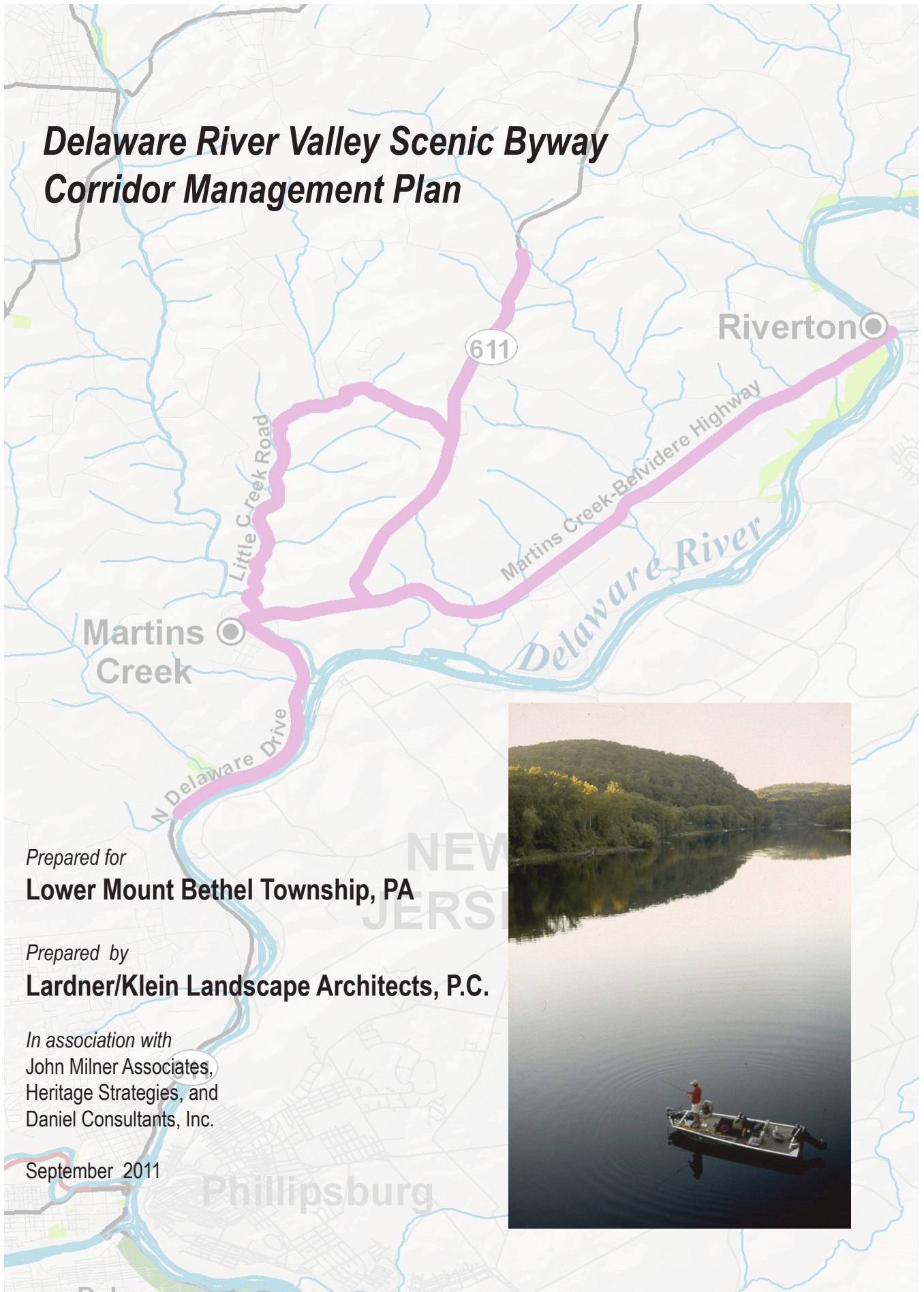


Delaware River Valley Scenic Byway Corridor Management Plan

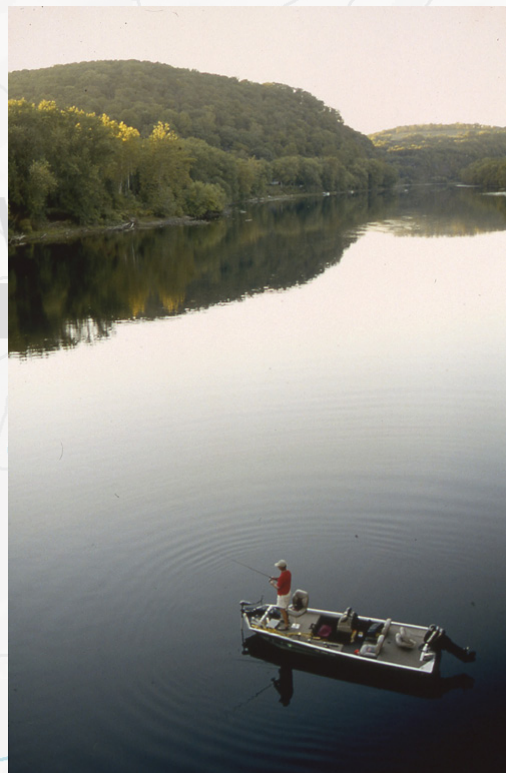


Prepared for
Lower Mount Bethel Township, PA

Prepared by
Lardner/Klein Landscape Architects, P.C.

In association with
John Milner Associates,
Heritage Strategies, and
Daniel Consultants, Inc.

September 2011



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A grant was awarded to Lower Mt Bethel Township to develop a Corridor Management Plan (CMP) for three routes that comprise the Byway–Little Creek Road, Martins Creek-Belvidere Highway and Route 611. Funding for the project is through the Federal Highway Administration’s National Scenic Byway Program (80%) along with local matching funds (20%).

Cover Photograph: Fishing on the Delaware River (Source: Lower Mount Bethel Township, Application for FHWA Scenic Byway Program Funds, photographer unknown)

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Lower Mount Bethel Township

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Patrick McInerney

Environmental Advisory Council

Pat McInerney, Chairman
Ralphaela Blum
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Jim Pacenti

Corridor Plan Advisory Committee

Thank you to the following committee members that were able to attend at least two meetings and/or provide additional assistance throughout the planning process:

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CHAPTER 1: INTRODUCTION

The purpose of this chapter is to describe the context in which the plan is being developed and to explain how community involvement played a critical role in developing the plan's vision and goals.

The Delaware River Valley Scenic Byway

The Delaware River extends from the vicinity of Mount Jefferson in New York's Catskill Mountains south 460 miles to the mouth of the Delaware Bay. Lower Mount Bethel Township is located along the middle portion of the Delaware River as it passes through the Lehigh Valley, south of the Delaware Water Gap and north of Easton. The Delaware River Valley Scenic Byway is envisioned to traverse this Lehigh Valley portion of the river's course with Route 611 as its primary spine. Approximately a third of the envisioned byway through the Lehigh Valley passes through Lower Mount Bethel Township and is the subject of this corridor management plan.



Figure 1.1 - View of Delaware River from Sands Eddy

The Lower Mount Bethel Township portion of the Delaware River Valley Scenic Byway, a Pennsylvania Scenic Byway, generally follows Pennsylvania State Route 611 from the Township line to Riverton along the Martins Creek-Belvidere Highway. The byway has an upper loop from Martins Creek along Little Creek Road and connecting to Route 611 back down to the Martins Creek-Belvidere Highway.

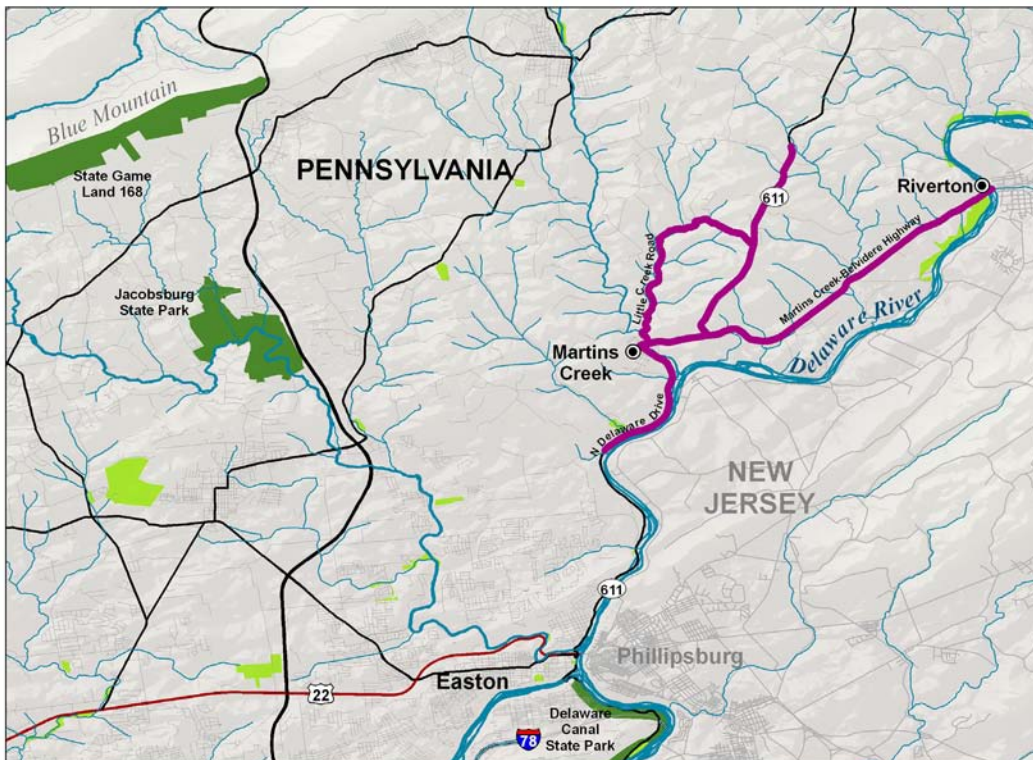


Figure 1.2 - The Delaware Valley Scenic Byway (purple)



Figure 1.3 - The Delaware River Watershed

The Delaware River Watershed

The Delaware River watershed is divided into three broad landscape areas, the Upper Delaware (Appalachian), the Lower Delaware (Piedmont), and the Delaware Bay (Coastal Estuary).

The Upper Delaware River extends from the river's headwaters in the Catskill Mountains south through the Pocono Mountains to the Delaware Water Gap. Much of this mountainous region is forested and preserved in pastoral condition, with farmland and villages along the narrow valley floor surrounded by forested hills. A 73-mile section of this portion of the river above the Delaware Water Gap has been designated as part of the National Wild and Scenic River System. New York City has constructed three reservoirs along the East and West Branches of the river in the Uplands from which it draws a third of the river's natural flow to supply drinking water for urban areas. The Delaware River's Uplands is a diverse ecosystem with numerous species of animals, birds, amphibians, and fish within its upland forest plant communities. The Delaware is one of only two free-flowing rivers between Maine and West Virginia that allows shad to reach their upstream spawning grounds. Conservation of the Delaware River Uplands is a primary interest of the region.

The Lower Delaware, or Piedmont portion of the Delaware River watershed, extends from the Delaware Water Gap through Blue Mountain south to the falls at Trenton. A fault line extending northeast from Philadelphia through Trenton creates the falls within the riverbed and marks the northern reach of tidal influence along the river. The Piedmont is characterized by low, rolling hills such as those within Lower Mount

Bethel Township, and its landscape has been extensively altered by the last four centuries of human occupation. Largely agrarian, this landscape has also seen extensive industrial development. It includes the major industrial cities of Allentown, Bethlehem, Easton, and Trenton as well as numerous smaller river towns and villages. Water quality along the river and its tributaries has been a major issue over the decades, with degradation caused by changes in stream characteristics and flow, coal mining, point and non-point source pollution, and urban and suburban development.

River commerce has been a critical part of the region's development. Early nineteenth century canals were constructed to facilitate industrial and agricultural commerce, including the Morris Canal, Delaware and Raritan Canal, Lehigh Canal, and the Delaware Division of the Pennsylvania Canal. These canals were superseded by railroads in the mid-nineteenth century. Despite extensive human use, almost half of today's Piedmont

landscape is wooded, with differences in maturity and species composition. Within the Piedmont, there is substantial interest in balancing urban and suburban growth with landscape stewardship and river, stream, and ecosystem restoration.

The Delaware Bay region is where the river meets the ocean and extends from the falls at Trenton south to the mouth of the Delaware Bay. The Delaware River Estuary includes extensive natural areas and diverse plant and animal species. As part of the Atlantic Flyway, the Delaware Bay is a critical habitat for migrating shore birds in North America. The Bay is also home to a variety of water species including oysters, crabs, terrapins, and whales that thrive on its highly productive ecosystem.

Extensive industrial development has impacted the Estuary. Approximately eight million people live within the region, including the cities of Philadelphia and Wilmington. Philadelphia is the world's largest freshwater port, and the region is the second largest petrochemical refining center in the nation. Other industries have also heavily affected the waters of the river and the bay.



Figure 1.4 - The Delaware River Watershed has a prominent place in the Township's Visitor Center

Purpose of the Plan

The purpose of the Byway management plan is to help Lower Mount Bethel Township to conserve and preserve the rich natural and cultural resources found throughout the corridor. The Byway can play an important role in helping to maintain the character defining features of the Township. Of particular importance is the role that Byway funding programs can play in leveraging the Township's agricultural land preservation activities and watershed management activities. In addition, the approval of the plan will provide PennDOT with a clear statement about the Township's desire to protect and maintain its rural character giving designers the reference point they need to apply more flexibility in the engineering design process for bridges, safety projects, and for meeting pedestrian needs in the Township.

What the CMP Will Do for the Township

The plan recognizes that the Township, through its ongoing agriculture land preservation and watershed management activities, has established itself as a distinctive rural landscape within the growing Lehigh Valley region. The plan addresses three important ways that the Byway can help the Township achieve its goals of maintaining its rural character over time.

First, chapter two of the plan identifies the specific natural and cultural resources found along the Byway and their relationship to the Township's rural character. Linking these resources to the Byway make them eligible for funding programs available through the National Scenic Byway Program as well as providing additional rationale for other related program. Goals 2 and 3, starting on page 47 provide specific recommendations for how to utilize the Byway to help preserve and maintain the Byway and Township's rural character.

Second, the plan recognizes that the route of the Byway is a significant element of the Township's rural character. Goal four of the plan, and its related strategies described on pages 59-84, identifies specific recommendations for how to maintain the character defining features of the roadway itself. Designation as a Pennsylvania Byway provides the rationale necessary for PennDOT to utilize "Context Sensitive Solutions" to address existing and

future highway related modifications in a manner that will help the Township to maintain its rural character.

Third, the plan acknowledges that the Byway does not exist in isolation. Route 611 is already designated as the “Delaware River Scenic Drive” and is identified as such on Pennsylvania’s Highway Map. Goal 1 and its related strategies on pages 42-47 provides recommendations for how to gain designation as a National Scenic Byway, should the Township and its neighbors seek to gain that recognition as a means of increasing its leverage to achieve goals. Such designation makes the Byway more competitive for funding and increases the ability of the Township to work collaboratively on conservation, preservation and roadway related implementation measures.

Throughout the planning process the Advisory Committee expressed an interest in utilizing the Byway to help educate the community about its rich natural and cultural heritage. One of the original purposes of the byway planning effort was to also consider opportunities for promoting heritage- and nature-based tourism and expanding the Township’s economic base. In order for the Township to benefit from heritage, agricultural and nature-based tourism opportunities, it would have to work collaboratively as part of a regionally managed Byway. Goal 5 and its related strategies described on pages 84-106 identify what would need to be done if the Township decides at some future date to take advantage of these opportunities.

What the Plan Will Not Do

Throughout the planning process, concerns have been raised about the implications of the Plan’s implementation on property rights, agricultural operations, and on personal privacy.

The Township’s existing Comprehensive Plan, Zoning and Subdivision Ordinances in the Township coupled with ongoing efforts for agricultural land preservation and watershed management are some of the best in the County and the region. No changes to these plans and ordinances are needed to achieve the community benefits that are outlined above. No changes to the rights of property owners will result from the implementation of this plan. All of these programs are voluntary.

Anyone who buys property either now, or in the future (including if the byway is designated as a National Scenic Byway at some point in the future), can continue to use that property in any way current zoning allows. The Plan will not place any restrictions on private property owners along the Byway, with the exception of off-premise signage (billboards) that current zoning prohibits.

The plan will not result in any taking of private property from unwilling participants. Only those property owners that are interested in selling agricultural land conservation easements will be considered for such programs as they apply.

Should the Township wish to pursue the plans recommendations regarding heritage, nature-based or agriculturally-based tourism, it will not promote trespassing on private property, but will instead focus on community education and interpretation of the Township’s natural and cultural resources.

The plan is strictly voluntary. It lays out optional tools and techniques that can be utilized to benefit the community and the residents that live along the travel route.

Planning Context and Process

The Plan was developed based on the input provided by the Byway Advisory Committee and two public workshops – one to confirm the direction of the planning process and review the initial vision, goals, and issues that need to be addressed, and one at the end of the planning process to make sure that the plan reflects the input provided. At the end of the planning process, the Township may want to pursue designation as a National Scenic Byway. This designation would recognize the regionally significant qualities of the Byway corridor. Other than the prohibition of billboards, no regulations are required or will result from such a designation.

All meetings of the Advisory Committee were open to the public, and a notice was posted on the Township web page. The following meetings were conducted over a one year period with the topics noted as follows

AC Meeting #1: Getting Started with Vision and Goals	May 6, 2010
Public Workshop #1: <i>Are we headed in the right direction?</i>	June 14, 2010
AC Meeting #2: Preservation and Conservation Strategies	July 29 2010
AC Meeting #3: Management Strategies for the Road Itself	October 7, 2010
AC Meeting #4: Marketing and Interpretive Strategies	December 15, 2010
AC Meeting #5: Implementation Strategies	February 3, 2011
Additional Public Meetings and Township Review	Spring 2011

The advisory committee includes a broad spectrum of interests including property owners, historians, township representatives, representatives from state and federal agencies with an interest in the Delaware River Valley, and other key stakeholders. The Advisory Committee has

- Assisted with the formulation of a vision, goals and objectives for the plan
- Provided information to the planning team about important features and opportunities found along the Byway
- Assisted with the development of strategies to preserve and enhance important features, and helped determine how best to take advantage of opportunities
- Made recommendations regarding how the plan will be implemented
- Made recommendations on whether or not to pursue designation as a National Scenic Byway (along with neighboring towns)

Vision and Goals for the Byway

The Delaware River Valley Scenic Byway in Pennsylvania links the Delaware and Lehigh Canal National Heritage Corridor to the south with the Delaware Water Gap National Recreation Area to the north to help preserve and enhance its farms, forests, and historic villages, and to celebrate the Delaware River’s natural and cultural heritage. The byway will help to tell the story of the Delaware River’s unique heritage by helping visitors and residents alike to better understand the layers of nature and culture that have formed the river valley which can be readily seen in the landscape of Lower Mount Bethel Township.

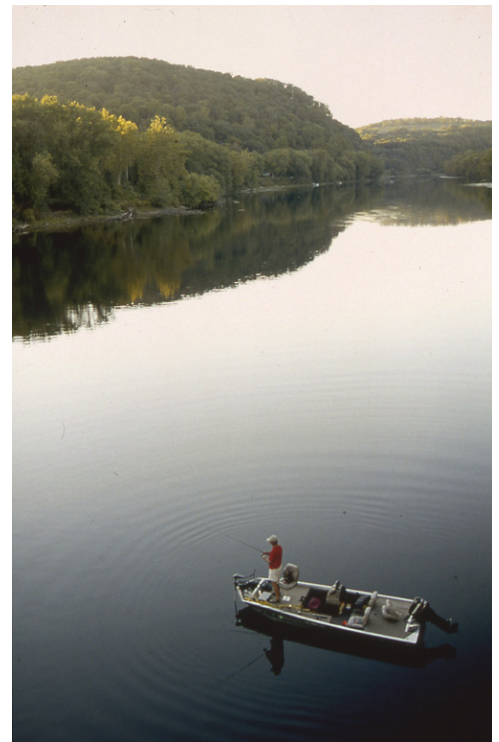


Figure 1.5 - Fishing on the Delaware



Figure 1.6 - Martins Creek-Belvidere Highway, looking west

The Byway planning effort will help the Township keep things “pretty much the same way they are today” – by building upon the long tradition of land stewardship that has led to its recognition as a scenic area. The Byway plan will respect the private property rights of all landowners and business interests. The Byway will help to preserve and promote the area’s agriculture and by leveraging more resources for agricultural land preservation in support of farmers and through farm to table tours and programs that highlight locally grown and produced food and wine from the region.

As part of a larger regional byway and community development effort, the Township’s historic villages will evolve to bring back “a vibrant life of shops, cafes, and sustainable businesses – like a village from the past.” Heritage, agricultural, and nature-based tourism, building upon the heritage of the everyday working landscape, will provide the engine to support small business development and to help sustain the rural farms and small, historic villages of the region.

Overall Regional Goal and How The Byway Fits Into the Region:

The Lower Mount Bethel Township section should link the Delaware and Lehigh National Heritage Corridor to the south with the Delaware Water Gap to the North as a means of establishing a nationally designated byway route along the Delaware River in both Pennsylvania (Delaware River Scenic Drive) and New Jersey (various segments, County, and State Roads).

Preservation and Conservation Goals:

Build upon the Township’s ongoing planning and preservation efforts for open space, agricultural land preservation and watershed management by utilizing the Byway to increase partnership opportunities for land conservation and historic preservation in the Township.

Enhancement and Management Strategies for the Road Itself:

Work with PennDOT and the Township to develop innovative approaches for balancing the needs of all roadway users while maintaining the character defining features of the Byway. Manage the roadway and roadside character in a manner that accommodates the wide range of needs for all roadway users including commuters, agricultural, heritage travelers, bicyclists, pedestrians, and neighbors while maintaining the character defining features of the Byway context.

Community-based Heritage, Agricultural and Nature-based Tourism:

Use the Byway as a tool to achieve positive community-based economic and environmental benefits from the region’s ongoing Heritage, Agricultural and Nature-based tourism activities. Identify appropriate opportunities to increase rural economic development activities by coordinating storytelling, interpretation and education associated with the region’s agricultural and Delaware River heritage with opportunities for nature-based recreation and related “farm to table” tours and tastings.

Historical Context

As a way to introduce the historical context of the Byway and Lower Mount Bethel Township, the following context statement has been developed and can be used in future efforts to gain more recognition for the Township's historical resources and cultural landscapes.

Prehistory & The Lenape

While Northampton County's European-American history began in the 1680s, its human history extends back many thousands of years before that (Custer 1996). The first inhabitants may have arrived as early as circa 12,000 BC. In what archeologists refer to as the Paleo-Indian Period, people were highly mobile, nomadic hunters and gatherers. Small bands of people moved across the late Ice Age glacial landscape in search of game animals and edible plants. Such societies leave little trace on the landscape, and archeological sites of these people are rare.

The Archaic Period (ca. 8000-1000 BC) saw profound changes for humans brought on by the retreat of the glacial ice sheets. Early Archaic hunters may have followed a similar mobile lifestyle as their Paleo-Indian forebears, but the late Archaic period was a time of more sustained residency at sites, resulting in steady population growth. The diversity of artifact types, styles, and configurations found at sites from this era reflect the population's eventual adaptations to a more temperate climate, and reflect the rudimentary development of Pennsylvania's first distinct societies, or "tribes."

With the Woodland Period following the Archaic, local archeological sites dating from circa 1000 BC to AD 1000 indicate increasingly stable lifestyles, with some evidence of local agriculture and long-distance trade among dispersed groups of people. Innovations included the development of ceramic vessels for cooking and storage, and the bow and arrow. By the end of the Middle Woodland period, well-established, semi-permanent communities and group territories had developed. The Late Woodland Period (circa AD 1000-1600) was the last era before European explorers arrived, and represents the culmination of the trends of the preceding periods. Unlike their nomadic ancestors, Late Woodland people of the Delaware Valley lived in villages, raised corn, beans, and squash, and governed themselves with an egalitarian tribal system.

The Contact Period (circa AD 1600 to present) is the time when Native Americans came into contact with European traders and colonists, and their traditional way of life was dramatically changed, if not eliminated altogether. The indigenous people of the region commonly referred to themselves as the Lenni-Lenape (the "true people") or simply The Lenape. European colonists came to refer to these people as the "Delawares" because of their proximity to the Delaware River and Delaware Bay¹. By about 1660, the Lenape of the lower Delaware Valley had adapted to the ways of their European neighbors – a

¹ The origin of the word "Delaware" is attributed to the peerage title held by Thomas West, Third Baron De La Warr, or *Lord Delaware* as he was known in the New World. West led a contingent of 150 men that arrived as reinforcements at the Jamestown Colony in 1610 after Governor John Ratcliff was killed in a raid by the Powhatans. A veteran of English campaigns against the Irish, he was known for his scorched earth tactics where a village would be set ablaze, croplands destroyed, and all provisions at hand removed. This tactic was used effectively as a counter attack against the Powhatans which gained him the governorship of Virginia until his death in 1618.

way of life significantly different from traditional Lenape concepts of governance, trade, architecture, land ownership and land use. While the majority of Lenape were pushed out of the region by the expanding European colonies, remnant groups of descendants are still present in the area.

Fifteen (15) prehistoric archeological sites have been recorded in Lower Mount Bethel Township². Significant sites include the Del Haven Paleo-Indian site, and the Padula, Riverton, and Sandts Eddy sites that have Archaic period components. Sandts Eddy in particular has been documented as a significant permanent prehistoric settlement occupied for many centuries. The vicinity of the Forks of the Delaware³ was an important trade, meeting, and settlement area for the Lenape (Fehr and Repsher 2007:55), and the waterfront in Lower Mount Bethel Township between Portland and Sandts Eddy was an attractive place for the Lenape to encamp.

A range of cultural artifacts can be expected at most Native American archeological site in the region including stone tools and ceramics. Biological remains, both visible to the eye and microscopic, can reveal valuable data about food, flora, fauna, and environmental conditions. In the ground, the soil at an archeological site is likely to reveal evidence of Native American architecture, including fire, storage, and refuse pits, middens, hearths, house depressions, and post molds. (These soil stains and disturbances are referred to as *features* by archeologists.) Most important is the association of the artifacts, biological remains and features in the soil within the context of the archeological site. This information together can reveal a tremendous amount of scientific evidence about what happened at the site, how many years the site was used, and what season the site was occupied. Prehistoric archeological sites are finite, nonrenewable resources. Some have been documented; others possibly remain undiscovered, while many have been lost over the years to Northampton County's changing landscape. The sites that remain continue to hold valuable information that adds to knowledge of past times, and though the sites are not visible to most residents, they contribute to the county's unique cultural heritage (Custer 1996).

² Due to the sensitive nature of archeological information, specific site location information is not provided in this document. Site files for these resources are recorded in the Pennsylvania Historical and Museum Commission's (PHMC) archeological inventory.

³ The Forks of the Delaware is located further downstream at the confluence of the Delaware and Lehigh Rivers in Easton, Pennsylvania.

European Settlement

William Penn established the colony of Pennsylvania (meaning “Penn’s Forest”) in 1682 after the Duke of York, the future James II of England, assigned to Penn a large piece of his American holdings including much of present-day Pennsylvania and Delaware⁴. Also known for his positive relations in treatment of and negotiations with Native Americans, an informal treaty was agreed upon with the Lenape establishing areas for European settlement. This good will all but evaporated when after William’s death, two of his sons, Thomas and John, sought to enforce provisions of the treaty through questionable means. What is known as the controversial “Walking Purchase of 1737”, the Lenape chief Lappawinsoe agreed to terms presented by the brothers to sell and vacate a tract of land west of the Forks of the Delaware as far as “a man could walk in a day and a half.”⁵ Thomas Penn arranged to have a trail cleared through the forest for three of the fastest runners in the colony to traverse. One of the runners was successful in covering an area the size of Rhode Island, thus forcing the relocation of native peoples to the mountains north of present day Scranton, Pennsylvania. Some of what is now Northampton County was also purchased by Penn’s friend, William Allen (Alderfer 1953:15-16).



Figure 1.7 - William Penn, 1644-1718 (Source: William Penn: An Historical Biography, 1881)

European migration to the northeastern reaches of Northampton County began in the early 1730s. Among the first arrivals was a group of Scots-Irish families headed by Alexander Hunter. Members of the group established homesteads on lands in what are now Richmond, Mount Bethel, and Martins Creek. The settlement on Martin’s Creek⁶, the waterway named after James Martin who built a gristmill along the creek in 1747 and later was a colonel in the Revolutionary War (Toth 1976:211-212,254), was known first as the Hunter Settlement and later as the Martin Settlement, (Bangor CBC 1975:20; Toth 1976:211-212,254). Mount Bethel Township was established in 1748, and included the areas that are now Upper and Lower Mount Bethel Townships and Washington Township (Bangor CBC 1975:18; Toth 1976:256).



Figure 1.8 - Lenape Chief Lapowinsoe, 1735 (Source: Historical Society of Pennsylvania, Philadelphia, PA)

The settlement that became the town of Martins Creek formed around the intersection of the creek with an important through road (now Rt. 611). It was a stagecoach stop for a number of years and a post office opened there on October 13, 1810. Along with farmers,

⁴ Adopting Quakerism at the age of 22, William Penn had been imprisoned in England for his bold religious criticism and agitations. He was released after his father, a highly decorated Admiral, paid the fine and made a plea to King Charles II and the Duke for his son’s release and protection. In a remarkable reversal of fortune, Penn was made a royal counselor. However, Penn’s devotion to the Society of Friends did not cease and he joined prominent religious leaders who argued with the crown for a mass emigration of English Quakers to the New World. With the purchase of the colonial provinces of East and West Jersey by several notable Quaker families and Penn’s substantial land grant, the migration began. Penn arrived in 1682 energized to implement a “holy vision” of a utopian society guaranteeing freedom of religion, fair trials, free elections and protection from unjust imprisonment—several of the founding principles used in creating the Constitution for the United States of America.

⁵ In 2004 The Delaware Nation actually filed suit in United States District Court against the Commonwealth of Pennsylvania asserting that the deed for the Walking Purchase was a forgery and the transaction fraudulent in an attempt to reclaim 314 acres. The case was dismissed.

⁶ Other names for the waterway included Tunam’s Creek, the Widow Martin’s Creek, and the Native American name Sakhawotung.

residents included millers, carpenters, weavers, wheelwrights, blacksmiths, tanners, and innkeepers by 1780. The settlement was known by other names, including Flatfield and Martinsburg, but by 1870 it was known as Martin's Creek (Bangor CBC 1975:20; Comprehensive Plan 2007:3-1; LaPenna 2005:72-73).

The Rev. David Brainerd, a Scots-Irish Presbyterian missionary from Connecticut, established Mount Bethel Church and his own cabin near Martins Creek in 1744. While his primary goal was to Christianize the local Lenape, he also preached to the Scots-Irish settlers. His work was supported by the Society in Scotland for the Propagation of Christian Knowledge. A 1745 diary entry mentions preaching at the Forks of the Delaware on the sunny side of a hill. Brainerd's time in Lower Mount Bethel lasted less than two years; his mission society decided in June 1745 that there were not enough Lenape in the area to warrant a mission and ordered him to relocate to New Jersey⁷ (Alderfer 1953:60-65; Fehr and Repsher 2007:65-66; Toth 1976:212,234,247). The present Mount Bethel Church was constructed in 1838, and the adjacent cemetery contains graves dating back to 1763 (Comprehensive Plan 2007:3-2).



Figure 1.9 - Missionary David Brainerd, 1718-47 (Source: Historic Northampton Museum, Northampton, MA)

German immigrants began arriving in the area shortly after the Scots-Irish, and soon began to outnumber them. Conflict eventually arose between the Germans and the Scots-Irish, who had become a minority and subject to increasing persecution. At the end of the Revolutionary War, a number of the Scots-Irish left Mount Bethel Township for central and western Pennsylvania and Tennessee, leaving the Germans as the predominant population in the area (Toth 1976:256). The German settlers chose homesites near a water source to establish their farms, and erected log homes and large barns. The first generation log homes were eventually replaced by stone houses as the farmers prospered. Although log houses were the most common type of housing in 1798, few survive today. One such dwelling survives in the Del Haven area as a rare example of an early house.

By 1787, the population had grown to a point where the Township was subdivided into Upper and Lower Mount Bethel. The village of Richmond, located within what is now Washington Township, rapidly grew into a population center during the early 1800s due to the presence of a sawmill and gristmill, but was later eclipsed by the emergence of Bangor and the slate industry. Washington Township remained a part of Lower Mount Bethel Township until 1871 when it was separated as its own entity. The rest of Lower Mount Bethel Township remained mostly rural (Toth 1976:257).

The nineteenth century resulted in a share of prosperity for residents of Lower Mount Bethel Township. Construction of a second generation of homes and churches, using stone and brick instead of logs, was a major and visible result of that successful economy. The German settlers adhered to both the Lutheran and Reformed Protestant denominations. The Bible Bethel Church of Mt. Zion was built as a union church in 1837 by the combined congregations of Lutheran and Reformed churches, and the Presbyterians built their new church in 1838. Good Shepherd Church was built in 1864 (Comprehensive Plan 2007: Appendix A-2; Hough 2009:25-26).

