hadley Common	Hadley	Hampshire
South Hadley Village Center	South Hadley	Hampshire

* This shared village center is on both sides of the Millers River. On the Montague side of the Millers River it is called Millers Falls, and on the Erving side of the Millers River it is called Erving side.

** Village Center is not located on Byway, but is within one mile of Byway.

Franklin County

Northfield Village Center

The Northfield Village Center extends from the former Northfield Mt. Hermon School campus south two miles to where Route 10 splits from the Byway. This distance includes a variety of establishments, including public buildings (such as town hall, library, post

² They are: Amherst College, Conway School of Landscape Design, Greenfield Community College, Hampshire College, Mount Holyoke College, Smith College and the University of Massachusetts at Amherst.

³ They are: Bement School, Clarke School for Hearing & Speech, Deerfield Academy, Eaglebrook School, Northfield Mount Hermon, Redemption Christian Academy, Stoneleigh Burnham School, and The MacDuffie School.

⁴ Source: US Census Bureau, American Community Survey, Five-year Estimate, 2009-2013.

office, and elementary school), restaurants, retail shops, services, accommodations, and other attractions. The Northfield Village Center is a local commercial center for residents as well as a destination for visitors.

With the consolidation of the Northfield Mt. Hermon School onto the Gill campus in 2005, the Northfield campus was vacated. The historic campus has eight dormitories, seven academic buildings, an administrative building, and features an auditorium with seating for 2,200, a chapel, a gymnasium with a swimming pool and a music hall. A private foundation that owns the campus is seeking organizations with a mission that is in keeping with the legacy of the former school's founder D. L. Moody and that can also meet specific financial requirements. Once returned to active use, the campus will again be an economic driver for the Northfield Village Center and surrounding area.

With two independent boarding schools located nearby, the Redemption Christian Academy on South Mountain Road in Northfield and the Northfield Mt. Hermon School in Gill, the Northfield Village Center continues to attract families visiting students, as well as other tourists attracted to its historic resources and outdoor recreation activities. The Village Center is also a popular stop for bicyclists traveling along the Byway. It is part of the signed Franklin County Bikeway Northfield Connector route. At the very center of the Village (near the intersection of Routes 63/10 and Warwick Road and Parker Ave), residents and visitors are able to park and explore food options and retail offerings by walking along the historic common. Residents and visitors may also choose to drive to a specific business located along the route.

The Northfield Area Tourism & Business Association (NATABA) is working with businesses and public officials to enhance economic activity in the Village Center and throughout the region. Two key components for accomplishing this are: to grow the number of local businesses and foster development opportunities that will increase tourism. NATABA created the VisitNorthfieldArea.com website and is supporting new event programming, such as the new Great River Challenge Off-Road Triathlon that began in 2014. NATABA is also seeking to have a market analysis conducted for the Village Center and exploring the feasibility of creating a visitors center.

Millers Falls and Ervingside

Millers Falls and Ervingside are a shared village center that straddles the Connecticut River, with Ervingside in the Town of Erving and Millers Falls in the Town of Montague. This historic village was once a thriving industrial center and it remains one of the smaller, but defined village centers, with an estimated population of 905 people.⁵

Two large mill buildings remain, both in the Ervingside area. The Renovator's Supply, Inc. property is a 26-acre parcel on River Street that contains a complex of connected mill buildings constructed over decades, starting as early as the 1870s. The property had been

⁵ The US Census Bureau has defined the Millers Falls Census Designated Place (CDP) to include both Millers Falls and Ervingside. Source: US Census Bureau, American Community Survey, Five-year Estimate, 2009-2013.

home to both the manufacturing and corporate offices of The Renovator's Supply, Inc. bathroom sink, faucet and hardware company. The company outsourced much of its manufacturing in the 1990s, but retains its corporate world headquarters, distribution, and some manufacturing lines there. Space no longer used for the company's manufacturing has been leased to multiple other companies and has the potential to be leased for more intensive commercial and/or industrial uses, such as office, artist studios and rehearsal space, distribution and manufacturing.

The former Millers Falls International Paper facility on Papermill Road is vacant and available for redevelopment. The plant was built in 1965 has been vacant since its closure in 2000. There is over 240,000 square feet of gross floor space, which includes offices, manufacturing space, and loading docks. The 43-acre site is served by municipal sewer and water infrastructure, utilities, access roads, and on-site parking. The Town of Erving acquired the property in 2014, and is conducting a feasibility study to help guide redevelopment options for the site.

The Byway (Route 63) is the main thoroughfare through the village of Millers Falls. East and West Main Streets and Bridge Street are the heart of the village. The area has been anchored by a small neighborhood grocery store, a pub and a library branch for many years. However, at the same time, the area has been challenged with the presence of distressed properties and vacant storefronts. Fortunately, recent activities show progress. A new brewery has located at a visible, corner store front. Three distressed properties acquired by the Town of Montague were sold to a local construction contractor in 2015, who is planning to redevelop the site into apartments, retail space and office space for the contractor's business. As these properties are redeveloped and returned to productive use, the area will become more attractive to further investment.

Montague Center

Montague Center is one of the five villages in the Town of Montague.⁶ Located less than a mile off of the Byway, Montague Center features an historic Town Common, a branch of the library, post office, other community buildings, and a small convenience store. On the northern edge of Montague Center is the Montague Bookmill, which attracts residents and visitors to its book store, restaurants, artist studios and music retail store. In terms of future development, there is some residential redevelopment proposed, but no major commercial development.

Sunderland

The Sunderland Village Center is host to a several restaurants, a bank, a small grocery market, a bicycle shop, and some other retail and service based businesses. It is at the cross-roads for two main region travel routes (Route 116 and Route 47). The Village Center has been zoned to accommodate more residential, commercial, and mixed use development, and has water and sewer system infrastructure in place. Already existing in the Village Center are public buildings, ball fields, and parking facilities. The Town is

⁶ The five Montague villages are: Lake Pleasant, Millers Falls, Montague Center, Montague City, and Turners Falls.

exploring the potential for enhancing its pedestrian and bicycle facilities as well as improving access to the Connecticut River. Further infill development and more outdoor recreation facilities may result in an increase in the number of visitor-oriented businesses in the Village Center.

Hampshire County

North Hadley Center

North Hadley is a historic small village center, which is currently a residential neighborhood with some community facilities, such as recreational fields, a church and public access to Lake Warner.

Hadley Common Area

Less than a half mile west of the Byway are the Town of Hadley's historic Town Commons, a reminder of the community's rich heritage and founding over 350 years ago. In this area, the Route 9 commercial corridor cuts through the Commons and the Byway. The Route 9 corridor is home to both local and national retailers. There are also many service type businesses, as well as community facilities including the town's public high school, library, Town Hall and the popular Norwottuck Rail Trail multiuse path. Infill commercial development along the Route 9 corridor is anticipated to continue.

South Hadley Center

The largest commercial and population center along the Byway corridor is the South Hadley Village Center. The Village Center is at the junction of Route 47 and Route 116. The two most notable features of this area are the Mount Holyoke College campus and The Village Commons. The historic Mount Holyoke College campus accommodates nearly 2,200 students annually.⁷ The campus is an economic driver as a major regional employer and purchaser of local goods and services. Additionally, Mount Holyoke College plays a key role in the economy because it draws visiting families and prospective students to the region. The Village Commons is a large residential and commercial mixed use development that includes retail shops, restaurants, a movie theater, services, and more.

Business, Economic and Community Development Tools

There are a variety of programs and organizations available that offer support to individual businesses and entrepreneurs, as well as non-profit organizations and local governments seeking to promote economic development. Access to these types of resources is often vital for new ventures to launch or for existing businesses to grow successfully, and for communities to find the additional resources needed to move projects forward. The entities identified here include government agencies as well as private non-profit organizations. They offer a variety of tools, including business planning and technical assistance, financing, networking, marketing, incentives, and more.

⁷ Source: Mount Holyoke College website, <https://www.mtholyoke.edu/about/facts>

The following are brief descriptions of select programs and organizations that may have useful resources to the businesses and communities of this corridor. They are categorized by the types of services they may offer. For more information about the services described and the eligibility criteria, go to their websites or contact these entities directly.

Community Infrastructure or Construction

- The **MassWorks Infrastructure Program** coordinates the administration of six infrastructure programs: Public Works Economic Development (PWED), Community Development Action Grant (CDAG), Growth District Initiative (GDI) Grants, Massachusetts Opportunity Relocation and Expansion (MORE) Grants, Small Town Rural Assistance Program (STRAP), and Transit Oriented Development (TOD) Grants. These programs fund a range of publicly owned infrastructure projects. The CDAG Program provides funding to local governments for projects that “build local economies, eliminate blight, create jobs and produce workforce and affordable housing that would not occur by private enterprise alone.” The Program requires that projects do not benefit any single individual or business, and that the project must be publicly owned/managed for a minimum of 30 years. Website: www.mass.gov/hed/economic/eohed/pro/infrastructure/massworks
- The **Massachusetts Department of Housing and Community Development (DHCD) Community Development Block Grant (CDBG) Program** provides assistance for housing, community, and economic development projects that assist low and moderate-income residents in eligible communities. Municipalities with populations under 50,000 must apply to the competitive state program. Within the CDBG Program is the **Economic Development Fund**. The purpose of this Fund is to provide financing for projects that create and/or retain jobs, improve the tax base, or otherwise enhance the quality of life in the community. Example projects include: public infrastructure or rehabilitation project to support the re-use of a downtown commercial or mixed commercial/residential building; pre-development planning study; or revolving business loan program. The Franklin County Regional Housing & Redevelopment Authority has a community development program that works with municipalities interested in pursuing CDBG program grants. Website: www.mass.gov/hed/community/funding/community-development-block-grant-cdbg.html and <http://www.mass.gov/hed/community/funding/economic-development-fund-edf.html>
- Through grant and technical assistance programs, U.S. Department of Agriculture (**USDA) Rural Development** forges partnerships with rural communities, funding projects that bring housing, community facilities, business lending, utilities and other services to rural America. These programs can help local governments and eligible non-profits finance or improve public facilities (such as for fire stations, town halls, streets) or water or wastewater infrastructure. The USDA Rural Development state office is located in Amherst and has staff available to work with communities to understand the programs and resources available. Website: www.rurdev.usda.gov/LP_EconDevHome.html

- As part of this work, the Franklin Regional Council of Governments (FRCOG) and Pioneer Valley Planning Commission (PVPC) both agencies administer the following federal programs. Websites: www.frcog.org for Franklin County towns and www.pvpc.org for Hampshire County towns
 - The **Comprehensive Economic Development Strategy (CEDS) Program** provide regional economic development planning services, and maintains the region's eligibility for select **U.S. Economic Development Administration (EDA)** competitive grants that invest in public infrastructure or feasibility or planning studies that result in job creation and private investment.
 - The **Regional Brownfields Programs** are funded by grants from the **U.S. Environmental Protection Agency (EPA)**. This Program provides services (as resources allow) to conduct environmental site assessments on eligible properties and at no cost to the property owner. These assessments determine if the site is contaminated, and if so to what extent.
 - The **Transportation Planning Program** conducts transportation planning studies, conducts traffic counts, and administers the **Transportation Improvement Program (TIP)**, which programs road, bridge and transit projects that are eligible for federal funding. In addition, they work on the **National Scenic Byway Program**, which is a federal transportation program that provides grant opportunities for eligible scenic byway projects, when federal funding is available.

Planning, Study, Design or other Assistance for Communities

- The **Massachusetts Downtown Initiative** offers the Technical Assistance Site Visit Program to municipalities. Professional consultant services valued up to \$10,000 are provided at no cost to the community for specific issues related to a downtown revitalization effort. The categories of eligible activities include: Business Improvement District (BID), Design, Creative Economy, Economics of Downtown, Housing, Parking, Small Business Support, Walkability, and Wayfinding/Branding. Past awards in the region include: a downtown wayfinding plan for Downtown Greenfield (2015), a market study to support the Shelburne Falls Composting Collaborative project (2011), a market analysis to explore the development of artist live/work space in Turners Falls (2012), and design guidelines for the Orange town center that included recommendations for a future sign and façade program (2008). Website: www.mass.gov/hed/community/planning/massachusetts-downtown-initiative-mdi.html
- The **Peer to Peer Technical Assistance Program** provides small grants up to \$1,000 to municipalities for short-term problem solving or technical assistance projects. Website: www.mass.gov/hed/community/funding/peer-to-peer.html
- MassDevelopment is the state's finance and development agency, which works with businesses, developers, non-profits, financial institutions, and communities

- to provide technical assistance, financing and real estate services. Website: www.massdevelopment.com
- The **Massachusetts Cultural Council (MCC)** supports access to the arts, sciences and humanities. MCC provides Local Cultural Councils with grant funding to support locally selected community based projects. In addition, MCC has the **Cultural Facilities Fund**, which is a competitive program to fund the acquisition, design, repair, renovation and construction of non-profit and municipal cultural facilities. The **Adams Arts Program** is a competitive grant program that funds community-based, creative economy projects. Website: <http://www.massculturalcouncil.org/>
 - The **National Endowment for the Arts (NEA)** administers the **Our Town** program, which supports creative placemaking projects through three categories: arts engagement projects, cultural planning projects, or design projects. This competitive federal grant program is open to non-profit organizations and municipal governments. Website: www.arts.gov/grants-organizations/our-town/introduction

Historic Preservation and Redevelopment

- The **Massachusetts Preservation Projects Fund** is a state-funded 50% reimbursable matching grant program established in 1984 to support the preservation of properties, landscapes, and sites (cultural resources) listed in the State Register of Historic Places. Eligible activities include pre-development, development, and acquisition projects. Website: www.sec.state.ma.us/MHC/mhcmppf/mppfidx.htm
- The **MHC Survey and Planning Grant Program** is a federally funded, reimbursable, 50/50 matching grant program to support historic preservation planning activities in communities throughout the state. Annual grants are contingent on Massachusetts' federal budget allocation. MHC is required to pass through grant awards representing 10% of its total annual federal funding allocation to Certified Local Governments. Eligible activities include completion of cultural resource inventories, nomination of significant properties to the National Register of Historic Places, completion of community-wide preservation plans, and other types of studies, reports, publications and projects that relate to the identification and protection of significant historic properties and sites. Website: www.sec.state.ma.us/MHC/mhchpp/Surveyandplanning.htm
- The **National Trust for Historic Preservation** administers the **National Trust Preservation Funds** program, which supports planning studies and other activities to protect historic places and may be used to conduct feasibility studies to determine how historic facilities could appropriately be returned to productive use. Funding may not be used for construction or property acquisition. This is a competitive grant program open to non-profit organizations and members of the National Main Street Network. Website: www.preservationnation.org/resources/find-funding/preservation-funds-guidelines-eligibility.html

- **Preservation Massachusetts** administers the **Predevelopment Loan Fund**, which offers financing to conduct predevelopment work, such as architectural or feasibility studies, for an historic redevelopment project. The applicant must have site control and sites must be on or eligible for the National Historic Register. Website: www.preservationmass.org/programs/predevelopment-loan-fund-2/

Tax Credits and Incentives

- Both federal and state governments maintain historic rehabilitation tax credit programs. The **Federal Historic Preservation Tax Incentives Program** is administered by the U.S. Department of the Interior's National Park Service and the U.S. Department of the Treasury. The tax incentives may be applied to costs incurred for renovation, restoration, and reconstruction of eligible buildings. Generally, the percentage of these costs that can be taken as a credit is 10% for buildings placed in service before 1936, and 20% for certified historic structures. Website: www.nps.gov/tps/tax-incentives.htm
- The **Massachusetts Historic Rehabilitation Tax Credit Program** is managed by the Massachusetts Historic Commission under the Secretary of the Commonwealth. Under this program a certified rehabilitation project on an income-producing property is eligible to receive up to 20% of the cost of certified rehabilitation expenditures in state tax credits. There is an annual limit on the amount of tax credits available through the Commonwealth's program, so selection criteria is employed to ensure that funds are distributed to the projects that provide the most public benefit. In past years, projects in Downtown Greenfield and Turners Falls have received awards. In the 2014- 2015 rounds, the Brady Sullivan Orange Properties LLC project at 16-36 West River Street, and 58 South Main Street were awarded \$1.4 million in tax credits for their \$9.9 million project to develop housing. Website: www.sec.state.ma.us/mhc/mhctax/taxidx.htm
- Private businesses can partner with local municipalities and state government for a tax incentive through the **Massachusetts Office of Business Development's (MOBD) Economic Development Incentive Program (EDIP)**. The project must be located within an economically distressed area, such as a state certified Economic Target Area. Through the FRCOG, all Franklin County towns except Shutesbury are located within the designated Greater Franklin County Economic Target Area. The EDIP allows communities to negotiate a **Tax Incrementing Financing (TIF)** and other tax incentive agreement with a private business that is expanding, renovating, relocating, or building new facilities and creating jobs with an Economic Opportunity Area (a targeted area designated for economic development with an established ETA). For a business seeking a break from their State tax obligation using this program, they must be able to demonstrate that the project will generate substantial sales outside of Massachusetts, and the project must be approved by Town Meeting and the state. Municipalities may choose to offer a tax incentive applicable to the business' local property tax obligation, which does not require the same thresholds to be met as required by the State. The regional office of the Massachusetts Office of Business Development is a key

partner in guiding businesses and communities through this process. Website: www.mass.gov/portal/business/taxes/credits-incentives

Public Park Development

- The **Massachusetts Department of Environmental Protection's (MassDEP) Conservation Assistance for Small Communities Program** offers reimbursement funding for Open Space & Recreation Plans (OSRPs), other plans to facilitate land conservation, and/or appraisals contracted in order to apply to the LAND or PARC grant program. Available to all communities with a population of 6,000 or fewer people. Funding is non-competitive; all eligible applicants will receive contracts on a rolling basis until all available funding is allocated. Website: www.mass.gov/eea/grants-and-tech-assistance/grants-and-loans/dcs/grant-programs/conservation-appraisals.html
- The **MassDEP's Massachusetts Land and Water Conservation Fund** provides up to 50% of the total project cost for the acquisition, development and renovation of a park, recreation or conservation area. Municipalities, special districts and state agencies are eligible to apply. Access by the general public is required. Website: www.mass.gov/eea/grants-and-tech-assistance/grants-and-loans/dcs/grant-programs/massachusetts-land-and-water-conservation-fund.html
- The **MassDEP's Local Acquisitions for Natural Diversity (LAND) Program** (formerly the Self-Help Program) was established to assist municipal conservation commissions acquiring land for natural resource and passive outdoor recreation purposes. Lands acquired may include wildlife, habitat, trails, unique natural, historic or cultural resources, water resources, forest, and farm land. Compatible passive outdoor recreational uses such as hiking, fishing, hunting, cross-country skiing, bird observation and the like are encouraged. Access by the general public is required. Offers a reimbursement rate of 52-70% of project cost with a maximum award amount of \$400,000. Website: www.mass.gov/eea/grants-and-tech-assistance/grants-and-loans/dcs/grant-programs/massachusetts-local-acquisitions-for-natural.html
- The Massachusetts **Parkland Acquisitions and Renovations for Communities (PARC) Program** (formerly the Urban Self-Help Program) was established to assist municipalities in acquiring and developing land for park and outdoor recreation purposes. Any town with a population of 35,000 or more year-round residents, or any city regardless of size, that has an authorized park /recreation commission is eligible to participate in the program. Communities that do not meet the population criteria listed above may still qualify under the "small town," "regional," or "statewide" project provisions of the program. Grants are available for the acquisition of land and the construction, or renovation of park and outdoor recreation facilities. Access by the general public is required. Up to \$250,000 of funding is set aside for grants in the Small Town category. Website: www.mass.gov/eea/grants-and-tech-assistance/grants-and-loans/dcs/grant-programs/massachusetts-local-acquisitions-for-natural.html

Business Technical Assistance and Financing

- The **Franklin County Community Development Corporation** provides direct technical assistance and business planning workshops, administers a small business lending program and operates the Western Mass. Food Processing Center (a commercial kitchen for food-based enterprises) and the Venture Center (a business incubator) at their facility in Greenfield. Website: www.fccdc.org
- **Common Capital, Inc.** is a non-profit organization that offers loans and other financing, such as the Community First Fund, for start-up ventures and businesses seeking to expand. Website: <http://www.common-capital.org/>
- Based in Springfield, **Valley Venture Mentors (VVM)** is an accelerator program to provide business support to selected start-up businesses seeking to grow quickly. Website: www.valleyventurementors.org/
- The **Massachusetts Small Business Development Center (MSBDC)** Network provides one-to-one free comprehensive and confidential services focusing on, business growth and strategies, financing and loan assistance as well as strategic, marketing and operational analysis. In addition, low cost educational training programs are offered across the state targeted to the needs of small business. Website: www.msbdc.org

Business and Industry Support, Marketing and Networking

- **Community Involved in Sustaining Agriculture (CISA)** is a Pioneer Valley-based organization dedicated to making connections between farms and the community. CISA conducts marketing programs and offers business technical assistance workshop to farmers and agri-businesses. Website: www.buylocalfood.org
- The **Economic Development Council of Western Massachusetts (EDC)** markets development opportunities in the region, and provides data and information to help business locating to or expanding in the region. Website: www.westernmassedc.com
- **Franklin County Chamber of Commerce** is the regional chamber of commerce and regional tourism council serving Franklin County. The Chamber provides services to large and small businesses, including health insurance, networking opportunities, lobbying representation, and assistance with town events. Website: www.franklincc.org
- The **Hampshire County Regional Tourism Council** is a partnership of the Amherst Area, Greater Easthampton, and Greater Northampton Chambers of Commerce, and the regional tourism council serving Hampshire County. The Council maintains an active website and email list to promote the activities and attractions of the region. Website: www.visithampshirecounty.com
- The **Mohawk Trail Association** is a regional tourism council that markets the northern tier region from central Massachusetts to the Berkshires. The Association produces an annual visitors' guide and maintains a comprehensive

website that identifies attractions and tourism services. Website: www.mohawktrail.com

- The **Montague Business Association** is the local business association serving the Town of Montague. Website: www.montaguebusinessassociation.com
- **Turners Falls RiverCulture** is a cultural organization that promotes activities in the Turners Falls and surrounding areas of Montague. Website: www.turnersfallsriverculture.org
- The **Northfield Area Tourism and Business Association** works to promote the greater Northfield area to visitors and to encourage the growth of local businesses. Website: www.visitnorthfieldarea.com

Issues and Recommendations

Issues

- There is a need for more year-round or traditionally “off season” visitors to sustain businesses that rely heavily on seasonal tourism.
- There is a need to encourage travelers on the Byway to stop and visit the towns along the way.
- There is a need to spread awareness of tourism opportunities to both people outside and inside the region.
- There is a need to share information about events and activities happening in the Byway among businesses and organizations with event calendars.
- There is a need to better sustain agricultural operations along the Byway.
- There is a need to better connect local artists, craftspeople and specialty food producers with local shops selling products to visitors along the Byway.
- There is support to sustain and expand education and workforce development programs that support the Byway’s important economic sectors.
- There is a desire to balance the economic development of local businesses and services with the preservation of the Byway’s agricultural, historic and cultural assets.
- There is a need for continued access to business technical assistance and financial support for new ventures and business expansion.
- There is a need for investment and redevelopment of vacant or underutilized properties located in the village centers.
- There is a need for better signs for local businesses that do not detract from the scenic quality of the Byway.
- Technical assistance is needed for businesses to understand the benefits of better signage.
- There is a need to address some localized traffic issues that occur in town centers (such as at school drop off and pick up times).
- The former Northfield Mount Hermon campus in Northfield is for sale and it is a large sized real estate asset in the village.
- There is a second phase of the Northfield streetscape improvement project that is proposed.

- Travelers drive right through the towns along the Byway and do not stop at the businesses along the way.

Recommendations

- Support the development of businesses that create jobs, provide services and goods for residents and visitors, and that are in keeping with the Byway character.
- Encourage the development of businesses that enhance the visitor experience.
- Support the development of community facilities that enhance the visitor experience, such as Connecticut River access, parking facilities, pedestrian and bicycle facilities, and visitor information services.
- Foster the connection between entrepreneurs and business owners with the organizations and programs that promote business development and marketing of the region.
- Foster the connection between local officials, community leaders and the organizations and programs that promote economic development, to develop strategies to encourage private investment in vacant or underutilized village center properties, such as in Millers Falls/Erving side and the Northfield campus.
- Maintain and update the BywaysWestMass.com website.
- Continue to coordinate marketing of the Byway with popular events and destinations in the Byway area.
- Coordinate attractions and visitor service businesses to be open at the same time, such as when regional events are occurring.
- Expand tourism season with events and activities in the off season.
- Promote local Byway attractions and businesses to residents and college students located in the region.
- Facilitate the sharing of information among existing businesses so that they can cross-refer their customers, such as lodging businesses that can inform their guests about restaurants and destinations, and event organizers that can recommend lodging and dining destinations to their attendees.
- Target business and workforce development services to specific industries, such as outdoor recreation, and farm and food systems.
- Connect local arts and crafts producers, as well as local value added food producers to attraction-related and independent retail operations on the Byway.
- Seek funding for land protection projects that preserve active agricultural land and other scenic areas.
- Provide technical assistance on village enhancements that are such as signs and parking.
- Support the development of phase II of the Northfield Streetscape Project.

Action Plan

CHAPTER 10

Connecticut River Scenic Byway

Prioritized Recommendations and Procedures

Franklin County

The Connecticut River Scenic Byway area is rich in historic, cultural, natural, and scenic resources. The route travels along rural roads in Franklin and Hampshire Counties. This action plan identifies initiatives that will protect and enhance the qualities of the Byway region. The action items listed are taken from the recommendations in each chapter of the plan. In some cases, these recommendations have been consolidated. Each item includes a suggested leader to take on the actions and a rough estimate of the timeframe required to complete each action. These items are recommendations only and can be modified to fit the specific context and priorities of each community along the Byway.

Agency Abbreviations

The following abbreviations are used in the Action Plan Table.

CISA - Communities Involved in Sustaining Agriculture

FCC – Franklin County Chamber of Commerce

LT – Land Trust (one or more of the many land trusts that operate in the Byway area)

MA DAR – Massachusetts Department of Agricultural Resources

MA DCR – Massachusetts Department of Conservation and Recreation

MassDOT – Massachusetts Department of Transportation

MDFW – Massachusetts Division of Fisheries & Wildlife

MHC – Massachusetts Historical Commission

MWRA/WSCAC – Massachusetts Water Resource Agency/ Water Supply Citizens Advisory Committee

RPAs – Regional Planning Agencies

Town – Local community

WC – Watershed Council

Timeframes:

Short-term – 1-5 years for implementation

Long-term – 5 years or longer for implementation

On-going – Continuing implementation

Scenic Resources

Recommended Action	Timeframe	Suggested Leadership
Work with willing land owners to permanently protect scenic, historic, and environmentally sensitive areas along the Byway through the purchase of conservation restrictions, agricultural preservation restrictions, or fee interest.	Ongoing	LT, MA DCR, MA DAR, MDFW, Town, RPAs
Coordinate with regional, state and nonprofit land protection efforts to ensure the continued conservation of important natural, recreational, scenic, and open space resources.	Ongoing	LT, MA DCR, MA DAR, MDFW, Town, RPAs
Encourage the use of roadway features (guardrails, retaining walls) that are aesthetically pleasing.	Ongoing	MassDOT, Towns
Educate landowners and communities about the programs that are available as tools for land protection.	Ongoing	LT, RPAs, DCR, DAR

Natural Resources

Recommended Action	Timeframe	Suggested Leadership
Incorporate best management mitigation techniques to treat road runoff before it is discharged into sensitive habitat areas or waterways.	Ongoing	MassDOT, Towns
Provide a toolkit to towns with initiatives that can be undertaken to protect natural resources along the Byway.	Short-term	RPAs
Consider implementing zoning measures to protect sensitive habitats, preserve natural and scenic resources.	Long-term	Towns
Develop an educational campaign that promotes the protection of the natural	Long-term	Town, WC

resources along the Byway.		
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Roadway and Transportation