⁷ Although David Brainerd died of lung disease two years later in 1747, Jonathan Edward's biography of Brainerd's life has never been out of print and serves as a source of inspiration and encouragement for evangelical Christian missionaries.

The Delaware River

Lower Mount Bethel Township's location along the Delaware River made it an accessible place in the years before good overland roads. It was the site of several ferry crossings. The earliest was Hunter's Ferry, which began operating in 1758. Another ferry, DePue's, operated from 1868 to 1890, providing access to the Pennsylvania Railroad on the New Jersey side of the river. A ferry operated at the mouth of Martin's Creek until the Pennsylvania Railroad constructed a railroad bridge across the Delaware at that location with a sidewalk for passengers to walk across (Project Summary 2006).

The Delaware River through the Township was also a heavily traveled waterway for transportation of both people and trade goods from the upper Delaware region to Philadelphia. During the 1700s and early 1800s, the favored mode of transportation was a Durham boat. These were flat-bottomed wooden watercraft that were built for the Delaware River trade and popularized by the Durham Boat Company in the town of Durham, Bucks County, Pennsylvania. The Durham Boat Company's vessels were used to transport products from the Durham Forge (1728) to Philadelphia, but this type of vessel rapidly became the most popular means of transporting cargo on the Delaware, and inspired construction of similar boats by others. At their peak, a thousand Durham boats operated on the river, each driven by a small crew of men with poles and oars. With their light weight and shallow draft, the boats were suitable for navigating the challenging course of the river, including the notoriously treacherous area of rapids known as Foul Rift south of Riverton. Despite their English name, there is considerable evidence that these boats are descendants of Scandinavian rivercraft transplanted to Pennsylvania with Swedish and Finnish immigrants. Canal boats, steamboats, and railroads eventually brought about the end of the Durham boat traffic on the Delaware River (Durham Historical Society [2010]).



Figure 1.10 - George Washington and Continental soldiers crossing the Delaware in a Durham Boat (Source: Crossroads of the American Revolution Association, Princeton, NJ)

In 1791, Major Robert Hoops and a team of workers cleared a channel through Foul Rift to make it easier for Durham boats to pass through. They blasted and hand-drilled the stone and inserted metal rings for guide ropes. Today this site is part of the Foul Rift Natural Area within Pennsylvania Power & Light (PPL)'s Martin's Creek Environmental Preserve (Comprehensive Plan 2007 Appendix A-1; Martins-Jacoby Watershed Association 2009).

Agriculture

Agriculture has been the predominant livelihood and land use in Lower Mount Bethel Township throughout much of its history. Both the Scots-Irish and German settlers came from agricultural backgrounds, and the Germans were particularly skilled farmers. The well-drained soil of Northampton County's limestone belt is the most fertile in the county. For two centuries, local residents engaged in subsistence farming, raising the foods and animals needed to sustain themselves and their families. Until the early twentieth century, farms were relatively small family-operated enterprises of between 100 and 250 acres.



Figure 1.11 - 1803
Schoolhouse, now the
Hunter-Martin Museum

Farmsteads typically contained ten or twelve specialized buildings situated near a water source and pastures, with higher ground reserved for crops. Along with a house, barn, and various outbuildings, farms usually included fields, orchards, pastures, woodlands, a vegetable garden, and an array of livestock, including horses, cows, chickens, ducks, geese, sheep, and pigs. Without modern refrigeration or running water, a springhouse was an important feature (Hough 2009:35; Toth 1976:83).

Farming practices underwent major changes both locally and nationwide during the first half of the twentieth century. During the early 1900s, farming shifted away from the small, diversified family farms raising subsistence crops toward larger, specialized commercial operations focused on one or a few particular types of crops, such as dairy, poultry, fruit, or produce. Specialized farming soon became prevalent and remains so today. The advent of automobiles in the 1910s and modern mechanized farm equipment in the 1930s, particularly tractors and automatic milkers, revolutionized agriculture. Trucks could get farm products to market much more quickly than horses and wagons. Farmers were able to cultivate much larger land areas using tractors and heavy machinery than they could with horse-drawn equipment and human labor. Beginning in the mid-1940s, farmers with tractors began to practice contour farming, reducing erosion, increasing crop yield, and changing the appearance of the agricultural landscape from the rectangular fields of past eras. On dairy farms, refrigeration and automated milking machinery vastly increased the amount of milk a single dairy farm could produce (Toth 1976:83). In the 1950s, Lower Mount Bethel had 60 dairy farms (Clark 2010).



Figure 1.12 - Trinity
Evangelical Lutheran
Church (1864) with the
Presbyterian Burial
Ground in the fore-
ground

Farming in the Township today is a prevalent and highly visible land use, but the number of active farms has declined and most residents are employed in non-agricultural jobs. Today, there are only 10 operating dairy farms (Clark 2010).

The Cement Belt

The limestone beneath the soils of the Township led not only to fertile agricultural soils, but to industrial use as well. German immigrants built lime kilns to process lime for fertilizer, and some can still be seen along Rt. 611 South (Hough 2009:37). Still, quarrying the limestone never became a large industry and aside from the typical saw and gristmills in its largest settlements, Lower Mount Bethel remained an agricultural township until the 1890s (Toth 1976:257). While the discovery and quarrying of slate

in the adjacent Slate Belt transformed Bangor and other area communities into industrial centers, this did not occur in Lower Mount Bethel.

Some domestic cement production began as early as the 1830s in the Lehigh Valley, but it was primarily for local use. Although it was needed for construction, the hard Portland cement was unavailable locally and had to be imported to the United States from its original source, Portland, England, for use in canal-building during the nineteenth century. David O. Saylor of Coplay, Lehigh County, PA, developed a process to manufacture Portland cement domestically in 1871, and an important new industry was born. Further innovation included the first commercial use of the rotary kiln process in 1889, also at Coplay (LaPenna 2005:74). Driven by rising national demand for cement building materials, central Northampton County soon evolved into a “cement belt” that extended eastward from Ormrod in Lehigh County to Belvidere, New Jersey and corresponded to the limestone deposits. *The New York Times* published a 1903 notice about a new railroad to be built from Riverton to Martin’s Creek to “tap the cement belt and be a feeder to the Pennsylvania Road at Martin’s Creek” (*New York Times* 1903). The builders were unnamed capitalists of Philadelphia and Easton.

Among the new companies that began manufacturing cement in the area was the Alpha Cement Company of New Jersey, which was founded in 1895. In 1902, Alpha opened a plant in Pennsylvania and changed its incorporation to that location. It began operations in two new plants (Plants No. 3 and 4) in Lower Mount Bethel Township by 1908, producing 8,000 barrels of concrete a day, and between 1.9 and 2.2 million barrels a year, with employment averaging 250-325 people. Alpha’s operation was large enough to have its own dedicated railroad and locomotives. Alpha Cement ceased producing cement in 1964, although for some time it continued to use its facilities for research and distribution of sand and gravel products. Its buildings still stand and are now occupied as storage by ConAgra (Comprehensive Plan 2007:3-2; LaPenna 2005:75; Toth 1976:258).

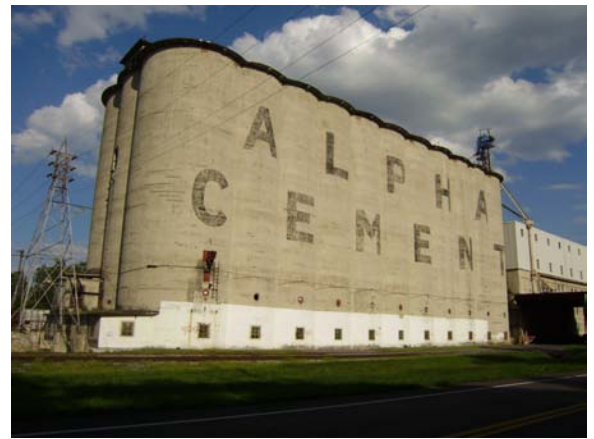


Figure 1.13 - Storage towers at the former Alpha Cement plant-ground

A second cement company in Lower Mount Bethel Township was the Lehigh Portland Cement Company, established in 1897 by Gen. Henry Clay Trexler, which bought the newly constructed Bath Cement plant at Sandts Eddy in 1925. Lehigh Portland Cement averaged over 200 employees over its lifespan, but like Alpha, it closed in the early 1960s as the cement industry declined. ConAgra now owns the plant and operates a grain milling business at the site. An adjacent quarry is now operated by Haines and Kibblehouse, a manufacturer of concrete blocks (Comprehensive Plan 2007:3-2; Toth 1976:258).

With the decline of cement in the 1960s, Lower Mount Bethel Township became a bedroom community for many of its residents, who commute to jobs in nearby towns and cities. The freight railroad constructed in the early 1900s remains in use today to service ConAgra and haul coal to the Metropolitan Edison Electric Plant in Portland (Comprehensive Plan 2007:3-2).



Figure 1.14 - The use of cement is prominent in local building materials

During the late 1800s and early 1900s, the area's slate and cement industries attracted a large number of Italian immigrants to Lower Mount Bethel Township and other nearby communities. St. Rocco's Roman Catholic Church in Martin's Creek was established in the early 1900s to minister to Italian Catholics and is now a core institution in the community. Initially it was housed in a frame church and the current sanctuary was built in 1937. The four-day St. Rocco's Festival hosted by the church each August is a beloved local tradition (Clark 2010).

Despite the presence of the cement industry and the growth of other communities nearby, Lower Mount Bethel Township remains largely rural with few centers of concentrated population. Martin's Creek has historically been its largest town and as of 1976 had three industries, two dozen commercial establishments, and approximately 1,100 residents (Clark 2010; Toth 1976:259). Other settlement clusters in the Township are tiny crossroads communities, including Gruvertown and Mt. Pleasant, and the waterfront



communities of Riverton, DePue's Ferry, Del Haven, Hillendale and Sandts Eddy. The absence of major highways and intrusive industries has prevented much development and helped preserve the historic rural atmosphere of Lower Mount Bethel Township.

Figure 1.15 - Historic residence in Riverton

CHAPTER 2: BYWAY QUALITIES

The purpose of this chapter is to first define the corridor and then explain the significance of the intrinsic qualities of the Byway.

Corridor Definition

The Delaware River Valley Scenic Byway shall include:

- The road itself – includes the travel route and associated right-of-way
- The view from the road – see corridor width discussion noted below for criteria
- Places to visit along the way (that are related to the Byway themes) – including any site open to the public that requires no more than two turns off the Byway
- Resources associated with the corridor – including any parks, greenways, public lands, historic districts, recreational trails, water trails, and wildlife sanctuaries that intersect with the Byway.

Route Description

The Delaware River Valley Scenic Byway (DRVSB) route begins at the southwestern corner of Lower Mount Bethel Township's boundary on PA-611 with the Delaware River to the southeast and Martins Creek to the north.

It travels north on PA-611 through Martins Creek and comes to a fork, as one branch continues north along Little Creek Road and the other travels northeast following PA-611. The route forms a loop as it reconnects with PA-611 providing travelers with the option of following the Byway on PA-611 to its northernmost point at the Township boundary, or continuing south on PA-611 to Route 1004/Martins Creek-Belvidere Highway. Following 1004/Martins Creek-Belvidere Highway westbound, the Byway continues to the town of Riverton where it terminates at the Riverton-Belvidere Bridge before crossing over to Belvidere, New Jersey.



Figure 2.1 - The corridor includes the roadway itself



Figure 2.2 - The corridor includes the view from the road



Figure 2.3 -The corridor includes places to visit related to the Byway's themes



Figure 2.4 - Route 1004 in Riverton



Figure 2.5 - Route 611 at Three Church Hill



Figure 2.6 - Little Creek Road

Route Character Areas

The DRVSB route includes three distinct roadway character areas, Route 611, Little Creek Road, and Route 1004, also known as Martins Creek-Belvidere Highway. The byway begins at Route 611 at the Township's southern line. As it travels north, this first character area corridor is defined by two lanes of traffic with the Delaware River to the east and railroad tracks and various twentieth century developments to the west. The New Jersey shore is visible across the river for much of Route 611. This corridor features the large cement industries and Alpha Portland Cement silos. A historical marker on Route 611 describes the importance of the cement industry to the development of the Lehigh Valley.

The character of the Byway changes dramatically when Route 611 meets Little Creek Road, although both sections are equally beautiful and significant to the overall quality of the corridor. Little Creek Road is a narrow, winding road that is defined by the creek on one side and historic quarries and cliffs on the other. As travelers head north, they will be stunned by the natural beauty and picturesque one-lane bridges that cross the meandering creek below. Residences dating from the late-nineteenth century to today are sprinkled along this charming roadway.

Route 1004 (Martins Creek-Belvidere Highway) contributes a third character area to the Byway with its open farmland, rolling hills, and views that appear to go on for miles. The farmhouses, barns, and fields could easily be pictures from postcards. With the exception of the PPL power plant, which pierces the horizon and is visible for miles, this section of the Byway route has more animals and fields than buildings. The presence of the PPL is yet another chapter in the story of how nature and machine can peacefully exist side by side. When traveling along Route 1004 the traveler gets a true sense of the Delaware River Valley and its complex agrarian and rural industrial heritage

Intrinsic Qualities

The Delaware River Valley Scenic Byway within Lower Mount Bethel Township is regionally significant for its natural, scenic, recreational, and potentially archaeological qualities. The Belvidere to Easton section of the Delaware River – nationally designated as part of the Lower Delaware Wild and Scenic River – serves as the “bookends” for this Byway. The significance of this specific section of the Wild and Scenic Delaware River includes values associated with its natural qualities (aquatic habitat, geologic and historic interest of the “Foul Rift”); its scenic qualities (outstanding views of river geology and of a well protected agricultural landscape); its recreational qualities (recognized in Section D of the Wild and Scenic Rivers eligibility study) and archaeological qualities. (Sandts Eddy was the subject of an extensive archaeological investigation for a pipeline project that resulted in the discovery and investigation of buried components that date to the Middle and Early Archaic periods, changing forever our ideas about the relative scarcity of such sites and the notion of a Middle Archaic cultural hiatus.)

In 1988, the Governor of Pennsylvania and its Legislature officially declared that the outstanding natural, historical and cultural qualities of the interconnecting routes adjacent to the Delaware River (including Route 611 through the Township), are “beautiful and scenic.” This route was subsequently signed as the Delaware River Scenic Drive and has been managed as a river-oriented touring route since designation. By extending the Byway to cover those portions of the Delaware River Scenic Drive from Easton to the Delaware Water Gap, the route would be eligible for designation as a National Scenic Byway based on either its recreational or scenic regionally significant qualities.

By extending the Byway to include the full length of the Delaware River Scenic Drive between the Delaware Water Gap and the Delaware Bay, it could achieve the level of “national significance,” as defined by the interim policy that governs the National Scenic Byway Program for both natural and scenic qualities, and therefore would be eligible for nomination as an “All-American Road.”

According to the National Park Service description, the Lower Delaware Wild and Scenic River region

... contains immense resource diversity, combining an area of high population density with a wealth of natural, cultural, and historical resources and recreational opportunities. The river valley houses cliffs rising 400 feet above the rivers that provide for magnificent scenery and habitat unique to the region. The south-facing, desert-like slopes are home to the prickly pear cactus, while the north-facing slopes display flora and fauna usually only found in arctic-alpine climates.

The river itself provides habitat for American shad, striped bass, and river herring and is an important component of the Atlantic Flyway, one of four major waterfowl routes in North America. From a historic viewpoint, the river is one of the most



Figure 2.7 - Frost Hollow Overlook in Forks Township, a Northampton County Park, is part of the Delaware River Scenic Drive

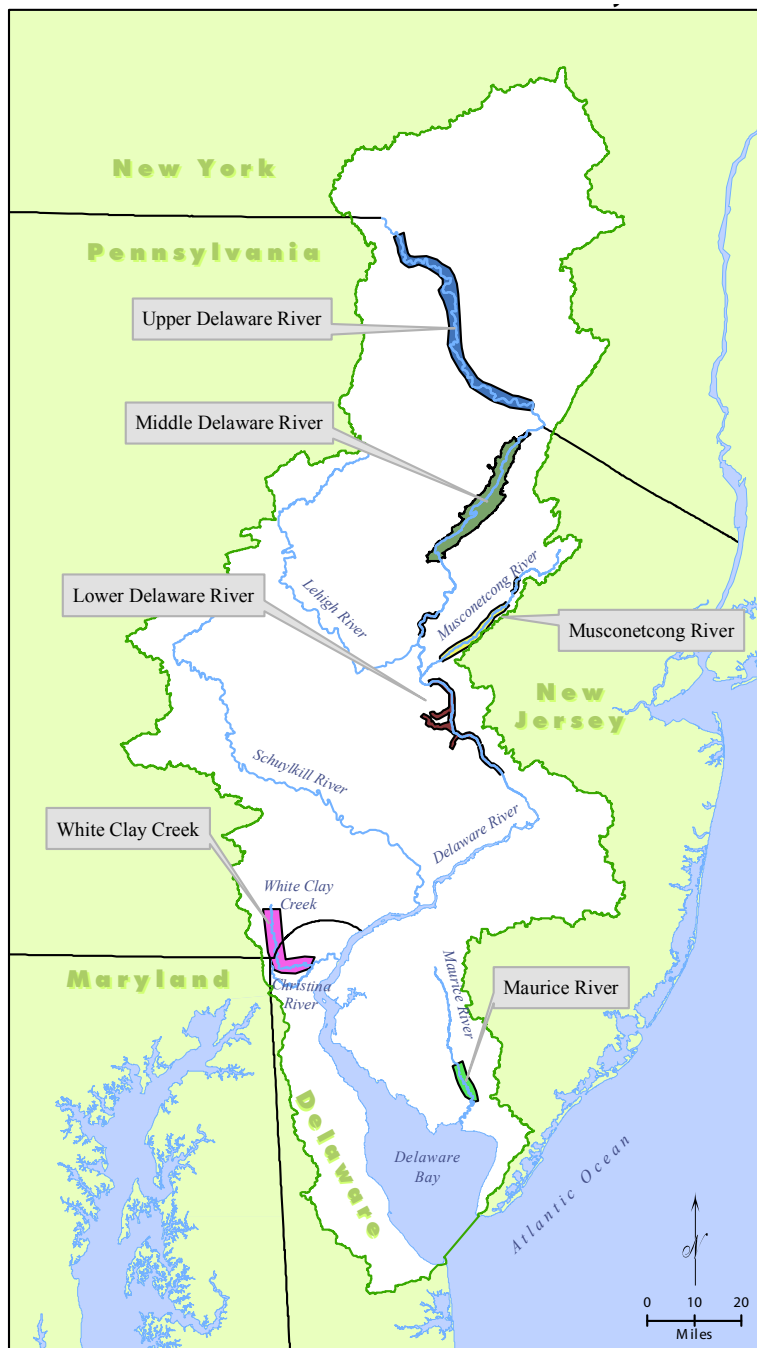
significant corridors in the nation, containing buildings used during Washington's famous crossing, historic navigation channels, Native American and colonial archeological sites, and 19th century mills.

Figure 2.8 - Nationally designated Wild and Scenic segments of the Delaware River (Middle Delaware River includes the Byway); map courtesy of Delaware River Basin Commission

Regionally Significant Intrinsic Qualities

According to the National Scenic Byway Program's Interim Policy published in the Federal Register (1995)

e. Intrinsic Quality means scenic, historic, recreational, cultural, archeological, or natural features that are considered representative, unique, irreplaceable, or distinctly characteristic of an area.



The interim policy also indicates that in order to be designated as a National Scenic Byway, at least one of those qualities must be regionally significant (a region is defined as at least two states). The following describes the regionally significant intrinsic qualities that can be utilized should the Township and its neighboring municipalities decide to pursue such a designation.

Natural Qualities

The Delaware River is the longest free-flowing river east of the Mississippi River. Three sections of the Delaware River are National Wild and Scenic river segments, including the section of the Lower Delaware that begins just downstream from where the Byway meets the Delaware River at Riverton.

Traveling along the Delaware River Valley Scenic Byway connects the traveler with the nationally designated Wild and Scenic Delaware River and its farms, forests and tributary streams that are the basis for its designation. The Byway boasts an abundance of natural resources. From the shores of the Delaware River, to the dense canopied forests and agricultural fields of the region, the Byway connects travelers with the inherent natural beauty and resources of the Lehigh Valley.

Hugging the Delaware River, the southernmost branch of the Byway allows this prominent natural resource to greet travelers, beckoning fishermen, boating enthusiasts, and nature lovers alike. Lower Mount Bethel Township's southeastern border is defined by the Delaware River, and over half of the Township's River border is designated Wild and Scenic (below the Power Plant).

Congress established the Wild and Scenic Rivers System Act of 1968 to preserve the character of the nation’s rivers and to address conservation and water quality issues.¹ Another goal of the Wild and Scenic River program is to preserve and protect the rivers’ natural resources, including endangered or rare plant and animal species. In the case of the Delaware River, such threatened species include shortnose sturgeon, shad, great blue herons, ospreys, bald eagles, and four species of bat.² Riparian forest plant communities of willow, spirea, silk dogwood and alder shrubs, along with red maples, red oaks, walnut, black cherry, sycamore, and hemlock trees provide habitat for local wildlife.³ Recreational opportunities are numerous along the river landscape that ranges from rocky gorges and bluffs to dense forests and wetlands.

In addition to the Wild and Scenic River designation, the natural qualities of the byway include natural areas, tributary streams, and agricultural lands of statewide significance. The locations of these resources are shown on the [Natural Resources Map in Appendix 1, Maps.](#)

The Township has four Natural Areas containing rare plants or animals of Statewide Significance⁴, all of which are directly associated with the Byway and the Oughoughton Creek Natural Area – located between Route 1004 (the Byway) and the Delaware River. The four natural areas include:

- Foul Rift – along the Delaware River associated with the rock outcrops
- Oughoughton Creek Power House Site
- Eastern Industries Quarry
- Delaware Shore near Keifer Island

The Byway links four outstanding tributary streams that feed the Delaware River and contribute to its outstanding fisheries. One of the main streams in Northampton County, Martins Creek, is located to the north of the village of Martins Creek and originates out of Bear Swamp and Lake Minsi Preserves at the base of Blue Mountain. Native Americans referred to the creek as “Turnami’s Creek” or Sakhaiwotung, which translates to “place where eels are caught.”⁵ Martins Creek is recognized as a conservation greenway in the Lehigh Valleys Greenways Conservation Landscape Initiative, one of six in the Commonwealth of Pennsylvania. Route 611 travels alongside Martins Creek heading northwest from town until it reaches Little Creek Road, meeting Little Creek.



Figure 2.9 - Little Creek

1 National Parks Service U.S. Department of the Interior *Lower Delaware River Official Map and Guide.*

2 Ibid.

3 Ibid.

4 Lehigh Valley Planning Commission

5 LMBT Comprehensive Plan, Appendix A, Historical Resource, Lehigh Valley Planning Commission.

Little Creek can be viewed along its namesake, Little Creek Road, which winds through the narrow, wooded Little Creek Valley. A series of twelve bridges cross over Little Creek in just a few miles. The creek's origin is located in Washington and Upper Mount Bethel Townships, ending where it meets Martins Creek. A cold water fishery, this natural resource is rich with several species of trout attracting birds of prey, including raptors.⁶

Oughoughton Creek, a tributary of the Delaware River, crosses under Route 611 near the Township border with Washington Township and again under Martins Creek-Belvidere Highway close to where it intersects with Berry Hollow Road. Its name means "stream having bends like a hook."⁷

Mud Run is another Delaware River tributary stream that is recognized as a conservation greenway in the Lehigh Valley Greenways Conservation Landscape Initiative. Mud Run is primarily riparian woodlands with adjoining farmland, some of which is preserved.

Forests

Heading west toward Riverton on Martins Creek-Belvidere Highway, byway travelers encounter the 215-acre Martins Creek Environmental Preserve. The Lenni Lenape Indians named this land Tekening, or "in the wood," harkening the intrinsic quality of this forested region that has been preserved for generations.⁸ Within the preserve, five miles of hiking trails offer opportunities for viewing the scenic Delaware River, observing wildlife, birding, and exploring the flora and unique geological formations of the area. For those who want to get to know this section of the Delaware River a little better, the Preserve provides water access points for canoes and kayaks just downstream from the Martins Creek power plant.⁹



The narrow, forested Little Creek Valley is home to an abundance of wildlife including, whitetail deer, turkey, fox, raccoon, bear, muskrat, grouse, wild ducks, geese, raptors, and songbirds.¹⁰ The rural experience of traveling down Little Creek Road can also be enjoyed by bicyclists, motorcyclists, and hikers, alike.

Figure 2.10 - Riparian forests associated with Little Creek serve as important wildlife corridors

6 Ibid.

7 Ibid.

8 PPL Martins Creek Environmental Preserve website; <http://www.pplweb.com/martins+creek+preserve/general+information.htm> ; accessed 07/14/2010

9 Ibid.

10 Ibid.

Cultivated Land

As of February, 2010, Lower Mt. Bethel Township has the most land preserved through the Northampton County farmland preservation program (23 farms totaling over 3200 acres). As a prerequisite to the county farmland preservation program, farms must be included as part of an Agricultural Security Area (Act 43, Agricultural Security Area Law of 1981). Thus, still more acreage has been identified for permanent preservation awaiting sufficient public funding. Another indicator of the significance of the Byway's related agricultural uses is the enrollment of a significant number of properties within these Agricultural Security Areas of the Township ([see Natural Qualities Map for locations, Appendix 1](#))

Approximately 10,800 acres of farm and forestland are enrolled in land use preferential tax assessment programs (Act 515, Pennsylvania Open Space Covenant Act of 1966, and Act 319, Pennsylvania Farmland and Forestland Assessment Act of 1974). Although temporary, lands enrolled in these programs provide some degree of commitment to agricultural or forest use.

Celebrating this agricultural heritage opens doors to economic development through heritage, agricultural and nature-based tourism. There is renewed interest in the economic viability of the Lehigh Valley's agricultural economy as well as a greater interest (and demand) for more locally grown and sustainable agricultural products.

As an example, the Lehigh Valley is Pennsylvania's fastest growing wine region. It was designated an American Viticultural Area (AVA) in 2008. The Lehigh Valley Wine Trail links very closely with the Byway at the Franklin Hill Vineyards, a short side trip from the Byway. The Franklin Hill Winery has been working closely with other nearby farms to put together food and wine pairings to showcase the locally grown and sustainable agriculture in the area.



Figure 2.11 - Farmland along the Byway

There is strong interest in developing opportunities for "farm vacations," as preserved farms in Lower Mount Bethel Township will invite travelers to experience the American working farm. An outstanding fruit and vegetable stand is a popular Byway and regional destination. Additional farm market offerings include vegetables, eggs, dairy products, and locally-raised poultry and beef.

Scenic Qualities

The Delaware River Valley Scenic Byway guides travelers along seventeen miles of rural landscapes ranging from wooded passages offering glimpses to scenic vistas of the Delaware River, to wide open fields echoing the agricultural heritage of Lower Mount Bethel Township. To the surprise of some travelers, this township of small crossroads villages and farmland has an industrial legacy, as well as historical roots that extend as far back as Native American settlements. The Delaware River Scenic Byway connects travelers to these places of cultural and historical significance through a range of rich visual experiences along Route 611, Little Creek Road, and Route 1004, Martins Creek-Belvidere Highway.

Along these three roads the Byway experience varies with the rhythm of the land's natural and geologic features, patterns of development, and cultivated farmlands. At the southern-most branch where the Byway begins, Route 611 guides travelers along a two lane road offering views of the Delaware River on the right. Sandts Eddy, a public river access point, provides a prime location for travelers to stop and take in the river



Figure 2.12 - Ridgeline panoramic views of the Delaware River Valley from Route 611

vista. Route 611 takes a sharp turn at Martins Creek, Lower Mount Bethel Township's largest village. Heading north to Little Creek Road, travelers will notice a distinct difference in the experience of the Byway. The narrow, wooded, two lane road with many one lane bridges takes on the character of the creek it follows in a succession of winding turns, yielding to the cliffs and outcrops that hug the road. Following Little Creek Road to the northernmost township boundary, travelers can reach a ridgeline offering panoramas of scenic views.¹¹

Reconnecting to Route 611 from Little Creek Road, the traveler can experience views of the Delaware River Valley. Route 611 descends down Three Church Hill past picturesque cemeteries and church steeples and arrives at a panoramic view of the Delaware River Valley. At the intersection of Route 611 and Martins Creek-Belvidere Highway, one can witness rolling agricultural lands divided by bands of trees. Similar views continue on Martins Creek-Belvidere Highway heading north and looking northwest. Upon reaching the Delaware Bridge heading towards Riverton, the traveler enjoys the beauty of the Delaware River once more.

The [Scenic Qualities Map in Appendix 1](#) illustrates the locations of these views and the breadth of the corridor that can be seen from the Byway (its viewshed).

While an abundance of scenic views of the landscape from the Byway can reveal a great deal about the character and intrinsic natural qualities of the region, travelers are compelled to stop and explore sites along the route. Several specific sites along the Byway contribute to the region's scenic quality.

¹¹ LMBT Comprehensive Plan, Appendix A, Historical Resource, Lehigh Valley Planning Commission.

- Sandts Eddy Access Area offers views to the Wild & Scenic Delaware River.
- PPL Martins Creek Environmental Preserve provides scenic views to the Delaware River and its wooded shores.
- Views of the Delaware River can be enjoyed from the Delaware River Bridge.
- Views like the one from Bridge No. 42 on Little Creek Road in Martins Creek can be captured from the many bridges that cross Little Creek.

Recreational Qualities

Visitors traveling the Delaware River Scenic Byway will find a wide range of opportunities for passive and active recreation just off the Byway route. This is due in part to the wealth of natural resources that support these popular recreational activities. Water trails and hiking trails along the Delaware River offer exhilarating ways in which to enjoy the natural beauty of the river valley. In addition to trails, a number of parks and recreational facilities are available for sports and outdoor activities. Future plans for the Township propose additions to existing facilities and an increase in public access to the Delaware River.

The Delaware River Scenic Byway provides direct access to the following significant recreational opportunities ([see Recreational Qualities Map, in Appendix 1](#)):

- recreational resources directly related to the Delaware River, including wildlife observation, canoeing, kayaking, rafting, and other small watercraft activities
- recreational resources directly related to hunting and fishing in the Lehigh Valley
- long distance bicycling along marketed touring routes within Lower Mount Bethel Township and greater Lehigh Valley

Delaware River Water Trail

The Delaware River Water Trail is a planned and partially implemented water trail extending from Hancock, New York to Trenton, New Jersey and is accessible from several locations along the Byway. According to the feasibility study, there are over thirty public access sites along the nearly 80 miles of the Lower Delaware River between the Delaware Water Gap and the Trenton Boat Access. Sixteen of these are formal accesses with paved boat ramps, and the rest are more primitive “car-top” accesses with limited parking. Most formal accesses have toilet facilities, typically portable toilets, and most access sites are lacking in handicapped accessible facilities. Canoes, kayaks, innertubes, and small motorized watercraft are permitted on the river trail, with the understanding that public safety and protection of the river’s natural resources are of highest priority. The access below Foul Rift allows users to avoid the exposed rock outcroppings, which are problematic, even when the water levels appear high. Public access points and camp sites are located along the water trail for day trips and extended trips.¹²



Figure 2.13 - Boat access from the PPL Environmental Preserve

¹² Delaware River Water Trail: A Traveler’s Waterside Guide to the Wild and Scenic Delaware River.

PPL Martins Creek Environmental Preserve

Owned by PPL and bordered by PPL's Martins Creek and Lower Mount Bethel Power Plants, the Martins Creek Environmental Preserve is "a prime example of how nature and industry can coexist."¹³ The 215-acre preserve was named "Tekening" by the Lenni Lenape Indians meaning "in the wood."¹⁴ The primary interest of PPL is to preserve the natural resources and habitat of wildlife and plant species of the area.



Figure 2.14 - The PPL Environmental Preserve's primary trailhead is accessed directly from the Byway

PPL's Martins Creek Environmental Preserve system of trails starts at a trailhead and parking area right off the Byway and ending at Bryan Kiefer Memorial Park. This trail passes through electric generating station properties and neighboring farmland.¹⁵ At its northwestern tip it connects with the five miles of wooded PPL Martins Creek Preserve Trails, which include the Woodland Trail (0.9 miles), the Scenic River Trail (2.1 miles), and the Ridge Trail (1.3 miles).¹⁶ For a unique visual experience travelers can pass through Foul Rift Natural Area, which boasts exceptional scenic views to the Delaware River, an abundance of native plants, mature forest, and curious rock formations. Lower Mt. Bethel Township is

working on extending these trails to create a footpath system through the entire town (page 60).