Recommended Action	Timeframe	Suggested Leadership
Ensure that all improvements to the roadway infrastructure are in keeping with the scenic character of the Byway to the extent possible.	Ongoing	MassDOT, Town, RPAs
Consider use of more aesthetically appropriate guardrail alternatives where possible.	Ongoing	MassDOT, Town, RPAs
Complete analysis of lane departure crashes to identify needed improvements along the Byway.	Short-term	MassDOT, RPAs, Towns
Explore opportunities to re-stripe the roadway to provide more shoulder space within the existing pavement width for bicyclists.	Short-term	MassDOT, Town, RPAs
Identify Complete Streets improvements in town centers along the Byway.	Short-term	Towns, RPAs, MassDOT
Work to create pedestrian connections within the downtown centers and connecting points of interest along the Byway.	Ongoing	Town, RPAs, MassDOT
Complete improvements to make Sunderland center more bicycle and pedestrian friendly.	Short-term	Town, RPA, MassDOT
Continue to monitor the performance of key intersections along the Byway.	Ongoing	RPAs, MassDOT
Conduct an inventory and evaluation of signs along the Byway, particularly focusing on outdated or faded signs.	Ongoing	RPAs
Identify degraded or missing signs for historic squares in town and pursue funding to replace or restore these signs.	Ongoing	RPAs, Towns
Implement pedestrian safety improvements and ADA compliant upgrades.	Ongoing	MassDOT, Towns, RPAs
Support efforts to expand public transit services in the Byway area to make use more convenient for all.	Ongoing	RPA, Towns, RTAs

Recreation

Recommended Action	Timeframe	Suggested Leadership
Develop new river access locations along the Connecticut River.	Long-Term	Towns, RPA, DCR
Develop a river access at School Street in Sunderland.	Short-term	Town, DCR
Maintain and update the information about the Connecticut River Scenic Byway that is included in the Western Massachusetts Scenic Byways website.	Ongoing	Towns, RPA, FCC
Continue to distribute and build on the Connecticut River Bicycling map that was developed as part of the Western Massachusetts Byway Marketing Project.	Ongoing	Towns, RPA, FCC
Develop and implement a marketing campaign to promote bicycle tourism in the Connecticut River Valley.	Short-term	Towns, RPAs, FCC
Seek to acquire conservation restrictions, agricultural preservation restrictions or fee interest in land from willing landowners for the protection of recreational and natural resources within the Byway region.	Ongoing	RPAs, Towns, DAR, MA DCR, MA DFW, and land trusts
Expand opportunities for visitors to learn about the natural resources that can be enjoyed along the Byway. The Byway could be used as a vehicle to introduce the natural resources within the forests and parks system.	Ongoing	RPA, DCR, Towns, MRWC, and LT
Encourage the investment of federal, state, municipal, and private dollars for the purpose of developing, maintaining, and expanding recreational areas, facilities and programs within the Byway region.	Ongoing	Towns, RPA, MA DCR, and MA MDFW.
Develop and maintain multi-use and limited-use trails to provide access to natural, scenic, and recreational areas where appropriate.	Long-term	Towns, LT, MA DCR, and MA MDFW.
Support efforts by state and local	Ongoing	MA DCR, Towns

entities to improve universal access to public facilities.		
Improve access to parks and recreational areas within the Byway region for the disabled, seniors, and children.	Ongoing	MA DCR, Towns
Complete a detailed inventory of recreational facilities and possible universal access improvements.	Short-term	RPAs, Towns, MA DCR
Develop driving tours with different Byway themes.	Short-term	Town, MHC
Develop an educational campaign that promotes the protection of the natural resources along the Byway.	Long-term	Town, WC

Historic Resources

Recommended Action	Timeframe	Suggested Leadership
Support the efforts of towns along the Byway to create National Historic Districts.	On-going	MHC, Towns, RPAs
Encourage local historical commissions to alert and educate property owners to the federal tax credits that are available for restoration work that occurs on properties listed on the National Register of Historic Places.	Ongoing	MHC, Towns, RPAs
Assist in the documentation and preservation of historical resources. Pursue funding options when appropriate and available.	Ongoing	MHC, Towns, RPAs
Develop walking tours of town centers along the Byway that highlights the unique historical resources.	Short-term	Towns, RPAs, MHC
Install individual markers at specific historic locations to benefit the public.	Short-term	Towns, RPAs, MHC
Work actively with property owners to identify significant historic structures and develop plans to assist in their restoration and/or preservation.	Long-term	MHC, Towns, RPAs
Encourage local town historical commissions to complete inventory forms for all historic properties within	Long-term	MHC, Towns, RPAs

Recommended Action	Timeframe	Suggested Leadership
the Byway study area.		
Encourage local towns to consider passing demolition delay or other local ordinances to protect historic resources along the Byway.	Long-term	MHC, Towns
Pursue funding (grants and other available sources) to complete restorations of historic structures.	Long-term	Town, RPAs
Support the nomination of the Millers Falls Historic District for inclusion in the National Register of Historic Places.	Short-term	Town, RPA, MHC

Community Planning

Recommended Action	Timeframe	Suggested Leadership
Review and revise zoning regulations to support development and redevelopment that is consistent with the character of the Byway.	Ongoing	Towns, RPA
Encourage commercial establishments to use signs, external lighting, building characteristics, and landscaping that complement the scenic, historic, and natural character of the Byway.	Ongoing	Towns
Pursue options to preserve and promote historic resources along the Byway, such as the development of architectural guidelines for historic structures to assist property owners when completing historic renovation or restoration projects.	Ongoing	Towns

Tourism

Recommended Action	Timeframe	Suggested Leadership
Encourage appropriate and sustainable economic development where wanted by towns.	Ongoing	Towns, RPA
Enhance the public visibility of sustainable agricultural businesses in the	Ongoing	MADAR, Town Ag. Comm.

Byway towns and promote the purchase of local farm products.		
Link the Byway with community development and preservation by utilizing resources such as eco tourism, heritage tourism, farming tourism and the marketing of local products.	Ongoing	Towns, RPA
Launch a campaign to promote bicycle tourism in the Byway area.	Short-term	RPA, MassDOT, FCCC
Continue to maintain and refresh the western Massachusetts Scenic Byway website to include information on sites of interest on the Byway.	Short-term	RPA
Develop a program to educate the local public about the heritage and history of the Byway.	Short-term	Towns, RPA
Educate tourism promotion organizations and tourist-related businesses about the existence of the Connecticut River Scenic Byway.	Ongoing	FCC
Develop driving tours with different Byway themes.	Short-term	Town, MHC
Use the Connecticut River Byway logo as part of a campaign to promote the businesses along the Byway.	Short-term	Town, FCCC

Economic Development

Recommended Action	Timeframe	Suggested Leadership
Promote existing artisan and crafts related businesses.	Ongoing	Town, FCC
Coordinate maintenance of the website that was developed and implemented as part of the western Massachusetts Scenic Byway Marketing Project.	Short-term	RPAs, MassDOT
Promote local farm products.	Short-term	CISA, Towns
Identify potential locations and seek funding to establish a public restroom to serve the Byway.	Long-term	Town, FCC, MassDOT

Prioritized Recommendations and Procedures

Hampshire County

The Action Plan charts a course for recognizing and enhancing the Connecticut River Scenic Byway's resources and includes the recommendations for both Franklin and Hampshire counties listed in the preceding chapters of this Corridor Management Plan.

Developed through discussions with members of the advisory committees in each county, the Action Plan is organized by topic. Note that some recommendations listed under one topic may also apply to another topic, but for purposes of efficiency, are only listed once.

Sources of potential funding to pursue the work described here in the Action Plan are enumerated in the next section of this chapter. See the funding resources section for more detail. Timeframes are defined as the following:

Short-term – 1-5 years for implementation

Long-term – 5 years or longer for implementation

On-going – Continuing implementation

Implementation of the recommendations in this Action Plan could take place in several ways, depending on the nature of the actions themselves. Town-specific actions (such as updating ordinances) could be implemented by local boards and organizations, perhaps with help from regional planning agency staff. Actions that involve multiple towns along the Connecticut River Scenic Byway (such as promotion of the Byway's resources, development of signage, etc.) would benefit from the continued involvement of the Franklin and Hampshire counties' Connecticut River Scenic Byway Advisory Committees. The Committees should continue to explore potential organizational structures that could be developed to assist the Byway towns in prioritizing and implementing the actions described below. One approach might be for the existing committees to continue to meet separately on an as-needed basis and collaborate with one another and with other relevant parties, where appropriate, on specific action items. Another approach would be to establish a single advisory committee representing the entire Byway that would meet on a regular basis, perhaps quarterly.

The expansion of the Connecticut River Scenic Byway to surrounding towns was an additional focus of this plan. Expansion to the Town of Hatfield and interested Franklin County towns will require local authorization and then the petitioning of the state legislature.

Sources of funding to pursue the work described here in the Action Plan are enumerated in the next section of this chapter. The National Scenic Byway Program, a program managed by the Federal Highway Administration that provided grant funding for numerous scenic byway

projects in the past, is no longer available due to lack of funding by Congress. Instead, federal funding for scenic byway projects may be available through Surface Transportation Block Program (STPB) under Section 1109 of the Fixing America's Surface Transportation (FAST) Act (P.L. 114-94) passed on December 4, 2015. The STPB replaces the Transportation Alternatives Program (TAP) under the previous transportation bill, Moving Ahead for Progress in the 21st Century (MAP-21), and is allocated through Metropolitan Planning Organizations.

Overall Byway Recommendations

Overall Byway Recommendation Recommended Actions	Community Where Strategy is a Priority	Priority/Timeframe	Suggested Leadership	Funding Source
<ul style="list-style-type: none"> ○ Pursue dedicated Byway funding through legislative outreach, such as state bonds or renewal of the Federal scenic Byway program in future transportation bills. This may require coordination with local and state officials, federal Congressional delegation, other Scenic Byway committees, and the National Scenic Byway Foundation. 	All	High priority Long-term timeframe	Regional Planning Agencies Byway Advisory Committee	
<ul style="list-style-type: none"> ○ Seek added state recognition for scenic byways, through legislation or policy change at MassDOT and/or Mass EOEEA, including priority for state land protection and farmland preservation funds. 				
<ul style="list-style-type: none"> ○ Elevate the status and meaning of Byway designation in local plans, marketing/informational materials and local ordinances in order to communicate the Byway as a key economic and cultural asset to residents, travelers, policymakers, the business community, and funders. 	All	Medium priority Long-term timeframe	Municipal Selectboards Byway Advisory Committee Regional Planning Agencies	PVPC assistance may be available for various related activities (such as ordinance updates)

<ul style="list-style-type: none"> ○ Pursue formal state and federal Scenic Byway designation to add segments in Hatfield and interested Franklin County municipalities to the existing Connecticut River Byway, which has federal and state designation. The Hatfield and _____ Boards of Selectmen should initiate this process by voting to seek designation and petitioning the state legislature for state designation. The Hatfield segments recommended for designation are Main Street, Maple Street and Elm Street 	<p>Hatfield and _____</p>	<p>High priority Short-term timeframe</p>	<p>Municipal Boards of Selectmen, Regional Planning Agencies, State legislators</p>	<p>PVPC assistance may be available</p>
<ul style="list-style-type: none"> ○ Work with PVPC, FRCOG, Connecticut River Watershed Council, NRCS, UMass Extension, farmers and town Agricultural Commissions to implement best management practices (such as fencing, mulching, and green infrastructure) to reduce agricultural runoff and promote increased vegetated buffer areas to reduce erosion and sedimentation of waterways, particularly near tributaries adjacent to the Byway. <ul style="list-style-type: none"> ● Seek grant funds from programs such as USDA’s Regional Conservation Partnership program to implement agricultural runoff best management practices. 	<p>Hadley South Hadley</p>	<p>High priority Short-term timeframe</p>	<p>PVPC FRCOG CRWC Municipalities</p>	<p>USDA RCPP Section 604b, 319 (MassDEP) funding EQIP</p>

Landscape Inventory and Scenic Assessment: Recommendations

<i>Landscape Inventory and Scenic Assessment</i> Recommended Actions	Community Where Strategy is a Priority	Priority/Timeframe	Suggested Leadership	Funding Source
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<ul style="list-style-type: none"> ○ Explore the potential to add scenic outlook turnouts in areas with the highest-quality scenery. This includes adding safer shoulders at road corners or in places that people may view scenic areas. Consider adding interpretive signage at these turnoffs to help travelers understand the various elements working to create these scenic views. 	<p>South Hadley</p>	<p>Medium priority Long-term timeframe</p>	<p>Communities PVPC</p>	<p>Communities RPAs MassDOT</p>
<ul style="list-style-type: none"> ○ Work with willing land owners to permanently protect scenic, historic and environmentally sensitive areas. 	<p>All</p>	<p>High priority</p>	<p>Municipalities</p>	<p>State grants (LAND, Water Supply Protection, etc.)</p>
<ul style="list-style-type: none"> ○ Consider adopting Green Development Performance Standards to encourage retention of on-site trees and shrubs, and require buffering of unattractive uses such as parking, storage areas, loading docks, and dumpsters to retain, and where possible, improve the scenic values of the Byway. 	<p>All</p>	<p>Medium priority Short-term timeframe</p>	<p>Municipal planning boards</p>	<p>PVPC assistance may be available through DLTA</p>
<ul style="list-style-type: none"> ○ Review or adopt standards for solar installations that buffer from the Byway and within scenic views, and protect high-quality agricultural land from installations through the special permit process. 	<p>South Hadley</p>	<p>High priority Short-term timeframe</p>	<p>Municipal planning boards</p>	<p>PVPC assistance may be available.</p>
<ul style="list-style-type: none"> ○ Replicate the scenic flowering planting beds and lighting fixtures found along the Byway in Sunderland’s town center in Hadley, Hatfield and South Hadley town centers. 	<p>Hadley South Hadley Hatfield</p>	<p>Low priority Short-term timeframe</p>	<p>Municipal planning boards</p>	<p>N/A</p>

<ul style="list-style-type: none"> Work with town conservation commissions and state agencies to educate residents about the spread of invasive species, their impact on the native species that define the Byway, and ways to prevent and eradicate them. 	Hadley	Medium priority Ongoing	Conservation commissions DFW	No state grants currently available, but educational resources available through NHESP
<ul style="list-style-type: none"> Identify abandoned and deteriorating properties and historical features along the Byway to secure them from vandalism and rapid deterioration. Work to identify landowners to address code violations or encourage sale and renovation. 	Hadley	Low priority Short-term timeframe	Municipal building departments, boards of health	Local funds
<ul style="list-style-type: none"> Add information about resources along the Byway that would increase the traveling public's access to high-quality scenic views and vantage points to the Byway website. 	South Hadley	Medium priority Short-term timeframe	PVPC	UPWP