Martins Creek Environmental Preserve is also a hot spot for bird watching. In the winter a feeding station near the boat launch might host as many as 40 White-crowned Sparrows, while in the spring, the Orange Trail offers sightings of warblers and other migrating songbirds. In the summer it's not uncommon to see Green Herons, nesting Scarlet Tanager, Eastern Bluebird, and a handful of warbler species. Osprey nests have been spotted on power line towers, and even Peregrine Falcons are known to nest here.¹⁷

Fishing

With the Delaware River extending along the entire southeastern border of the Township, it is not surprising that this region is a fisherman's dream. This nationally significant fishery attracts travelers from great distances. The local waters support both anadromous and local fish species including smallmouth bass, pickerel, channel catfish, walleye pike, bullhead, white perch, hybrid muskellunge, and even recovering populations of threatened

¹³ National Scenic Byways Program Corridor Management Plan Application: Pennsylvania Delaware River Scenic Byway; John Milner Associates, Inc., February 2006.

¹⁴ Ibid.

¹⁵ Ibid.

¹⁶ PPL Martins Creek Environmental Preserve Tekening Hiking Trails & Public Boat Access Area brochure, 03/07.

¹⁷ Eastern Pennsylvania Birding & Wildlife Guide. Audubon Pennsylvania/National Audubon Society. 2009. p. 95.

striped bass, shad, and herring. Also swimming among these fish are the federally listed endangered Shortnose Sturgeon and Atlantic Sturgeon.¹⁸

The boat launch at PPL Martins Creek Environmental Preserve is a prime fishing spot for shad and smallmouth bass in the spring, and walleye in the fall. Muskie and pickerel are also commonly found in these waters.¹⁹ All fishermen are encouraged to follow regulations of the Pennsylvania Fish and Boat Commission. River currents at the launch are considered to be moderate; however, shallow rapids upstream make access in that direction challenging. When water levels are high it is possible for travelers to navigate upstream to Foul Rift, where the river flows over a massive cliff of limestone. The Recreation Map published by the Delaware River Basin Commission offers the following advice for canoeists: “Foul Rift deserves a special word of caution. None but the most experienced and best equipped boater should venture into this area. The only assurance of safe passage is to portage around the entire area or to lower the unmanned boat by line.”²⁰

Further downstream, Sandts Eddy Boat Access can be found less than a mile from the Byway’s entry point on Route 611. Maintained by the Pennsylvania Fish and Boat Commission, Sandts Eddy provides public access to the Delaware River for fishing, canoeing, kayaking, or use of other small watercraft. Parking is available along with an adjoining picnic area.

The Chapter 93 water quality designations for the streams in the Martins-Jacoby Watershed include over 100 miles of coldwater fisheries. Oughoughton Creek, Little Martins Creek and Mud Run have Cold Water Fisheries designation and cross the Byway route.²¹

Bicycling

For serious bicyclists, the 20.8 mile Lehigh Wheelmen Association’s Delaware Bike Trail starts at PPL Martins Creek Environmental Preserve. This trail is characterized by rolling terrain and hills with its northernmost point extending to Portland, PA.²² Little Creek Road is also a favored route among bicyclists and motorcyclists.

Lower Mount Bethel Township Visitor Center and Recreational Complex

The Lower Mount Bethel Visitor Center and Recreation Complex is located just off Route 1004 between Riverton and the PPL Martins Creek Environmental Preserve. The



Figure 2.15 - Lower Mt. Bethel Township Visitor Center

18 National Parks Service U.S. Department of the Interior *Lower Delaware River Official Map and Guide*.

19 PPL Martins Creek Environmental Preserve Tekening Hiking Trails & Public Boat Access Area brochure, 03/07

20 <http://www.njskylands.com/odcanoedel.htm> (accessed 2/24/2011)

21 All commonwealth waters are protected for a designated aquatic life use as well as a number of water supply and recreational uses. The use designation shown in the water quality standards is the aquatic life use. These uses are Warm Water Fishes (WWF), Trout Stocking (TSF), Cold Water Fishes (CWF), and Migratory Fishes (MF). In addition, streams with excellent water quality may be designated High Quality Waters (HQ) or Exceptional Value Waters (EV). See: http://www.portal.state.pa.us/portal/server.pt/community/water_quality_standards/10556/stream_redesignations/553982

22 Bike Rides The Lehigh Valley, Lehigh Wheelmen Association & Joint Planning Commission Lehigh-Northampton Counties, 1996.

1,600-square-foot Visitor Center was dedicated in April of 2009 to promote environmental awareness and provide a facility for public educational programs. The 27-acre community park of open field surrounded by hedgerows includes four soccer fields, a softball field, and a little league field. The park, with its active sports fields, represents a great opportunity to introduce township and other nearby residents to the special qualities of the Delaware River Valley. Plans for a small interpretive trail and trails that link to the Martins Creek Environmental Preserve will greatly expand hiking and wildlife viewing opportunities along the Byway.

Mud Run County Park

This 10-12 acre conservancy park is owned by Northampton County and has remained unimproved, as it is considered to be a significant archaeological site.²³



Figure 2.16 - The Delaware Water Gap National Recreation Area is a natural destination for expanding the byway

Nearby National Parks, Trails and Heritage Corridors

Located ten miles or less from the Lower Mount Bethel Township boundary are several nationally significant parks, trails and heritage corridors. To the north, the Delaware Water Gap and Appalachian Trail are major destinations for nature enthusiasts and hikers. Jacobsburg Environmental Education Center is located approximately ten miles west of Martins Creek, and Delaware Canal State Park is located to the

south. The Delaware and Lehigh National Heritage Corridor manages a regional trail along the Delaware and Lehigh Canal and promotes the development of additional trails and connections throughout the Lehigh Valley.

Archeological / Historical / Cultural Qualities

Lower Mt. Bethel Township's Delaware River Valley Scenic Byway combines remarkable scenic and natural resources with a distinct cultural history. Preserved farmlands, waterways, and woodlands are a hallmark of the Byway. Within this scenic landscape are numerous archeological, historical, and cultural sites reflecting centuries of human occupation and diverse uses of the land and its natural resources. Despite nineteenth- and twentieth-century industrial growth, the cessation of industry has caused the area to revert to its earlier agricultural use, and it retains this overall pastoral character today.

A story of regional significance is that of Native American inhabitants, their original life ways and settlements, their use of the land's natural resources, and their later Christianization by European missionaries, which began in the 1730s. This pattern is found throughout the region, reflecting the cultural beliefs of both populations and the interaction of both cultures. Martins Creek and the Delaware River were critical waterways and fisheries for Native Americans.

Archeological investigations carried out by Lafayette College and others have revealed multiple Native American home and village sites. Public historic markers indicate the

²³ Lower Mount Bethel Township: Recreation, Park, and Open Space Plan. Adopted by the LMB Board of Supervisors July 16, 2007. p. 21.

sites of the cabin and Bethel Church, both constructed in 1744 for Presbyterian missionary David Brainerd, who came to the area to convert Native Americans to Christianity. Native American children attended school at the schoolhouse which is now home to the Hunter-Martin Settlement Museum. The byway can convey a sense of both prehistoric and historic occupations by indicating the area's many natural features which attracted Native Americans to settle there and sustained their livelihoods, as well as pointing out archeological sites and standing structures, such as the Hunter-Martin Settlement Museum, which are important to the story of the relations between Native Americans and Europeans.

Transportation has a notable history within Lower Mt. Bethel Township. As with the Native Americans, settlement by Europeans in the Township was dependent on the natural resources of the landscape. The fertile land and abundant waterways attracted Scotch-Irish and later German settlers to the Township. While early settlers engaged almost exclusively in agriculture, the Township's location along the Delaware River also made it an important stopping place for rafts and boats along the river, and as a location for river crossings.

Local residents served as guides for Durham boats and operated the Riverton Hotel as a lodge for commercial rafters. Notably, at least three separate ferry locations existed along the riverfront during the 1800s for passage between Pennsylvania and New Jersey. Later, a bridge was constructed to provide passage for humans, trains, and vehicles.

A historic iron truss bridge now spans the Delaware River to link Lower Mt. Bethel Township with Belvidere, New Jersey. The population then as now was largely dispersed, with small villages located at various crossroads (Martins Creek, Riverton, Del Haven, Gruvertown, and Mt. Pleasant). The largest village, Martins Creek, started as a stagecoach stop, and several other hotels once existed throughout the Township to house travelers. These water- and road-focused settlement patterns are very much evident to travelers today, and along with the preserved landscape, a number of historic sites remain to illustrate the Township's importance as a river crossing point.

Industry is another important component that contributes to the Byway's significance. Lower Mt. Bethel Township was once home to a number of industries, including grist and saw mills, lime quarries and kilns, slate quarries, cotton mills, a feed mill, and a tannery. Perhaps most significant among local industries was the production of cement, which began around 1830, rose sharply in production in the 1890s, and continued into the 1960s when both of the Township's cement businesses closed. The township was part of a regional "cement belt" or "slate belt" which produced millions of barrels of cement at its peak. The story of local stone and soils, and the Township's role as part of the cement belt, is one of local, regional, and perhaps national significance. Evidence of this industrial past is highly visible on the landscape and can be used to educate travelers about the natural resources of the area and how they were used for production.



Figure 2.17 - Delaware River Bridge

Finally, the European cultural history of the Township can be defined by the many surviving homes, villages, and community institutions. Schools, churches, and houses reveal much about the people who built them. Scotch Irish and German settlers were later followed by Italians who took jobs in local industries. Among the more notable resources are the Hunter-Martin Settlement Museum, the Lower Mt. Bethel Presbyterian Church and Cemetery, Good Shepherd Lutheran Church, St. Rocco's Church, and the Old General Store, plus a number of private homes, barns, and farmsteads.

The locations of the following historic, cultural, and archaeological resources (if appropriate) are identified on the [Historic Resources Map in Appendix 1](#).

Seven historic resources in Lower Mt. Bethel Township have been determined eligible for listing on the National Register by the Pennsylvania Historical and Museum Commission (PHMC). Additional research is necessary to determine the type of resource and extent of its significance:

- Beck Property
- Butz Property
- Delaware River Bridge (Riverton)
- Delhaven Log House
- Fries Property
- Garrison Property
- Shumaker Property

Several additional resources have been surveyed for PHMC, but their historic significance remains undetermined:

- Bangor & Portland Railroad (linear district)
- Old Presbyterian Cemetery - people visit this site from over much of the USA. Their ancestors settled here and were buried in this cemetery. Among the notable descendants: Mrs. Caroline Scott Harrison, wife of the 23rd President. David Depues Hazen, Postmaster General of the U.S. It also contains 40 Revolutionary War graves. The oldest grave is dated 1753. The first log cabin church was built at this site – Church Road (686) and Three Church Hill off Route 611.
- Sandts Eddy Bridge/County Bridge 26
- Sandts Eddy Native American site 36NM0012
- Spangenburg Farm
- The Feed Mill

The following Contact Period archaeological sites contribute to the archaeological resources along the Byway corridor:

- Lenni Lenape village sites
- David Brainerd's Mt. Bethel Mission Church and Cabin Sites
- Early Mill Sites

The Township, once known as the Alexander-Hunter Settlement, is the second oldest settlement in the County. The Township has recognized a number of key historic sites in its comprehensive plan and other documents. These include both buildings and sites.

Prehistoric and Native American Sites

- Mud Run site (former Frederick Property); and near the site of original Hutchinson's farm. Among other items found there were pole holes of the design used to build housing 3000 years ago (at the Boat launch Lower Mud Run Road and Route 611)
- Martins Creek – one of the main streams in the county. In early times the Indians called it Turnami's Creek. Also known as Sakhaiwotung which signifies "...place where eels are caught." The Indian village Clistowacken was south of Martins Creek.

Early Industry and Agriculture

- Old Cotton Mills – D.W. Howell owned and operated these at the foot of what is now called Howell Road and Route 611
- Early Lime Kilns – early lime kilns (built by residents of Cotton Mills) are located on Route 611, south of Howell Road
- Alpha Portland Cement silos (Con Agra Foods), Route 611 – In the early 1800's the historian M.S. Henry made the comment "...at Martins Creek the hydraulic cement stone makes its appearance. The time may arrive when its properties will be appreciated and the cement brought into use."
- Mill sites
- Limestone Quarry, Eastern Industries off Route 611 – first load out left the area on 26 July 1826; valued at \$1200
- Limestone Quarry – Haines and Kibblehouse – off Route 611 and Lower Mud Run Road
- Howell Tannery, Alpha Avenue off Route 611 (middle 1800's), owned by D.W. Howell
- Remains of a Mill race off Upper Little Creek Road on Little Martins Creek.
- Grist Mill (Built by William Penn's Grandson.) A slate factory was located behind the mill. The mill race for the mill is still visible on the property – Little Creek Road.

Early Commerce

- Old General Store (Ahearn's Country Café), Route 611 and Alpha Avenue - Site of the wedding of Russian Prince Alexander Karinsky, who defended Czar Nicholas II, was married there in 1939
- Martins Creek Hotel - (stage coach stop) still exists and is now a residence on Route 611, north of Pennsylvania Avenue
- Site of Hotel Lafayette, Route 611 - was destroyed by fire in the early 1930's. Now the Democratic Club
- Site of the Century Inn - also destroyed by fire (now a coffee shop) located on Route 611, just south of Lower Mud Run Road

Transportation and River Lore

- Historic bridges - the second covered bridge at Riverton was only there for five weeks when it was washed away by a flood. A restored and historic iron truss bridge now connects the communities of Riverton (LMBT) and Belvidere, NJ. Riverton Road (1037) & Martins Creek – Belvidere Highway (SR 1004).
- Belvidere-Riverton Ferry
- Depue's Ferry – a few miles up from Martins Creek Ferry, at the foot of Richmond Road, crossed to Roxbury Station of the Pennsylvania Railroad in New Jersey operated from 1868 to 1890

- Martins Creek Ferry – located immediately above the mouth of Martins Creek, was active and profitable until the erection of the railroad bridge which had a board walk for foot passengers
- Hunters Ferry (also known as Harmony Ferry) – started operating a few miles south of Martins Creek ferry as early as 1758. But with growth on the New Jersey side, the Martins Creek Ferry was more convenient, and eventually replaced Harmony Ferry
- River running sites - the Riverton Hotel was a place for “rafters” to stay and it was their job to direct Durham boats down the Delaware
- Bridge #43 Concrete Arch Bridge – Little Creek Road (on National Historic Register Nomination List)
- Rapids at Foul Rift, among the most famous in the Delaware River. Caused by the river running over a ledge of limestone. Engraved on the cliff, “R. Hoops 1791 cleared these falls.” South of Riverton. (Belvidere-Martins Creek Highway.)
-

Education and Religious Sites

- Site of David Brainerd’s cabin, (historical marker), Howell Road off Route 611 - Site of the cabin erected in 1744 of the famous Presbyterian missionary who preached to the American Indians. A monument there was erected by Lafayette College and dedicated in 1894.
- Presbyterian Mission Chapel was dedicated in 1917. The gate to the chapel was dedicated in 1927. It was started with the assistance of College Hill Presbyterians. It is now a residence. Off Route 611 on Alpha Avenue



Figure 2.18 - Brainerd Marker at Howell Road



Figure 2.19 - Brainerd Monument

CHAPTER 3: TRAVELING THE BYWAY

The purpose of this chapter is to describe the existing Byway conditions and its potential, if desired by the Township, readiness for visitors.

Finding and Following the Byway

Visitors can find and follow the Byway through a variety of websites:

Local, Regional, and State Websites The following websites maintain useful information for byway visitors in terms of local and regional events, historical sites, recreational opportunities, restaurants, hotels, roadway conditions, maps, and other visual resources.

- PA Tourism Website: <http://www.visitpa.com/scenic-byways> - provides a map and three-dimensional tour of the Byway route
- Lehigh Valley PA Website: <http://www.discoverlehighvalley.com/> has information about places to stay and things to do (a byway link has not been established as of the writing of this plan but is recommended as a strategy (see “Strategy 1.2 Visitor Readiness and National Scenic Byway Nomination” on page 46)
- Northampton County Website: http://www.northamptoncounty.org/northampton/cwp/view.asp?a=3&Q=620805&NorthamptonNav_GID=1979 - provides information about visiting the County generally including historical maps and other useful items

Figure 3.1 - the web page of Discover Lehigh Valley



Lower Mount Bethel Township Welcome Center provides educational resources and information on recreational activities and events, historical sites, museums, and local businesses such as B&B's and pick-your-own farms. The center boasts ecologically friendly storm water management facilities including a green roof, rain gardens, and man-made wetlands in addition to recreational fields and trails. A trailhead is located just outside of the center to orient visitors to the Delaware-Martins Creek Trail, Lower Mount Bethel Township Recreation Park, and future gardens. The facility is located at 7701 Martins Creek Belvidere Highway. The center is open during scheduled events and activities, with restrooms open 24-hours on a daily basis.

Other Regional Welcome Centers include:

Lehigh Valley Visitor Center
840 Hamilton Street
Allentown, PA 18101
Phone: 610-973-2140
Hours:
10 a.m. - 4 p.m. Monday - Friday
Closed Saturday & Sunday

Bethlehem Visitor Center
505 Main Street
Bethlehem, PA 18018
Phone: 610-691-6055
Hours:
10 a.m. - 5 p.m. Tuesday - Saturday
12 p.m. - 5 p.m. Sunday
Closed Monday

Lehigh Valley Visitor Center - Easton
(located inside the National Canal Museum Gift Shop)
30 Centre Square
Easton, PA 18042
Phone: 484-546-0594
Hours:
9:30 a.m. - 5 p.m. Monday - Saturday
11 p.m. - 5 p.m. Sunday

Byway confirmation signs have been installed by PennDOT to reassure travelers they are on a Pennsylvania State Byway, a program managed by the Pennsylvania Department of Transportation.

Figure 3.2 - Pennsylvania Byways sign
(horizontal version)



Getting to the Byway

Tucked away in the beautiful hills of Pennsylvania's Delaware River Valley of eastern Pennsylvania, Lower Mount Bethel Township is within driving distance of several large cities and significant landmarks. Cities within a two hour drive from the Byway include: New York City, Philadelphia, PA, Binghamton, NY, Harrisburg, PA, and Trenton, NJ. Significant landmarks in close proximity of the Byway include the Delaware Water Gap and the Appalachian Trail. ([See Regional Context Map in Appendix 1, Maps](#))

From New York City, NY and points east: From George Washington Bridge, take I-80 west to Exit 4 towards Columbia, Portland and NJ-46. Cross toll bridge following signs to SR 611 South. From Holland Tunnel, take New Jersey Turnpike to Exit 14ABC and take I-78 west to US-22 (last Exit in New Jersey) Stay on US-22 into Easton then take SR 611 north..

From Philadelphia, PA and points southeast: Visitors from Philadelphia have several options for accessing the Byway: (1) Follow SR 611 north all the way to Lower Mount Bethel Township to access the Byway's southernmost access point on SR 611; (2) Take 95-N toward Trenton (33.6 miles) and continue on NJ-31 approximately 27 miles to I-78 W/ US 22W. Continue to NJ-122/ South Main St. to SR 611; or (3) take PA 309 N to I-78 to byway route PA 611.

From Harrisburg, PA and points southwest: Take I-81 north/ US-322 east to I-78 east and continue on this route for approximately 51 miles. Continue onto US-22 east to Easton and take SR 611 north into Lower Mount Bethel Township to access the Byway at the SR 611 onto the Byway.

From Binghamton, NY and points north: Follow I-81 south for approximately 57 miles and continue to I-380 south for 29 miles. Take I-80 east for approximately 13 miles to Stroudsburg where visitors can follow SR 611 onto the Byway at its northern access point.

From Trenton, NJ and points southeast: From Trenton, follow NJ-31 north/ US-202 north to I-78 west/US-22 west and continue on I-78 west/US-22 west for approximately 14 miles. Take NJ-122 west/ South Main St. into Easton where visitors can access SR 611 directing them to the Byway's southernmost access point. Alternatively, visitors can take NJ-31 north toward Belvidere, NJ where they can take Belvidere Ave/Washington Ave. and continue on County Rd. 624. From here turn right at Brass Castle Rd/County Rd. 624 and continue onto Oxford St. Make a slight left at Front St. and take the second right onto Co Rd. 620/Greenwich St. Take the second left onto Water St. entering into Pennsylvania at Riverton and accessing the Byway via State Route 1004/Martins-Creek Belvidere Hwy.

From the Delaware Water Gap and points northeast: Take SR 611 S for approximately 5 miles and merge onto SR 611/N Delaware Drive. After traveling approximately 9 miles on SR 611 visitors will enter Lower Mount Bethel Township at its northernmost byway access point.

3.2 Existing Roadway Conditions

Daniel Consultants, Inc. (DCI) inventoried the existing roadway conditions by collecting existing and available traffic data from PennDOT and the Lehigh Valley Planning Commission. DCI then conducted a field reconnaissance to record observations about the potential safety of the road in relation to the introduction of more casual drivers that are perhaps more interested in the experience of the drive than getting quickly from one point to another. The [Transportation, Traffic Safety and Enhancement Opportunities Map in Appendix 1](#), illustrates the following analysis.

Road Classification and Volume

The Pennsylvania Delaware River Valley Scenic Byway is composed of State and Township roadways all within Lower Mount Bethel Township. Listed below is a physical description of the roadway characteristics.

State Road (SR) 611 (Delaware Drive) is part of the Pennsylvania Delaware River Scenic Byway in two sections. The first section of SR 611 is between the Forks Township/Lower Mount Bethel Township line and Martins Creek. The second section of SR 611 is between Martins Creek and Washington Township. SR 611 along both roadway sections is a two-lane roadway with a 22-24 foot roadway section and two-foot shoulders. The posted speed limit along SR 611 in these sections varies between 40-45 MPH. Average Daily Traffic (ADT) varies between 3,400 and 5,200 within these two sections of SR 611. SR 611 is classified as an urban/rural minor arterial roadway.

SR 1004 is part of the Pennsylvania Delaware River Valley Scenic Byway in the continuous section from SR 611 to the Upper Mount Bethel Township line at Riverton. SR 1004 is a two-lane roadway within a 24 foot roadway section and two-foot shoulders. The posted speed limit on SR 1004 varies between 40-45 MPH. ADT varies between 2,600 and 3,200. SR 1004 is classified as a rural major collector roadway.

Township Road 659 (Little Creek Road) is part of the Pennsylvania Delaware River Valley Scenic Byway in the continuous section from Martins Creek to a point just north of Mount Pleasant. Little Creek Road is a two-lane roadway within a 20-22 foot roadway section and no shoulder area. A centerline was recently striped for the entire length of the roadway. The posted speed limit on Little Creek Road varies between 25-35 MPH. The ADT along Little Creek Road was not provided but it is certainly below 1,000 and should be considered as a low-volume road. Little Creek Road is classified as a rural local roadway.

SR 611 north from Easton to all the way to the Delaware Water Gap is designated as a Federal Aid Primary Route. New subsection 131(s) in Title 23 United States Code provides that if a State has a scenic byway program, the State may not allow the erection of billboards along any highway on the Interstate System or Federal-aid primary system which is designated as a scenic byway. In Lower Mount Bethel Township, where this route is designated as a state scenic byway, off-premise signage is required to be prohibited by PennDOT. Lower Mount Bethel Township has enacted an ordinance that meets PennDOT's requirements for effective off-premise signage control.

Highway Safety and Roadway Character Issues

The following key issues and concerns have been raised as part of the scenic byway planning process:

- All of the roadways comprising the Pennsylvania Delaware River Scenic Byway are two-lane roadways with little or no shoulder area. Therefore, in order to provide safe and efficient areas to view historic areas, designated pull-off areas will need to be provided in order to provide a minimum disruption to ambient traffic.
- Way finding – how to find and follow the Pennsylvania Delaware River Scenic Byway and to gain access to historic areas. The following Scenic Byway signs are currently placed:
 1. SR 611 – Northbound SR 611 within Forks Township (just south of the Lower Mount Bethel Township line). Southbound SR 611 just south of Martins Creek.
 2. SR 1004 – Southbound SR 1004 just south of Riverton.
 3. Township Road 659 (Little Creek Road) – Northbound Township Road 659 just north of Martins Creek.



- Traffic speed and any opportunities for traffic calming (such as the introduction of splitter islands or roundabouts, but not humps and bumps), especially coming in to Martins Creek on 611 and Front Street and approaching Riverton

Figure 3.3 - Trucks, cars and pedestrians converge at SR 611 Bridge over Martins Creek

- Truck traffic from the quarries, concrete products companies, ConAgra and power plant that are coming and going through Martins Creek often at high rates of speed and uncovered – any traffic calming would need to accommodate those trucks while at the same time serve to slow them down without accompanying “jake brake” noise
- Context sensitive design approaches for bridge replacements throughout the Byway, including the County bridges on Little Creek Road and bridges on 611 approaching Martins Creek
- Complicated intersections – including the intersection of 611 and SR 1004 (Martins Creek-Belvidere Highway) – there is a sight distance limitation as you approach the intersection traveling westbound on SR 1004 for oncoming northbound SR 611 traffic. This approach is STOP sign controlled at the intersection with SR 611 (with SR 611 having the right-of-way). There is adequate sight distance looking to the right (to the north) along SR 611 from westbound SR 1004 from a stopped condition
- Roadway related water quality issues – there is interest in finding ways to improve water quality associated with agricultural runoff working in tandem with BMPs associated with roadside drainage (such as filter strips between the farm and the roadside ditches)

- The overall pedestrian friendliness and bicycle-friendliness of Martins Creek, Riverton, and Three-Church Hill needs to be improved to encourage walking tours and other modes of enjoying the area



Figure 3.4 - The SR 611 Bridge over Oughoughton Creek is being rebuilt as a design build project (2011)

Planned Improvements

There is one specific roadway project that is slated for construction in 2011 – the Bridge Replacement Project for the structure over Oughoughton Creek along SR 611. The project is a design-build project and issues related to the design of the bridge have been communicated to PennDOT through the state scenic byway coordinator and to PennDOT District 5-0. Communications regarding the design of this replacement bridge and future bridges are discussed in Chapter 4.

Although not contained within any six-year or Capital Improvement Plan, there are a number of bridges that may need work in the near future. Most notable among these is the SR 611 Bridge

over Martins Creek.

Accident Evaluation Areas

The Lehigh Valley Planning Commission identified the roadway link of SR 1004 (Belvidere Road) between Richmond Road and Mount Pleasant Road that is part of the Pennsylvania Delaware River Valley Scenic Byway as a High Priority Traffic Safety Location. Based upon a field investigation conducted by DCI, this section of SR 1004 has two significant horizontal curves in opposite directions. It appears that Chevron signs (both standard size and over-sized) had recently been placed at each of these horizontal curve areas. The Chevron signs draw attention to the motorist that a horizontal curve is pending. In the opinion of DCI, the Chevron signs have been effectively placed to adequately warn the motorist of the horizontal curves. Due to limited sight distance in this section of SR 1004, new potential pull-off areas to view scenic points along the Byway should be avoided in this area for safety considerations.

DCI also researched accident data from the Pennsylvania Department of Transportation files for the last five years of data available (2005-2009). Based upon this research, there was only one intersections or roadway link that experienced more than three accidents in one year. The SR 611 at Lower Mud Run Road intersection experienced three accidents in 2008. There was one rear-end accident, one side-swipe accident, and one non-collision accident. However, there were no recorded accidents in 2009 and there did not appear to be any safety issues to be addressed based upon a field review conducted by DCI.

Existing Visitor Facilities and Services

Within Lower Mount Bethel Township, visitors will find accommodations, restaurants, and other facilities along the Byway primarily within the towns of Martins Creek and Riverton, PA. The following visitor services are discussed in more detail below, though visitors can locate additional information on regional accommodations, restaurants, and facilities on Northampton County’s website: <http://www.northamptoncounty.org/northampton/site/default.asp>. For Lehigh Valley and other regional accommodations and visitor services, visitors can access Discover Lehigh Valley: <http://www.discoverlehighvalley.com/>.



Figure 3.5 - Visitor Center

As mentioned in “Byway Information,” the Lower Mount Bethel Township Visitor Center is an excellent facility for visitors to find local and regional information to guide their exploration of the Delaware River Valley Scenic Byway. Maps, guides, and brochures on local businesses and events can be found here in addition to rest room facilities.

Overnight Accommodations and Restaurants

In Riverton, directly on the Byway, is a bed and breakfast located in a renovated 1843 Greek Revival farm house. There is also a small hotel with a restaurant. Across the Delaware River in Belvidere, New Jersey is a restored historic hotel with thirty rooms.

Other overnight accommodations, including national chain hotels (primarily in Easton), small inns, historic hotels, local roadside hotels, Bed & Breakfast accommodations, Christian retreats, and campgrounds, can be found in the surrounding towns of Easton, Bangor, Delaware Water Gap, Stroudsburg, Allentown, and Bethlehem.

Along the Byway in Lower Mount Bethel Township, visitors can stop at four locally owned restaurants and bars for breakfast, lunch, dinner or bar service. Additional restaurants are plentiful in nearby Easton, Upper Mount Bethel, Pennsylvania, and Belvidere, New Jersey.



Figure 3.6 - Ahearn's Country Cafe

Public Restrooms and Other Visitor Services

There is a public restroom that is open 24 hours a day located at the Lower Mount Bethel Township Welcome Center. There are banks with ATM's in Martin's Creek as well as a gas station. A full range of travel services are available in Easton, PA.

Future Trends

Growth and change in the Lehigh Valley has had a tremendous effect on what once was a primarily rural area dependent upon its farms and forests for survival. Although Northampton County is officially designated as an urban county by the Center for Rural Pennsylvania, there are still six remaining rural municipalities, including four of the seven along the Delaware River (Williams, Lower Mount Bethel, Washington, and Upper Mount Bethel). Rural municipalities are defined as

“rural when the population density within the municipality is less than 274 persons per square mile or the municipality's total population is less than 2,500 unless more than 50 percent of the population lives in an urbanized area, as defined by the U.S. Census Bureau. All other municipalities are considered urban.”¹

According to recently released US Census Bureau data for 2010, Lower Mount Bethel Township had a 2010 population of 3,101 persons² and a population density of 128.2 persons per square mile. Table 3.1, lists the historical population data and projections for each of the Municipalities along the Delaware River in Northampton County based upon population projections prepared by the Lehigh Valley Planning Commission.

Municipality	1900	1950	1970	1980	1990	2000	2010	2020	2030
Lower Mount Bethel Township	1,335	1,990	2,531	2,745	3,187	3,228	3,101	3,683	3,988
Williams Township	1,819	2,381	3,282	3,843	3,982	4,470	5,884	7,372	8,262
Easton	25,238	35,632	29,450	26,027	26,276	26,263	26,800	26,323	26,405
Forks Twp.	1,147	1,948	3,930	4,612	5,923	8,419	14,721	16,522	19,962
Washington Twp.	2,614	2,227	3,037	3,205	3,759	4,152	5,347	6,755	8,027
Upper Mount Bethel Twp.	2,446	2,613	3,343	4,247	5,476	6,063	6,706	9,180	10,845
Portland	490	551	612	540	516	579	519	747	772

Table 3.1 - Historical and projected population data for municipalities along the Delaware River in Northampton County

Lower Mount Bethel Township's Comprehensive Plan (written in 2007) projects the Township's population to be slightly higher (3,891 in 2020) based on a number of factors. However, the recently released 2010 census data counted lower population values than originally projected (3,101 actual population compared with 3,446 projected for 2010).

The Comprehensive Plan provides a more complete profile of the community and the key findings from that document indicate that

- Population is projected to reach 3,515 by 2010 and 3,891 by 2020. The needed housing to accommodate a projected increase in population of 663 residents by 2020

¹ Center for Rural Pennsylvania, http://www.rural.palegislature.us/rural_urban.html accessed on 2/22/11

² <http://pasdc.hbg.psu.edu/Data/Census2010/tabid/1489/Default.aspx> accessed on 3/22/11

at today's persons per household ratio of 2.63 is estimated at roughly 252 dwelling units

- Most housing units are single family detached, though multifamily and mobile homes each comprise 11 percent of the housing stock
- After adjusting for inflation, house values declined between 1990 and 2000
- Median rents are higher than in surrounding communities
- Median household income is higher in Lower Mount Bethel Township than in Northampton County or Pennsylvania
- Though agriculture is the most visible industry within the Township, it is not a large employer of Township residents
- Residents are employed in a wide variety of industries, most of which are located outside of the Township

The Township has gone to great efforts to preserve agricultural land and agricultural opportunities. For example, the recent adoption of the "Comprehensive Agricultural Protection Zoning Ordinance" will help to retain agricultural land uses and prime agricultural lands. In addition, other efforts to preserve agricultural land through preservation easements ("[Cultivated Land](#)" on page 21) have resulted in the highest amount of preserved agricultural lands in Northampton County.

The character of the Byway is likely to continue to stay rural. With the large amount of permanently preserved land, especially along the Byway, as well as institutional and industrial holdings by PPL and quarrying operations, there is not a large amount of land base that can be converted to residential uses along the Byway

Visitor Profile

The Byway is likely to attract three distinct types of visitors: those with an interest in history and heritage associated with the Delaware River; visitors interested in nature-based recreational pursuits (such as river-oriented recreation and bicycling); or visitors with an interest in agricultural products and related experiences such as winery tours and farm stands. All three types of visitors have one interest in common— they are looking for an overall high quality travel experience associated with a scenic byway or a river-oriented travel route such as are found along the Delaware River Valley Scenic Byway and the Delaware River Scenic Drive.