Roadway and Transportation: Recommendations

<i>Roadway and Transportation Recommended Actions</i>	Community Where Strategy is a Priority	Priority/Timeframe	Suggested Leadership	Funding Source
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<p>○ Consider context sensitive design when upgrading roadway infrastructure to ensure improvements are in line with the character of the roadway. Context sensitive design elements include may include:</p> <ul style="list-style-type: none"> • Cor-ten steel guardrails or Steel backed Timber guardrails • Antique lighting fixtures and mast arms at signalized intersections • The preservation and enhancement of tree belts • Use alternatives to asphalt such as stamped concrete for sidewalks and crosswalks to enhance project design in historic districts 	<p>South Hadley</p>	<p>High priority</p> <p>Long-term timeframe</p>	<p>Municipality</p>	<p>Local, TIP</p>
<p>○ Improve bicycle and pedestrian safety on the byway corridor, and when considering roadway upgrades, explore opportunities to provide minimum required standards from the MassDOT GreenDOT Healthy Transportation Policy Directive. MassDOT’s Healthy Transportation Policy Directive requires all state transportation projects to increase bicycling, transit and walking options. On roadway projects this includes minimum travel lanes (11 feet on the Byway) and minimum shoulder widths (5 feet on the Byway).</p>	<p>South Hadley</p>	<p>Medium priority</p> <p>Long-term timeframe</p>	<p>Municipality</p>	<p>Local, TIP</p>

<p>○ Consider amenity upgrades to Transportation Segment 5 (Middle Street from the Hadley Elementary School to Bay Road, including the historic center of Hadley). If desired by the municipality, an off-road connection to the Norwottuck Rail Trail could be constructed along Middle Street connecting the Hadley Elementary School to the north and Hopkins Academy to the south. This could consist of reconstructing/widening the existing sidewalks, or a separate facility along the roadway. Context sensitive design should be used to enhance the historic characteristics of the Byway along this segment. The Route 9 at Route 47 intersection would benefit from flower planters in the medians like the ones present at Route 47 at Route 116 in Sunderland.</p>		<p>High priority Long-term timeframe</p>	<p>Municipality</p>	<p>Local, TIP, and FLAP</p>
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<p>○ Add additional shoulder width to Transportation Segment 8 (Lawrence Plain and Hockanum Road from Chmura Road to the South Hadley town Line). This section of Byway was observed to have the narrowest travel lanes on the byway and lacked consistent shoulders. Additional shoulder width is needed to improve pedestrian and bicycle accommodations along this section of byway. In order to create a better bicycle / pedestrian connection between Hadley and South Hadley, the municipalities may consider exploring the opportunity to create an off-road multiuse trail in close proximity to the roadway or near other scenic features such as the Connecticut River. Several scenic locations were identified on the west side of Hackanum near Mountain Road. If desired by the municipality this segment could benefit from a farm equipment / scenic pull off.</p>	<p>South Hadley Hatfield</p>	<p>High priority Long-term timeframe</p>	<p>Municipality</p>	<p>Local, TIP, and FLAP</p>
<p>○ Create off-road multi-use paths separated from the road by landscaped strips, and improve sidewalks, where feasible, to facilitate biking along the Byway (in addition to Transportation Segments 5 and 8, as described above).</p>	<p>Hadley South Hadley Hatfield</p>	<p>High priority Long-term timeframe</p>	<p>Municipalities Regional Planning Agencies MassDOT</p>	<p>Local, TIP, and FLAP</p>
<p>○ Address volume of truck traffic along the highway while recognizing that trucks support the agricultural economy along the Byway. Though trucks cannot be banned outright on state-numbered routes, alternative routes could be outlined by the towns for voluntary use by trucks.</p>	<p>Hadley Hatfield</p>	<p>Medium priority Long-term timeframe</p>	<p>Municipalities MassDOT Byway Committees</p>	

Natural Resources: Recommendations

<i>Natural Resources</i> Recommended Actions	Community Where Strategy is a Priority	Priority/Timeframe	Suggested Leadership	Funding Source
<ul style="list-style-type: none"> ○ Identify and assess culverts and bridges that have not been evaluated for design deficiencies, and identify opportunities and funding sources to replace culverts with updated designs that accommodate wildlife passage and flooding events. Consider the potential for widening bridges and culverts when replacements are made, for improved bike and pedestrian lanes. 	South Hadley	Medium Priority	UMass Stream Continuity Project PVPC	Natural Hazard Mitigation grants MA Dept. of Ecological Restoration

<ul style="list-style-type: none"> ○ Pursue land protection through partnerships with state agencies and local land trusts, as well as the potential creation of local land protection funds, in order to protect the surrounding agricultural land and contiguous forest parcels. In particular: <ul style="list-style-type: none"> • Protect the land in the Red Rocks, north Hadley, and Bachelor Brook areas of the Byway. • Protect agricultural land along the banks of the Connecticut River Byway. • Protect the water supply land along the Fort River in Hadley and Wellhead District Protection District in South Hadley, in accordance with the PVPC's 2014 Land Use Priority Areas for Protection map. • Adopt a locally funded APR program for smaller farm properties under 5 acres. 	<p>Hatfield South Hadley</p>	<p>High priority Short-term timeframe</p>	<p>Municipalities Local land trusts PVPC</p>	<p>Div. of Conservation Services grants DCR Recreational Trails grants Water supply protection grants</p>
<ul style="list-style-type: none"> ○ Conduct water quality monitoring and surveys to identify any problem areas associated with agricultural runoff and erosion. 		<p>High priority Short-term timeframe</p>	<p>PVPC</p>	<p>Section 604b grants RCPP</p>

<ul style="list-style-type: none"> ○ Prioritize the protection of cold water fisheries including, but not limited to, the Four Mile Brook and Fort and Mill Rivers through adjacent land protection and coordination with local conservation commissions. <ul style="list-style-type: none"> • Conservation commissions can utilize the provisions in the Wetlands/Rivers Protection Act and its stormwater provisions for the restoration and/or protection of vegetated stream banks. • Utilize local knowledge to inform the Department of Fish and Game of additional cold water fisheries. • Adopt more stringent local wetlands/riverfront protection bylaws, and conduct educational outreach about them. 		<p>Medium priority</p> <p>Short-term timeframe</p>	<p>Conservation Commissions</p>	<p>N/A</p>
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Community Planning: Recommendations

<i>Community Planning Recommended Actions</i>	Community Where Strategy is a Priority	Priority/Timeframe	Suggested Leadership	Funding Source
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<ul style="list-style-type: none"> ○ Conduct outreach and seek funding to purchase conservation restrictions and/or Agricultural Preservation Restrictions for land from willing property owners in important scenic and natural areas. Investigate incentives to strengthen existing TDR programs. 	<p>South Hadley Hatfield</p>	<p>High priority Long-term timeframe</p>	<p>Land trusts Municipal open space/conservation committees Municipal planning boards</p>	<p>APR program Land trusts DCS ...</p>
<ul style="list-style-type: none"> ○ Develop and adopt ridgeline overlay protection district. 	<p>South Hadley</p>	<p>Low priority Short-term timeframe</p>	<p>Municipal planning boards</p>	<p>N/A</p>
<ul style="list-style-type: none"> ○ Limit the distance between wireless towers, or do not allow any new wireless towers or commercial earth excavation in the Agricultural, Town Center, or Rural Residential zones (such as through a corridor exclusion) along the proposed byway. 		<p>High priority Short-term timeframe</p>	<p>Municipal planning boards</p>	<p>N/A</p>
<ul style="list-style-type: none"> ○ Appeal to state legislators to revise Approval Not Required development regulations. 	<p>South Hadley</p>	<p>High priority Ongoing</p>	<p>Municipal CEOS and planning boards PVPC</p>	<p>N/A</p>
<ul style="list-style-type: none"> ○ Encourage commercial establishments to have signage, external lighting, building characteristics, and landscaping that complement the scenic, historic, and natural characteristics of the Byway. 		<p>Low priority Long-term timeframe</p>	<p>Municipal planning boards</p>	<p>N/A</p>

○ Restrict uses in the Limited Business district that may have negative appeal to the Byway (such as auto repair shops, fast food, etc.).	Hadley completed this for many uses	High priority Short-term timeframe	Municipal planning boards	N/A
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Economic Development: Recommendations

<i>Economic Development Recommended Actions</i>	Community Where Strategy is a Priority	Priority/Timeframe	Suggested Leadership	Funding Source
○ Expand tourism season with events and activities in the off-season. Examples include bike-run-walk events, winter walks and events during sugaring season.	All	Medium priority Long-term timeframe	Chambers of Commerce	Various sources, depending on event
○ Facilitate the sharing of information among existing businesses so that they can cross-refer their customers, such as lodging businesses that can inform their guests about restaurants and destinations, and event organizers that can recommend lodging and dining destinations to their attendees.	All	Low priority Long-term timeframe	Chambers of Commerce	N/A

<ul style="list-style-type: none"> ○ Target business and workforce development services to specific industries, such as outdoor recreation, and farm and food systems. 	<p>All</p>	<p>Medium priority</p> <p>Long-term timeframe</p>	<p>Chambers of Commerce</p> <p>Municipal/regional economic development officials</p>	<p>Various sources, depending on initiative</p>
<ul style="list-style-type: none"> ○ Enable local businesses to promote themselves in association with the Byway, such as a crowd-sourced posting area or Twitter feed on the Byway website, or by promoting the use of the Byway logo in association with business promotions. Such arrangements would have to be moderated, and user policies should be developed to ensure fair access and appropriate use. 	<p>Hadley</p> <p>South Hadley</p>	<p>Medium priority</p> <p>Short-term timeframe</p>	<p>PVPC/FRCOG</p> <p>Byway committee</p>	<p>UPWP (to update website)</p>
<ul style="list-style-type: none"> ○ Promote bike/walking events that are near the Byway, and promote the Byway at related bike/walking events. Potential examples include: <ul style="list-style-type: none"> • Franklin Land Trust’s D2R2 in Deerfield • Kestrel Trust’s 5K 	<p>All</p>	<p>Low priority</p> <p>Short-term timeframe</p>	<p>PVPC/FRCOG</p> <p>Municipal/regional economic development officials</p>	<p>Various sources, depending on event</p>
<ul style="list-style-type: none"> ○ Improve the Byway website by adding a Twitter feed that gives viewers up-to-date information on local area events and businesses. 	<p>All</p>	<p>Low priority</p> <p>Short-term timeframe</p>	<p>PVPC/FRCOG</p> <p>Byway Committee</p>	<p>UPWP (to update website)</p>

Tourism: Recommendations

Tourism Recommended Actions	Community Where Strategy is a Priority	Priority/Timeframe	Suggested Leadership	Funding Source
<ul style="list-style-type: none"> ○ Educate the local public about the heritage and culture of the Connecticut River Scenic Byway by coordinating with existing events and landmarks as well as seasonal activities (such as sugaring season) occurring along the route. Consider promoting the Byway through a “Scenic Byway Day.” 		Medium priority Ongoing	Chambers of Commerce Byway Committee	Various potential sources, depending on initiative
<ul style="list-style-type: none"> ○ Identify areas where public restrooms and picnic areas are needed and could be located in the future. 		Low priority Long-term timeframe	Regional Planning Agencies Municipalities Byway Committee	UPWP
<ul style="list-style-type: none"> ○ Update the Western Massachusetts Scenic Byways website to make it mobile-friendly, and include profiles of local businesses; the locations of gas stations, lodging, public restrooms, and picnic areas; and links to relevant websites. Provide printable maps of bike routes and trails. Use the website to promote byway events such as local fairs, concerts, farm days. Provide this information at the new Connecticut Byway Waypoint Center. Make the website more interactive, and provide opportunities for businesses to set up user accounts and post their own information. 	All	High priority Short-term timeframe	Regional Planning Agencies Regional tourism board	UPWP

<ul style="list-style-type: none"> ○ Create additional educational and informational materials to educate tourism promotional organizations and tourist-related businesses about the Connecticut River Scenic Byway. 	<p>All</p>	<p>Medium priority Short-term timeframe</p>	<p>Regional Planning Agencies Regional tourism board Chambers of Commerce</p>	<p>Various potential sources, depending on initiative</p>
<ul style="list-style-type: none"> ○ Coordinate with educational institutions to promote the Byway, such as by including information about the Byway on their websites, at events, or within information provided to visiting students and families. 	<p>Hadley South Hadley</p>	<p>Medium priority Short-term timeframe</p>	<p>PVPC Regional tourism board Byway Committee</p>	<p>N/A</p>
<ul style="list-style-type: none"> ○ Integrate existing maps – such as the Regional Trails Map and Bicycle Trail Map for Hampshire County – into the Western Massachusetts Scenic Byways website to highlight the recreational, cultural, historic, and scenic resources available to travelers. 		<p>High Priority Short-term timeframe</p>	<p>Regional Planning Agencies</p>	<p>UPWP</p>
<ul style="list-style-type: none"> ○ Highlight and tell the story of various places and establishments of interest along the Byway. Include example trips and local places that define the character of the Byway. 		<p>Low Priority Short-term timeframe</p>	<p>Regional Planning Agencies Byway Committee</p>	<p>UPWP</p>

Recreation: Recommendations

<i>Recreation</i> Recommended Actions	Community Where Strategy is a Priority	Priority/Timeframe	Suggested Leadership	Funding Source
○ Establish parking, signage, and kiosks at trailheads and recreational areas, where needed.	South Hadley	Medium priority Long-term timeframe	PVPC	Recreational Trails Grants
○ Improve access to the New England National Scenic Trail through linked local trail networks.	South Hadley	Medium priority Long-term timeframe	PVPC	Recreational Trails Grants FLAP
○ Seek grant funds to construct new trails and CT River boat access through state and federal programs such as Recreational Trails Act and Federal Lands Access Program (FLAP).	South Hadley	Medium priority Short-term timeframe	PVPC	Recreational Trails Grants FLAP
○ Continue to enhance development of the Connecticut River Greenway's Paddlers Trail with development of official river access in Towns that are interested and willing. This includes canoe and kayak access sites in quiet areas of the Connecticut River in Hadley and Hatfield.	Hatfield Hadley	Low priority Long-term priority	PVPC Municipalities	Recreational Trails Grants FLAP