Heritage-tourism oriented visitors are often couples traveling without children and typically have more expendable income than families. A 1999 Heritage Tourism Study³ found that:

"the most significant share of Pennsylvania's Heritage travel was by Baby Boomers aged 35 to 49 years and Older Adults aged to 64 years. Among the state's Core Heritage travelers' Senior travelers aged 65 or older comprised a significant portion of the travel (24%) -- the highest of all the segments. Correspondingly, the average age of Core travelers (51.2 years) was higher than all other Heritage travel groups and particularly higher than the state's average for all Leisure travelers (43.2 years)".

(dated based on a 1997 Pennsylvania Domestic Traveler Report).

More recent data on the visitor profiles for Pennsylvania and its tourism regions indicate the average traveler to Pennsylvania has aged (45.4 years) slightly. However, the state's

3 Pennsylvania Heritage Tourism Study, prepared by D.K. Shifflet & Associates, Ltd., McLean, Virginia, May 1999

strengths, according to the Longwoods 2009 USATravel Report for Pennsylvania, continue to

“suggest a travel experience that is accessible and welcoming for the whole family, offers beautiful scenery and great wilderness areas and is noted for history and historical sites.”

Visitors participating in marketable trips (those that do not include traveling to visit friends and relatives as the primary purpose) were predominantly college educated and traveling without children with incomes over 100,000 dollars. The 2009 Longwoods travel data continues to suggest that the heritage traveler is an important segment of the travel and tourism market and that scenic byways are a critical ingredient in the Pennsylvania’s ability to attract a larger share of that market in the years ahead.

The nature-based visitor may be younger and more active than the heritage traveler and is

more interested in pursuits that are exciting and challenging. “Human-powered” recreational activities or “adventure sports” such as bicycling and canoeing or kayaking are a prime attraction. Fishing and bird-watching are also important to nature-based visitors, especially those that have aged beyond the ability to participate in adventure sports. Visitation statistics for the Delaware Water Gap National Recreation Area provide an indicator of the number of annual visitors seeking a nature-based tourism experience.

Total Recreation Visits

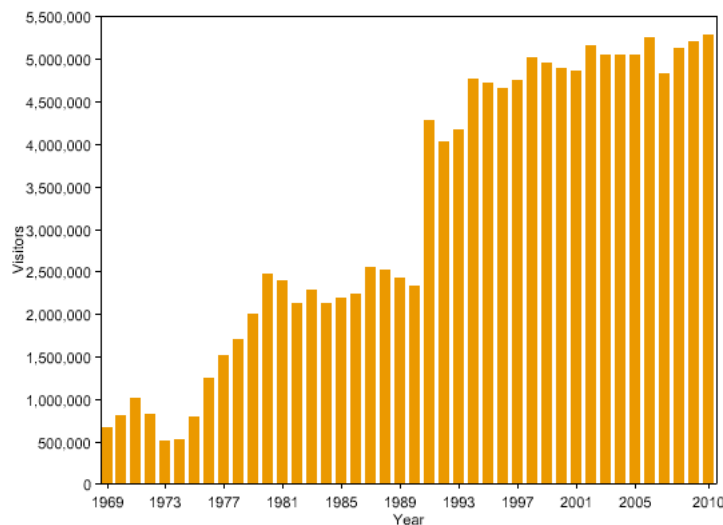


Table 3.2 - historical data for recreational visits to the Delaware Water Gap National Recreation Area

95% of the visitors in July 2010 coming for the day, with the rest primarily backcountry hikers or staying at a concessionaire campground. Visitors stay an average of between 4 and 5 hours per visit. Roughly two-third of those visitors (or more) enter at the South Contact Station, indicating a tremendous opportunity to capture a portion of those visitors returning that may not be ready to return home.

Visitors with an interest in agriculturally-based products and experiences, often referred to as “agri-tourism”, are slightly older (average age 49), traveling as couples or families (not groups) traveling from a local origin within 2-3 hours of the destination.⁵ Agri-tourism activities were primarily oriented around farm stands, wineries/breweries and pick your own operations, and visitors to these operations if they are staying overnight typically stay at bed and breakfasts.

4 National Park Service Public Use Statistics Office (<http://www.nature.nps.gov/stats/>) accessed on February 23, 2011

5 Ryan, Debord, and McClellan, *Agri-tourism in Pennsylvania: An Industry Assessment*, California University of Pennsylvania, 2006

CHAPTER 4: MANAGEMENT

The purpose of this Chapter is to describe the recommended strategies for managing the Byway as a means of achieving its vision and goals.

The ability of the community and region to gain recognition as a significant rural landscape worthy of recognition and to benefit from the region's heritage, agricultural, and nature-based economic opportunities is dependent upon how well the local, state and to some extent, federal agencies responsible for its stewardship can manage the Byway over time to preserve and conserve its qualities and communicate the values of those qualities to the region within which it resides.



Figure 4.1 - The Byway corridor and Township as seen from New Jersey

The vision statement in Chapter 1 spells out the desired future condition of the Byway in broad terms. The corridor definition and descriptions of the intrinsic qualities in Chapter 2 establishes the characteristics of the corridor – its width, the types of sites and attractions found within the corridor and their significance in relation to the Byway's river, agricultural, and early industrial heritage

The two most important variables that affect the overall travel experience of the Byway include the way in which the roadway is designed and used and the way the adjoining lands are designed and managed.

The Township has worked hard to preserve its agricultural landscape. To the extent that the Comprehensive Plan is followed and the Open Space Plan leads to additional funding for further preservation of these agricultural lands, the Township will continue to make great strides in making sure that the rural landscape will stay pretty much the way it is. You don't have to drive far to see the alternative – suburban style housing is found right at the Township's borders. The growing interest in agricultural sustainability, fresh and locally grown food, and linking that food to our tables through cooperative marketing and distribution gives even more hope that not only the farms will survive, but also the farmers.

The plan that follows outlines a blueprint for maintaining the character defining features of the roadway itself – which is a function of many variables: the width of the cross-section; shoulder types; drainage types; bridge types; how access from adjoining land is managed; overhead and underground utilities; lighting; pedestrian and bicycle facilities; and adjoining landscape design. The array of variables results from decisions made about the overall purpose of the road, the desired operating speeds, and the relationship of the roadway to adjoining features and uses.

The plan also outlines a set of strategies to expand the range of interpretive opportunities associated with points of interest to better tell the story of the Delaware River – its natural and cultural heritage, its early industry, and its communities.

The Township has two choices: take a proactive role in shaping the changes that are occurring along the Byway as a means of achieving the desired character, or allow that

change to happen on its own and hope for the best. The Township can reach out to neighboring communities and help them to gain the support that is needed to expand the Byway, or sit back and hope for the best.

The answer is clear. If the Township wants to capture the community benefits that this Byway presents, then they need to start “acting like a Byway” right now.

The following strategies are organized accordingly to help the Township do just that. They are organized around the five main goals for the Byway:

Goal 1: Establish a Regional Byway

Goal 2: Conserve the Rural Character of the Byway

Goal 3: Preserve the Historic Resources and Community Character of the Byway

Goal 4: Maintain the Roadway Related Character Defining Features of the Byway

Goal 5: Use the Byway as a Tool for Economic Development

Goal 1: Establish a Regional Byway

Associate the Byway with the Delaware River and its larger regional context; expand the reach of the Byway by extending its state designation from Easton to the Delaware Water Gap in the near term to better position the Byway for National Scenic Byway designation. In the long term, position the Township’s section to be an important part of a continuous nationally designated scenic Byway along both sides of the Delaware River from the Delaware Bay to the Delaware Water Gap.

A regional byway can be established utilizing a phased approach starting with the minimum length that is needed to establish the Byway’s regional significance for potential designation as a National Scenic Byway. Two of the Townships that are part of the D&L Drive on the Pennsylvania side of the Delaware River (Durham and Nockamixon) have not moved forward with the necessary steps to become a state-designated Byway in Pennsylvania. By phasing the establishment of the Byway and utilizing the Townships that are interested in this designation, the benefits of such designation can become clearer.

Rationale

In 1987, the General Assembly of Pennsylvania acted on House Bill No 1982 to declare portions of State Route 32, State Route 611 and State Route 209 that follow adjacent to the Delaware River as the Delaware River Scenic Drive. It was signed by the Governor as Act 134 on December 5, 1988¹.

According to records in PennDOT files, information was requested to determine whether or not this route already qualifies as a Pennsylvania designated scenic road making it eligible for inclusion in the National Scenic Byway Program. The conclusion by PennDOT on this particular legislative bill states the following:

“The 1988 state legislation predates the National Scenic Byways Program and does not contain the required billboard control language to make the route eligible for inclusion in the National Program”.

¹ The final printer’s number is 2527.



Figure 4.2 - Phasing recommendations to achieve a regionally scaled and multi-state Byway from the Delaware Water Gap to the Delaware Bay on both sides of the Delaware River

Associated Scenic Drives
Delaware River Valley Scenic Byway
Corridor Management Plan
Lower Mount Bethel Township, Pennsylvania

Lardner/Klein Landscape Architects, P.C.
 in association with John Wilmer Associates, Watson Heritage Strategies, and Daniel Consultants, Inc.
 GIS Data Sources: Pennsylvania Spatial Data Access (PASDA); USGS; PennDOT; USGS National Atlas & the Interagency Wild and Scenic River Coordinating Council; Lehigh Valley Planning Commission; NJDEP; NJGIN; NJDOT; URWA; Somerset Co (Millstone)

Legend

- Delaware River Valley Scenic Byway (PA)
- Delaware River Scenic Drive (PA)
- Delaware River Scenic Byway (NJ)
- Extension of Delaware River Scenic Byway (NJ)
- federal lands
- state lands
- county open space

DRAFT February 2011



The National Scenic Byways Program defines a state scenic byway, according to the Federal Register notice of FHWA interim policy² as

“j. State Scenic Byway means a road or highway under State, Federal, or local ownership that has been designated by the State through legislation or some other official declaration for its scenic, historic, recreational, cultural, archeological, or natural qualities. An Official Declaration is an action taken by a Governor or that of an individual, board, committee, or political subdivision acting with granted authority on behalf of the State.”

In order for the Delaware River Scenic Drive to become an official Pennsylvania Byway they can take one of the following courses of action:

- Amend h.b.1987 or introduce a new house bill to include language that prohibits outdoor advertising along the officially designated Delaware River Scenic Drive; or,
- Each municipality can amend their existing sign ordinance or develop a new sign ordinance and include the language that prohibits outdoor advertising

In 2004, the Delaware and Lehigh Heritage Corridor published a plan, prepared by Heritage Conservancy, that was initiated to gain Pennsylvania Scenic Byway designation for the Delaware and Lehigh Scenic Drive, a touring route through the entire heritage corridor. The route included two branches, one of which was from Easton to Bristol along the Delaware River. D&L Staff and Heritage Conservancy staff solicited support from the nineteen municipalities that comprise the route along the D&L Scenic Drive between Easton and Bristol. All but two of the municipalities, Durham and Nockamixon Townships, agreed to support the designation effort. Both Townships questioned the benefits to their communities and worried about property rights issues.

In order to address these concerns and to better communicate the benefits of Byway designation, Byway development should first focus on the Delaware River Scenic Drive that is north of these two townships, linking with Lower Mount Bethel Township and beyond to the Delaware Water Gap on the Pennsylvania side of the River (all municipalities along Route 611 in Northampton County). This will provide Durham and Nockamixon Townships with a positive model to illustrate benefits and to demonstrate that no new regulations are required for such designation, with the exception of the limitation on new billboards.



Figure 4.3 - The D&R Canal, Washington's Crossing and the Delaware River (New Jersey) photo by Carolyn Campbell McGovern

On the New Jersey side of the Delaware River, the New Jersey Delaware River Scenic Byway was designated in 2009 as a National Scenic Byway for a 33-mile route from Trenton to Frenchtown. Additional interest in designated heritage routes along the Delaware River south of Trenton have also been developed for both sides of the Delaware River. In addition, Route 57 in Warren County has been designated a New Jersey Scenic Byway from milepost (mp) 2.07 in Greenwich Township to mp 21.1 in Hackettstown, that parallels the Morris Canal and can be utilized to help interpret industrial heritage of the Delaware River Valley.

² Federal Register / Vol. 60, No. 96 / Thursday, May 18, 1995, FHWA Docket No. 95-15

With this broad range of support, this plan recommends the establishment and recognition of the Delaware River Scenic Drive as a regionally significant, and when fully implemented, a nationally significant heritage and nature-based touring route. The plan recommends that the management and recognition effort occur in a distinct sequence of phases designed to demonstrate the benefits of byway management to those municipal governments that, for whatever reason, are reluctant to participate. The plan also recommends that efforts include extending the New Jersey Delaware River Scenic Byway from Frenchtown northward to the Delaware Route Gap along various portions of “River Roads” that closely parallel the river.

The following strategies describe each of the phases recommended for expanding the Byway over time in three distinct phases. The first phase includes the municipalities in Northampton County along the Delaware River (from Williams Township through Easton to Portland and the Delaware Water Gap National Recreation Area. The second phase would extend the designation to include all the Pennsylvania municipalities along the Delaware River Scenic Drive south of Williams Township. The third phase would include extending New Jersey’s Delaware River Scenic Byway from Frenchtown northward to the Delaware Water Gap.

Strategies

Based on the importance of establishing a regional byway as a tool for promoting heritage, agricultural and nature-based tourism, and the existing efforts that have already begun, the following strategies are recommended to build upon these ongoing efforts to establish a regional byway on both sides of the Delaware River from the Delaware Bay to the Delaware Water Gap.

Strategy 1.1 Phase 1 of the Byway from Easton to the Water Gap

Work with Williams Township, City of Easton, Forks Township, Washington Township, Upper Mount Bethel Township, the Borough of Portland, and the National Park Service to establish a Pennsylvania Byway along the entire length of the Delaware River in Northampton County from Easton to the Water Gap.

Implementation Steps

PennDOT has confirmed that the state legislation does not meet the requirements for state byway designation. The following steps are recommend for extending the Byway designation throughout Northampton County:

- i. Brief each of the six jurisdictions and the National Park Service about the benefits of gaining state and potentially national Byway designation (using the regional context map and provided slide presentation) and the requirements for adopting the PennDOT sign ordinance
- ii. Provide a basic outline of the application for state designation to each jurisdiction and request that they provide the materials to be inserted into that regional application
- iii. Request that each jurisdiction adopt the necessary resolutions and sign ordinance in support of the Byway designation
- iv. Submit the designation to PennDOT Scenic Byway Coordinator

Once the Delaware River Scenic Drive has been designated as a State Scenic Byway, then seek support and participation in the grant application noted below:

- v. Seek funding for and extend the corridor management plan as needed to meet the requirements for designation as a National Scenic Byway and, if desired, to develop marketing and other materials to increase the readiness of the Byway for visitors (page 46).

Strategy 1.2 Visitor Readiness and National Scenic Byway Nomination

If National Scenic Byway designation is desired, enhance the visitor readiness of the Byway in anticipation of seeking National Scenic Byway Designation – from Easton to Delaware Water Gap

In order for a byway to be designated as a National Scenic Byway its leaders have to be able to demonstrate that they and the route are ready for that designation. The following elements are often utilized as initial steps in demonstrating visitor readiness.



- A designated point of contact for visitor information (such as Discover Lehigh Valley)
- A dedicated and user-friendly web site that links the Byway to information about services and information in the Byway's region
- A tear-off map or brochure that provides basic and permanent information such as points of interest that help to tell the Byway's story with links to more time sensitive information (events, visitor services, current hours of operation for attractions)

Implementation Steps:

- i. Develop user friendly byway website with direct link from Discover Lehigh Valley, FHWA's www.byways.org, and State of Pennsylvania tourism web site
- ii. Enhance readiness of Byway facilities by coordinating interpretation in advance of the nomination period (see economic strategies, "Strategy 5.10 Presentation of the Delaware River story" on page 97)
- iii. Prepare nomination forms for next nomination period (last designation period was in 2008-2009 and prior to that in 2005. The next nomination period is dependent upon the reauthorization of the program through the Transportation Bill currently under consideration by Congress)

Figure 4.4 - Existing web page for Pennsylvania Byway Program

Strategy 1.3 Phase 2 Byway Designation for Delaware River Scenic Drive

Extend the state designated Byway along the entire length of the Delaware River Scenic Drive and seek National Scenic Byway Designation

Implementation Steps:

- i. Repeat the steps in Strategy 1.1
- ii. Work with and support the Delaware and Lehigh Heritage Corridor in the effort to gain designation for the D&L Drive south of Williams Township to Bristol

Strategy 1.4 Phase 3 Extend Byway Designation for New Jersey Delaware River Scenic Byway

Extend the existing New Jersey Delaware River Scenic Byway from its terminus in Frenchtown northward to connect with the Delaware Water Gap (Old Mine Road) through Hunterdon and Warren Counties.

Implementation Steps

- i. See <http://www.state.nj.us/transportation/community/scenic/designation.shtm> for NJDOT designation requirements
- ii. Work with Hunterdon and Warren Counties to gauge support for such a designation. (Warren County has designated Route 57 as a state scenic byway and recently completed a corridor management plan)
- iii. Seek funding to extend the corridor management plan and implement measures to demonstrate that the Byway is ready for visitors
- iv. Seek National Scenic Byway nomination (or other similar recognition program if the program is not reauthorized)

Goal 2: Conserve the Rural Character of the Byway

Build upon the Township's ongoing planning and preservation efforts for open space, agricultural land preservation, and watershed management by utilizing the Byway to increase partnership opportunities for land conservation in the Township and along the Delaware River in general. The Township and its regional partners should achieve a finely tuned synergy, not merely overlap, among all conservation and historic preservation initiatives in Lower Mount Bethel Township, present and future.



Figure 4.5 - Farmland along Route 611

RATIONALE

The rich natural resources of Lower Mount Bethel Township are an important intrinsic quality providing the setting of this historic community and its scenic qualities, recreational

opportunities, and long-settled farms. Forests and riparian areas especially provide high-quality wildlife habitat and experiences of wildlife integral to the experience of the traveler – resident, heritage enthusiast and nature-based recreational user alike. The township’s farms, forests, streams, and scenery need careful attention. The addition of interpretive and recreational improvements to existing recreational sites will add to the opportunities to enjoy and learn from the magnificent Delaware River.

It should be noted that private property owners have, for the most part, been responsible for caring for the beauty, heritage, and character of the region. When the underlying economics of a region change, the landscape changes as well. Initiatives to enable and encourage private enterprise and investment in existing commercial and residential properties should be accorded the highest priority. Reinforcing these property owners’ means of making a living from their properties, or living comfortably within older homes, or enjoying a peaceful and rich quality of life, or simply sustaining their property values so that they will continue to invest, will enable many more properties to survive than could be rescued through public and private assistance alone. Farm and woodland management programs in Pennsylvania, for example, provide a range of benefits from direct payments to cost sharing and help to keep “more income inside the farm gate” – allowing farmers to farm instead of seeking off-farm income to support their operations (most United States farms, especially in the East, require off-farm income to survive).

The techniques for protecting natural resources and land, whether applied to farmland preservation, watershed preservation, or scenic preservation, are all very similar. The most successful programs recognize this synergy and seek to build upon it. Both the Martins Jacoby Watershed Association and the Lehigh Valley Greenways program take this approach. Lower Mount Bethel Township is among the most protected jurisdictions in the county. Redoubled efforts and attention to ways to combine and reinforce these programs – including historic preservation – could yield even more protected land than the township already enjoys.

Lower Mount Bethel Township has made considerable strides in protecting the scenic Byway, the rural landscape, and its community’s heritage and quality of life. Future efforts affecting the Byway should include not only redoubled effort, but also leveraging these achievements by attracting the notice of sources of assistance beyond the township and county.

Strategies

The following strategies are designed to build upon the current Township Open Space Plan as well as region-wide efforts associated with the Lehigh Valley Greenways Cultural Landscape Initiative (CLI) and the ongoing regional partnership efforts to conserve the qualities of the Delaware River.

Strategy 2.1 Establish land conservation priorities for the Byway

Byway related conservation priorities shall be identified with the approval of only those landowners that wish to participate in a conservation program. Because the project area is within a single small Pennsylvania township, it may be possible to identify specific parcels where landowners are interested in participating as part of the Corridor Management Plan. The priorities from the point of view of the management of this route as a Byway are those properties with owners who are willing to participate based upon the following criteria

- Farmland adjacent to the Byway, especially those properties that are in agricultural

- security areas and/or adjacent to protected farmland
- Lands that form the setting of historic sites and features related to Byway themes.
- Lands that form the setting for the most scenic views
- Lands that are visually prominent as seen by drivers along the Byway
- Lands identified above that are most vulnerable to change associated with the planned and programmed projects and land use change

Implementation Steps:

- i. Adopt conservation priorities associated with the Byway (e.g., Agricultural lands that are visually prominent as seen from the Byway as shown on the Scenic Qualities Map) to be included in the Township Open Space Plan and/or the Comprehensive Plan
- ii. Work with partner organizations to ensure that Byway related conservation priorities are part of that partner conservation organization's priorities, where appropriate

Strategy 2.2 Utilize the Byway and its related programs to expand farmland and forest conservation opportunities in the Township.

Pennsylvania expects local governments to carry part of the load in protecting special resources. For example – and perhaps most importantly – municipalities are allowed to raise local funding for conservation through taxes permitted under Act 153, the Pennsylvania Conservation and Land Development Act as amended in 1996, and are permitted to use those funds to protect:

- Water resources and watersheds
- Forests and farmland
- Natural resources such as floodplains and steep slopes
- Scenic areas visible from public rights-of-way
- Historic, geologic, and botanic sites of interest
- Open space between communities.

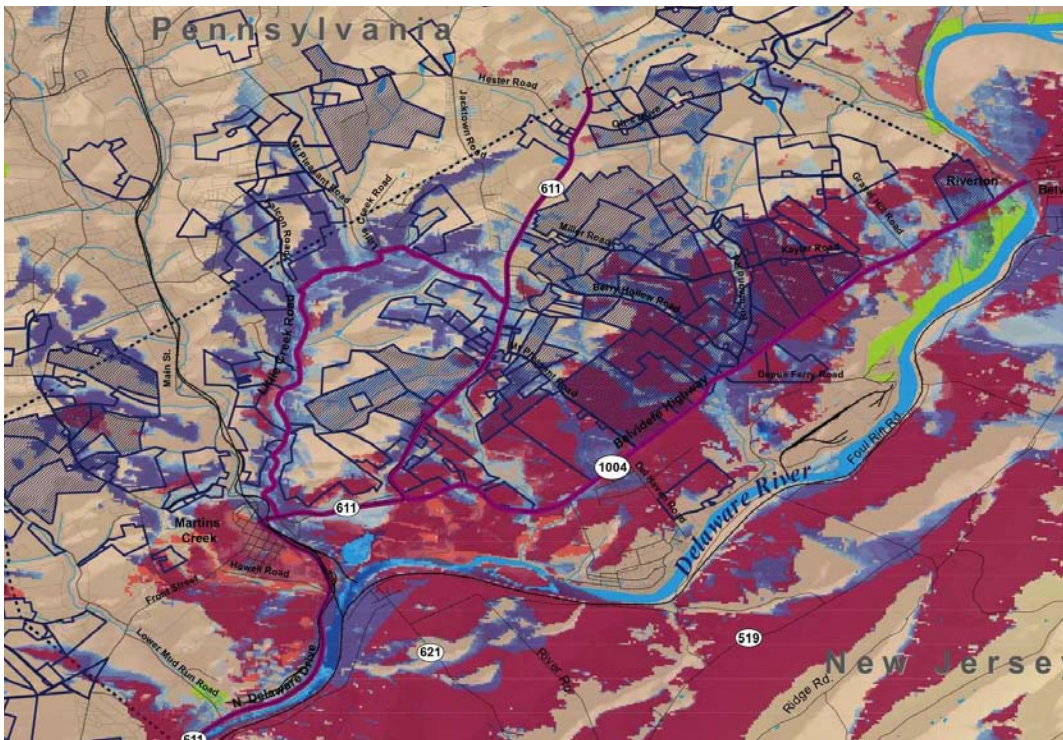


Figure 4.6 - Conservation priorities applied to the Byway - red areas show high quality scenic views; grey tones are preserved farms, black outlines show Agricultural Security Areas



Figure 4.7 - Farm stand at Gulick's Orchard

Lower Mount Bethel Township has thus far raised approximately \$540,000 from a local Earned Income Tax under Act 153. The Township has adopted the required Open Space Plan that will allow expenditure of the funds according to an approved plan.

Pennsylvania also encourages greater regional planning and action through such programs as the Conservation Landscapes Initiative (CLI) of the Department of Conservation and Natural Resources (DCNR), which helps to develop comprehensive strategies for natural resource conservation, recreational planning, and land management in support of local area initiatives. Lehigh Valley Greenways is an established CLI regional planning area including Lower Mount Bethel Township; its conservation goals are consistent and mutually supportive of the Byway conservation.

The Community Conservation Partnerships Program (C2P2) is another DCNR program with funding for planning and acquisition projects of a statewide, multi-county or multi-municipal nature that are of a time-sensitive priority. Should this CMP lead to a multi-township scenic byway, communities would be eligible for such partnership support.

For farmland preservation and vitality the following actions should be considered as a means of implementing this strategy

- Farmland protection is the top priority within the plan; pursue multiple actions to achieve more protection
- Expand the coverage of agricultural security areas, which provide preliminary identification of lands available for easement purchase in the Northampton County agricultural preservation program
- Use the scenic byway program to increase leverage for the purchase of agricultural easements within agricultural security areas from willing property owners
- Continue to build local funding for matches. For example, the \$540,000 in Earned Income Tax (EIT) funding held by the township until its open space plan is completed could potentially be used as the non-federal matching funds required for scenic byway grants. While the \$2 million that these matching funds could obtain in scenic byway grants (based on the current 80:20 federal/local matching requirements) is unlikely to appear all at once, this is an example of how it may be possible to leverage the comparatively small dollars of the EIT (when compared to the cost of land) to gain greatest benefit of the byway designation
 - Investigate innovative options for stretching those funds. For example, Howard County, MD has pioneered the use of bonds to fund 20-year installment purchases of agricultural easements. Farmers receive semi-annual, tax-exempt interest and annual principal payments under a contract with the county's Agricultural Land Preservation Program
 - Investigate ways to recruit young farmers to purchase farms in Lower Mount Bethel Township. According to the 2007 Census of Agriculture farm operators are aging. "The average age of the principal farm operator has increased roughly one year in each census cycle, from 50.3 in 1978 to 57.1 in 2007". The fastest growing group is those 65 years and older³. The nationwide shortage of farmers who are 35 and younger will be one of the problems the township will face in maintaining the protected land here – as the saying goes, "You can protect the farmland, but can you protect the farming?" There are quite a few federal and state programs

³ 2007 Census of Agriculture: Farmers by Age, http://www.agcensus.usda.gov/Publications/2007/Online_Highlights/Fact_Sheets/farmer_age.pdf accessed on 3/22/11

to provide financing to “young and beginning” farmers; a few local governments are beginning to get into the act by planning for agricultural development and recruitment.

For forestland and riparian stewardship the following actions should be considered as a means of implementing this strategy over time.

- Investigate the use of forest preservation techniques for the wooded areas in the most critical parts of the Byway, including the federal Forest Legacy Program.
- Create a “Get Green, Get the Green” [dollars] cooperative group to counsel the township on grant funding for larger projects. Such programs change over time and their funding fluctuates, so it is best to stay in close touch with those who stay current in order to assist local governments and property owners. The Martins Jacoby Watershed Association and the Lehigh Valley Greenway program have already proven adept at going after such funding, and both have representatives working closely with the Byway committee on this CMP. They should continue to be strong partners helping to enlist the combined assistance of the Natural Resources Conservation Service, the Soil and Water Conservation District, the Cooperative Extension Service, and the Pennsylvania Department of Agriculture, among others, to analyze existing utilization and identify gaps for potential action, including opportunities for agro/eco-tourism. The federal status of the Byway could confer some additional advantage in some programs, a possibility that should be investigated.
- Insure that all farmers are availing themselves of all existing programs for farm planning and action, water quality improvements, forest stewardship, wildlife habitat enhancement, etc. The group described in the preceding paragraph could focus on this need at some point. While this is a system (loosely defined – or this paragraph would not be needed) that is largely invisible to local governments and it generally ticks along with beneficial impacts on the landscape and no public attention, a deliberate effort to protect a scenic byway should be brought to the notice of the agricultural funding powers that are behind this system. The Byway committee and township could work to remove identified barriers or limiting factors to full utilization.
- For riparian areas that have been identified for restoration by the Martins Jacoby Watershed Association, or for areas already providing good stream buffering, make it the landowner’s economic interest to strive for high water quality in tributary streams. Possible incentives to consider include
 - Paying landowners on a matching basis for restoration of riparian areas
 - For properties requiring restoration, over time working out donation, bargain purchase, or outright purchase to acquire riparian easements
 - Purchasing riparian easements for those riparian areas that are already in excellent condition (A program making payments for restoration and acquisition of protection rights in impaired areas should recognize that some benefits of such a program should accrue to those who are already maintaining excellence)
- Support the Lehigh Valley Greenways vision and goals across the Martins Jacoby Watershed and continue to engage directly in the partnership through the Township’s Environmental Advisory Council.

Implementation Steps:

The following are the specific recommendations for the near term actions to implement the conservation and stewardship needs for the Byway:

- i. Explore how to utilize Byway and other related programs to leverage purchasing power for agricultural easements from willing participants, and consider which of the

- programs noted above are appropriate and feasible for the Township.
- ii. Apply for an initial Byway grant for the highest priority easement area that is also located within the Byway corridor utilizing the local EIT funds as matching funds
 - iii. Utilize the expanded regional Byway to offer seasonal farm to table events and tours as a means of calling attention to agricultural sustainability and urban and local agricultural opportunities for young and beginning farmers
 - iv. Seek funds for a demonstration project along the Byway for utilizing roadside areas for managing farm and road-related runoff to improve water quality; interpret those techniques along the Byway (“Figure 4.35 - The area along PA 1004 noted above is the location of a crash. One opportunity would be to create a ‘Green Highway’ demonstration project to make it both safer and greener.” on page 79)
 - v. Identify additional Byway related land conservation opportunities that overlap with riparian and greenway priorities established through the Lehigh Valley Greenways Program and seek future Byway funding for riparian projects along tributary streams



Figure 4.8 - Expansion of existing transmission lines is a threat to the scenic quality of the Byway and must be monitored very closely

Strategy 2.3 Establish a Byway-related advocacy group

Establish an advocacy group or actively participate in an existing related advocacy group to give the Byway a voice on regionally significant development projects that will have an adverse impact on the Byway (such as expansion of high voltage transmission lines, coordinating with trucking companies that utilize the Byway, communication towers, and other regionally significant land use changes such as major development projects).

Simplified Visual Impact Analysis

When siting future utility structures, whether they are communication towers, or high-voltage electric transmission lines, a simple process can be used to ensure that visual impacts are minimized:

- Identify alternative locations, alternative heights, and/or alternative transmission routes. Encourage the sharing of facilities by service providers, saving installation costs, time, and potential legal fees.
- Describe the visual characteristics of the project for each alternative (e.g., the height of the tower and clearance required for vegetation).
- Determine, for each alternative, the extent of the geographic area from which the proposed facility can be seen using digital elevation models and viewshed analysis software.
- Use balloon tests to demonstrate the location of towers. Balloons should be flown at the height of the proposed tower and photographs taken from the most visually sensitive locations (as demonstrated in step 3).
- For areas where there is a high degree of concern for the potential visual impacts, such as a panoramic view, use digital editing to superimpose a photograph of a similar type of tower onto the photograph of the balloon taken from the scenic viewpoint using the balloon for a scale reference.

This approach will provide clear and factual information about both the geographic extent and significance of the visual impacts. By comparing viewshed maps and simulations, the site with the least visual impact can be recommended. If the location or height of the structure cannot be mitigated, a request should be made to use the tower configuration with the least visual contrast possible.

Implementation Steps:

- i. Work with jurisdictions, landowners, developers, and state agencies to establish a notification system for projects “on the drawing boards” (e.g., how best to get early discussion with project proponents to provide ideas and suggestions prior to requesting permits)
- ii. Identify groups throughout the region with similar interests (Delaware River and watershed organizations, farmland preservation organizations, historic preservation organizations, etc.)

Once identified and for each proposed project affecting the Byway

- iii. Use the GIS data base to determine whether projects are within Byway corridor (crossing or immediately adjacent to the Byway, visible from the Byway or historic site open to the public associated with the Byway, or that would have an effect on a regional resource of importance to the Byway)
- iv. Identify design issues associated with the project (e.g., visibility/scale, visual contrast, orientation, secondary effects, etc.)
- v. Find examples of better approaches to the project, better management practices, better models, etc.
- vi. Determine how best to provide input in design and development review process on a project-by-project basis
- vii. Ongoing maintenance for such facilities can be a long term issue. Employ development agreements (preferably legally enforceable) to address anticipated issues, such as routine brush clearance, tree-trimming, other landscape maintenance, water quality impacts, etc. Regardless of the solution chosen, long-term maintenance can mitigate the subtle long-term impacts of the activity, especially when those involved in the activity are no longer employed by the entity that made the original agreement.

Goal 3: Preserve Historic Resources and Community Character

The Byway can help to build awareness of the Township’s historic resources and rural character through special event tours and local recognition programs leading towards the development of a historic preservation plan focused on the historic resources associated with the Byway.



Figure 4.9 - Historic resources in Lower Mount Bethel Township are sometimes hidden from view

Rationale

While Lower Mount Bethel Township’s natural and agricultural resources are certainly significant, it is the entire cultural landscape – with its historic structures and settlement patterns, and the timeless quality of a place that has evolved over hundreds of years – that makes the experience of driving the Delaware River Scenic Byway so pleasing. Helping residents and property owners to appreciate this significant built heritage and understand how to maintain its qualities over decades to come is a key role for the scenic Byway.

Historic preservation should reinforce farmland preservation and community identity, especially in Martins Creek and other settlements. It is an activity that celebrates the past with a view toward the future, by providing the foundation for heritage tourism and other asset-based economic development. While rueful property owners may complain that using traditional ways to maintain their properties costs more, the other side of that coin is that

it creates more local, high-value jobs. And those investments pay off for both property owners and the community. Undertaking historic preservation can preserve and even increase property values.

Modern historic preservation in the United States has hardly changed in two generations; the establishment of the federal tax credit for rehabilitation of commercial properties listed in the National Register in 1976 is perhaps the most important innovation within the federal-state-local preservation system since it was established in 1968. Perceptions of



Figure 4.10 - Former Grist Mill, now a private residence along Little Creek Road

historic preservation, however, have changed in that same timeframe. While many property owners are proud of the recognition extended by national and state programs, and may welcome the protection of property values that local regulation generally confers, others are unwilling to “be told what to do” with their properties.

Strategy 3.1 Educate the community about historic resources and Township history

In Lower Mount Bethel Township, historic preservation has some catching up to do

in comparison to the highly sophisticated practices of farmland preservation here. Accordingly, an overall strategy of cultivating and reinforcing private property owners’ stewardship through voluntary recognition, investment in the public domain, and public education is recommended. The public education actions suggested here would have the additional benefit of strategically supporting heritage enthusiasts if planned for the widest range of audiences as well as the primary audience of local residents. Some potential actions along these lines for consideration include

- First, seek to reinforce historic preservation and recreational enhancement opportunities through research and interpretation. Elsewhere in the corridor management plan, interpretation is addressed ([page 90](#)). Such a program should generate much public interest in historic sites and stories. The more that residents understand the stories here and how extant structures and settlements can be used to tell these stories, the more they will work to support the long-term effort of preservation
- Second, pursue community education programs that would also reinforce awareness of Township History. Where funds do not exist for paper publications, rely on web site development until funds are available (or consider self-publishing and self-funding through sales)

Implementation Steps:

- i. Develop a regional tour for the extended Byway of small museums and historic homes to raise awareness of the significance of the region’s historic resources
- ii. Seek funding from the Pennsylvania Historic Museum Commission to develop a tour plan, prepare an interpretive/historical brochure describing the region’s historical museums, and conduct the tour. (Note: the tour would first be an annual event, and as it grows, it could evolve to include seasonal tours of different historic sites, homes, farms, and landscapes.)

In conjunction with marketing and interpretive strategies (page 87):

- iii. Create a driving (and in the long-term, bicycling tour, after implementation of safety measures on page 61) of historic sites along the Byway⁴
- iv. Create a walking tour of Martins Creek that highlights its history and significance
- v. Use creative photography for web and print publication – an annual calendar or appointment book, note cards, photo contest/poster, awards programs, and other projects. The results could be downloadable at the least, and published on paper if sales are desirable.
- vi. Enlist schools in K-12 historic preservation projects, writing contests, etc.
- vii. Link with nearby colleges to encourage history and historic preservation projects for college credit along the Byway
- viii. Determine appropriate collection of oral history and family traditions, perhaps by sponsoring a “community attic” day, possibly as an annual event
- ix. Develop a web page for the Byway and Township resources on the Lower Mount Bethel Township website

Strategy 3.2 Adopt historic preservation priorities

Amend the Comprehensive Plan to include the following are suggested priorities

- Buildings and bridges that are located on, or are visually prominent as seen along the Byway.
- Structures on properties adjacent to the Byway that contribute to the scenic and historic character of the Byway.
- Surveyed historic sites and features that contribute to the themes of the corridor.
- Properties identified in the points above that are most vulnerable to change associated with the planned and programmed projects and land use change.

Implementation Steps:

- i. Adopt preservation priorities associated with the Byway (e.g., Delaware River heritage resources, industrial-era resources, and agricultural resources)
- ii. Work with partner organizations to ensure that Byway related preservation priorities are part of that organization’s preservation priorities, where appropriate

Strategy 3.3 Encourage and assist property owners wishing to preserve historic sites

The Byway effort can assist property owners with an interest in historic preservation by linking owners up with technical assistance for preservation planning, and for assistance with listing on the National or State Registers of Historic Places. Funding for historic preservation can include the completion of historic surveys to determine eligibility for listing properties and districts in the National Register of Historic Places.



Figure 4.11 - More hidden history in Martins Creek

⁴ It would then be possible to create a companion for the remainder of the Township as “volume 2,” where scenic byway funding would not be available to support such a project.

Listing a historic district in the National Register is seen as something like obtaining the “Good Housekeeping Seal of Approval” and would reinforce tourism development and community enhancement. It also requires agencies using federal funds for projects affecting listed or eligible properties to do a thorough review of their plans and mitigate harm whenever possible (like an environmental review, this is called “Section 106 review” after the section of the National Historic Preservation Act that established this policy).

Federal recognition through the National Register carries NO requirements for local government or property owners to undertake protection activities through regulation or investment, and property owners are asked for their consent before a listing is completed. (The National Register listing can, however, be removed in cases where the integrity of a listed property or district is lost.)



Figure 4.12 - Excess pavement in Martins Creek could be reduced with a clear plan (photo source: Bing Maps)

Even if a survey does not yield a completed National Register listing directly, commercial property owners (including farmers) who follow through voluntarily to list their properties using background provided by the survey would then be eligible for a 20 percent tax credit for approved rehabilitation expenditures. (Their property must be listed or they must be seriously pursuing listing to obtain the necessary up-front approvals.) State rehab tax credits may not be far behind.

Survey projects can involve volunteers. It is recommended that prior to beginning any survey, that representatives of the Pennsylvania Historical and Museum Commission be invited for a field visit, public lecture, and workshop with scenic Byway leaders. The following are potential survey projects

- The village of Martins Creek: This small village exhibits an interesting settlement pattern, first growing up along Little Creek as a river crossing along an early north-south route, and then served by the Bangor and Portland Railroad (still lightly used). Its commercial center moved in response to growth triggered by early twentieth-century industrial development (cement and cotton factories). Building materials and designs reflect local cement manufacture of both plain and decorative elements
- The Three Churches District: There are three churches, a cemetery, and the Hunter Martin Museum in an early schoolhouse forming a small potential historic district. One church is associated with David Brainerd, the Presbyterian colonial missionary to Indians who once lived here
- The village of Riverton: Three high-style buildings from the mid to late 19th century are in the PHMC’s Cultural Resources GIS web-based map program and are thought to be eligible for the National Register. The entire village grew up around the river crossing and along with Belvidere, New Jersey, immediately across the beautifully preserved historic iron bridge over the Delaware River, and served river traffic
- Lower Mount Bethel Township: Complete a cultural landscape study of the rural lands along the scenic Byway, with close attention to historic structures, farm evolution, and settlement patterns reflecting the township’s long history. Certain structures reflect the early German heritage of eastern Pennsylvania agricultural districts. While it would be feasible to do such a survey for the entire township, the scenic Byway is a good place to start in more limited fashion

Implementation Steps:

- i. Complete historic surveys and determine eligibility for listing properties and districts in the National Register of Historic Places. (Martins Creek, Three Church Hill, Delaware River Industrial Heritage, Lower Mount Bethel Agricultural Heritage); and, include a context statement that can be used by individuals to apply for listing.
- ii. Prepare (or adapt from an existing one) a brochure explaining the benefits of gaining designation on the National or Pennsylvania Registers and steps to do that
- iii. As appropriate, publicize survey findings through media announcements, publications, lectures and events
- iv. Include information on byway-related page on the Lower Mount Bethel Township website



Figure 4.13 - Front Street in Martins Creek

3.4 Preservation Planning

Certified Local Governments are eligible for grants that can be used to survey architectural and archeological resources, prepare nominations to the National Register of Historic Places, create preservation planning documents and programs, create public education programs, and rehabilitate publicly owned buildings listed on the National Register. A preservation plan outlines the steps that can be taken to preserve, maintain or enhance the character defining features of a particular historic property or district.

Archeological sites are most important to put on the township’s radar screen for potential regulation. The Delaware River Valley is known to be rich in American Indian archeological deposits whose information could reinforce the important stories associated with the township’s colonial history and prehistory. Early historic sites are equally important repositories of information it is difficult to obtain from written records.

Protected archeological sites can sometimes be interpreted, and could prove to be a valuable addition to the heritage tourism experience along the Byway. Lower Mount Bethel Township can ask PHMC representatives to enable discussion of this idea through gaining an understanding of the nature and general location of known sites (information that is carefully kept from public view to avoid vandalism and “pothunting”) and to provide technical assistance to consider steps the township can take to reinforce archeological site protection. At a minimum those requesting permits for new construction and land disturbance above minimal levels could be asked to provide survey-level information – just as they are already required to set forth other information about the affected property (e.g., vegetative cover, watercourses).

Long-term, should the township decide to pursue historic preservation through local historic district designation (as opposed to voluntary National Register historic district recognition), two rewards are possible

- Matching grants through Certified Local Government status conferred by the PHMC according to National Park Service guidelines (these state grants are eligible to match

- federal scenic byway funding because even though they technically use federal funds, they come through the state or non-USDOT federal level funding)
- Matching grants through recognition by the Preserve America program according to guidelines available from the Advisory Council on Historic Preservation. This program also permits a recognized community to erect entrance signs declaring it is a Preserve America community

Both grants can be used to support surveys and other activities described above, and Preserve America funds can support interpretation.

Implementation Steps:

- i. Use results of inventorying to seek funding for preservation plans for those historic resources along the Byway that are determined to be eligible for listing
- ii. Prepare preservation plans for potential districts (Martins Creek, Three Church Hill, Delaware River Industry, and Lower Mount Bethel Agricultural Heritage)
- iii. Consider gaining recognition as a Certified Local Government, and as a Preserve America Community to provide more access to historic preservation resources, funding, and leverage to combine with other funding sources)

3.5 Develop voluntary design guidelines

Regulatory protections for historic sites and areas would require great energy and political capital in a township where property owners are accustomed to little if any governmental intervention in the use of their properties. In addition, the Township would have to expend resources to enforce the regulatory intent, otherwise regulations have no value. Instead of a regulatory approach, scenic Byway leaders might better focus their energies on creating voluntary design guidelines to “explain and illustrate the appropriate and inappropriate maintenance, repairs, and design approaches, and to provide an overview of the history of the municipality, its architectural styles, [and] a map of the district,” as defined by the excellent reference available from the PHMC web site, *Historic District Designation in Pennsylvania*, by Michael Lefevre. Workshops for property owners, contractors, and real estate agents or brokers to review the benefits and challenges of sympathetic rehabilitation would also be useful.

Implementation Steps:

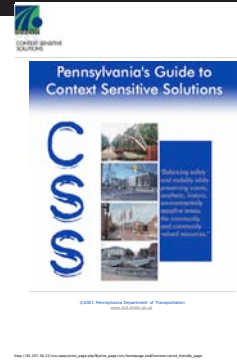
- i. Use initial tours to develop historical overview, description of architectural styles, and a map of historic resources and development patterns
- ii. Develop small topical brochures and make them available at the Township offices and Welcome Center, formatted in such a way that they can be assembled together into the guideline document

Strategy 3.6 Establish a “Good Design-Good Business” program

The commercial areas of Martins Creek and Riverton, as well as the areas along Route 611 south of Martins Creek would benefit from small matching grants for façade improvements, landscaping, and streetscape improvements on private land meeting the voluntary guidelines noted above. Recognizing successful business participation along the Byway then helps to reinforce the relationships between good design and good business. [NOTE: this may be more appropriate for the expanded Byway.]

Implementation Steps:

- i. Research potential funding streams that would yield \$25,000 per grantee for 50-50 matching grant program – may best be done as a program implemented countywide, similar to a Fairfax County, Virginia revitalization program for Route 1 (SFDC Façade Improvement Program)
- ii. Seek out an appropriate regional sponsorship organization (Northampton County, the Lehigh Valley Planning Commission, or other regional business or civic organization. It may be possible to work with an existing business development program from Northampton County to encourage small business development and competitiveness)



Goal 4: Maintain the Character Defining Features of the Byway

Work with PennDOT Engineering District 5-0 and the Township to develop innovative approaches for balancing the wide range of needs for all roadway users including commuters, agricultural, heritage visitors, bicyclists, pedestrians, and neighbors while maintaining the character defining features of the Byway context.

Rationale

Designation as a scenic byway implies that a particular route has statewide and potentially regional or national significance associated with its scenic, historic, cultural, natural, recreational or archeological qualities. Traveling along the Byway route is the primary way in which visitors and residents alike experience and are first introduced to these significant qualities. By managing the quality of that travel experience, the first impression will go a long way towards gaining recognition and a reputation as a community that stewards its resources and cares about its future.

Introducing modifications to the road and its associated roadside elements (such as alignment changes, intersection modifications, shoulder work, drainage, retaining walls, bridge modifications, lighting, or access provisions) will alter the experience of these significant intrinsic qualities and the first impressions of a traveler. Care can be taken to ensure that the safety goals of these types of modifications are met while still maintaining the character defining features of the route and the unique Byway communities through which it passes.

Approach for Doing Work on Scenic Byways

PennDOT already has strong policies that support the linking together of land use and transportation; reinforcing the notion that working within the context of a scenic byway is consistent with PennDOT policy.

The process outlined below for doing work along the Byway builds upon and is consistent with PennDOT's Smart Transportation program (see <http://www.smart-transportation.com/about.html>) and its earlier efforts outlining Context Sensitive Solutions (CSS).

PennDOT defines Smart Transportation as “partnering to build great communities for future generations of Pennsylvanians by linking transportation investments with land use planning and decision-making.” PennDOT further seeks to “encourage transportation projects that foster sustainable communities, reduce sprawl, encourage alternative modes

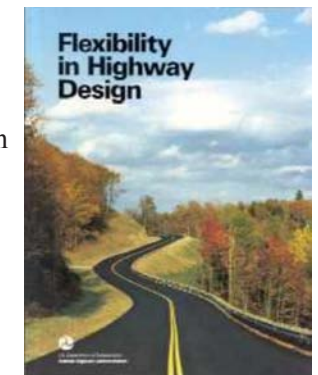


Figure 4.14 - A rationale for building flexibility into the design process has been clearly established through recent AASHTO, FHWA and PennDOT guidance documents

of transportation and reduce vehicle miles traveled. As municipalities prepare their comprehensive plans, land development regulations, and small area plans; it is important for them to consider Smart Transportation principles particularly for the land use and circulation sections of these policies and plans.”

Strategies

The purpose of this section then is to outline how Smart Transportation principles are directly incorporated into the Byway’s Corridor Management Plan. The strategies outlined below establish

- An appropriate process for communicating about the Byway to those considering doing work on or along the Byway that reflects the wide range of points of view and interests in the Byway as an important tool in the Township (and region’s) efforts to take better advantage of its heritage, agricultural and nature-based tourism opportunities (Strategy 4.1)
- A definition of the relationship between slowing down vehicular operating speeds through the community and livability – including both residents and visitors wanting to walk, ride a bicycle, or otherwise appreciate the qualities of the Byway’s communities (Strategy 4.2)
- Ways to address the difficult issue of managing truck operations through the Township along the Byway (Strategy 4.3)
- Guidance for doing work along the Byway that is consistent with Smart Transportation and CSS principles (Strategy 4.4)
- Additional guidance for Northampton County and the Township Road Master for doing work on Little Creek Road, especially the bridges (Strategy 4.5)
- Guidance for future land use change in Martins Creek to help reinforce the establishment of a more pedestrian oriented village environment (Strategy 4.6)
- Identifies the desired pedestrian connections needed to improve the walkability of the community (Strategy 4.7)
- The relationship of pedestrian pathways to the Township’s interests in heritage, agricultural and nature-based tourism (Strategy 4.8)

Strategy 4.1. Establish clear and direct lines of communication

To accomplish this goal, there is a need to ensure that District Engineering Staff, PennDOT and County Bridge Engineering and Design staff, and Township maintenance staff that are doing work along the Byway are aware of the Byway’s designation, aware of the corridor management plan, and aware of the efforts to manage the route for heritage- and nature-based tourism. Communication about project goals and responsibilities, as well as about the Byway’s goals and significant character defining features, undertaken early and often, are the best way to preserve, maintain, and/or enhance the rural character of the Byway corridor as projects and programs are implemented over time.

PennDOT is currently working on a couple of different systems to track upcoming and ongoing work along byways, statewide that will benefit this Byway:

- The PennDOT scenic byway coordinator is working towards adding “Scenic Byways” onto PennDOT’s Categorical Exclusion Evaluation (CEE) Checklist. This is pending with PennDOT’s Cultural Resource and IT Staff. Once this is added, the Districts will be instructed to be sensitive to the Byway during the design phase of the project utilizing PennDOT’s Context Sensitive Solutions program. Bridge projects may require a separate and additional notification system.
- Another potential system is known as PennDOT’s Roadway Management System

(RMS) that maps each state designated byway (<http://www.dot.state.pa.us/Internet/Bureaus/pdBOMO.nsf/infoRMRIRMS>). RMS is used for many purposes by PennDOT's engineers when designing a project and also will show if a section prohibits billboards due to the byway designation when PennDOT's traffic unit is in the process of issuing a sign permit, etc.

- PennDOT is nearing completion of a process called "Linking Planning and NEPA" for all projects that are on the Long Range Plan. PennDOT will be using RMS as the data resource to see if it is on a Byway, show the condition of the road, ADT, etc. As of the writing of this plan, PennDOT is testing the process and giving training around the state.

Another program worth mentioning is a joint effort of Preservation Pennsylvania and the Pennsylvania Department of Transportation (PennDOT) to create the Project for Pennsylvania Transportation and Heritage (ProjectPATH). ProjectPATH is a searchable database of PennDOT projects, both in specific locations or statewide. (See <http://search.paprojectpath.org/>). ProjectPATH is an excellent tool for Byway advocates to be proactive in looking for future projects that may have an impact on the Byway.

Implementation Steps:

- i. Continue working with PennDOT on and confirm that a system has been established within PennDOT's Central and District offices using existing and available information management systems to flag the specific route segments that are designated as a Byway so that anyone that is doing work along a Byway will be able to identify it as such.
- ii. Establish a specific point of contact to represent the Byway in any notifications when work is proposed along a scenic byway (could be the Transportation Planner for Lehigh Valley Planning Commission, for example)
- iii. Advocate for developing a set of process and design guidelines at a state level for doing work along a scenic byway (PennDOT would take the lead)
- iv. Use the corridor management plan's examples and guidance for doing work along the Byway ([page 69](#)).

Strategy 4.2 Address speed and safety issues along the Byway

Utilize traffic calming techniques appropriate to a rural community to enhance livability by helping to slow traffic approaching Martins Creek and Riverton, and generally along the Byway through self-enforcing physical modifications to the roadway and roadside areas.

The purpose of installing traffic calming elements in Riverton and Martins Creek, as well as Front Street and Main Street approaching Martins Creek, is to slow traffic down to improve the livability of these two communities along the Byway. Livability will be improved when visitors and residents alike can get out of their cars to walk and appreciate the significant qualities that make Martins Creek and Riverton enjoyable and attractive places to live and to visit. Safety benefits of slowing actual operating speeds through a pedestrian-oriented village are gained by increasing the reaction time that drivers can utilize to make decisions when faced with a conflict point (such as a turning vehicle, a pedestrian crossing the street, a slow



Figure 4.15 - Forty-five mile per hour speed zone approaching Martins Creek near the Fire Hall

moving vehicle looking for a destination, etc.) By increasing the reaction time, crash rates are reduced and the severity of crashes are also reduced.

For more detailed information about the benefits of traffic calming and PennDOT's guidance on designing and implementing traffic calming measures see <http://www.dot.state.pa.us/Internet/pdHwyIntHS.nsf/frnTrafficCalming?OpenFrameset>.

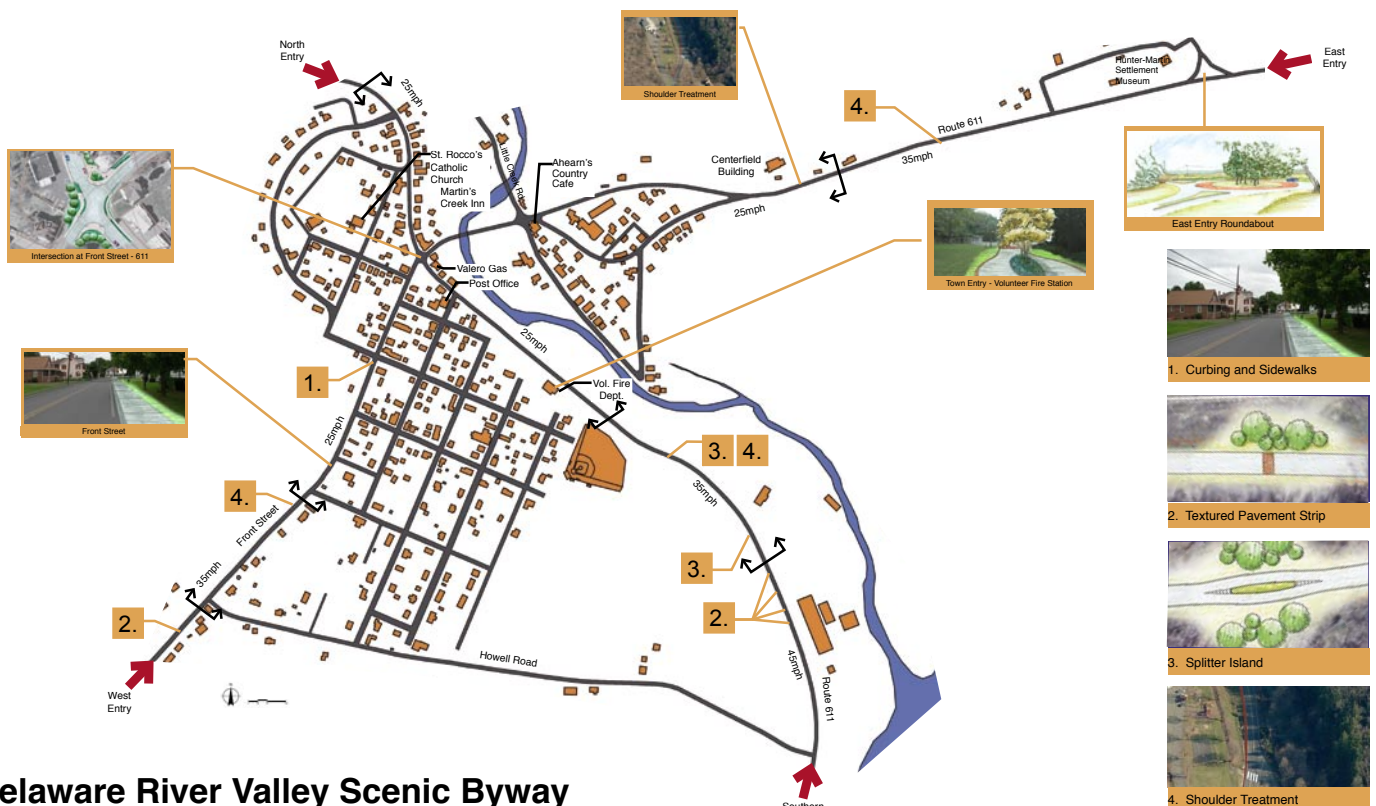
One of the first steps outlined in the PennDOT manual is to undertake a traffic calming study. The following information is included in the corridor management plan to provide a starting point for that study and to provide input into what types of measures should be considered along the Byway (as well as Front Street and Main Street).

Although traffic speed studies have not been undertaken as part of this corridor management plan, visual observation at multiple locations and at multiple times of day indicate that vehicle operating speeds are typically much greater than ten miles per hour higher than posted speed limits. Excessive speeds and related noise are particularly noticeable for northbound trucks on Front Street as they descend down the hill approaching the intersection with the Route 611 (the Byway).

Operating speeds are also noticeably excessive on Route 611 from the Township line all the way to Martins Creek, and on the Martins Creek-Belvidere Highway along its entire length between Route 611 and Riverton. The curve on the Main Street approach towards Route 611 helps to reduce speeds there. Excessive operating speeds on the downhill descent from Three Church Hill to Martins Creek on Route 611 are only slightly reduced by the constriction at the bridge over Martins Creek and bend in the bridge that terminates the long focal view.

Figure 4.16 - Overview of traffic calming concepts for Martins Creek

MARTINS CREEK - COMMUNITY DESIGN / TRAFFIC CALMING OVERVIEW



Delaware River Valley Scenic Byway

These observations are easily confirmed by traveling the speed limit on any of these roads and observing the speed of passing vehicles as they cross the double yellow line. A speed study is needed to confirm these observations.

The following conceptual traffic calming plans are intended to be utilized to illustrate how traffic calming measures can be implemented along the Byway, especially approaching Martins Creek and Riverton, where the Township is trying to encourage more pedestrian oriented heritage- and nature-based tourism activities along the Byway.

Martins Creek Traffic Calming Concepts

In Martins Creek, the recommended traffic calming measures can be grouped into three main zones:

Zone 1: Approaching the Town – traffic calming measures on rural sections of the Byway approaching the Town are intended to provide drivers with identifiable and pronounced warnings that they are about to enter a built up area and they need to begin slowing down now. The speed limits in these areas are typically 45-50 mph and drivers are about to be asked to slow down to 35 mph. Warning strips are typically utilized to give this signal to drivers (they should be only placed if away from a residence due to potential for noise generated by cars traveling too fast). Once past the warning strips, the speed limit is changed to 35 mph.

Zone 2: Transition Area – measures are intended to reduce vehicular operating speeds from 35 mph to 25 mph through the use of physical modifications to the roadway. In rural areas the primary means of achieving this is through shifts in the horizontal alignment in the roadway utilizing splitter islands. While changes to the vertical alignment through the use of speed humps and speed tables are often more effective, they are not appropriate for either rural or transition areas as drivers typically approach them at too high an operating speed, posing great risk for damaging the vehicle. Horizontal shifts are effective if the

Figure 4.17 - Traffic calming concept for southern entrance along Route 611

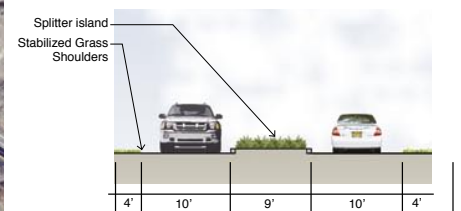
MARTINS CREEK - COMMUNITY DESIGN / TRAFFIC CALMING ON ROUTE 611 (SOUTHERN ENTRY)



Plan View of Proposed Improvements



Perspective Sketch of Southern Entry View Towards Volunteer Fire Station



Typical Cross Section A-A1 for Small Splitter Island

MARTINS CREEK - COMMUNITY DESIGN & TRAFFIC CALMING: FRONT STREET



Figure 4.18 - Traffic calming concept for Front Street

MARTINS CREEK - COMMUNITY DESIGN AND TRAFFIC CALMING: 611 / MAIN STREET INTERSECTION

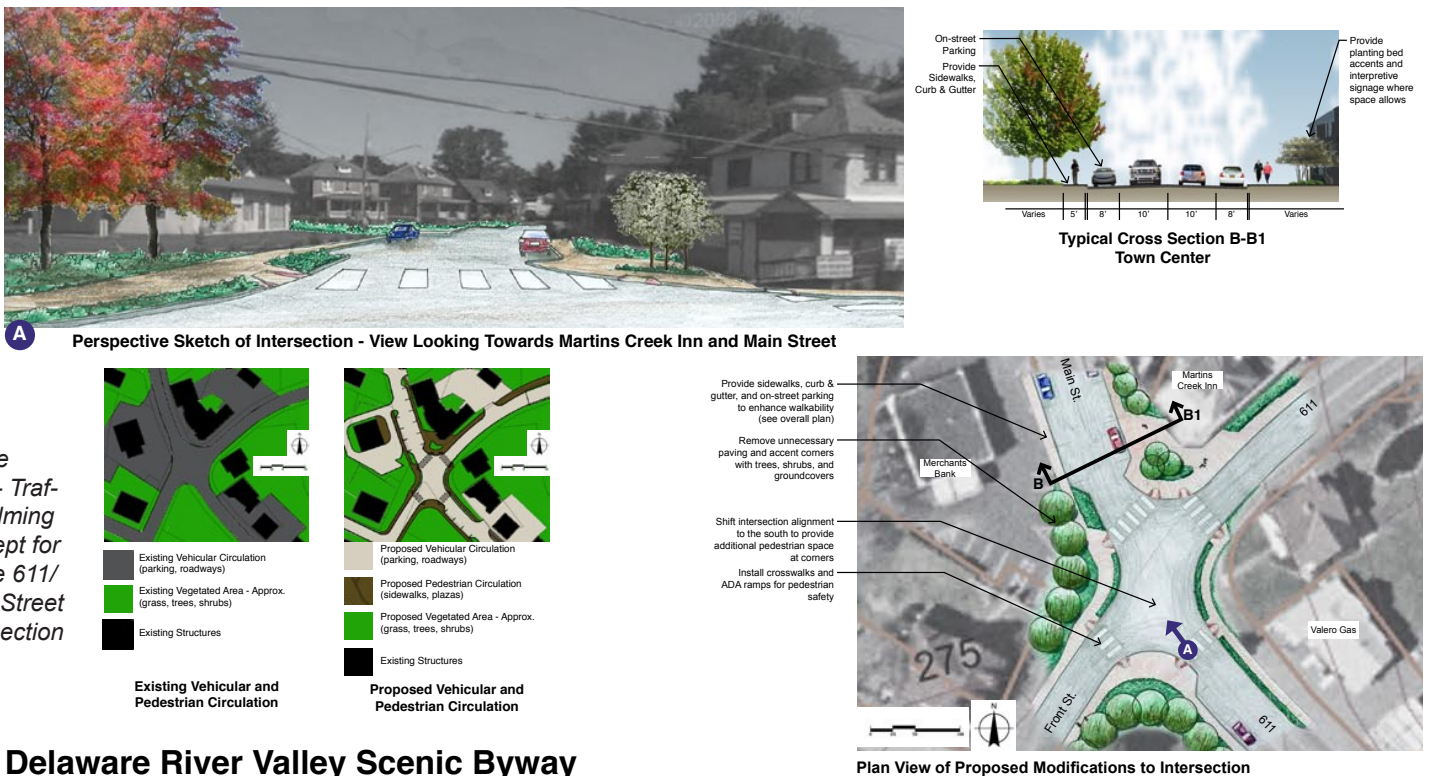


Figure 4.19 - Traffic calming concept for Route 611/Main Street intersection

Delaware River Valley Scenic Byway

MARTINS CREEK - COMMUNITY DESIGN AND TRAFFIC CALMING: BRIDGE REPLACEMENT AND REALIGNMENT

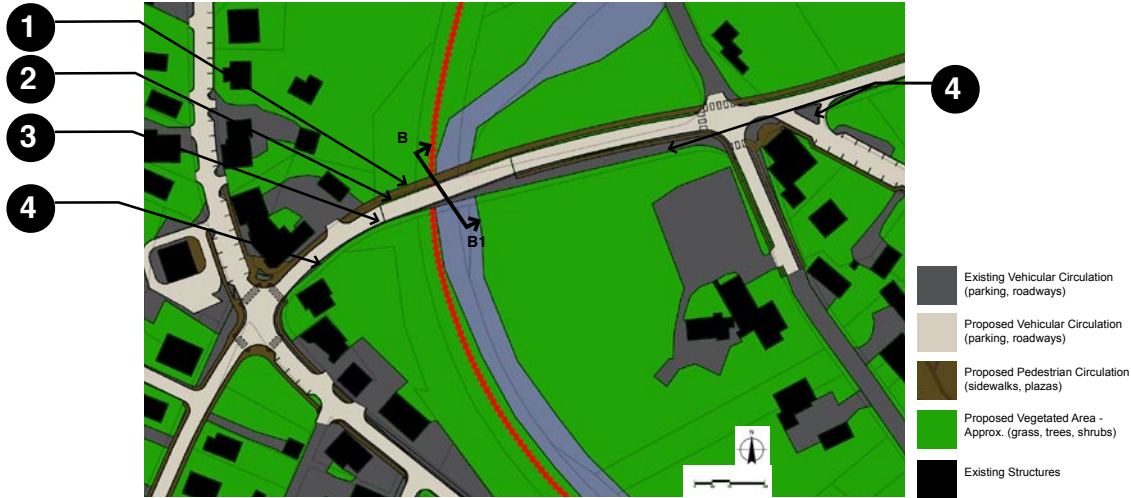
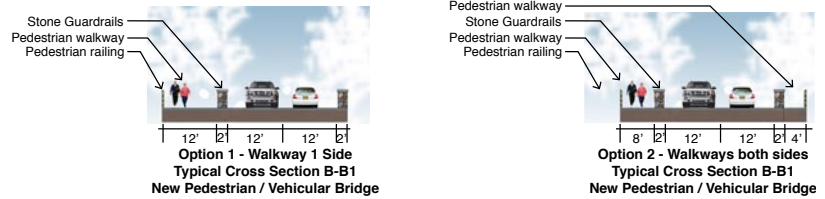


Figure 4.20 - Route 611 Bridge replacement as a traffic calming and community design initiative

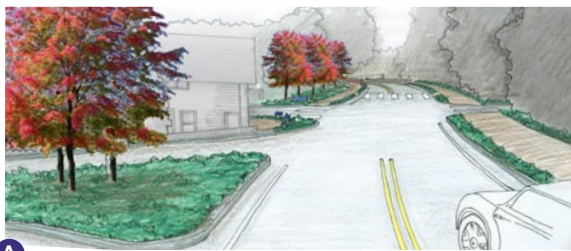
- 1** Construct bridge (partial) for maintenance of traffic on north side of existing structure and divert southbound vehicular traffic.
- 2** Demolish southbound lanes of existing structure. Complete construction of new bridge.
- 3** Divert traffic to new structure and complete demolition of existing structure.
- 4** Once new road alignment and bridge construction is complete, remove all excessive pavement and restore construction areas with landscape plantings.