<ul style="list-style-type: none"> ○ Encourage the investment of federal, state, municipal and private dollars for the purpose of developing, maintaining, and expanding recreational areas, facilities and programs within the Byway region. Some specific locations include: <ul style="list-style-type: none"> • Bashin Basin in Hatfield, which needs improved maintenance and possibly installation of a portable toilet • Kellogg Hill Road state boat ramp both in Hatfield where picnic tables could be an important addition • Lake Warner Wildlife Management Area in Hadley where the only access by land is now overgrown 	<p>All</p>	<p>Medium priority Long-term priority</p>	<p>PVPC Municipalities</p>	<p>Recreational Trails Grant State Boating Infrastructure Grant (if re-funded in future)</p>
<ul style="list-style-type: none"> ○ Initiate a promotional campaign to market bicycling in the Connecticut River Valley. 	<p>Hampshire</p>	<p>Medium priority</p>		<p>Tourism, health, or transportation-related grant</p>

Historic Preservation: Recommendations

<i>Historic Preservation Recommended Actions</i>	Community Where Strategy is a Priority	Priority/Timeframe	Suggested Leadership	Funding Source
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<ul style="list-style-type: none"> ○ Encourage towns to adopt the Community Preservation Act in order to derive state match funding for historic and community preservation projects. 	South Hadley	High Priority Ongoing	Municipalities Byway Committee	Local
<ul style="list-style-type: none"> ○ Create town-wide Preservation Plans to guide future preservation efforts. 	All	High	Local Historical Commission; Preservation Consultant	Community Preservation Act; local funds; potential match from Massachusetts Historical Commission survey and planning grants
<ul style="list-style-type: none"> ○ Implement a Demolition Delay Bylaws to provide the time necessary to find alternative uses for unused or under-utilized historic properties under threat of demolition. The Historic Commission should identify historic properties to be targeted for the bylaw, in advance of bylaw adoption. 	South Hadley	High	Local Historical Commission	No funds required
<ul style="list-style-type: none"> ○ Historic Commissions should develop lists of parcels in the Agricultural Preservation Restriction (APR) program associated with farm buildings in the Historic Resources Inventory. Preservation Restrictions (PR) should then be considered for those farm buildings of historical and architectural significance. Taken together, the APR and PR would act in concert to protect an entire farm. 	Hatfield	Medium	Local Historical Commission	Property owners

<ul style="list-style-type: none"> ○ Historic societies and other organizations throughout the Byway region should explore a partnership to begin a loan program for historic buildings. 	All	Low	Historic organizations (municipal and non-profit)	Fundraising
<ul style="list-style-type: none"> ○ Establish local historic districts in other communities where National Register districts currently exist or are proposed. 		High	Local Historical Commission; Local Historic District Commission	No funds required, as study report can be completed by local historical commissions
<ul style="list-style-type: none"> ○ Designate and sign historic properties to encourage preservation and pride in historic homes. Memorialize historic sites with plaques to promote Byway tourism. 	Hatfield	Medium	Local Historical Commission; Local Historic District Commission	Seek grant fund for signage and plaques.

Resources and Tools

Appendix

Connecticut River Scenic Byway

Historic Preservation Tools

Massachusetts Historical Commission “On the Road” Program

The Massachusetts Historical Commission conducts a program called "On the Road" which is designed to assist Local Historical Commissions and Local Historic District Commissions. The Massachusetts Historical Commission's Director of Local Government Programs is available to visit communities, discuss local historic preservation issues, and offer ways to resolve problems.

Local Historical Commissions

Local historic commissions provide important support and assistance to willing private property owners. A Local Historical Commission is the municipal agency responsible for ensuring that preservation concerns are considered in community planning and development decisions. Local Historic Commissions are established by a vote of the town or city government. They serve as local preservation advocates and as an important resource for information about their community's cultural resources and preservation activities.

National Register of Historic Places Listing

The National Register of Historic Places documents and records the nation's important and irreplaceable buildings, sites, structures, objects, and districts worthy of protection. It is a listing of buildings, structures, sites, objects and districts significant in our nation's history, culture, architecture or archeology that are worthy of preservation. It is a federal designation, administered by the Secretary of the Interior through the Massachusetts Historical Commission as the State Historic Preservation office. Based on local and state surveys, nominations to the National Register are generally initiated by the local historical commission, which works with MHC staff to prepare the form. Nominations are then reviewed by the MHC State Review Board at a public meeting and forwarded to the Keeper of the National Register for approval.

Listing on the National Register of Historic Places recognizes the value of our nation's historical and cultural heritage and provides a basis for making informed planning and development decisions. A listing on the National Register places no constraints on what owners may do with their property when using private funding. The National Register is not a design review program; however, it does provide limited protection from state and federal actions. It is also an eligibility requirement for matching state and federal restoration and research grants, as well as certain federal tax benefits for certified rehabilitation projects.

State Register of Historic Places

The State Register of Historic Places is a master list of designated historic properties in Massachusetts. It provides an added measure of protection to listed properties. Properties are listed on the State Register if they are: included in or determined eligible for listing in the National Register of Historic Places; within local historic districts; local, state, and national landmarks; state archaeological landmarks; or properties with preservation restrictions. The State Register serves as a guide for developers and state agencies in order to determine whether a state funded, permitted, or licensed project will affect historic properties. The State Register review process ensures that listed properties will not inadvertently be harmed by activities supported by state agencies.

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.

Demolition Delay Bylaw

A demolition delay bylaw allows a window of time for alternatives to demolition to be studied. These can include using historic tax credits for rehabilitation, alternate uses, and, as a last resort, moving the structure. The Statewide Preservation Plan recommends a Demolition Delay bylaw be implemented in all towns in the Commonwealth, and recommends at least a 12 month delay.

Corridor Protection Overlay District

Corridor protection bylaws offer another method of protecting a transportation corridor from inappropriate development. These bylaws are often implemented as an overlay district.

Preservation Restrictions

Preservation Restrictions protect historic and archaeological properties from changes that may be inappropriate. A Preservation Restriction (easement) on a property restricts present and future owners from altering a specified portion of that building, structure, or site. A restriction can run for a few years or in perpetuity and may be included as part of the property deed. Preservation restrictions can be donated or purchased by a government body or private preservation organization and are enforced by the holder of the restriction.

Certified Local Government Program

The Certified Local Government Program is a unique partnership that provides a close integration of federal, state, and local preservation activities. Communities that have enacted

historic preservation legislation are eligible to apply to the Massachusetts Historical Commission for certification. By extending state and federal programs at the local level, the Certified Local Government program allows communities to participate directly in the review and approval of National Register nominations. Certified Local Governments are eligible to compete for at least 10 percent of the federal funds allocated to MHC.

Federal Historic Rehabilitation Tax Incentives (“Historic Tax Credits”)

Under the Federal Rehabilitation Tax Incentive Program, owners of property that are listed on the National Register or are within a National Register Historic District may deduct 20% of the cost of a major restoration project on their taxes. Restoration must be significant, exceeding the greater of the adjusted basis of the buildings or \$5,000, and work can be phased over a five-year period when there are architect’s drawing and specification prepared for the work. Restoration work must follow the Secretary of the Interior’s Standards. The program is administered through the Massachusetts Historical Commission (MHC) and the National Park Service. A 10% tax credit is also available for buildings that are not listed in the National Register but were built before 1936.

Massachusetts Historic Rehabilitation Tax Credit

The Massachusetts Historic Rehabilitation Tax Credit is a pilot program that is administered by The Massachusetts Historical Commission. A certified rehabilitation project on an income-producing property is eligible to receive up to 20% of the cost of certified rehabilitation expenditures in state tax credits. There are restrictions, an annual cap, and selection criteria that ensure the funds are distributed to the projects that provide the most public benefit. The MHC certifies the projects and allocates available credits. There is \$50 million dollars currently available annually for certified rehabilitation projects, and the program is set to expire on December 31, 2017.

Revolving Fund for Historic Preservation

A revolving fund is a long-term strategy which has had success in many parts of the country. Usually organized and managed by a non-profit group, an historical society, or community development organization, a revolving fund offers low-interest loans for the rehabilitation of historic properties. Revolving Funds also function by buying historic properties, rehabilitating them, and selling them with preservation restrictions in place. A revolving fund offering low interest rate loans for preservation of historic buildings within the byway corridor would be a welcome tool at a time when grants and tax credits for private home owners are not available. Revolving loan funds can provide funds to act quickly, as land trusts often do, to buy a threatened property.

Preservation Massachusetts, the state-wide preservation non-profit organization, has recently started offering Pre-Development Loans through a Revolving Fund. They anticipate 3-5 loans per year, ranging from \$25,000-\$75,000. Properties need to be listed on or eligible for the National Register, and must comply with the Secretary of the Interior’s Standards for Rehabilitation. The loan program is designed to assist with the first stages of a project, including architectural and consultant costs and feasibility studies. More information can be found on their website at preservationmass.org.

Preservation Plan

The purpose of a Preservation Plan is to help a town address identify priority projects, including inventory updates, preservation education, zoning consistency with preservation needs, potential National Register nominations, a preservation timeline, and financial support, as well as integrate historic preservation into other aspects of municipal planning. There are currently no towns on the Byway that have an active, up to date Preservation Plan in place. Hadley's Master Plan calls for the creation of a Preservation Plan to focus on both historic landscapes and structures.

Inventory

An up to date historic resources inventory is the building block of preservation efforts in a community. Without it, it is impossible to place buildings in a context to determine their significance.

Massachusetts Historical Commission Survey and Planning Grant Program

The goal of the Massachusetts Historical Commission's Survey and Planning Grant Program is to support efforts to identify and plan for the protection of the significant historic buildings, structures, archaeological sites and landscapes of the Commonwealth. The program is a federally funded, reimbursable, 50/50 matching grant program which supports historic preservation planning activities in communities throughout the state. Qualified applicants include all local historical commissions and local historic district commissions, Certified Local Governments, municipal planning and community development offices, regional planning agencies, state agencies, educational institutions, and private non-profit organizations. The types of projects eligible for funding include: the completion of cultural resource inventories; the nomination of significant properties to the National Register of Historic Places; the completion of community-wide preservation plans; and the completion of other types of studies, reports, publications and projects that relate to the identification and protection of significant historic properties and sites. Under federal law, MHC is required to pass through grant awards representing 10% of its total annual federal funding allocation to Certified Local Governments.

Massachusetts Preservation Projects Fund

Through the Massachusetts Preservation Projects Fund, state-funded 50% reimbursable matching grants are available to qualifying properties listed on the State Register to ensure their physical preservation. These funds are subject to availability through the State Budget process. When available, funding is available for the restoration, rehabilitation, stabilization, and documentation of historic and archaeological properties owned by municipalities or nonprofit organizations. The applicants also have the option of applying for up to 75% of the total project cost if they are willing to commit an additional 25% toward an endowment fund for long-range preservation and maintenance of the property. The types of projects funded under this program range from the acquisition of an endangered property, to the restoration of an historic building, to research projects such as historic structures reports, archaeological data recovery projects, or study of innovative preservation techniques.

The Community Preservation Act

The Community Preservation Act provides an opportunity for local communities to fund projects related to local historic sites. The Community Preservation Act is statewide enabling legislation to allow cities and towns to exercise control over local planning decisions. All of the decisions

related to this program are local. Communities must vote by ballot to adopt the Community Preservation Act. Once adopted the local legislatures must appoint a committee to develop plans for the use of the funds. These plans are subject to local comment and approval. If residents do not feel the Community Preservation Act is working as they expected, they can repeal it. “The acquisition and preservation of historic buildings and landscapes” is one of the three core community concerns that the funding from the Community Preservation Act can be used to address. A minimum of 10% of the annual revenues of the fund must be used for each of the three core community concerns. The remaining 70% can be allocated for any combination of the allowed uses, or for land for recreational use. This gives each community the opportunity to determine its priorities, plan for its future, and have the funds to make those plans happen.

Appendix

Northfield Main Street Historic District

Designation	Name of Feature	Location	Date Built
NRDIS	Rodman Spencer House	8 Chula Vista Lane	r. 1965
NRDIS	Morgan Garage	Main Street	c. 1921; demolished
NRDIS	Dorris Miller Camp	Main Street	c. 1970
NRDIS	Dwight L. Moody and Emma G. R. Graves	Main Street	c. 1899
NRDIS	Belcher Memorial Fountain	Main Street	1909
NRDIS	Aaron Belding Plaque	Main Street	
NRDIS	First Public Religious Service Marker	Main Street	1897
NRDIS	Northfield First Settlement Marker	Main Street	1897
NRDIS	Fort Marker	Main Street	1897
NRDIS	First Grist Mill Monument	Main Street	c. 1941
NRDIS	Charles Leroy Preston Plaque	Main Street	1929
NRDIS	Dwight L. Moody Plaque	Main Street	1937
NRDIS	Thomas Power Esq. Plaque	Main Street	1933
NRDIS	Sons and Daughters in Armed Forces Plaque	Main Street	c. 1949
NRDIS	World War I Marker	Main Street	1919
NRDIS	Route 63 Bridge – Main Street Bridge	Main Street	1941
NRDIS	Morse House	1 Main Street	c. 1968
NRDIS	Richard J. Vielmetti House	2 Main Street	c. 1930
NRDIS	Daniel L. Callender House	4 Main Street	1846
NRDIS	John Wright House	5 Main Street	1847
NRDIS	Wright Stratton House	8 Main Street	c. 1858
NRDIS	Herbert Millard House	9 Main Street	c. 1925
NRDIS	Charles Slate House	12 Main Street	c. 1927
NRDIS	Ebenezer Field House	15 Main Street	c. 1721
NRDIS	John Hogan House	16 Main Street	c. 1970
NRDIS	William Messer House	19 Main Street	c. 1960
NRDIS	Stanley Powers House	20 Main Street	c. 1927
NRDIS	Michael Morgan House	21 Main Street	c. 1940
NRDIS	Powers Barn	22 Main Street	c. 1920
NRDIS	Zechariah Field House	25 Main Street	c. 1795
NRDIS	Isaac Mattoon House	26 Main Street	1801
NRDIS	Ebenezer White Tavern	27 Main Street	c. 1784
NRDIS	Dr. Elijah Stratton House	30 Main Street	c. 1844
NRDIS	Charles Henry Stearns House	31 Main Street	c. 1850
NRDIS	Capt. Samuel Lane House	33 Main Street	c. 1845
NRDIS	George Stearns House	34 Main Street	c. 1843