Delaware River Valley Scenic Byway

Figure 4.21 - Route 611 Bridge replacement as a traffic calming and community design initiative

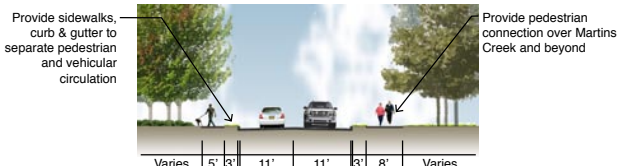
MARTINS CREEK - COMMUNITY DESIGN AND TRAFFIC CALMING: 611 / LITTLE CREEK ROAD INTERSECTION



A Perspective Sketch of Intersection View Looking Towards Ahern's Cafe and Little Creek Road



- Existing Vehicular Circulation (parking, roadways)
- Existing Vegetated Area - Approx. (grass, trees, shrubs)
- Existing Structures
- Proposed Vehicular Circulation (parking, roadways)
- Proposed Pedestrian Circulation (sidewalks, plazas)
- Proposed Vegetated Area - Approx. (grass, trees, shrubs)
- Existing Structures



Typical Cross Section B-B1 East Entry to Martins Creek



Plan View of Proposed Modifications to 611/ Little Creek Road Intersection

Delaware River Valley Scenic Byway

design speed used to engineer the alignment shift is equal to the desired operating speed. Engineers often design roadways with a marginal factor of plus five or sometime plus ten miles per hour. However, drivers tend to drive to the design speed, thereby greatly reducing the traffic calming benefit. The transition could be a sequence of two or three measures with the first measure designed at the desired operating speed plus five, and the next measure designed at the desired operating speed.

Zone 3 – Village - traffic calming measures within the pedestrian oriented village are designed to retain 25 mph operating speeds throughout. Many successful traffic calming programs utilize a village entrance feature that often includes modifications to the pavement itself so that drivers have to literally cross a threshold to enter the village proper. Measures are typically needed every 500-700 feet to reinforce the desired operating speed, as drivers tend to speed up once they pass through a traffic calming measure. Traffic calming measures in the village area are also designed to provide better visibility and a stronger emphasis to the pedestrian zone including on-street parking, bump outs at intersections to reduce the crossing distance for pedestrians. In some cases the following are also utilized: raised cross walks or speed tables (changes to the vertical alignment). Street trees, pedestrian scaled lighting, buildings constructed adjacent to the sidewalk rather than set back, and a building scale that changes the perception of the street from one of a wide open rural area to a narrow pedestrian-oriented retail street.

Figure 4.22 - Riverton traffic calming concept at PPL trailhead

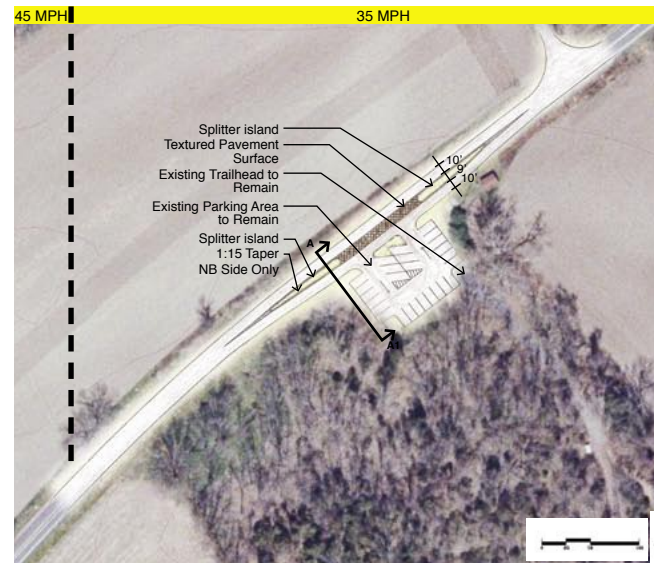
Other measures are recommended to reinforce the transition from rural highway to village street discussed above:

- Speed Limits – Figure 4.17 identifies recommendations for modifying the speed limits to reinforce the transition from Zone 1 (rural highway speeds ranging from 40-55 mph) to Zone 2 (35 mph) to Zone 3 (rural village street at 25 mph)

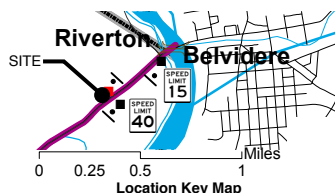
RIVERTON - TRAFFIC CALMING & PEDESTRIAN LINKAGES



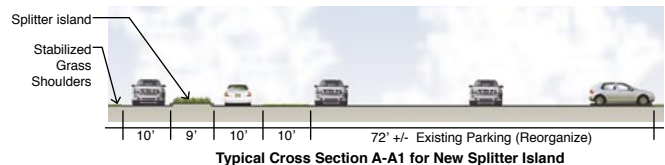
Existing Conditions



Plan View of New Splitter Island



Location Key Map



Typical Cross Section A-A1 for New Splitter Island

Delaware River Valley Scenic Byway

- Drainage – transition from an open ditch in the rural areas to a curb and gutter in the village area. Introducing a flush curb or tinting the asphalt along the shoulder in the transition area helps to give drivers additional clues that they are entering a pedestrian oriented village
- Sidewalks – transition from being set back and separated in the rural areas (as a multi-use pathway for example) to a sidewalk running adjacent to the street or shaded with street trees in the village areas
- Lighting – transition from being introduced only at rural intersections to pedestrian scaled lighting in the village areas
- Landscape – transition from informal groupings or hedgerows in the rural areas to more formal street tree plantings in the village

Figures 4-17 to 4-22 illustrates how these concepts can be applied to Martins Creek.

Riverton Traffic Calming Measures

Utilizing similar concepts for the three zones as discussed above, the following are the recommended traffic calming concepts for reducing operating speeds approaching Riverton on the Martins Creek-Belvidere Highway.

Zone 1 – approaching Riverton warning strips are recommended in advance of the parking area for the entrance to the PP&L Martins Creek Preserve.

Zone 2 – an initial narrow splitter island should be installed at the entrance to the environmental preserve (page 66). This can be accomplished by reorganizing the parking area so that it has both an entrance and exit rather than one large driveway apron and

Figure 4.23 - Riverton traffic calming concept at Visitor Center/Recreational Park entrance

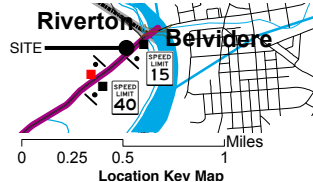
RIVERTON - TRAFFIC CALMING & PEDESTRIAN LINKAGES



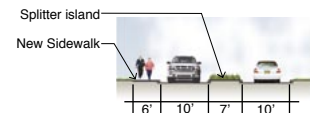
Existing Conditions



Plan View of New Splitter Island



Location Key Map



Typical Cross Section A-A1 for New Splitter Island

marking the paving spots so that they are consistent with a desired u-shaped loop. Narrow, nine-foot wide splitter islands can then be constructed at both ends of the parking area, separated by a textured pavement surface between the splitter islands as shown in Figure 23.

Zone 3 – a second splitter island would mark the entrance to the Visitor Center and Township Recreational Park [page 67](#). This would do double duty in that it could also serve as a pedestrian refuge to a connecting sidewalk located on the southbound side of Route 1004 (where there is more room for a continuous sidewalk to link with the sidewalk side of the Delaware River bridge. The sidewalk would help to provide more of a pedestrian presence in the village).

In addition to the physical improvements the following transitional elements are suggested:

- 1) Change the speed limit – from 40 mph to 35 mph in advance of the splitter island at the Martins Creek Environmental Preserve; and to 25 mph in advance of the splitter at the entrance to the Welcome Center and Recreational Park.
- 2) Narrow the lanes from 11' to 10' in zone 2 the transition area between the two park entrances and within the village of Riverton.
- 3) Introduce a stabilized turf shoulder between the entrance to the Martins Creek Environmental Preserve and the entrance to the Welcome Center/Recreational Park. This stabilized turf would provide a drivable surface for emergencies, but not look like an asphalt surface.

Implementation Steps:

- i. Seek funding for initial traffic calming studies to document the baseline traffic conditions (current operating speeds, design speed of existing roadway geometry and alignment and resulting areas where the operating speeds exceed the design speed); prepare preliminary traffic calming studies, and develop an overall traffic calming approach using the Byway corridor management plan's concepts as a starting point.
- ii. Seek funds for implementation of the traffic calming measures including both short-term and long-term measures.

FHWA published a technical report on the performance of low-cost traffic calming measures in November 2010 (see <http://www.fhwa.dot.gov/publications/research/safety/08067/index.cfm>)

Figure 4.24 - Truck traffic approaching Front Street from PA-33 interchange connecting to Route 611

Strategy 4.3 Work directly with industrial sites whose trucks pass through the Township



Identify ways in which the impacts of truck travel on the Byway and adjoining neighborhoods can be minimized, including working with truckers to demonstrate how the traffic calming and/or roundabout (s) will benefit them and be accommodated in any traffic calming measures installed in the Township.

[Chapter 3](#) identified the primary origins of truck travel through the Township. Currently many of these trucks utilize Front Street as a connection to Route 33 linking to major highways in the region, and vice versa. Although there may not be a specific and legal way to limit truck travel on public highways, they can certainly be made to travel on the Byway route according

to the terms of the Township through which it passes. Speed limits, weight limits, cover requirements, and other existing laws that govern truck use have to be enforced for them to be effective. Slowing down the speed of trucks is one way to reduce the impacts as long as they slow down far enough back that brake and engine noise from downshifting does not become an issue.

Implementation Steps:

- i. Undertake a detailed truck traffic study to determine speed, origins and destinations of trucks (including Front Street, Route 611 and the local truck access to facilities on Martins Creek-Belvidere Highway), and capacity of existing structures to accommodate truck traffic (especially the Route 611 Bridge over Martins Creek)
- ii. Based on results of the study, consider options for better management of through truck travel including: a) working directly with trucking companies that are heavy users of Front Street and Route 611; b) consider options for alternative routing for trucks; and c) consider establishing a speed awareness zone for trucks with increasing fines for speeding through Martins Creek; d) consider requesting truck restrictions from PennDOT to reduce the number of trucks by time of day, per time period or total number.

Strategy 4.4 Utilize Context Sensitive Solutions (CSS) and Smart Transportation principles when doing work along the Byway

Future modifications to the Byway – whether for safety, accommodating access, providing pedestrian and bicycle facilities, or solving complex intersection issues – can be designed in such a manner as to achieve safety goals while at the same time retaining the character defining features of the Byway route.

Context sensitive solutions (CSS) is a collaborative, interdisciplinary approach that involves all stakeholders in providing a transportation facility that fits its setting. It is an approach that leads to preserving and enhancing scenic, aesthetic, historic, community, and environmental resources, while improving or maintaining safety, mobility, and infrastructure conditions.

PennDOT has adopted CSS practices through the following general policy statement:

“PennDOT has embraced FHWA’s Context Sensitive Design initiative committed to changing the way highway projects are developed, constructed and maintained. Context sensitivity emphasizes the broad nature of solutions to transportation needs by focusing on enhancing the quality of life across the Commonwealth for transportation users, communities and the surrounding environment. This initiative recognizes that not every context sensitive solution includes a design component, and therefore focuses on the process for developing all projects. CSS is a proactive approach to transportation planning, design and implementation that looks at the broad context streets and roads play in enhancing communities and natural environments, be they urban, suburban or rural, scenic or historic. PennDOT’s initiative is introduced in guidance referred to



Figure 4.25 - Truck traffic servicing quarries and power plant on Route 1004

as *Excellent Transportation Design Qualities: Context Sensitive Design*. For more information see http://65.207.30.22/css/www/policy_overview.php.”

PennDOT’s CSS activities have included:

- Development and delivery of overview awareness presentations to staff
- Development of 45-minute video on CSS
- Development of Community Context Audit Form
- Development of a CSS website which explains CSS and provides many case studies/ examples
- Development and delivery of a three-day CSS training course to over 700 PennDOT staff and partners
- Revisions completed to numerous PennDOT manuals to incorporate the CSS philosophy

In Pennsylvania, CSS has been integrated into a new *SMART Transportation Program*. A *SMART Transportation Guidebook* (March 2008), published and available on the PennDOT website at the following address: <http://www.smart-transportation.com/>.

In addition to the issue of high operating speeds throughout the Byway and the proposed traffic calming strategies recommended to address that issue (page 61), the highway safety analysis conducted as part of the study and the review of planned and programmed projects along the Byway indicate that there will be a range of additional modifications that could occur along the Byway over time including

- Addressing safety issues on Martins Creek-Belvidere Highway (Route 1004) between Richmond Road and Del Haven Road
- Addressing sight line and intersection issues at Route 611 and Martins Creek-Belvidere Highway
- Eventual replacement of the Route 611 Bridge over Martins Creek, and other small bridges and culverts along the entire length of the Byway
- Addressing intersection and pedestrian safety issues at the signalized intersection of Route 611 with Main Street and Front Street
- The potential for addressing non-point source runoff from both agricultural and roadway sources
- The potential need for accommodating increasing amounts of bicycle use on the Byway

One way to look at potential approaches for these projects and programs that is consistent with PennDOT’s CSS and SMART Transportation policies would be to adapt the terms from the U.S. Secretary of Interior’s Standards for Treatment of Historic Properties to define the overall approach taken for the project. When adapted for byways the approaches can be broken down into three distinct levels of intervention

PRESERVE	applies to portions of the roadway or immediately adjacent right-of-way that are significant resources and should be preserved in place
MAINTAIN	applies to the majority of the Byway where the goal is to retain the character defining features of the Byway, while addressing safety and capacity issues
ENHANCE	sections of the route where the character defining features are no longer present or where interpretive opportunities exist along the Byway that could be incorporated into a project scope

Determining the type of treatment to utilize includes these four basic steps:

a) Understanding the Significance of the Byway

PennDOT staff, in whatever capacity they may become involved with the Byway, needs to become familiar with the reasons for which the Byway has been designated as a State Scenic Byway and may, in the future as part of a larger regional byway, be considered for designation by the Federal Highway Administration as a National Scenic Byway. PennDOT staff are involved in decision-making as it relates to project planning, design and development; asset management; land development permitting; and other functions in which decisions may affect the physical and visual qualities of the Byway. PennDOT staff should be familiar with the Vision and Goals of the Byway and consider what impact PennDOT decisions along this Byway may have in helping to achieve the Byway's Vision and Goals. PennDOT may need to examine its internal review mechanisms to ensure that PennDOT staff, located in diverse functional areas and multiple offices, have a routine means to learn more about its Byway designations and the Byway's corridor management plan ([page 60](#))

b) Determining the Quality of Traveler Experience

PennDOT staff can ask some basic questions about the nature of the travel experience and use the answers to these questions to inform their design decisions.

- Is the travel experience one that conveys the character of town with buildings fronting the street or one where the buildings are set back away from the roadway?
- Is the experience one of traveling through an overhanging canopy of trees or one that is characterized by open farmland and broad views?
- Is the travel experience itself one where the driver feels safe with adequate mobility, or is it congested with unpredictable turning movements?
- Is this the only way to get from one point to another, or are there choices?

c) Determining the Character Defining Features of the Project Area

PennDOT staff can better understand the nature of the character defining features by asking "What are the elements of the road and roadside design that establish the character of the road and the traveler's experience in the specific project area?" PennDOT staff are familiar with one set of character defining features – the traffic conditions such as whether or not the road is congested and whether or not the roadway has a crash history. ([page 36](#)). PennDOT staff are also familiar with the various types of roadway design elements that establish roadway character – including both its alignment and the associated structures used in the construction of the road, often referred to as appurtenances. Such elements might include paved or turf shoulders, sidewalks, hiker/ biker trails, landscaped medians, traffic signage, lane and edge pavement, striping and various types of utilities. See ([page 69](#)) for discussion of these elements.)

What is important for a Byway is the relationship of the roadway's character defining features to the character defining features of the landscape or townscape within which it travels through. [Chapter 2](#) provides an extensive definition of the corridor and the character defining features of this historic, scenic, natural and agricultural landscape. Some questions to ask at the start of the project include: Does the road fit closely to the shape of a rolling pastoral landscape? Do the overall width of the road and its various design elements fit with the scale of the adjacent buildings in the two villages? In a transitional area, do the design elements also change from rural to village as the approaches the settled area?

d) Determining Appropriate Treatments

Once PennDOT staff and their partners have familiarized themselves with the Byway's Vision and Goals and identified the character-defining features in the project area, they will be able to maintain this character through their work, whatever its nature. The proposed treatment type applies to all phases of project work – starting with the planning and design phases of a project through to project construction. It includes all types of activities along a byway including the issuance of access permits as well as traditional maintenance activities– to all actions that affect the context of the Byway.

Where a proposed action does not affect an identified character-defining feature,

consideration should be given as to how the action undertaken can support the road's special character. Stated another way, can the project be done in a manner to enhance the visual and physical quality of the Byway?



Figure 4.26 - The Byway route "lies lightly on the land"

Additionally, where character-defining features of the Byway have been lost, it may be possible to design and fund roadside enhancement projects to add value to the traveler's experience. Several such projects are identified on the Transportation, Traffic and Enhancement Opportunities Map, in [Appendix 1](#).

Overview of the Byway's Context

With its high proportion of preserved agriculture land and lack of municipal sewer and water, Lower Mount Bethel is not likely to grow and change significantly in the future. Those assumptions could change however, and the plan should have in place some guidance to address any future issues that may come up.

It does, however, have a strong potential to attract heritage-based and nature-based tourism given its position in the region between two large heritage areas to the south and a National Park unit to the north ([as shown on the Regional Context Map, Appendix 1](#)). The route itself tends to "lie lightly on the land" by adapting to the existing grade rather than extensively modifying it. One exception to this rule is seen at the intersection of Route 611 and Little Creek Road near Ahearn's Country Store, where the original route was realigned and straightened by blasting through the rock. The old road follows the contour.

[Chapter 3, pages 34-36](#) defines the existing traffic context. In summary, most of the state-maintained roads are posted for 45 mph with traffic volumes ranging from 5200 vehicles per day entering the township from the south to 3400 vehicles per day – leaving the township to the north and 2600 vehicles per day eventually leaving the township to the east towards New Jersey ([See Transportation Map, Appendix 1](#)).

Little Creek Road, maintained by the Township is posted for 25 mph where it winds through the Little Creek valley and 35 mph where at Mount Pleasant Road intersection and beyond to Route 611.

The township perceives the posted 45mph speed to be consistently exceeded – it is difficult to travel 45 without getting tailgated, honked at, and passed, often with a double

yellow line. There is one high priority crash road segment identified in the Lehigh Valley Transportation Plan along Martins Creek-Belvidere Highway. Residents along Front Street approaching the Byway in Martins Creek complain about the large amount of truck traffic and its high rate of speed.

With the context sensitive approach in mind, here are some ideas for how to address the issues – building upon the strategies for slowing traffic outlined in Strategy 4.2. Generally, there is a much greater degree of flexibility in the design of transportation features when operating speeds are lower – from lane widths and alignment to bridge parapet walls. Selecting an appropriate design speed for new features is critical to achieving the design goals. Too high a design speed results in more speeding and more impact. Too low of a design speed will increase the risk that a driver will leave the roadway or shy across the lane divider. A recommended approach is that the designer start with the minimum design speed rather than the maximum as part of the ranges offered as guidance in the latest edition of the American Association of State Highway and Transportation Officials (AASHTO) “Policy on Geometric Design of Highways and Streets”, referred to as the “Green Book”.

Basic Guidelines for Doing Work on the Delaware River Valley Scenic Byway

The following is intended to provide some basic guidance for doing work along the Delaware Valley Scenic Byway. The guidance includes suggestions for:

- Complicated intersections and roundabouts
- Alignment, Geometry and Resurfacing of Roadways
- Roadside Drainage and Stormwater Management
- Roadside Appurtenances

Complicated Intersections (Route 611 and Martins Creek-Belvidere Highway)

[Figures 4-28 and 4-29. \(page 74\)](#) illustrate a recommended approach for consideration as a way to address the complicated sight lines and turning movements found at the intersection of Martins Creek-Belvidere Highway with Route 611.

The need for work at this intersection is primarily because of two key issues:

- 1) The sight distance from turning movements from Martins Creek-Belvidere Highway onto Route 611 are limited by a rise in the northbound leg of Route 611 approaching the intersection.
- 2) The approaching sight distances on the southbound Route 611 approach to the intersection are limited towards the fixed object created by vehicles turning left onto Martins Creek-Belvidere Highway. This is particularly problematic for southbound trucks.

A roundabout is generally safer than conventional stop- or signal-controlled intersections due to the slower operating speeds by all vehicles entering the roundabout at less than 25 mph in order to navigate, resulting in a major reduction in fatal accidents. Although the recent crash history does not justify making these changes now, the perceived safety issues are prevalent in the community.

A roundabout also uses less gas than intersections where at least one vehicle is always stopping and then accelerating. This is particularly problematic for trucks turning onto Martins Creek – Belvidere Highway to access the nearby quarries and power plants.

MARTINS CREEK - ROUTE 611 / BELVIDERE HIGHWAY ROUNDABOUT OPTION

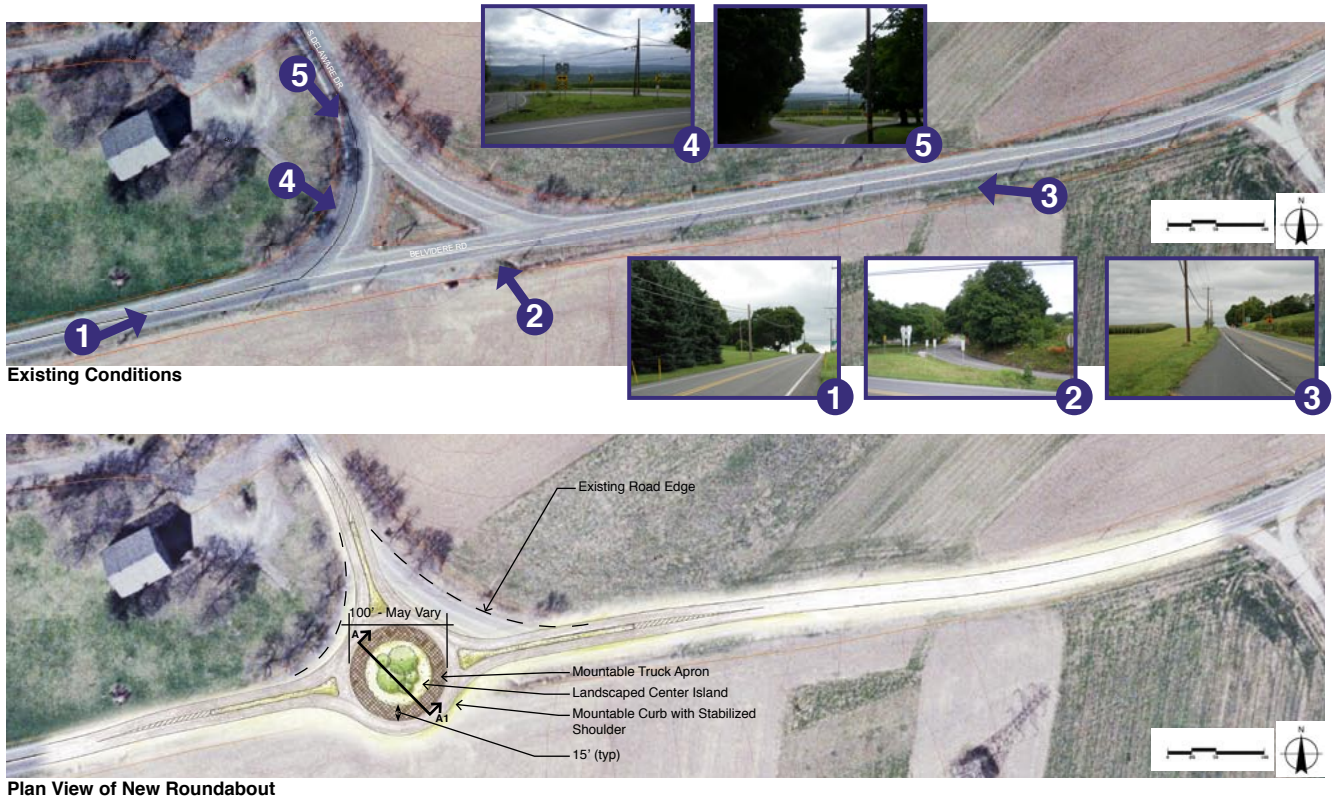


Figure 4.27 - Illustrative concept showing how a roundabout could be inserted at the Route 611/Route 1004 intersection

MARTINS CREEK - ROUTE 611 / BELVIDERE HIGHWAY ROUNDABOUT OPTION



Perspective Sketch of Proposed Roundabout
View Looking South from Church Yard

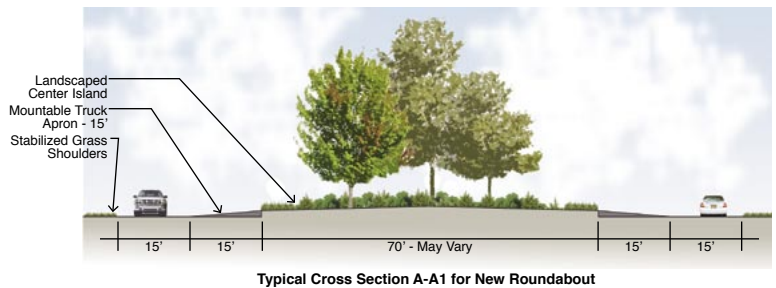
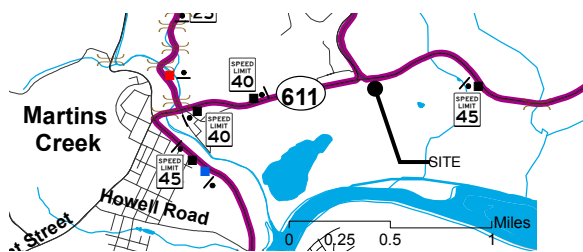


Figure 4.28 - Illustrative concept showing how a roundabout could be inserted at the Route 611/Route 1004 intersection

Drivers would yield upon entering the roundabout, so to turn left from Route 611 onto Route 1004, the driver would enter the roundabout proceed around and exit on the other side at 270 degrees. To turn left from Route 1004 onto Route 611 heading south the driver would enter the roundabout with a right merge, go around 180 degrees and exit with a right on the other side. All right turns - a much safer set of turning movements. The roundabout could fit better into the hillside than the current intersection by shifting it to the east into the right-of-way of the electrical transmission line. The wires are high and the structures far distant from the intersection, so any utility adjustments would be minimal. This shift would provide the necessary room for a flatter approach from the Route 611 southbound direction.

Figure 4.29 - Simulation of a 10 mph increase in the design speed (Route 169, Connecticut)

One issue with the roundabout is that it would introduce a new type of intersection into the road network that is not currently in use in this part of the County. Some education as to the use of the roundabout may be required and could be accomplished through the Township newsletter pointing to an online simulation of how to drive through the roundabout. An exhibit could also be installed at the Township’s Centerfield Building, the Township Offices, and the Visitor Center.



The design character of the modern roundabout in the vicinity of the neighboring historic churches should also be considered. A less formal look to the center island would help it to blend in better. If curbs are needed in the approach islands, header curbs could be used with an exposed aggregate finish to reduce the visual contrast.



Alignment, Geometry and Resurfacing

Most of the future work along the Byway will be 3R work (resurfacing, restoring, and rehabilitating) and mostly resurfacing work at that. For the curves on Route 1004, near Richmond Road, great care should be taken considering how to treat these curves if work is to be performed to increase safety.

Figure 4.30 illustrates (through the use of a photographic simulation), the difference between a 45-mph design speed (top) and a 55-mph design speed (below). The longer sight distances achieved through straightening the curve, removing the dip in the road, and removing vegetation only serves to shift the need to slow down to the next curve, long after drivers have accelerated to the higher operating speed of the “improved intersection.”



Figure 4.30 - Thicker edge line used to improve driver visibility of curve at low cost (Marland Historic National Road)

For Route 1004, efforts should be made to reduce the crash rates by utilizing advance warnings or other speed reduction measures prior to undertaking any major work to realign the curve. Currently, operating speeds are highly variable along the entire section of Route 1004 (as evidenced by the frequent passing across a double yellow line). Enforcement should be used as a tool to reduce speeding in advance of the curves. The curves act as a traffic calming device for the majority of drivers who slow down when approaching the curves following the advice of the warning signs. From the Byway point of view it is better to increase the visibility of the curves and provide advance warning than to take them out.



Other options for slowing down traffic approaching these curves would be to use thicker white lines to mark the outside edge of the travel lane (sometimes referred to as the fog line or the “shy line” as shown on Figure 4.31) or to use graduated shoulder marking at increasing intervals to increase the visual friction approaching the curve.

With regard to the issue of intersecting sight distances on Route 1004 at Richmond Road – from the Byway perspective – the same general philosophy applies. Better sight distances can be achieved by laying back the slope rather than modifying the whole intersection.



An example of a common sense modification that saved Connecticut DOT several million dollars in proposed roadway modifications and achieved the same result is shown in Figure 4.32. The small built up berm on the right side was blocking the sight distance and it was removed along with some minor changes to the intersection as shown in the illustration.

On Little Creek Road, recently, the Township painted a yellow line on the centerline of the road. The results of this should be monitored to see if it increases or

Figure 4.31 - Example of increasing visibility towards an intersection, rather than realigning the intersection (Roxbury, Connecticut Corridor Plan, L/KLA)

Figure 4.32 - Example of porous asphalt concrete surface (source FHWA and FLH Companion Document to Context Sensitive Roadway Surfacing Selection Guide, 2005) for use on low-volume roads and parking areas

2

asphalt surfacings

Porous HACP

2.6

Traffic Range:
Typical AADT <400.

Life Expectancy:
10 to 15 years.

Unit Price:
Material & Installation: \$5.00 to \$11.00/m² (\$4.20 to \$9.20/yd²) for a 50 mm (2 in.) thick lift of porous asphalt concrete.

Appearance:
Appearance is generally gray/black with a coarse surface texture.

Advantages:
Significantly reduces stormwater runoff.

Limitations:
Not suitable for high traffic volumes or heavy truck traffic; Shorter life expectancy than conventional HACP; Frequent maintenance required to clean porous asphalt pores.

Porous HACP parking lot.

Photo Source: Cahill Associates

Product Description: Porous Asphalt Concrete is a paved surface and subbase comprised of asphalt concrete and gravel or crushed aggregate, formed in a manner that results in a permeable surface. Stormwater that passes through the pavement may partially or completely infiltrate the underlying soil; the excess is collected and routed through underdrain pipes.

Page 1 of 3

return to chapter index

decreases accidents or speeding. If accidents or speeding increase a potential solution for consideration would be to change the pavement surface to one of a more permeable and coarser surface as a means of lowering travel speeds, adapting to the rural context, and meeting goals for stormwater management.