Designation	Name of Feature	Location	Date Built
NRDIS	Niles Stone House	35 Main Street	c. 1905
NRDIS	Rev. W. W. Coe House	36 Main Street	1928
NRDIS	Horace Wright House	37 Main Street	c. 1822
NRDIS	Dunham Shepard House	38 Main Street	c. 1966
NRDIS	Albert Collins Parsons Store	39 Main Street	c. 1877
NRDIS	Elijah Mattoon House	40 Main Street	c. 1820
NRDIS	Whitney Brothers Gas Station	41 Main Street	c. 1955
NRDIS	A. D. Stearns House	42 Main Street	1852
NRDIS	Oliver Watriss House	45 Main Street	c. 1795
NRDIS	James Mattoon – C. H. Green House	46 Main Street	c. 1868
NRDIS	Dr. Rollin C. Ward House	47 Main Street	c. 1875
NRDIS	Joseph W. Holton House	48 Main Street	r. 1945
NRDIS	A. C. Parsons House and Shop	49-51 Main Street	c. 1855
NRDIS	William Pomeroy House	50 Main Street	c. 1783
NRDIS	Isaac Prior House	55 Main Street	c. 1820
NRDIS	Frank Montague House	56 Main Street	c. 1927
NRDIS	Henry Wright Tin Shop	57 Main Street	c. 1891
NRDIS	William Pomeroy Store	60 Main Street	c. 1839
NRDIS	Reuben Wright House	61 Main Street	c. 1750
NRDIS	Caleb Cook House	65 Main Street	c. 1808
NRDIS	Samuel S. Stearns House	66 Main Street	c. 1828
NRDIS	Rev. Oliver Everett House	68 Main Street	c. 1837
NRDIS	Northfield Town Hall	69 Main Street	1927
NRDIS	R. H. Minot Tin Store	69 Main Street	c. 1871
NRDIS	Newton W. Keet Motorcycle Repair Shop	70 Main Street	1901
NRDIS	First Parish Church of Northfield, Unitarian	72 Main Street	1870
NRDIS	Dr. Medad Pomeroy House	73 Main Street	c. 1765
NRDIS	George Hastings Block	74 Main Street	c. 1848
NRDIS	Arthur W. Proctor Block	75 Main Street	c. 1898
NRDIS	Caleb Lyman House	76 Main Street	c. 1801
NRDIS	Picky's Grill	77 Main Street	c. 1940
NRDIS	Dunnell Fuels Office	78 Main Street	c. 1970
NRDIS	New England Telephone Company Building	79 Main Street	c. 1940
NRDIS	Charles S. Warner House	80 Main Street	c. 1900
NRDIS	Henry J. Glutney House	81 Main Street	c. 1920
NRDIS	Saint Patrick's Roman Catholic Church	82 Main Street	1886
NRDIS	Thomas Lyman House	83 Main Street	1828
NRDIS	Benjamin B. Murdock House	84 Main Street	1840
NRDIS	Northfield Baptist Church	85 Main Street	1961
NRDIS	Northfield Baptist Church Parsonage	87 Main Street	1961

Designation	Name of Feature	Location	Date Built
NRDIS	Mary Gay Swan House	88 Main Street	c. 1807
NRDIS	Dr. Philip Hall House	89 Main Street	c. 1846
NRDIS	First Parish Unitarian Parsonage	90 Main Street	c. 1858
NRDIS	Capt. Samuel Hunt Tavern	91 Main Street	r. 1775
NRDIS	Charles Pomeroy House	92 Main Street	c. 1879
NRDIS	Capt. John Nevers House	94 Main Street	1811
NRDIS	Herbert A. Reed Gas Station	95 Main Street	c. 1930
NRDIS	John A. Quinland House	96 Main Street	c. 1919
NRDIS	Dr. Charles Blake House	97 Main Street	c. 1780
NRDIS	Northfield Center School	98 Main Street	c. 1941
NRDIS	Civil War Tablet	98 Main Street	1911
NRDIS	Lt. Jonathan Belding House	99 Main Street	r. 1750
NRDIS	Spencer Brothers Garage	105 Main Street	c. 1919
NRDIS	Samuel W. Dutton House	109 Main Street	c. 1835
NRDIS	Dr. Allen H. Wright House	111 Main Street	c. 1936
NRDIS	Dr. Norman P. Wood House	112 Main Street	c. 1900
NRDIS	Dickinson Memorial Library	115 Main Street	1897
NRDIS	Obadiah Dickinson House	116 Main Street	c. 1785
NRDIS	House	117 Main Street	c. 1869
NRDIS	Luman Barber House	118 Main Street	r. 1945
NRDIS	Peter Evans House	120 Main Street	1716
NRDIS	Sally R. Tyler Cottage – Missionary I	124 Main Street	1927
NRDIS	Schell Cottage – Missionary House	126 Main Street	c. 1928
NRDIS	Rev. Edward Fairbanks House	130 Main Street	1948
NRDIS	Daniel Callendar House	134 Main Street	c. 1793
NRDIS	U. S. Post Office – Northfield Main Branch	136 Main Street	c. 1970
NRDIS	William C. Billings House	138 Main Street	c. 1820
NRDIS	Greenfield Cooperative Bank	144 Main Street	c. 1974
NRDIS	Albert S. Brigham House	146 Main Street	c. 1899
NRDIS	Trinitarian Congregational Church	147 Main Street	c. 1889; demolished
NRDIS	Trinitarian Congregational Church	147 Main Street	1979
NRDIS	Clifford Sanborn Furniture Store	148 Main Street	c. 1915
NRDIS	William Belcher House	153 Main Street	c. 1788
NRDIS	Eli H. Colton House	154 Main Street	r. 1875
NRDIS	Dr. Samuel Prentice House	155 Main Street	r. 1850
NRDIS	Clifford Field House	158 Main Street	c. 1935
NRDIS	George E. Holton House	159 Main Street	c. 1882
NRDIS	Dr. Roscoe Philbrick House	160 Main Street	c. 1914
NRDIS	Alvin A. Long House	165 Main Street	c. 1850

Designation	Name of Feature	Location	Date Built
NRDIS	Samuel B. Williams House	166 Main Street	c. 1853
NRDIS	John Long House	167 Main Street	c. 1830
NRDIS	Charles C. Robbins Store	168 Main Street	1910
NRDIS	A. J. Phillips House	169 Main Street	c. 1895
NRDIS	Capt. Henry Alexander House	173 Main Street	c. 1836
NRDIS	Francis Fisher House	174 Main Street	c. 1855
NRDIS	Thomas Alexander House	175 Main Street	1848
NRDIS	Robert Lyman Cabinet Shop	176 Main Street	c. 1870
NRDIS	Billiel House	177 Main Street	c. 1970
NRDIS	Robert Lyman House	178 Main Street	c. 1841
NRDIS	George R. Fisher House	179 Main Street	c. 1890
NRDIS	Jean H. Wright House	179R Main Street	c. 1971
NRDIS	Wayside Inn Barn	179A Main Street	c. 1890
NRDIS	Simeon Lyman House	180 Main Street	c. 1923
NRDIS	Capt. Richard Colton House	181 Main Street	c. 1828
NRDIS	Edward B. Buffum House	185 Main Street	c. 1919
NRDIS	Mary S. Rice House	186 Main Street	c. 1900
NRDIS	Merriman Cottage	187 Main Street	c. 1890
NRDIS	Simeon Alexander House	188 Main Street	C 1776
NRDIS	Paul Jordon Gas Station and Garage	190 Main Street	c. 1947
NRDIS	Clarence P. Buffmun General Store	194 Main Street	c. 1910
NRDIS	Charles H. Webster Drugstore	198 Main Street	1903
NRDIS	Arthur Percy Fitt House	201 Main Street	1887
NRDIS	Charles Alexander House	204 Main Street	c. 1890
NRDIS	Northfield Seminary – Revell Hall	206 Main Street	1879
NRDIS	Northfield Seminary – Holton Hall	206A Main Street	c. 1885
NRDIS	Girl Scout's Little House	7 Pentecost Road	c. 1951
NRDIS	Medad A. Moody House	6 Pine Street	c. 1863
NRDIS	Northfield Fire Station	School Street	c. 1952

Other Historic Properties in Northfield

Designation	Name of Feature	Location	Date Built
NRIND	Simeon Alexander Jr. House	496 Millers Falls Road (Route 63)	c. 1774
NRIND	Northfield Center Cemetery	Parker Avenue	1686
NRIND	Pine Street School	13 Pine Street	c. 1903
NRDOE	Schell Memorial Bridge	East Northfield Road	1903

Montague Center Historic District Properties

Designation	Name of Feature	Location	Date Built
NRDIS	Bangs and Ball Grocery and Dry Goods Store	1 Center Street	c. 1850
NRDIS	House	5 Center Street	c. 1830
NRDIS	Montague Center Harness Shop	7 Center Street	c. 1825
NRDIS	Phillips Palmer and Company Pocket Book Factory	9 Center Street	c. 1830
NRDIS	Leonard Cheney General Store	11 Center Street	1838
NRDIS	Montague Old Town Hall	15-17 Center Street	1858
NRDIS	J. H. Root House	21 Center Street	1851
NRDIS	H. Chenery House	24 Center Street	c. 1831
NRDIS	House	25 Center Street	1889
NRDIS	Montague Telephone Switching Station	26 Center Street	c. 1960
NRDIS	W. H. Ward House	27 Center Street	c. 1847
NRDIS	House	28 Center Street	c. 1840
NRDIS	House	30 Center Street	c. 1860
NRDIS	House	32 Center Street	c. 1850
NRDIS	J. Dugan House	34 Center Street	r. 1850
NRDIS	House	35 Center Street	c. 1850
NRDIS	J. W. Dugan House	36 Center Street	c. 1860
NRDIS	House	37 Center Street	c. 1850
NRDIS	Elihu Root House	38 Center Street	c. 1805
NRDIS	Dyke House	39 Center Street	c. 1850
NRDIS	House	40 Center Street	c. 1860
NRDIS	Carl Rollins House	42 Center Street	1912
NRDIS	Elihu Root Chair Factory and Saw Mill	44 Center Street	c. 1840
NRDIS	Dr. D. Bradford House	5 Court Square	c. 1860
NRDIS	House	7 Court Square	c. 1890
NRDIS	Merriam King House	8 Court Square	c. 1870
NRDIS/NRIND	Alvah Stone Mill	400 Greenfield Road	c. 1760
NRDIS/NRIND	Martin Machine Company Tool Crib	400 Greenfield Road	c. 1934
NRDIS/NRIND	Martin Machine Company Die Cutting Shop	400 Greenfield Road	c. 1934
NRDIS/NRIND	Alvah Stone Mill Fire Hydrant House	400 Greenfield Road	c. 1890
NRDIS/NRIND	Alvah Stone Mill Fire Hose House	400 Greenfield Road	1890
NRDIS/NRIND	Alvah Stone Mill Dam	400 Greenfield Road	c. 1830
NRDIS/NRIND	Alvah Stone Mill Intake Raceway	400 Greenfield Road	c. 1910
NRDIS/NRIND	Alvah Stone Mill Penstock	400 Greenfield Road	1900
NRDIS/NRIND	Martin Machine Company – Francis Turbine	400 Greenfield Road	c. 1900
NRDIS/NRIND	Martin Machine Company Electrical	400 Greenfield Road	

Designation	Name of Feature	Location	Date Built
	Generator		
NRDIS/NRIND	Alvah Stone Mill Wheel Pit	400 Greenfield Road	c. 1764
NRDIS/NRIND	Martin Machine Company Tailrace	400 Greenfield Road	c. 1934
NRDIS/NRIND	Martin Machine Company Trash Racks	400 Greenfield Road	c. 1934
NRDIS/NRIND	Martin Machine Company Head Gates	400 Greenfield Road	c. 1934
NRDIS/NRIND	Lawrence Mill Foundations	400 Greenfield Road	c. 1760
NRDIS/NRIND	Lawrence Mill Dam Abutments	400 Greenfield Road	c. 1830
NRDIS/NRIND	Alvah Stone Mill Grinding Stone	400 Greenfield Road	c. 1834
NRDIS	House	428 Greenfield Road	c. 1940
NRDIS	House	431 Greenfield Road	c. 1830
NRDIS	Fiske House	432 Greenfield Road	1941
NRDIS	Montague Highway Directional Marker	Main Street	c. 1770
NRDIS	Main Street Bridge over Sawmill River	Main Street	1895
NRDIS	House	2 Main Street	c. 1870
NRDIS	Montague Water Pollution Control Station	3 Main Street	c. 1980
NRDIS	House	4 Main Street	c. 1920
NRDIS	House	6 Main Street	c. 1920
NRDIS	Edward W. Fox House	7 Main Street	1859
NRDIS	House	8 Main Street	c. 1900
NRDIS	House	12 Main Street	c. 1900
NRDIS	House / Store	17 Main Street	c. 1850
NRDIS	Aaron Gate House	18 Main Street	c. 1805
NRDIS	K. Bancroft House	22 Main Street	1835
NRDIS	R. Brown House	24 Main Street	c. 1870
NRDIS	House	25 Main Street	c. 1830
NRDIS	House	26 Main Street	c. 1880
NRDIS	House	27 Main Street	c. 1800
NRDIS	House	28 Main Street	c. 1960
NRDIS	House	29 Main Street	c. 1850
NRDIS	House	30 Main Street	c. 1880
NRDIS	Montague Village Common	33 Main Street	r. 1750
NRDIS	Montague Village Common Watering Trough	33 Main Street	1915
NRDIS	Montague Village Common War Memorial	33 Main Street	1954
NRDIS	Unitarian Church of Montague	34 Main Street	1834
NRDIS	Montague Schoolhouse	38 Main Street	1837
NRDIS	Montague First Congregational Church Parsonage	39 Main Street	c. 1852
NRDIS	Avery Clapp House	40-42 Main Street	1837
NRDIS	Rev. E. Moody House	41 Main Street	c. 1850

Designation	Name of Feature	Location	Date Built
NRDIS	J. H. Morse House	44 Main Street	c. 1837
NRDIS	Dr. F. A. Deane House	45 Main Street	c. 1850
NRDIS	J. Learned House and Store	46 Main Street	1837
NRDIS	Edward L. Delano House	49 Main Street	1838
NRDIS	Alvah Stone House	50 Main Street	c. 1835
NRDIS	U. S. Post Office – Montague Center Branch	53 Main Street	c. 1960
NRDIS	House	54 Main Street	c. 1960
NRDIS	Clapp, R. N. Tin Shop	55 Main Street	c. 1860
NRDIS	Henry H. Root Grocery Store	58-60 Main Street	1885
NRDIS	George A. Clapp Shoe Factory	59 Main Street	1856
NRDIS	House	63 Main Street	1889
NRDIS	Charles Kellogg House	64 Main Street	1847
NRDIS	N. C. Brewer House	66 Main Street	1842
NRDIS	House	67 Main Street	c. 1910
NRDIS	E. Nettleton House	68 Main Street	1857
NRDIS	House	69 Main Street	1933
NRDIS	Chandler House	70 Main Street	c. 1850
NRDIS	Dr. Anson Cobb House	71 Main Street	1892
NRDIS	House	75 Main Street	c. 1900
NRDIS	House	2 Newton Lane	c. 1960
NRDIS	House	4 Newton Lane	c. 1960
NRDIS	House	5 Newton Lane	c. 1960
NRDIS	House	6 Newton Lane	c. 1980
NRDIS	House	7 Newton Lane	c. 1980
NRDIS	Edward W. Chenery House	2 North Street	c. 1831
NRDIS	Montague First Congregational Church	4 North Street	1834
NRDIS	Edward Benton House	7 North Street	1865
NRDIS	House	11 North Street	1888
NRDIS	Montague Center Schoolhouse / House	15 North Street	c. 1800
NRDIS	House	19 North Street	c. 1920
NRDIS	Chandler House	2 Old Sunderland Road	c. 1840
NRDIS	House	4 Old Sunderland Road	c. 1850
NRDIS	House	10 Old Sunderland Road	c. 1870
NRDIS	House	16 Old Sunderland Road	c. 1850
NRDIS	Joseph Root Tavern	17 Old Sunderland Road	c. 1739
NRDIS	House	23 Old Sunderland Road	c. 1850
NRDIS	Playground	School Street	c. 1910

Designation	Name of Feature	Location	Date Built
NRDIS	T. B. Searle House	3 School Street	1902
NRDIS	House	6 School Street	c. 1890
NRDIS	House	8 School Street	c. 1920
NRDIS	House	9 School Street	c. 1960
NRDIS	House	11 School Street	c. 1890
NRDIS	Public School	15 School Street	1950
NRDIS	Dr. G. Wright House and Office	2 South Street	c. 1830
NRDIS	Joseph Root Tavern Ell	6 Station Street	1739
NRDIS	Montague Fire Department Engine House	9 Station Street	c. 1900
NRDIS	Gas Station	10 Station Street	c. 1920
NRDIS	House	11 Station Street	c. 1970
NRDIS	Blacksmith Shop; Warehouse	12 Station Street	c. 1900
NRDIS	House	13-15 Station Street	c. 1900
NRDIS	House	17 Station Street	c. 1970
NRDIS	Locust Hill Cemetery	Turners Falls Road	c. 1760
NRDIS	C. Lawrence House	547 Turners Falls Road	c. 1830
NRDIS	Z. Taylor House	551 Turners Falls Road	c. 1870
NRDIS	Frank Martin House	555-557 Turners Falls Road	c. 1933
NRDIS	Bus Terminal	7 Union Street	c. 1940
NRDIS	A. C. Stone House	11 Union Street	c. 1860
NRDIS	House	14 Union Street	c. 1856
NRDIS	A. Clapp Jr. House	19 Union Street	1856
NRDIS	George A. Clapp Shoe Factory Worker Housing	20 Union Street	c. 1856
NRDIS	George A. Clapp Shoe Factory Worker Housing	21 Union Street	1856
NRDIS	George A. Clapp Shoe Factory Worker Housing	22 Union Street	c. 1856
NRDIS	George A. Clapp Shoe Factory Worker Housing	23 Union Street	1856
NRDIS	House	24 Union Street	c. 1856
NRDIS	George A. Clapp Shoe Factory Worker Housing	25 Union Street	c. 1856
NRDIS	House	26 Union Street	c. 1856
NRDIS	House	27 Union Street	c. 1925
NRDIS	D. Clapp House	30 Union Street	c. 1856
NRDIS	M. H. Clapp House	33 Union Street	c. 1856
NRDIS	George A. Clapp Shoe Factory Worker Housing	34 Union Street	c. 1860
NRDIS	House	37 Union Street	c. 1920
NRDIS	Clapp Scythe Factory	5 Welch Lane	c. 1900

Designation	Name of Feature	Location	Date Built
NRDIS	Laundry	9 Welch Lane	c. 1900

Sunderland Center Historic District Properties

Designation	Name of Feature	Location	Date Built
NRDIS	Skibiski Building	2 Amherst Road	Ca. 1927
NRDIS	L&M Warner Grain Store	10 Amherst Road	1917
NRDIS	L&M Warner Grain Store	10A Amherst Road	1917
NRDIS	Warner-Miller-Skibiski Building	18 Amherst Road	1917
NRDIS	house	26 Amherst Road	Ca. 1860&1950
NRDIS	James Clary House	34 Amherst Road	Ca. 1855
NRDIS	Connecticut River Bridge	Bridge Street	1938
NRDIS	Ben Toczydlowski House	23 Bridge Street	1947
NRDIS	Edward Tozloski House	17 Bridge Street	1948
NRDIS	Ben Toczydlowski Store	13 Bridge Street	Ca. 1940
NRDIS	Ben's Station	11 Bridge Street	1939
NRDIS	Riverside Cemetery	Cemetery Road	1722-1996
NRDIS	Cemetery storage shed	Cemetery Road	Ca. 1900
NRDIS	house	2 Garage Road	1930-40
NRDIS	Elijah Rowe House	6 Garage Road	Ca. 1790
NRDIS	Henry O. Williams House	243 North Main Street	Ca. 1853
NRDIS	Neo-colonial house	238 North Main Street	Ca. 1950
NRDIS	Edward L. Robinson House	226 North Main Street	Ca. 1904
NRDIS	Williams Farm	225 North Main Street	1919
NRDIS	Equipment shed	225 North Main Street	Pre-1948
NRDIS	Open cow shed	225 North Main Street	Ca. 1930
NRDIS	barn	225 North Main Street	Ca. 1930
NRDIS	Corn crib	225 North Main Street	Ca. 1920
NRDIS	Poultry house	225 North Main Street	Ca. 1930
NRDIS	Samuel Billings/Noah Graves House	207 North Main Street	Ca. 1718-50
NRDIS	Neo-colonial house	200 North Main Street	Ca. 1930
NRDIS	garage	200 North Main Street	Ca. 1930
NRDIS	Israel Cooley House	199 North Main Street	1800-1833
NRDIS	Tobacco barn	199 North Main Street	Ca. 1940
NRDIS	Samuel Graves, Sr. House	187 North Main Street	1804
NRDIS	Converted storage barn	184 North Main Street	Ca. 1950
NRDIS	Colonial Revival house	180 North Main Street	1923
NRDIS	garage	180 North Main Street	Ca. 1923
NRDIS	Harold C. Pomeroy House	178 North Main Street	Ca. 1910

Designation	Name of Feature	Location	Date Built
NRDIS	garage	178 North Main Street	Ca. 1940
NRDIS	Eleazer Warner, Jr. House	171 North Main Street	Ca. 1825
NRDIS	Isaac Graves House	168 North Main Street	Ca. 1730
NRDIS	shop	168 North Main Street	Ca. 1900
NRDIS	Eleazor Warner House	167 North Main Street	1750-1800
NRDIS	barn	166 North Main Street	Ca. 1900
NRDIS	Bungalow house	162 North Main Street	1922
NRDIS	garage	162 North Main Street	1920s
NRDIS	Neo-colonial house	158 North Main Street	Ca. 1930
NRDIS	garage	158 North Main Street	Ca. 1940
NRDIS	Gideon Warner House	157 North Main Street	Ca. 1780
NRDIS	George F. Abby House	154 North Main Street	1875
NRDIS	barn	154 North Main Street	1875
NRDIS	Graham/Beaman House	153 North Main Street	1776
NRDIS	barn	153 North Main Street	Ca. 1850
NRDIS	David Graves House	143 North Main Street	1748-80
NRDIS	barn	143 North Main Street	Ca. 1900
NRDIS	Alvin Johnson House	140 North Main Street	Ca. 1865
NRDIS	Rev. James Taylor House	133 North Main Street	Ca. 1807
NRDIS	barn	133 North Main Street	Ca. 1910
NRDIS	Kenneth Williams House	127 North Main Street	Ca. 1920
NRDIS	Henry F. Sanderson House	126 North Main Street	Ca. 1843
NRDIS	garage	126 North Main Street	Ca. 1930
NRDIS	Mrs. Montague House	123 North Main Street	1925
NRDIS	Ashley Graves House	121 North Main Street	Ca. 1830
NRDIS	shop	121 North Main Street	Ca. 1870
NRDIS	Henry F. Sanderson House	120 North Main Street	Ca. 1843
NRDIS	Craftsman Bungalow house	119 North Main Street	Ca. 1925
NRDIS	garage	119 North Main Street	Ca. 1925
NRDIS	Samuel Jennison House	118 North Main Street	Ca. 1850
NRDIS	Dimo's Restaurant	116 North Main Street	Ca. 1912
NRDIS	Fourth Parish House	115 North Main Street	1917
NRDIS	garage	115 North Main Street	1917
NRDIS	Roman F. Toczydowski House	113 North Main Street	1927
NRDIS	Town Hall	112 North Main Street	1867
NRDIS	Warner's Tobacco Shop	110 North Main Street	1923
NRDIS	Graves Memorial Library	109 North Main Street	1900
NRDIS	Sunderland Bank	108 North Main Street	1825
NRDIS	Town House	104 North Main Street	Ca. 1820
NRDIS	First Congregational Chapel	93 South Main Street	1849

Designation	Name of Feature	Location	Date Built
NRDIS	First Congregational Church	91 South Main Street	1835
NRDIS	Dr. Gustavus Peck House	90 South Main Street	Ca. 1835
NRDIS	Lota & Luther Root House	87 South Main Street	Ca. 1817
NRDIS	Samuel Dorrance House	86 South Main Street	Ca. 1835
NRDIS	Frederick & Ina Kidder House	83 South Main Street	1914
NRDIS	Barn complex	83 South Main Street	1914-1940
NRDIS	garage	83 South Main Street	1914
NRDIS	Equipment shed	83 South Main Street	Ca. 1914
NRDIS	Manufacturing building	83 South Main Street	Ca. 1940
NRDIS	William Russell House	82 South Main Street	Pre-1830
NRDIS	barn	82 South Main Street	Ca. 1850
NRDIS	Third Parsonage	79 South Main Street	Ca. 1842
NRDIS	garage	79 South Main Street	Ca. 1940
NRDIS	Arthur W. Hubbard House	76 South Main Street	Ca. 1910
NRDIS	garage	76 South Main Street	Ca. 1910
NRDIS	Grace Clark Hobart Store	75 South Main Street	Ca. 1895
NRDIS	Austin Lysander Marsh House	71 South Main Street	Ca. 1835
NRDIS	barn	70 South Main Street	Ca. 1900
NRDIS	Elisha Smith House	69 South Main Street	1756
NRDIS	Queen Anne house	66 South Main Street	Ca. 1880
NRDIS	barn	66 South Main Street	Ca. 1900
NRDIS	Seth Warner House	63 South Main Street	1836
NRDIS	barn	63 South Main Street	Ca. 1900
NRDIS	Colonial Revival house	62 South Main Street	Ca. 1890
NRDIS	barn	62 South Main Street	Ca. 1900
NRDIS	Deacon John Montague House	59 South Main Street	Ca. 1800
NRDIS	Louis H. Pomeroy House	51 South Main Street	1904
NRDIS	barn	51 South Main Street	Ca. 1904
NRDIS	Smith/Moline House	50 South Main Street	1847
NRDIS	Nathanial Austin Smith House	47 South Main Street	Ca. 1847
NRDIS	barn	47 South Main Street	Ca. 1900
NRDIS	Catline/Trow House	46 South Main Street	Ca. 1800
NRDIS	barn	46 South Main Street	Ca. 1850
NRDIS	Hepburn/Houle House	41 South Main Street	1922
NRDIS	Manoah Bodman House	38 South Main Street	Ca. 1758
NRDIS	barn	38 South Main Street	Ca. 1900
NRDIS	Deacon Albert Hobart House	37 South Main Street	1850-60
NRDIS	Clark Rowe House	34 South Main Street	Ca. 1831
NRDIS	Warren Graves House	28 South Main Street	Ca. 1834
NRDIS	Millstone Farm Market	24 South Main Street	1929

Designation	Name of Feature	Location	Date Built
NRDIS	Alexander/Taft House	23 South Main Street	Ca. 1800
NRDIS	Tobacco barn	23 South Main Street	Ca. 1930
NRDIS	Equipment shed	23 South Main Street	Ca. 1920
NRDIS	House (converted barn)	22 South Main Street	Ca. 1900
NRDIS	Elias Graves House	18 South Main Street	Ca. 1765
NRDIS	Lillian Dill House	17 South Main Street	Ca. 1900
NRDIS	garage	17 South Main Street	Ca. 1900
NRDIS	Clifford A. Hubbard House	12 South Main Street	1919
NRDIS	garage	12 South Main Street	1919
NRDIS	Appollos Sanderson House	7 South Main Street	1825-60
NRDIS	Benjamin Darling House	4 South Main Street	Ca. 1851
NRDIS	garage	4 South Main Street	Ca. 1920
NRDIS	Benjamin Graves House	1 Old Amherst Road	1753
NRDIS	Frederick E. Walsh House	6 School Street	1921
NRDIS	garage	6 School Street	Ca. 1930
NRDIS	W. D. Chandler House	9 School Street	Ca. 1865
NRDIS	A. C. Delano House	11 School Street	Ca. 1855
NRDIS	Center School	12 School Street	1922
NRDIS	Frederick Beaman House	15 School Street	Ca. 1871
NRDIS	Lawer Shop	23 School Street	Ca. 1880
NRDIS	Mason Armstrong House	28 School Street	Ca. 1855
NRDIS	barn	28 School Street	Ca. 1855
NRDIS	Hunter House	32 School Street	Ca. 1900
NRDIS	Skibiski Vegetable Storehouse	32 School Street	Ca.1920
NRDIS	Queen Anne house	33 School Street	Ca. 1900
NRDIS	garage	33 School Street	Ca. 1940
NRDIS	Toll House	38 School Street	1812
NRDIS	Converted tobacco shed	Warner Drive	Ca. 1940
NRDIS	Maintenance shed	Warner Drive	1948
NRDIS	barn	Warner Drive	1886

Community Planning Tools and Funding Sources to Preserve the Scenic Byway Resources

This section provides an overview of tools and funding sources that can be used by towns and regional organizations to help preserve historic, scenic, and open space resources and enhance tourism along the Connecticut River Scenic Byway. The strategies fall into three categories: land protection, historic preservation, and local zoning bylaws and planning activities.