Roadside Drainage and Stormwater Management

Non-point source runoff is now the major cause of water pollution. Non-point source pollution enters a water body from diffuse origins in the watershed and does not result from discernible, confined or discrete convergences such as a pipe or ditch. PennDOT routinely incorporates measures to control non-point source water pollution. It is possible, however, to increase the amount of non-point source pollution that is treated along the roadside before it joins other surface waters and is carried to the Delaware River.

Roadside drainage should use best management practices and low impact development techniques to maintain the pre-development hydrology as much as possible and retrofit existing roadside drainage and ditches. Bioretention, dry wells, filter strips, grassed swales, infiltration trenches, inlet pollution traps/removal devices, and permeable pavers and pavement are some of the common Low-Impact Development (LID) tools that can be considered for each particular project on a case by case basis.

While it is important for surface water to be removed from the driving surface and shoulders as quickly as possible, it is neither necessary nor desirable to deposit the water directly into the natural watercourse at a high rate of speed, even with dissipaters used at the outfall.

Instead, efforts should be made to allocate more space so that surface runoff can either infiltrate into groundwater (using infiltration ditches, for example), or be retained and treated in a passive retention system using constructed wetlands and then be released at the pre-development rate.

Along rural stretches of scenic roadway, drainage facilities can be designed to blend into the landscape without calling attention to their appearance. Soil bio-engineering can be utilized as a means of controlling erosion and slowing down the erosive forces of stormwater.

Soil bioengineering uses live plant materials to provide erosion control, slope and stream bank stabilization, landscape restoration, and wildlife habitat. Soil bioengineering systems are woven together to stabilize the banks and they grow stronger as vegetation becomes established. (See Figure 4-34, page 78.) Once established, this living material effectively controls water runoff and wind erosion; minimizes frost heaving effects by binding the soil with roots; filters soil from runoff; intercepts raindrops, reducing soil erosion; improves rainwater percolation into the ground; and moderates ground and water temperatures.

One of the most important advantages of soil bioengineering is that it saves money. Compared with the traditional drainage methods, soil-bio-engineering typically costs less for materials (native plants and seed only require harvesting, handling, and transporting plant materials from a local site to a local site) and heavy or specialized equipment is not necessary. Project areas do require periodic monitoring. On highly erosive sites, maintenance will be needed until plants are established. Maintenance may include additional hydro mulching and replacement of plant materials that did not take hold.

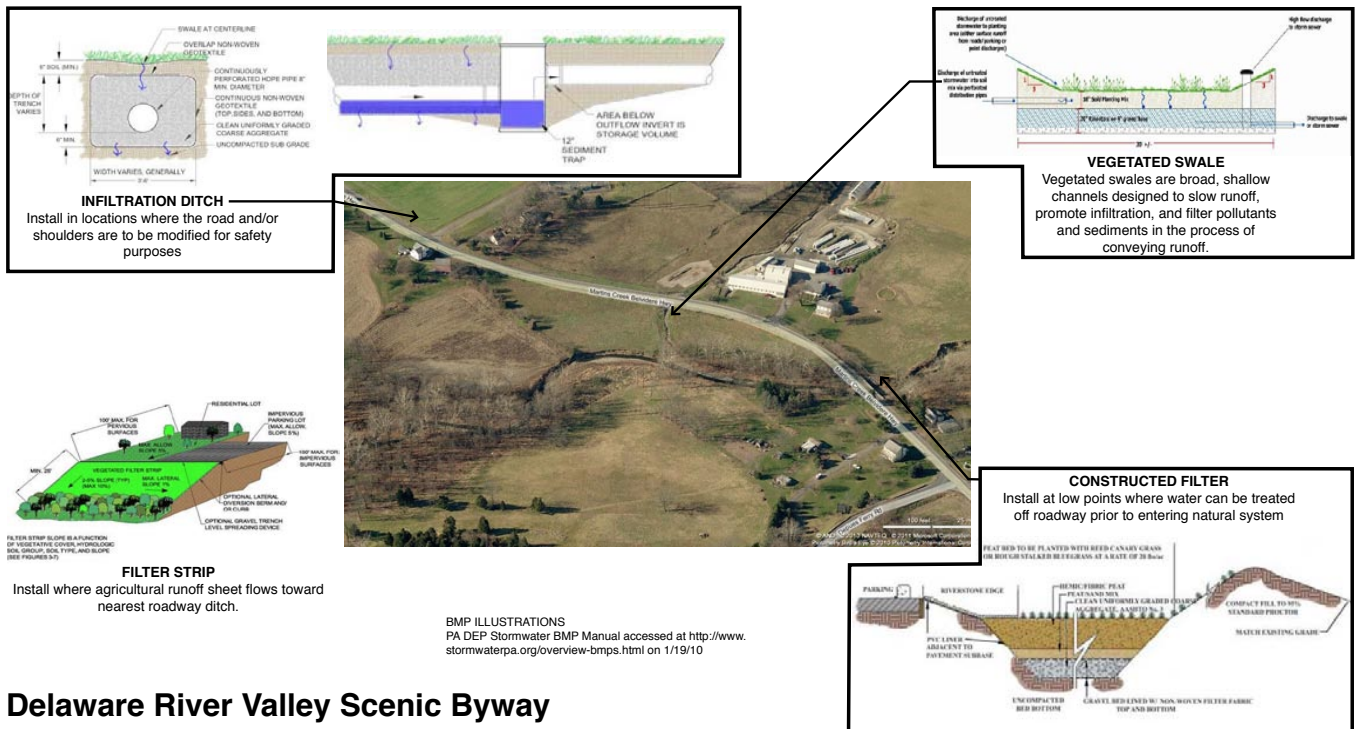
Figure 4.33 - Example of tinted asphalt used to break up the wide visual expanse of pavement - along with rusting steel guardrails. - construction photo for Route 15 in Virginia



Figure 4.34 - Example Route 100 in Delaware, illustrating ideas for better roadside details for drainage – using soil-bioengineering instead of rip-rap



GREEN HIGHWAY



Delaware River Valley Scenic Byway

Within village areas, drainage structures are more frequent and more obvious. One technique that costs very little to implement is to use exposed aggregate concrete on all drainage structures (curb and gutter, headwalls, etc.) to take out the bright white. Where stone is necessary, using a locally available field stone instead of rip-rap can save money and look better.

Roadside Appurtenances

FHWA policy requires that all roadside appurtenances such as traffic barriers, barrier terminals and crash cushions, bridge railings, sign and light pole supports, and work zone hardware used on the National Highway System meet the performance criteria contained in the National Cooperative Highway Research Program (NCHRP) Report 350, Recommended Procedures for the Safety Performance Evaluation of Highway Features.

A number of aesthetically pleasing details that can be used to contribute positively to the quality of the Byway’s travel experience fall within an acceptable range of crash-tested roadside hardware.

Guardrails and other highway fixtures such as retaining walls, safety barriers, traffic signals and controllers, light standards, and other structures should be designed to the minimum dimensions as required for safety and durability. Shiny reflective finishes should be avoided.

Given the rural nature of the corridor, the primary roadside appurtenance is guardrail. Guardrail use can be minimized by fitting the road more closely to the lay of the land, at lower design speeds if necessary. Fill slopes at 4:1 or flatter on the downhill side will eliminate the need for guardrail. Where guardrail is necessary, use low contrast finishes such as weathering steel or integral color galvanized finishes to achieve a desirable and consistent color (brown or dark gray). Steel-backed timber guardrail is already used on the

Figure 4.35 - The area along PA 1004 noted above is the location of a crash. One opportunity would be to create a ‘Green Highway’ demonstration project to make it both safer and greener.



Figure 4.36 - Steel-backed wood guardrail is installed along the Delaware River Scenic Drive and should be continued into Lower Mount Bethel Township

Delaware River Scenic Drive and needs to be extended further into the Township. This gives a distinctive look to the roadway and a more park-like setting which is good for the Byway.

Implementation Steps:

- i. Utilize the rationale within the CMP for ensuring that PennDOT, Northampton County, and the Township apply the inherent flexibility found within AASHTO guidance to solve specific roadway-related 3R work (page 69)
- ii. Whenever a project is proposed along the Byway, work with PennDOT, Northampton County, or the Township Road Master early enough in the process to incorporate design concepts and details appropriate for the Byway into the project description.



Figure 4.37 - Wyoming 2-Tube Steel Railing has a test rating of TL-4 suitable for 8000kg single unit trucks with an impact speed of 50mph.

Figure 4.38 - Texas Type T411 Aesthetic Rail has a test rating of TL-2 for cars and 2000kg pickup trucks with an impact speed of 45mph. Various versions of this can be utilized to replicate some of the historic concrete bridges over Little Creek.



4.5 Adopt guidelines for future bridge replacement projects

There are a number of bridges in the Township that will need to be replaced or reconstructed over the life of this plan. Using appropriate detailing to maintain a distinct visual identity on parapet walls and abutments can help to maintain the character defining features of the Byway. Bridge replacements are already occurring along the Byway.

The crossing of rivers, streams and wetlands offers an important opportunity to highlight the Township's water resources, the importance of the tributaries to the Delaware River in maintaining water quality, and the aesthetic quality of the Delaware River Valley's beautiful water resources. Intervention is possible by following some basic guidelines:

- 1) Maintain existing vertical and horizontal alignment
- 2) Utilize appropriate design speed – one that accepts the current posted design speed as the design speed
- 3) Work within the existing bridge footprint and replace in kind
- 4) Use railings that are either similar to the existing bridge rail, or if that rail is no longer feasible use railings that maintain open views to the landscape beyond (Figures 4.37 and 4.38)
- 5) Consider utilizing box beams as an alternative approach guide rail
- 6) Utilize weathered steel or color-galvanized steel (dark brown) to reduce the visual contrast
- 7) For bridge abutments, consider utilizing tinted or textured concrete to take away from the high contrast of bright white concrete (textures might include exposed aggregate or form liner with a finish similar to the rock type adjacent, if applicable)
- 8) Incorporate signs on each bridge identifying the water body below (Little Creek, Martins Creek, etc.)

FHWA has an outstanding website that illustrates the types of bridge rails available, along with the crash test level that has been approved for that rail⁵. This website can be utilized to select the appropriate type of parapet wall that most closely resembles an historic rail if appropriate, or one that maximizes views to the water and minimizes visual contrast both less than or equal to a Jersey barrier cost that is often proposed.

⁵ See <http://www.fhwa.dot.gov/bridge/bridgerail/>

Implementation Steps:

- i. Identify specific bridges that still retain their historic integrity and identify those bridges for preservation planning
- ii. Identify specific bridges that have been modified and recommend treatments to either maintain the character defining features or enhance them as part of future maintenance projects on those bridges
- iii. Seek funding for preservation planning and prepare the preservation plans for high priority bridges
- iv. Use the Byway CMP guidance to communicate with Northampton County and PennDOT regarding other bridges on a case by case basis

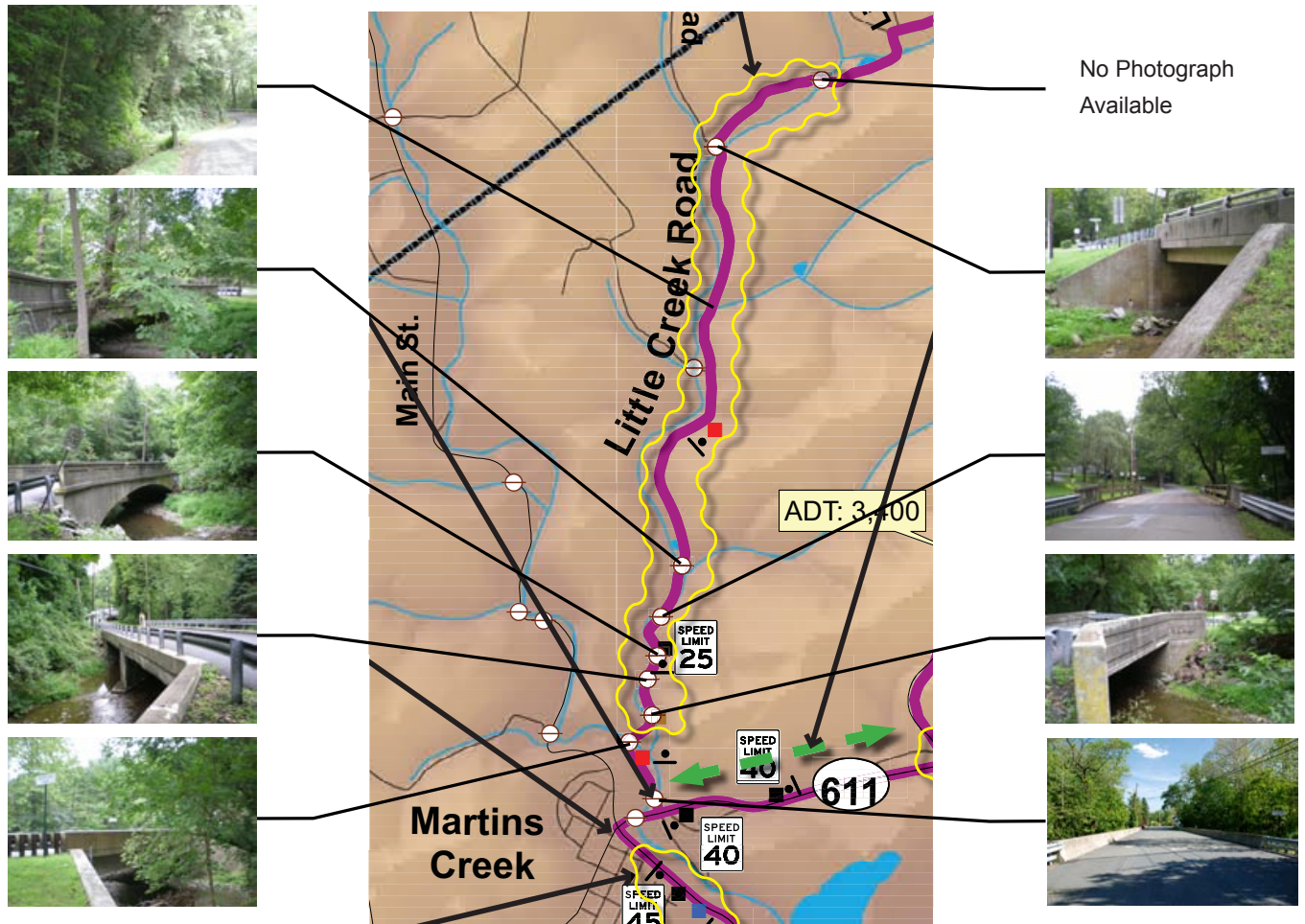


Figure 4-39 - Inventory of bridges on Little Creek Road

Strategy 4.6 Develop a specific set of guidelines for the Township to utilize in accommodating future growth in Martins Creek

Future growth and development along the Byway can also be guided in a manner that will maintain its character defining features associated with its agricultural, industrial and river heritage, including access management, neighborhood infill development, community appearance issues, and environmental issues.



Figure 4-40 - Existing architectural and historic character of Front Street

The Martins Creek bridge should be a centerpiece of upgraded public works in the community. In addition to the usual DOT funds, CDBG funding and USDA funding for rural communities might be available for carefully planned roadway, pedestrian, traffic calming, and stormwater improvements. Such projects, especially if created in tandem according to a small area plan for Martins Creek, would provide opportunities for “place-making” to reinforce the historic and small-community character of Martins Creek.

Guidelines can also be developed for new infill development that might occur within Martins Creek or Riverton. New development should reinforce the existing character of Martins Creek or Riverton by utilizing the following two simple guidelines:

- New buildings should be placed in the front of the lot towards the street using a “build-to” line, rather than a “set back.” Doing so helps to reinforce the desired village character and reflects the historic patterns of the existing settlement pattern
- Existing architectural massing, building fenestration, materials and color should be utilized as a guide for new infill construction. Figure 4-40 illustrates some of this character that can still be seen along Main Street and Front Street in Martins Creek.

By coupling these two simple guidelines with the street-related enhancements shown in Figure 4-19, page 64, Martins Creek can reestablish its livable qualities and become more attractive to businesses, residents, and visitors.

Implementation Steps:

- i. Identify potential funding sources and prepare applications for the development of a community design plan that addresses the full range of transportation, land use, infrastructure, and community identity issues
- ii. Develop and adopt voluntary design guidelines that can be utilized to implement the community design plan over time
- iii. Evaluate the potential for creating a community development corporation or cooperative with the parcel owners as shareholders for the purpose of redeveloping land within the Township according to the plan; this would especially be appropriate in built-up areas, particularly Martins Creek

Strategy 4.7 Develop a system of pathways that link the community’s, historic sites and natural areas with the Delaware River

In a manner consistent with the Township’s Comprehensive and Open Space Plans and the Lehigh Valley Greenways Plan, utilize the pathway system as a destination unto itself for visitors and residents alike. Lower Mount Bethel Township, as part of the *Two Rivers Area Greenway Trails and Implementation Study*, identified a trail system whose intent is to connect Riverton, Del Haven, Three Church Hill, Martins Creek and Sandts Eddy

and beyond to Forks Township. Establishing a comprehensive pathway system within the Township associated with the Byway will contribute to three of the Byway’s goals as well as that of improving the livability of the community:

- Linking historic sites and natural systems with the places people live will call more attention to the conservation and preservation needs of these sites (Goal 2).
- By establishing a community-based trail system and adopting it as part of the Comprehensive Plan, desired crosswalk locations, further rationale will be established for slowing traffic approaching Martins Creek and Riverton (Goal 4)
- By establishing the pathway system as a destination and associating it with the Township’s historic sites and natural systems, it will provide additional activities that can increase the length of time spent by visitors and residents alike, thereby expanding economic activity (Goal 5) including local businesses (food, gas/sundries, and potentially overnight stays)

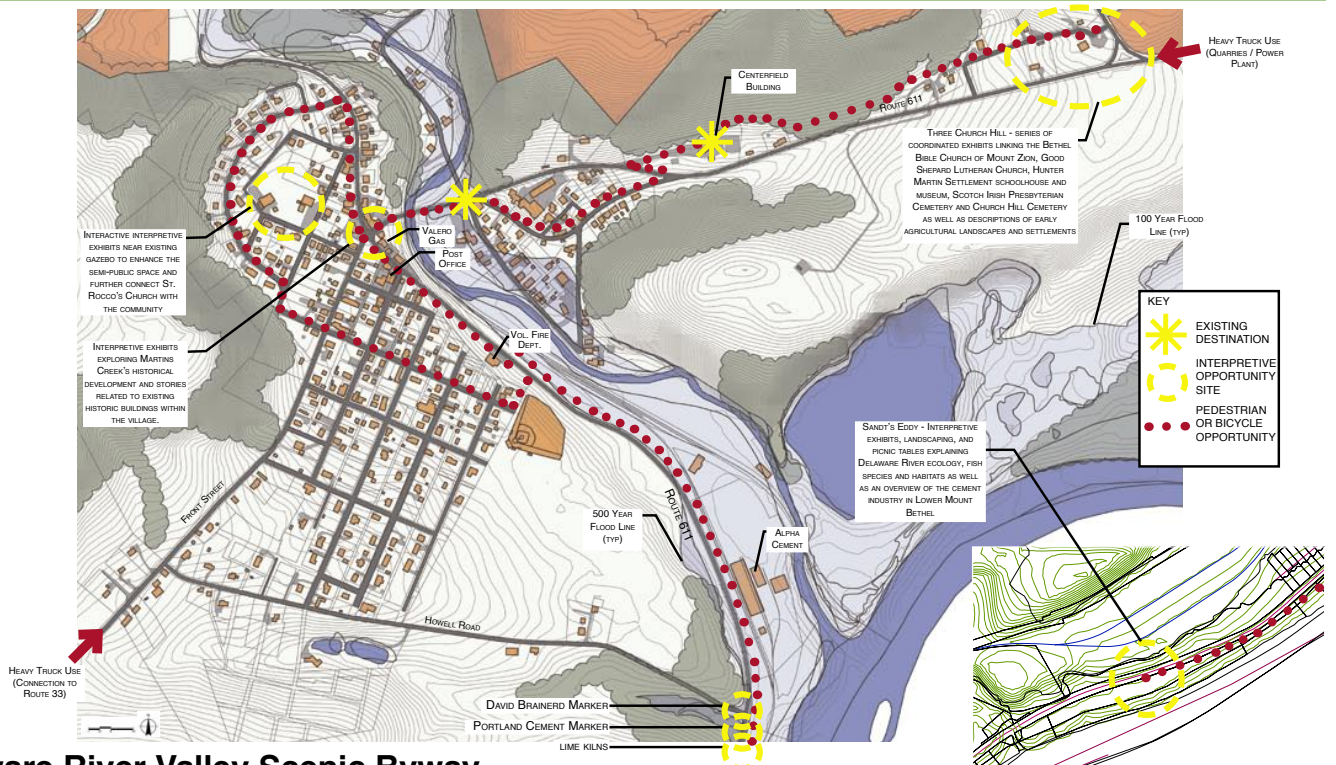
Figure 4-41 shows the recommended footpath system connecting Sandts Eddy with Martins Creek and Three Church Hill, along with the potential interpretive sites and destinations. There are several landowners between Church Hill and Martins Creek where a trail easement may be required. In addition, the Township is continuing to examine several alternatives to connect Three Church Hill to Del Haven and the PPL Trails to complete the entire system.

Figure 4.41 - Interpretive opportunities in Martins Creek are highlighted with yellow

Implementation Steps:

- Amend the Comprehensive Plan to include the additional linkages identified in the Byway plan not already noted in the comprehensive plan (Martins Creek portions)
- Prepare a trail development plan that includes preliminary design drawings for high priority trails connecting interpretive sites as described in Goal 5, page 84)
- Discuss as an early action plan the potential for the footpath from Three Church Hill to Martins Creek by prioritizing discussions with the several landowners between Centerfield Building and Three Church Hill

MARTINS CREEK - EXISTING PATTERNS OF CIRCULATION AND OPPORTUNITIES OVERVIEW



Strategy 4.8 Utilize the pathway system as a means of telling the stories associated with the agricultural, river, and industrial heritage of the Delaware River Valley.

As an outgrowth of Strategy 4.7, and in combination with the interpretive planning component of Goal 5, the trail system can do double duty through interpretation of both the natural and cultural history of the Delaware River Valley. In addition to the current opportunities that are being developed for the Visitor Center and Recreational Park (to tell the stories of the natural heritage of the Delaware River), the proposed trails south of Martins Creek could be developed into an interpretive tour of the industrial heritage of Martins Creek, a key component of the strong link between natural resources and economic development that is found on PPL's publicly accessible properties.

Implementation Steps:

- i. Seek C2P2 funding to implement a footpath/interpretive system from Sandts Eddy to Martins Creek and Three Church Hill as the means of linking interpretive sites

Goal 5: Use the Byway as a Tool for Economic Development

Establish the Byway as a rural economic development tool to extend visitor stays by coordinating the storytelling, interpretation and education associated with the region's agricultural and Delaware River heritage with its opportunities for nature-based recreation and related "farm to table" tours and tastings.

Rationale

At the initial public meeting held in June 2010, a number of challenges were identified relative to establishing the Delaware River Valley Scenic Byway as a potential heritage, agricultural and nature-based tourism destination in the Lehigh Valley.

- 1) How do you get the farmers and the community to support non-traditional forms of economic development such as heritage, agricultural and nature-based tourism?
- 2) How do you link the benefits of increased heritage, agricultural, and nature-based tourism directly to benefits to the Township?
- 3) How do you link the Byway initiative with the best economic interests of the agricultural community?
- 4) How do you shift the thinking about encouraging people that normally just pass through the community on their way to some other place, to stay a while and patronize local businesses?
- 5) How do you overcome the challenges of not having enough visitor infrastructure (primarily rooms, meals and things to do)?
- 6) What if you are successful? Then how do you keep the Delaware River clean and its recreational opportunities open for use by people in the Township?

The first three questions address the question of community benefits of byways. A critical step in gaining a higher level of community engagement in the active management of a byway is to demonstrate the benefits of that active management. In summary, there are three basic categories of benefits that can accrue to a region upon designation of a route as a state or national scenic byway:

1. Designation establishes the regional or national significance of an area for its intrinsic qualities and thereby increases the opportunities associated with land conservation and historic preservation of those qualities.

Designation will facilitate opportunities for both public and private land conservation and preservation projects by recognizing the intrinsic qualities as having public values for tax benefit purposes (such as for donation of preservation or conservation easements to a non-profit qualifying organization). Without such public recognition, the tax benefit has no public purpose and therefore has no value to the donor. This is the basis for the conservation and preservation goals (Goals 2 and 3). Designation also increases the eligibility for funding of the purchase of agricultural, scenic or other types of conservation easements and can help the community leverage existing resources to gain more community conservation benefit.

For examples of land conservation and preservation projects along scenic byways see the following:

- 1) Chesapeake Country Scenic Byway Preservation of two farms in Queen Anne's County – see <http://www.dnr.state.md.us/dnrnews/pressrelease2010/090910a.asp>
 - 2) Conservation Trust of North Carolina http://www.ctnc.org/site/News2?page=NewsArticle&id=6203&news_iv_ctrl=1185
 - 3) Hatton Ranch Project, Gold Belt Scenic Byway, Colorado <http://www.palmerlandtrust.org/node/177>
2. Once recognized, and after an initial period, land values can increase for property owners within the recognized area, and net fiscal benefits can accrue to a community based on those increasing land values.

The value is created for both individual property owners and a byway related community/jurisdiction.

For individual property owners, this may include

- Attractiveness of a property for resale
- Positive impact on sale price due to quality of life issues that led to the Byway's designation in the first place
- Long-term value sustained by the overall management of the Byway

For Byway communities, this may include

- A net positive fiscal impact associated with the economics of land conservation (the value of conserved lands exceeds the net value of developed lands once the cost of providing services such as schools, police/fire, extending utilities, and expanding road capacity is deducted)
- A well-managed conservation program can sustain itself over time by providing significant enough and positive fiscal benefits through property tax revenues to finance additional conservation measures (or other related management programs) should a community wish to use the funds for that purpose.

The following excerpt was taken from The Economic Value of Protected Open Space in Southeastern Pennsylvania (November 2010), prepared by the Economy League of Greater Philadelphia, Econsult Corporation, and Keystone Conservation Trust for GreenSpace Alliance and the Delaware Valley Regional Planning Commission.

“While homes that are closer to open space enjoy a more significant property value increase, on average, all homes in our region are worth \$10,000 more because of access to open space. When you add it all together, it’s a gain of more than \$16.3 billion for our region’s homeowners and economy.”

- If managed to encourage heritage, agricultural, or nature-based tourism opportunities, community fiscal benefits can also increase through enhanced economic activity.

A well-managed byway – one that actively markets the Byway, advocates on its behalf, pursues funding from a range of sources to implement projects, and keeps its constituents actively involved – also has the potential of a positive fiscal impact resulting from:

- Fiscal benefits, depending upon the tax structure, which result from increased economic activity and value. For small businesses, this may include
 - Increased traffic, publicity and market potential for tourism-oriented businesses such as the hospitality and other service-based industries and enterprises
 - Increased economic activity based on the potential for increased traffic
- Opportunities for bringing in more federal dollars for enhancing the Byway
- Designation represents an opportunity to enhance overall quality of life through investments in heritage, agricultural, and nature-based tourism related infrastructure, and enhancement related projects and programs

A first step in determining the level of fiscal impact would be to identify the market and the potential share of that market that would need to be captured to begin accruing fiscal benefits.



Designated byways are marketed through the statewide or national programs, including being published on maps and web sites resulting in increased exposure to potential travelers looking for destinations, events, and attractions that might be included in their plans.

Longwoods International prepared a market research report for the Federal Highway Administration and the America’s Byways Resource Center on developing strategies for increasing awareness of the America’s Byways Program (see <http://bywaysresourcecenter.org/resources/specialprojects/partnershipmarketing/#anchor1>).

Of interest to Lower Mount Bethel Township and its partner communities up and down the Delaware River Valley were some key findings

- In response to pertinent questions about the America’s Byways product (See Figure 4-42) there was a 14-30% increase in awareness between those that had traveled on one of America’s Byways and those that had not
- There was a significant jump in likelihood of traveling on one of America’s Byways for those that knew about the program (39% to 55% increase in the Northeastern States)

Figure 4.42 - Longwoods TravelUSA Byway Research comparing those that have traveled along a National Scenic Byway—the longer green bars—with those that have not)

- Longwoods TravelUSA found that the three of the top four reported experiences found on a “touring trip” (after shopping of course) were to visit a landmark/historic site, for fine dining, or a national/state park – all of which are readily available within the Delaware and Lehigh Valley Heritage Region
- Longwoods TravelUSA found that the top three experiences on “outdoor trips” were camping, fishing and hiking/backpacking. Fishing along the Delaware River is nationally renowned and people already come from all over to experience it
- Longwoods TravelUSA found that the top three “special event trips” were shopping, fine dining, and fairs/exhibitions/festivals

The Longwoods TravelUSA research points to the opportunities that are out there to capture a large segment of the American traveling population that enjoys visiting landmarks/historic sites, state or national parks, fishing, and attending fairs/exhibitions and festivals. Over five million people visit the Delaware Water Gap on an annual basis (see page 40). For each 1% of visitors that can be captured by the municipalities along the extended Delaware River Valley Byway (from Easton to the Water Gap) in Northampton County, traveling in pairs, staying an average of just one night and together spending just three hundred dollars on lodging, meals and additional purchases, an additional \$7.5 million are generated in direct economic activity. One percent, 50,000 people (traveling in pairs), is a very achievable goal whose benefits would be spread throughout the Lehigh Valley.

To help attain that goal, the following strategies are recommended.

Strategy 5.1. Extend the reach of the designated state Byway

Seek National Scenic Byway designation at a minimum from Easton to the Delaware Water Gap and preferably along the entire length of the Delaware River Scenic Drive and in New Jersey by extending the New Jersey Delaware River Valley Scenic Byway to Warren County and Old Mine Road

The purpose of gaining the designation is to capture some of the marketing potential from the America’s Byways program. This is basically free publicity. Byways so designated have been published in travel books and magazines, recognized on television shows, and captured on travel web sites (in addition to American’s Byway’s public web site (www.byways.org)). Traveling to a National Park along a Wild and Scenic River (with great fishing), on a National Scenic Byway is an easily packaged and marketed itinerary for capturing just a very small portion of the large sector of the traveling public that is likely to take a trip on one of America’s Byways.

Implementation Steps:

- i. See Strategy 1.1 (page 45)

Strategy 5.2. Focus marketing activities on Touring/Special Event and Outdoor segments of the tourism market

Given the regional interest within the market area (Northeast and Mid-Atlantic) in touring, special events, and outdoor activities, the initial efforts at marketing the Byway should focus on what are already the natural strengths of the Delaware and Lehigh Valley regions. The following steps will help to focus those marketing efforts and associate them with the Byway.

Implementation Steps:

- i. Work regionally through Discover Lehigh Valley to identify potential regional outdoor events that could be linked with the Byway (See Appendix 2 for a list of 2010 events that took place as an indicator of the types of events that are already occurring)
- ii. Prepare a tear off map and guide featuring scenic touring routes along the Delaware River (identify the desired extended Byway route and market it as a Lehigh Valley touring route until such time as it is designated as a National Scenic Byway see page 43 for recommended route)
- iii. Work with Delaware River townships to market a “discover the Heritage of the Delaware River” experience-based marketing program through Discover Lehigh Valley

Strategy 5.3 Tie in Lower Mount Bethel Township to the overall Delaware River experience

By expanding the range of “human-powered” outdoor recreation experiences and community facilities, the Township and its regional partners can extend the stay of both residents and visitors alike and increase the likelihood that they will stay overnight at a local Bed and Breakfast or buy a meal at a local restaurant. Some possibilities include



Figure 4.43 - Delaware Water Gap Celebration of the Arts, Jazz and Arts Festival

- Outdoor experience – boating, fishing, hiking, possibly camping are all potential Delaware River experiences that could be expanded through the development of river related facilities such as small craft boat access from the Township Recreational Park. There are outfitters along the Delaware River that enhance and package that experience. Linking the trails with a pathway from Riverton to the PP&L site makes it easier and safer to connect with the system from the Bed and Breakfast there. Trail linkages can also connect with the Township’s restaurants in Martins Creek (see Strategy 4.7, page 82)
- Touring experience – link together with other municipalities to create food (farm to table) and wine tours, water trails, bicycle tours and other long-distance trail opportunities (such as “Inn to Inn Bicycle or Water-trail touring) or geocaching
- Events – linking together events – such as “River Fests,” fishing tournaments, or concert music series. The most direct opportunity for outdoor events would be to expand an existing summer concert series and follow that series “down the river” with Lower Mount Bethel Township hosting one of the events at the Welcome Center and Recreational Park.

Implementation Steps

- i. Seek funding for planning money on a regional basis for a joint event utilizing the Township Welcome Center and Recreational Park as an outdoor venue such as a part of a sequential concert series, river-related event, or recreational event such as a soccer tournament (also see house tour strategy 3.1, page 54)
- ii. Carry out the event on a trial basis and then determine the feasibility of establishing it as an annual event.
- iii. See trail linkages strategy 4.7 and 4.8, page 82

Strategy 5.4 Use mobile technology to promote Delaware River Corridor

Although this would best be developed for the extended Byway, Lower Mount Bethel Township could lead the way in capturing the “what am I looking at” and “what’s near here” information as part of a mobile technology application for visitor accommodations, nearby attractions, etc. using a “Delaware River App. ” This may be a good opportunity for one of the nearby University or Community College classes to undertake as a starting point.