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 landowner. A donation of such a 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 (APR) Program protects prime farmland from development. The APR Program is a voluntary program that offers a non-development alternative to farmers and other owners of prime agricultural land and other farmland of statewide importance that 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 protected 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 least 10 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 a Chapter 61 program is being sold or converted to another use. 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.

Funding Sources for Land Protection

Community Preservation Act (CPA)

Signed into law in 2000, the Massachusetts Community Preservation Act (M.G.L., Chapter 44B), gives communities a funding source to preserve open space and historic resources, create affordable housing, and develop outdoor recreational facilities. Municipalities adopt the 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. The state provides an annual match distribution that also goes into this fund. Monies accrued in this fund are to be spent on historic resources, open space, affordable housing, and recreational lands, with at least 10% of the annual receipts going toward each of the first three categories. This spending can be deferred until needed. Up to 5% annually can be allocated for administrative and operating

expenses of the community preservation committee. The community determines how it would like to distribute the balance of funds to any or a combination of the categories, including recreational lands.

For the first six years of the program, from 2002 through 2007, the State CPA Trust Fund matched all communities that adopted the CPA at a rate of 100%. As more communities adopted the CPA and the economy slowed, the base match percentage fell in recent years to below 30%. Communities that have passed the CPA at the maximum 3% surcharge receive a higher match than communities with a lower surcharge. In addition, communities at the 3% surcharge that have smaller populations and lower property values receive a higher match from the trust fund. Consequently several towns within the region have continued to receive a 100% match from the State CPA Trust Fund in recent years.

Forest Legacy Program

The Forest Legacy program is a federal funding mechanism through the U.S. Forest Service (administered through DCR's Forest Legacy program) for conservation restrictions on large blocks of forestland (not necessarily contiguous). Areas must be designated as "Forest Legacy Areas" (FLAs) in order for CR projects to be eligible for Forest Legacy funding. The towns of Northfield, Erving, and Montague are within the North Quabbin FLA. Portions of the Holyoke Range and Hatfield are currently designated as FLAs, and a small number of Forest Legacy projects have taken place in these areas.

Landscape Partnership Program

The Landscape Partnership Program, administered through the Executive Office of Energy and Environmental Affairs (EEA) seeks to preserve large, unfragmented, high-value conservation landscapes including working forests and farms, expand state-municipal-private partnerships, increase leveraging of state dollars, enhance stewardship of conservation land, and provide public recreation opportunities. The program offers competitive grants to municipalities, non-profit organizations, and EEA agencies acting cooperatively to permanently protect a minimum of 500 acres of land.

Local Acquisitions for Natural Diversity Grant Program (LAND) (formerly called 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, and the Town must have an up to date Open Space and Recreation Plan to apply. 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.

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.

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, or any city regardless of size, which has an authorized park or recreation 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 and the Town must have an up to date Open Space and Recreation Plan. The grants reimburse a significant portion of total project costs. The grants range in size from \$50,000 to \$500,000.

Historic Preservation

Historic 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 landscape areas. 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. 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.

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 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.

Local Historical Commissions

A Local Historical Commission is the municipal agency responsible for ensuring that preservation concerns are considered in community planning and development decisions. Local Historic Commissions are established by a vote of the town or city government. They serve as local preservation advocates and as an important resource for information about their community's cultural resources and preservation activities.

National Register of Historic Places Listing

The National Register of Historic Places documents and records the nation's important and irreplaceable buildings, sites, structures, objects, and districts worthy of protection. It is a federal designation, administered by the Secretary of the Interior through the Massachusetts Historical Commission as the State Historic Preservation office. Based on local and state surveys, nominations to the National Register are generally initiated by the local historical commission, which works with MHC staff to prepare the form. Nominations are then reviewed by the MHC State Review Board at a public meeting and forwarded to the Keeper of the National Register for approval. Listing on the National Register of Historic Places recognizes the value of our nation's historical and cultural heritage and provides a basis for making informed planning and development decisions. A listing on the National Register generally places no constraints on what owners may do with their property when using private funding. The National Register is not a design review program; however, it does provide limited protection from state and federal actions. It is also an eligibility requirement for matching state and federal restoration and research grants, as well as certain federal tax benefits for certified rehabilitation projects.

State Register of Historic Places Listing

The State Register of Historic Places is a master list of designated historic properties in Massachusetts. It provides an added measure of protection to listed properties from state involved projects. Properties are listed on the State Register if they are: included in or determined eligible for listing in the National Register of Historic Places by the National Park Service; within local historic districts; local, state, and national landmarks; state archaeological landmarks; or properties with preservation restrictions. The State Register serves as a guide for developers and state agencies in order to determine whether a state funded, permitted, or licensed project will affect historic properties. The State Register review process ensures that listed properties will not inadvertently be harmed by activities supported by state agencies.

Funding Sources for Historic Preservation

Community Preservation Act (CPA)

See the description of the CPA above under the Land Protection section.

Massachusetts Preservation Projects Fund

The Massachusetts Preservation Projects Fund is a state-funded 50% reimbursable matching grant program established in 1984 to support the preservation of properties, landscapes, and sites (cultural resources) listed in the State Register of Historic Places. Eligible activities include pre-development, development, and acquisition projects.

MHC Survey and Planning Grant Program

The program is a federally funded, reimbursable, 50/50 matching grant program to support historic preservation planning activities in communities throughout the state. Annual grants are contingent on Massachusetts' federal budget allocation. MHC is required to pass through grant

awards representing 10% of its total annual federal funding allocation to Certified Local Governments. Eligible activities include completion of cultural resource inventories, nomination of significant properties to the National Register of Historic Places, completion of community-wide preservation plans, and other types of studies, reports, publications and projects that relate to the identification and protection of significant historic properties and sites.

National Trust Preservation Fund

National Trust for Historic Preservation administers the National Trust Preservation Funds program, which supports planning studies and other activities to protect historic places and may be used to conduct feasibility studies to determine how historic facilities could appropriately be returned to productive use. Funding may not be used for construction or property acquisition. This is a competitive grant program open to non-profit organizations and members of the National Main Street Network.

Preservation Massachusetts Predevelopment Loan Fund

Preservation Massachusetts administers the Predevelopment Loan Fund, which offers financing to conduct predevelopment work, such as architectural or feasibility studies, for an historic redevelopment project. The applicant must have site control and sites must be on or eligible for the National Historic Register.

Historic Preservation Tax Credits

Both federal and state governments maintain historic rehabilitation tax credit programs. The Federal Historic Preservation Tax Incentives Program is administered by the U.S. Department of the Interior's National Park Service and the U.S. Department of the Treasury. The tax incentives may be applied to costs incurred for renovation, restoration, and reconstruction of eligible buildings. Generally, the percentage of these costs that can be taken as a credit is 10% for buildings placed in service before 1936, and 20% for certified historic structures.

The Massachusetts Historic Rehabilitation Tax Credit Program is managed by the Massachusetts Historic Commission under the Secretary of the Commonwealth. Under this program a certified rehabilitation project on an income-producing property is eligible to receive up to 20% of the cost of certified rehabilitation expenditures in state tax credits. There is an annual limit on the amount of tax credits available through the Commonwealth's program, so selection criteria is employed to ensure that funds are distributed to the projects that provide the most public benefit. In past years, projects in Downtown Greenfield and Turners Falls have received awards. In the 2014- 2015 rounds, the Brady Sullivan Orange Properties LLC project at 16-36 West River Street, and 58 South Main Street were awarded \$1.4 million in tax credits for their \$9.9 million project to develop housing.

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.

Architectural Preservation Districts (also referred to 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 (see Historic Preservation, above) 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 directs future growth and development to those areas and therefore helps preserve rural and open space areas elsewhere in town. Village center zoning also preserves the historic character of existing villages by aligning the dimensional and use requirements with what already exists. This helps remove many lots from a “pre-existing non-conforming” status to a conforming status under the zoning, and encourages the types of buildings and uses that historically have been present in village centers, promoting the continued use of historic structures and supporting revitalization.

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. Village center districts typically have higher densities (smaller lot sizes and frontage) and encourage a mix of residential and commercial uses to locate in the village centers instead of elsewhere in town.

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 if many properties do not meet the dimensional standards.

Open Space Residential Development/ Natural Resource Protection Zoning

Open space residential development (OSRD), also known as Natural Resource Protection Zoning (NRPZ), is a type of residential development that preserves open space and can reduce residential development costs. Instead of using a cookie-cutter approach to residential development, an OSRD/NRPZ approach first identifies the natural, scenic, historic, or recreational features on a site to be preserved, and then determines the best location for buildings and roads. Building lots are then drawn in, and the remaining open space is permanently protected from development. Dimensional requirements for house lots are flexible to allow for clustering of homes. Many of the communities along the Byway have adopted provisions to allow OSRD, either by-right or by special permit.

In 2012 the State began promoting the use of Natural Resource Protection Zoning (NRPZ) as a response to findings that many OSRD bylaws in place were either not being used or were not meeting natural resource protection goals. The new model calls for NRPZ to be the by-right option for residential development in undeveloped areas of a town. Developers seeking to create a more conventional development would need to go through a special permit process. NRPZ also raises the required percent of protected open space within a development to at least 65%, and encourages contiguity with adjacent protected open spaces to increase the natural resource benefits.

Creative Development / Flexible Development

Creative or flexible development bylaws utilize the same principles as Open Space Developments by allowing more flexibility in lot sizes and other dimensional requirements, but may or may not have an open space protection requirement. Creative or flexible developments may also utilize common driveways. The purpose of this approach is to preserve open space and encourage structures to be situated on the site in a manner that minimizes their visual impact. In particular it can be an alternative to typical Approval Not Required (ANR) development along an existing public way. Creative or flexible developments can also offer incentives for open space and farmland preservation, affordable housing, or other options that promote the goals of the community.

Transfer of Development Rights (TDR)

TDR provides options to direct growth away from lands that should be preserved, to areas well suited for higher density development, such as village centers and areas with adequate infrastructure. A TDR bylaw allows development rights to be purchased in a designated Sending Area and transferred to a designated Receiving Area for use in more compact residential or business development projects, with the approval of a Special Permit. Project proponents can either purchase development rights directly from farmers or landowners, or can make a cash contribution to the community for purchasing agricultural or open space preservation restrictions. Adoption of this bylaw can provide a community with another option for farmland protection, and give developers more options for development in already existing growth centers. TDR programs require a certain amount of administrative capacity, which may make it difficult for smaller towns with limited staffing to implement.

The Town of Hadley has completed a total of ten TDR projects, generating a total of \$338,772 in TDR funds. This money has been used to offset the match requirements for APR purchases in the community, and has leveraged \$3.8 million in state APR dollars. As a result, Hadley has been able to protect over 356 acres of prime farmland using TDR.

Sign Regulations

Most 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. 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 lighting 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.

Community Planning and Development Resources

Conservation Assistance for Small Communities

The Conservation Assistance for Small Communities Program, administered through the Executive Office of Environment and Energy Affairs, offers reimbursement funding for Open Space & Recreation Plans (OSRPs), other plans to facilitate land conservation, and/or appraisals contracted in order to apply to the LAND or PARC grant program (see Land Conservation above). The program is available to all communities with a population of 6,000 or fewer. Funding is non-competitive; all eligible applicants will receive contracts on a rolling basis until all available funding is allocated.

District Local Technical Assistance Program (DLTA)

Established by Chapter 205 of the Acts of 2006, the DLTA Program enables the Commonwealth's 13 Regional Planning Agencies (RPA) to provide technical assistance to communities. Funding is provided by the Massachusetts Legislature and Department of Housing and Community and Development (*DHCD*) to provide assistance in two broad areas: 1) sustainable development and preservation, and 2) regional collaboration in service delivery or procurement. The Franklin Regional Council of Governments (FRCOG) and the Pioneer Valley Planning Commission (PVPC) serve as the regional planning agencies for the towns within the Connecticut River Scenic Byway. Typical DLTA projects include Open Space and Recreation Plans, master planning, and updates and revisions to zoning bylaws and subdivision regulations.

Massachusetts Downtown Initiative

The Massachusetts Downtown Initiative offers the Technical Assistance Site Visit Program to municipalities. Professional consultant services valued up to \$10,000 are provided at no cost to the community for specific issues related to a downtown revitalization effort. The categories of eligible activities include: Business Improvement District (BID), Design, Creative Economy, Economics of Downtown, Housing, Parking, Small Business Support, Walkability, and Wayfinding/Branding.

Brownfields Assistance

There are a number of programs to assist in the cleanup and redevelopment of brownfields sites. Most of the communities along the Scenic Byway contain properties that have been identified as brownfields, many of these brownfields being located in or near historic town centers where industries were traditionally located. Brownfield cleanup is 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 Pioneer Valley Planning Commission (PVPC), and the Franklin Regional Council of Governments (FRCOG) coordinate a regional Brownfields Site Assessment Program for Hampshire, Hampden and Franklin County funded through the Environmental Protection Agency. This Program provides services (as resources allow) to conduct environmental site assessments on eligible properties and at no cost to the property owner. These assessments determine if the site is contaminated, and if so to what extent.

MassWorks Infrastructure Program

The MassWorks Infrastructure Program consolidates six public infrastructure grant programs (Public Works Economic Development (PWED) Grants, Community Development Action Grant (CDAG), Growth District Initiative (GDI) Grants, Massachusetts Opportunity Relocation and Expansion Program (MORE), Small Town Rural Assistance Program (STRAP), and the Transit Oriented Development (TOD) Grant Program) formerly administered by different agencies into one administrative program under the Executive Office of Housing and Community Development. The program provides grant funding for publicly owned infrastructure including, but not limited to sewers, utility extensions, streets, roads, curb-cuts, parking facilities, site preparation, demolition, pedestrian walkways, streetscape, and water treatment systems.

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 Community 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, and may apply regionally with one lead community.

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. 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 requires the 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 the MassWorks Infrastructure Program and brownfields funding. PVPC and the FRCOG provide technical assistance to towns exploring designation through Expedited Permitting (Chapter 43D).