Implementation Steps

- i. See interpretive strategies, page 90

Strategy 5.5 Establish (or expand upon the existing) Delaware River Tourism Ambassadors Program and Delaware River Site Certification Program

Establish a certified Delaware River ambassadors and site certification program that provides education to front-line hospitality providers on the natural and cultural history of the Delaware River, on river guide services, and to provide training related to enhancing traveler services and experiences at existing hotels, restaurants, and attractions (best accomplished for an extended Byway).

Implementation Steps

- i. Seek workforce training funds for the Lehigh Valley focusing on heritage- nature- and agri-tourism businesses to develop a hospitality training program through Northampton Community College

Strategy 5.6 As part of the overall enhancement program for the Byway improve the overall appearance and impression of Martins Creek and Riverton and establish a more welcoming environment for potential patrons at the existing hospitality businesses.

The locations of areas that would benefit from enhancements are identified on the Transportation, Traffic Safety, and Enhancement Opportunities Map in Appendix 1.

Implementation Steps

- i. See 4.6, page 82, to prepare a community design plan that identified recommended enhancements based on CMP framework (reference to CMP, in process)

Strategy 5.7 Manage the positive benefits of heritage-, agricultural-, and nature-based tourism

Utilize the Byway management plan and the implementation of the marketing measures noted above to balance the level of tourism related programming with the capacity of the community to support it.

Implementation Steps

- i. As that capacity grows with more trails, enhanced hospitality, and increased interpretation and education associated with its historic, agricultural and natural resources, then more events and activities can be programmed over time.

Strategy 5.8 Visual and graphic identity

Develop a graphic identity for Delaware River interpretive signage, wayfinding signage, and graphic content as a means of linking the various independent sites with their common themes and presentations. The visual and graphic identity should build upon and tie into the work being done by Corbin Design for Discover Lehigh Valley.

[The visual and graphic identity needs to correlate with Delaware River Signage Program at <http://www.delrivgreenway.org/pdf/Water%20Trail%20sign%20design%20alternatives.pdf>]

Implementation Steps:

- i. Apply for scenic Byway program funds
- ii. Hire a consultant and establish a regional task force of key stakeholders including agency, educational, and visitor attractions representatives
- iii. Working with task force, inventory existing interpretive signage, wayfinding and other graphic content to determine visual and graphic identity needs
- iv. Conduct program development work sessions with the task force to identify the types of media and communication that will be utilized to convey the educational and informational messages to Byway travelers
- v. Develop prototypes for each type of media and method (e.g., tear-off maps, wayside panels, visitor information kiosk, web page, video/audio files, etc.)
- vi. Develop a master site location map for signs and interpretation
- vii. Develop and distribute a design manual for use by individual sites participating in the Byway touring program

Strategy 5.9 Create a comprehensive interpretive plan for the extended Byway (in combination with Strategy 5.8):

This strategy addresses interpretation of the proposed scenic byway within Lower Mount Bethel Township. In doing so, consideration should be given to establishing the Byway and river's connections within the Delaware River watershed as a whole as well as highlighting locally significant stories and themes. In early phases of the Byway's implementation, interpretation should support local stewardship goals by raising public awareness of the natural and cultural significance of the township's Delaware River landscape.

Regional Interpretive Initiatives

A number of regional interpretive initiatives have been undertaken in recent decades along the Delaware River including all three major regions of the watershed – Upper Delaware, Lower Delaware and the Delaware Bay. These initiatives have contributed to a sense of regionalism along the river in that they transcend political boundaries. However, the section of the Lower Delaware between Easton and the Delaware Water Gap (including the Byway) has not been widely interpreted (nor marketed) as an important part of the Delaware River story.

This may be changing in the near future as the Martins Jacoby Watershed Association has signed a cooperative agreement with the National Park Service to share their on-the-river technical resources and logistical support. The National Park Service cited MJWA's demonstrated track record in assisting the Commonwealth of Pennsylvania, Northampton County, townships, and area non-profits in providing protection of the Lower Delaware River through river resource education, recreational access, and interpretation as well as farmland preservation and conservation project work as instrumental in carrying out National Park Service (NPS)-related project work in the Lower Delaware Wild and Scenic River between the Water Gap and Easton.

As one part of their cooperative agreement, MJWA will assist in the development and production of education, interpretive exhibits, publications, other media and programs and events that interpret the resources of the Lower Delaware River and watershed in Northampton County, Pennsylvania and Warren County, New Jersey

Implementation of the Delaware River Valley Scenic Byway is an opportunity to help raise public awareness about the watershed as a whole by working collaboratively with related organizations that are already telling the story of the Delaware River in all three regions of the watershed. Existing regional interpretive and educational initiatives within the Delaware River watershed include:

Upper Delaware Scenic and Recreational River

The Upper Delaware Scenic and Recreational River is a designated National Wild and Scenic River along the upper length of the Delaware River along the border between Pennsylvania and New York. The Scenic and Recreational River begins near Hancock, New York, just south of the junction of the East and West Branches of the Delaware River emanating from the Catskill Mountains. It extends south along the river to a point just north of Port Jervis, Milford, and the Delaware Water Gap National Recreation Area. Managed by the National Park Service, the Upper Delaware Scenic and Recreational River interprets the natural and cultural resources of the river and provides recreational opportunities.

Delaware Water Gap National Recreation Area

The Delaware Water Gap National Recreation Area includes the width of the immediate Delaware River Valley from the vicinity of Milford south to the Delaware Water Gap. Also managed by the National Park Service, the Recreation Area preserves the natural and significant cultural resources of the river valley, interprets aspects of the river's history, and provides recreational opportunities through river access, hiking trails, and other amenities. It includes the most complete approach to interpretation of the Delaware River. This portion of the Delaware River has also been designated part of the National Wild and Scenic River System.

Delaware River Scenic Byway (New Jersey)

The Delaware River Scenic Byway is the portion of Route 29 that borders the Delaware River along the New Jersey side from Frenchtown south to Trenton. The Byway is approximately 32 miles in length and is marketed as a tourist destination interpreting a series of historic villages and sites along its route, including the portion of the Delaware and Raritan Canal bordering the Delaware River.

Delaware & Lehigh National Heritage Corridor

The Delaware & Lehigh National Heritage Corridor is a designated national heritage area incorporating the Delaware Canal along the Delaware River in Bucks County and the Lehigh Canal and Lehigh River in Northampton, Lehigh, and Carbon Counties. The heritage area also extends further north to the Wilkes Barre region of the Wyoming Valley (Susquehanna River). The spine of the D & L National Heritage Corridor is a corridor-long trail that extends along the Delaware and Lehigh Rivers linking communities and resources and providing interpretive and recreational opportunities. The nineteenth century industry of the region that spawned the communities, canals, and later railroads along the two rivers are its primary interpretive subjects. The heritage area is managed by a non-profit organization designated by Congress which also undertakes a variety of stewardship and community enhancement initiatives in partnership with local communities and organizations. Lower Mount Bethel Township is in the National Heritage Corridor regional boundary. The expanded Byway is an important link between the D & L Canal Corridor and the Delaware Water Gap.

Delaware and Raritan Canal State Park

The Delaware and Raritan Canal State Park in New Jersey is composed of two segments, the Feeder Canal and the Main Canal. The Feeder Canal is 31 miles long and follows the eastern banks of the Delaware River from the vicinity of Frenchtown on the north to Trenton on the south. The Main Canal connects Trenton inland with the Raritan River at New Brunswick. The park is managed by the New Jersey Department of Environmental Protection and the Delaware and Raritan Canal Commission, which was established in 1974. It provides interpretation of the region's natural and cultural heritage and is an important recreational resource.

Lower Delaware River Wild and Scenic River

The Delaware River Greenway Partnership is a non-profit organization that was founded in 1998 with the goal of designating a portion of the Lower Delaware River as a National Wild and Scenic River. This goal was achieved in 2000, and the 67-mile portion of the river designated extends from a point south of Easton and Phillipsburg to the vicinity of Washington Crossing. The Delaware River Greenway Partnership undertakes a variety of activities promoting stewardship of the river, including river cleanups, public education, advocacy, and incentive grants. It encourages use of the Delaware River as a water trail from Hancock in the north to Trenton in the south, and it is leading planning for the Delaware River Heritage Trail, noted below.

Delaware River Heritage Trail

The Delaware River Heritage Trail is a proposed 60-mile multi-use loop trail highlighting the culture and natural resources along the upper portion of the Delaware River estuary from Trenton south to Palmyra and the Tacony-Palmyra

Bridge. Currently in the planning and implementation stages, the trail will link 24 communities along both sides of the river featuring natural and historic sites. The heritage trail initiative is being implemented by local municipalities in partnership with the Delaware River Greenway Partnership. The first phase of implementation will be a segment from Bordentown to Burlington in New Jersey.

Crossroads of the American Revolution National Heritage Area

The Crossroads of the American Revolution National Heritage Area was designated by Congress in 2006 and encompasses an area stretching from the Delaware River on the west to Fort Lee on the Hudson River on the east. Along the Delaware River, the heritage area extends from Frenchtown south to the vicinity of Gloucester City. The Crossroads heritage area interprets the Revolutionary War Era in New Jersey. Among its interpretive storylines is one titled *Delaware River Towns*, which will interpret the river corridor at the time of the Revolution. Implementation will be undertaken by partnering communities and sites.

Schuylkill River National Heritage Area

The Schuylkill River National Heritage Area was designated by Congress in 2000 and includes the Schuylkill River watershed from the Delaware River in Philadelphia northwest 128 miles to the vicinity of Pottsville and Tamaqua. The Schuylkill River National Heritage Area's primary initiative is construction of a riverside trail along the entire route. The heritage area undertakes a variety of stewardship activities as well, and it promotes interpretation of natural, cultural, and industrial history of the region.

Regional Interpretive Subjects

As outlined above, a variety of organizations and sites interpret various portions of the Delaware River extending from the river's upland regions to the river's upper estuary in the vicinity of Trenton. The types and quality of interpretive programming, however, vary depending upon the missions and capabilities of the organizations responsible for the initiatives. Interpretation is not coordinated, and there is no single set of interpretive themes that unifies the various initiatives under a common concept or approach.

With the planned implementation of the Delaware River Valley Scenic Byway, it is recommended that the organizations noted above be brought together to coordinate their initiatives, including stewardship, interpretation, and marketing. Interpretation of the Lower Mount Bethel Township portion of the Delaware River Valley Scenic Byway should keep the larger context of the river in mind as it presents interpretation of local themes and subjects.

An outline of possible river-wide interpretive subjects includes:

1. Natural History

- Geology and landforms
- Plant communities and ecology
- Wildlife and wildlife habitats
- Fish and fish habitats
- River systems and water quality

2. Native Americans and Early Settlement
 - Paleo-Indian period (10,000-12,000 years ago)
 - Archaic period (4,000-10,000 years ago)
 - Woodland period (450-4,000 years ago)
 - Historic period (1500 – 1780's AD)
3. Settlement and Founding of a Nation
 - Contact and exploration
 - Settling the landscape
 - Community and agriculture in the Colonial era
 - Revolution and independence
4. River Commerce and Communities
 - Provider of natural resources (food, lumber, stone, coal, water supply)
 - Ferries, roads, rafting, and river boats
 - River ports
 - The canal era (D&L, D&H, D&R, Morris, Schuylkill)
 - Coming of the railroad
 - River communities
5. An Agricultural Landscape
 - Changing agriculture in the nineteenth century
 - Mills and water power
 - Crossroads villages and farm communities
6. Industrial Growth
 - Coal and industrial transformation
 - Quarries and related industries (slate, lime, cement)
 - Railroads – a national system
 - An industrial powerhouse – the late nineteenth and early twentieth centuries
 - Power generation
 - Urbanization and immigration
 - Industrial decline
7. Stewardship
 - The use of natural resources
 - Unforeseen consequences – pollution and landscape degradation
 - Water quality
 - Changing ecosystems
 - The concept of sustainability – finding a balance

Interpreting the Delaware River Valley Scenic Byway

The proposed extension of the Delaware River Valley Scenic Byway from Easton to the Water Gap traverses a portion of the Delaware River watershed landscape with distinct characteristics that have influenced its historic development. Located within the Piedmont portion of the watershed, the proposed regional Byway parallels the river from the Delaware Water Gap on the north to Easton on the south with Route 611 as its primary spine. This is the eastern edge of Pennsylvania's Lehigh Valley. The Lehigh Valley is part of the larger Great Valley Section of the Ridge and Valley Geological Province, a geological feature that extends from southern Virginia north into New York and New England.

The Great Valley is characterized by relatively soft dolomite and limestone bedrock that has weathered into a broad valley of low rolling hills. As the Delaware River flows south

into the valley through the Delaware Water Gap, it slows and broadens and follows a somewhat meandering course. Below the falls at Trenton, the river turns dramatically to the southwest and parallels the line of the fault past Philadelphia and Wilmington. Below the falls begins the Upper Estuary segment of the river, with Pennsylvania's Piedmont landscape immediately to the northwest and the Inner Coastal Plain of New Jersey to the southeast. The flow of the Delaware River increases significantly south of the Great Valley as it is joined by its large Lehigh and Schuylkill River tributaries.

Lower Mount Bethel Township is located in the south-central portion of the Lehigh or Great Valley through which the river flows. Its landforms are typical of the low rolling hills of the valley with fertile limestone soils conducive to eighteenth and early nineteenth century agricultural practices and with ample free-flowing tributaries that were easily dammed to provide water power for early mills. Ferries were prominent landscape features and destinations for early wagon roads linking the eastern and western banks of the river. Rafting was an early form of river transport north of the Trenton falls, providing a means of conveying lumber and other natural resources from the river's upper reaches. Small villages developed at early crossroads, mill locations, and ferries.

The geology of the Great Valley and Lower Mount Bethel Township comprises three primary geological formations; the Martinsburg Formation (dark-grey slaty shale), Jacksonburg Formation (dark-gray, shaly limestone), and Epler Formation (medium dark-gray, finely crystalline limestone). These formations have been instrumental in local industrial development through quarrying of their various types of rock. The Jacksonburg and Epler Formations south of Martins Creek in particular became sources of local industrial growth, first providing lime processed through early small-scale lime kilns and later providing large-scale production of cement.

Objectives for Interpretation

As the proposed and expanded Delaware River Valley Scenic Byway takes shape and is implemented over time, a comprehensive interpretive plan should be prepared that addresses the natural and cultural significance and development of the Lehigh Valley/Great Valley portion of the Delaware River. This interpretive plan should be coordinated with other regional interpretive initiatives as outlined above in order to (A) promote a regional consciousness and approach to stewardship of the Delaware River and its watershed and (B) to create a coordinated regional travel experience that extends from the river's Uplands, through the Piedmont, to the Estuary below. In particular, the Byway should closely coordinate with adjacent interpretation in the Delaware Water Gap portion of the river to the north and the Delaware and Lehigh, Delaware and Raritan, and Morris Canal portions of the river between Easton/Phillipsburg and the falls at Trenton to the south.

In the meantime, it is recommended that early implementation projects be undertaken within the Lower Mount Bethel Township portion of the Byway to directly support the conservation and preservation goals outlined in this corridor management plan. This recommendation will support local township goals as well as laying the groundwork for further development of the regional Byway in a more holistic manner.

The landscape character and natural and historic resources within Lower Mount Bethel Township have been largely preserved because of limited development pressure within the township over the past hundred years and the more recent efforts to preserve extensive amounts of its agricultural lands. Interpretation, as part of the corridor management planning effort for the Byway, can reinforce and support the Township's continuing efforts

to further preserve and enhance this landscape and its resources for the benefit of future generations as development pressures increase.

The **objectives for early byway interpretive projects** are to

1. Raise public awareness of the township's location and significance within the context of the Lehigh Valley and larger Delaware River watershed
2. Identify character-defining features within the local landscape that have shaped local historical development within the larger regional context
3. Support stewardship goals for conservation of the natural landscape through education related to plant communities, wildlife, and river ecology
4. Support stewardship goals for farmland conservation through interpretation of the township's changing agricultural landscape and communities
5. Build awareness and support for historic preservation and the appropriate treatment of historic resources (especially buildings and archeological sites) through local stories told using existing historic resources.

Audiences for Interpretation

The audiences for early interpretive projects include local residents and visitors. In many areas, **local residents** tend to take the places where they live for granted. Because they are so close to them, they sometimes have difficulty in appreciating their character and significance. With perspective and in a larger context, this character and significance often becomes more evident. Evidence of this generalization is present in Lower Mount Bethel Township in the manner in which many local historic buildings are treated. Residents tend to modernize their buildings in ways that diminish their historic character and integrity rather than enhancing them. This actually reduces the buildings' value and negatively impacts the overall character of historic community and landscape. Interpretation can help raise awareness and increase appreciation for natural and historic resources within the township by conveying their significance through local stories set in context.

Visitors to the Byway include through travelers along Route 611; regional visitors seeking to get away for a day or the weekend from nearby urban regions of New York, Philadelphia, Wilmington, Baltimore and Washington D.C.; recreational users such as fishermen and boaters; and the families and friends of local residents. Interpretive exhibits can help increase the appreciation of these visitors for the natural and historic resources within the township. Exhibits can highlight specific places open to the general public as locations where visitors can be taken for activities, whether it is a local hiking trail, boating, or scenic picnic site.

Implementation Steps:

- i. Apply for grant funding to support the development of the plan for the entire Byway
- ii. Hire a consultant and establish a regional task force of key stakeholders including representatives of agencies, educational and attractions
- iii. Develop an inventory to include evaluation of full-service, limited, and self-guided sites and attractions for the entire extended Byway area;

- iv. Develop an overall conceptual framework to include: 1) purpose and significance; 2) travel experience goals; 3) themes and subthemes incorporating tangible/intangible meanings/universal concepts; 4) assessment of existing interpretive personal services, facilities, and media; 5) conditions; 6) audience profiles
- v. Develop interpretive sequences for implementation to link groups of interpretive projects into easily implemented and funded annual programs. Annual programs should be tied to and supportive of new product development (educational programs, self-guided itineraries, commemorative and other special events, etc.)
- vi. Use visual and graphic identity to develop specific implementation packages for installation for each sequence identified (a contractor could be selected that can design, install, and/or publish the desired interpretive facilities and/or applications)

Strategy 5.10 Presentation of the Delaware River story

Based on the results of 5.9 and 5.10 above, create interpretive content and media to present the overall Delaware River story, to set the interpretation of individual sites and attractions in context, and to create bridging storylines between sites. Present the overall story on a new Byway website, in publications, and through technology assisted media such as GPS and Mobile Phone, etc.

Recommendations for Early Interpretive Projects

As part of the early actions associated with this strategy the following sites should be considered for interpretive presentations. (See Figure 4.41, page 83 for locations and Appendix 3 for detail maps for use in future grant applications.)

1. Sandts Eddy

Sandts Eddy is a publicly accessible boat ramp and parking area located along Route 611 about two miles south of Martins Creek. The parking area overlooks the river, facing south, and also is adjacent to the large former cement plant, now Conagra Mills, on the west side of the road.

It is recommended that interpretive exhibits be installed in the grass area adjacent to the parking area overlooking the river. Exhibits should be supplemented with landscaping and picnic tables that will be useful for fishermen, boaters, and the general public. Interpretive topics should include

- An overview of the Delaware River watershed
- Detailed presentation of river ecology, fish species, and habitats
- Overview of the cement industry in Lower Mount Bethel Township
- There was extensive archeological data recovered near this site for a pipeline project in the mid-1990's that may be an interpretive treasure trove worth of uncovering

2. Martins Creek

The village of Martins Creek is a charming crossroads community that remains a vital commercial and residential center within the township. It is recommended that interpretive exhibits be installed in the vicinity of the Main Street/Front Street intersection in a safe location for pedestrians. The intersection itself could be enhanced for pedestrians as recommended elsewhere in this plan. (See page 64.) The installation of crosswalks and removal of unnecessary paving would help. Exhibits

could be located near the entrance to the Martins Creek Inn. Interpretive topics should include:

- Martins Creek's historical development; and
- Stories related to existing historic buildings within the village.

3. Ahearn's Country Cafe

At the northern end of Martins Creek, just past the concrete bridge that crosses high over the creek, is a historic building that is currently home to the Ahearn's Country Café. An interesting and dramatically scenic location, interpretive exhibits could be installed both around and within the café. See Figure 4.21, page 65, for location for an illustration of how the space could be carved out by rearranging the parking areas for the restaurant. The Little Creek Branch of the Byway intersects Route 611 opposite the café. It is recommended that exhibits interpret:

- The café and adjacent buildings
- Martins Creek and the water powered mills along the creek that were once an important feature in the area's early nineteenth century agricultural and industrial economy

4. Three Church Hill

Three Church Hill is the name given to a prominent location along the Byway where Route 611 turns sharply north and local Route 1004 continues northwest toward Riverton and the town of Belvidere, New Jersey. The hill is an elevated location with a spectacular view of agricultural fields and surrounding woodlands. Five significant historic resources are located here; the Bethel Bible Church of Mount Zion, Good Shepard Lutheran Church, Hunter Martin Settlement schoolhouse and museum, Scotch-Irish Presbyterian Cemetery, and Church Hill Cemetery. It is recommended that a series of coordinated exhibits be installed linking these resources and supplementing the interpretive signage currently in the Scotch-Irish cemetery. Exhibits should tell stories of the

- Early settlement history of the region
- Early agricultural landscape
- Communities associated with the churches and cemeteries
- Personal stories of selected representative individuals buried in the cemeteries

5. Martins Creek Environmental Preserve

The Martins Creek Environmental Preserve is a preserved wooded area bordering the Delaware River in the vicinity of Foul Rift. Owned and managed by PPL, the preserve is adjacent to the two PPL power-generating plants, Martins Creek (constructed in 1954) and Lower Mount Bethel (constructed in 2004). The preserve has five miles of wooded hiking trails with mature and diversified forest, rock formations, and views of the Delaware River. In collaboration with PPL, it is proposed that additional interpretive exhibits be installed along the trails or at other appropriate locations. Exhibit topics should include:

- Overview of the Delaware River watershed;
- Plant communities and other natural resources within the preserve; and
- Geology that created the Foul Rift rapids in the context of the Great Valley geological formations.

6. Foul Rift Boat Access Area

Just south of the Martins Creek Power Plant off Foul Rift Road is a publicly accessible boat launch. As was recommended for Sandts Eddy, interpretive exhibits should be installed within an enhanced landscape area to attract the interest of fisherman and recreational boaters. Interpretive topics should include:

- Discussion of the Martins Creek and Lower Mount Bethel Power Plants;
- River ecology, fish, and fish habitats; and
- Early commercial rafting in the eighteenth and nineteenth centuries.

7. Lower Mount Bethel Township Recreational Park

The Lower Mount Bethel recreational park is located on former PPL lands north of the Martins Creek Preserve and adjacent to Riverton. It is recommended that interactive interpretive exhibits be installed adjacent to the fields and parking area. The purpose of the interactive exhibits is to engage young people playing at the park. Exhibits could include themed playground structures such as a Durham boat or moving exhibits demonstrating ecological and scientific subjects. Exhibits could also be installed in the visitors center. Interpretive topics should include:

- Ecology of the river and river valley; and
- Subjects related to township history.

8. Riverton

Riverton is a small historic community on the Pennsylvania side of the Delaware River bridge crossing to Belvidere, New Jersey. The community should be interpreted with exhibits on:

- The Riverton Inn and adjacent historic homes;
- The Delaware River bridge.

Implementation Steps:

- i. Seek funding for development, installation, management, monitoring and maintaining interpretive content as per the interpretive master plan
- ii. Seek funding for the assessment and management of collections in the various small museums found within the area
- iii. Provide technical assistance to individual sites with implementation utilizing the resources developed as part of the visual and graphic identity, and the interpretive master plan (may require hiring a circuit rider to serve as a roving interpretive planner, designer, and installer).

Strategy 5.11 Develop new programs featuring regional crafts, produce, dining, wines, and other experiential approaches to interpreting the Lehigh Valley region as a distinct identity.

Support the production and coordinate the marketing and sale of regional crafts and produce, such as the region's wines, apple products, etc. Support stores in downtown areas that feature local crafts and produce.

The purpose of expanding the range of programming associated with the Byway is to interpret modern activities in the context of historical traditions, such as the St. Rocco's Festival held during the month of August. Strategy 5.2 discussed marketing opportunities associated with events and activities. This strategy is a companion strategy to develop marketable events within the Township that link to other cultural traditions. The Welcome

Center and Recreational Park is a viable location to conduct events and festivals related to Delaware River heritage - both natural and cultural.

Building upon the regional interest in sustainable agricultural presents another opportunity to develop events and activities building upon existing efforts to create wine tours and combine them with locally grown foods. This also presents an opportunity to interpret the Lehigh Valley as a wine region as well as the long traditions of agriculture in the Delaware River Valley.

Implementation Steps

- i. See Strategy 5.2, page 87, and apply the same steps to developing additional events related to Delaware River Valley cultural and natural heritage

CHAPTER 5: SUSTAINING THE BYWAY

A well-managed byway is like a three-legged stool – its “legs” must be balanced to support the weight of anyone who chooses to sit on it or it may topple over. The “legs,” in the case of a byway, are its strategies for management – preservation and conservation strategies, transportation strategies, and economic strategies. If a byway’s intrinsic qualities are not maintained over time, the rationale for investing in conservation and preservation will be lost. If the experience of traveling that byway begins to detract from the overall quality of experience, then recognition and investment in the preservation of those values will be harder to understand. If the values of the Byway are not appropriately communicated to the intended audience, expectations will be unrealized, and investments will go elsewhere.

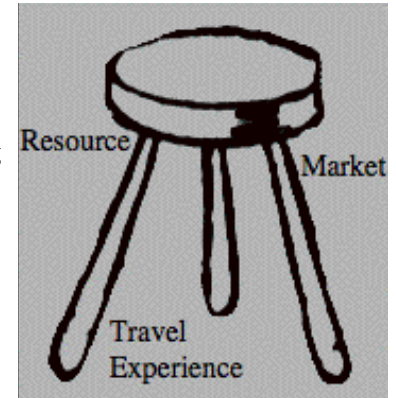


Figure 5.1 A Byway is like a three-legged stool - all three legs need to be managed together to create a sturdy chair

One advantage of a byway is that it normally does not require a large investment of capital to launch itself as a heritage- or nature-based tourism activity. Previous efforts over time to preserve and maintain a byway’s intrinsic qualities often result in its present day attractiveness as a heritage- or nature-based destination. In order to capture that value, however, byway communities must collaborate on a regional basis to continue to preserve and maintain its intrinsic qualities. Regional collaboration is also needed to ensure that the experience of traveling along a byway route is just as interesting as visiting each of its destinations. Finally, regional collaboration is needed to market and position a byway as an organizing element for heritage- and nature-based tourism opportunities.

The economic benefits that accrue to a Byway can only be realized if it is well-managed and if it is well-positioned in the regional marketplace for tourism as that organizing element for heritage- and/or nature-based tourism opportunities. Without such a market position, the economic activity associated with the Byway may not generate enough value to be worth the investment in time and capital.

Fortunately, the Delaware River Valley Scenic Byway is already envisioned as one of the region’s organizing elements for heritage- and nature-based tourism, and already benefits from regional collaboration among all levels of government and business interests, including

- The Martins Jacoby Watershed Association, the Delaware and Lehigh National Heritage Corridor, and the Slate Belt Council of Governments, which are providing the necessary regional leadership to conserve, enhance, and make it easier to enjoy the Byway’s intrinsic qualities
- PennDOT, the Lehigh Valley Planning Commission, Northampton County, and the Township, which are providing the necessary tools to manage the travel experience over time and ensure that it is both safe and maintained at a high level
- Discover Lehigh Valley, which is providing the necessary leadership to market and promote the Byway to a regional and national audience over time

Each of the organizations noted above, having participated in the development of the plan, is well-positioned to continue to contribute to the ongoing management needs of the Byway.

The following describes the recommended overall approach to the management of the Byway, followed by specific descriptions of management tasks that will need to be undertaken to gain the most value for the community's investment.

Byway Management Approach and Leadership

The general approach to byway management is to recognize that the organizations already involved in the region's conservation, preservation, enhancements, transportation, marketing and promotion are best suited to managing the Byway without creating any new organization and without establishing many new obligations.

The Martins Jacoby Watershed Association (MJWA) has agreed to serve as the umbrella organization through which byway management activities could be organized by participating parties (or representatives of organizations that have participated in the corridor management plan). As a 501(c)(3) organization, MJWA also has the capacity to accept and manage funding to support the Byway. This would cover any expansion of the Byway that would be needed to gain National Scenic Byway designation. MJWA includes all Northampton County municipalities along the Delaware River.

Different partners could take the lead on different projects while using the MJWA as the "home room" for linking the various related efforts (Byway management, watershed management, Wild and Scenic River, greenway development, etc.) – a role that it is doing now with a successful track record.

Byway Management Committee

The MJWA includes many of the participating members of the current Byway Advisory Committee. The existing committee should be maintained and expanded so that it continues to represent the broad cross section of stakeholders that have been involved in the development of the plan (see list of organizations on inside title page, list of acknowledgements). MJWA should establish the existing Byway Advisory Committee as a recognized committee of the Association.

However, it is not necessary to have additional specific meetings about the Byway itself. Rather, the management activities needed to achieve the vision and goals for the Byway can be addressed as agenda items on regularly scheduled MJWA meetings, with those members of the Byway Advisory Committee attending as needed to address the agenda.

At a minimum, an annual Byway related meeting should take place in the form of a "Byway Summit" or similarly focused event that brings together all of the interested Townships and other regional stakeholders to discuss the previous and upcoming years' events, programs, activities, grant applications, and marketing recommendations (using the CMP as the guide). Participants, in addition to Martins Jacoby Watershed Association and the Byway Advisory Committee members, would include the D&L National Heritage Corridor, Discover Lehigh Valley, New Jersey's Delaware River Scenic Byway, National Park Service, Lower Delaware River Wild and Scenic, Upper Delaware River Scenic Byway, Warren County, New Jersey (Route 57) and others with an interest in promoting heritage-related byways along the Delaware River.

Byway Management Activities

The following is a list of Byway-related management tasks that will need to be accomplished through the MJWA.

- Seek endorsements and recognition for the Byway as a significant rural landscape worthy of preservation, conservation and management actions that would help to maintain its rural character, including making application to the Federal Highway Administration for National Scenic Byway designation, if desired.
- Serve as the “Byway keeper” with the role of encouraging property owners, utility companies, highway departments, and others with management responsibility to consider the goals of the Byway and work to conserve and enhance the qualities of the Byway as part of their daily management and stewardship activities
- Seek to coordinate conservation and preservation actions among local and regional organizations and agencies to ensure that the Byway retains its qualities over time
- Pursue outside funding to implement the plan recommendations focusing on the high priority recommendations
- As a means of managing the heritage, agricultural and nature-based tourism activities that will occur regardless of whether the Township seeks to take advantage of those activities, work with other groups to coordinate events and activities taking place along the Byway
- Identify the byway as significant rural landscape to those with an interest in historic sites, bicycling, canoeing/kayaking, and nature study in consultation with the State and local offices of tourism
- Serve as the primary point of contact for information about the Byway
- Work with municipal and non-profit organizations to promote volunteer opportunities along the Byway, especially for maintenance and upkeep of the roadside areas within the public right-of-way, in cooperation with PennDOT

Phasing of Organizational and Byway Development

As the Byway grows, so should its organizational development. The Plan recommends four distinct phases of growth.

Year One: Planning for Visibility and Public Communications

It is easy for a group such as a byway committee to fade from public view as participants get busy on the work of implementing a CMP, much of which is “behind the scenes.” Yet, for this byway, as with many others, visibility IS an implementing step.

While planning its first public event – the announcement of the completion of the plan, described below – the Byway Advisory Committee should also take the time to look ahead to its first year to identify ways to routinely communicate with the public and periodically attain public visibility. Undertaking a “newsworthy” activity every other month is a reasonable goal. This may be an easier goal to meet sometimes, and more difficult at other times, but if the entire committee is aware of such a goal and keeps it on their regular meeting agenda, it is more likely to be achieved.

Asking just two people to share the publicity coordination is also a good idea – they can watch out for such opportunities, brainstorm with one another (and hold each other accountable), bring ideas to committee meetings, serve as spokespersons when media

contact is needed, and keep an archive or scrapbook (“brag book”). When they need more help for a given project, they can recruit a temporary subcommittee.

What timing would be convenient for each element of announcing and covering the activity, so that the byway is routinely in the public eye? For items like brochures and tours, consider the local audience. Alerting residents to the availability of these products reassures them that “things are happening” and may attract needed volunteers and sponsors. Providing a photo and caption to the media is a simple way to be noticed without the need to write lengthy news releases – take photos of members of the committee at work or posed in front of the results of a project (or as it starts).

What timing would be convenient for each element of announcing and covering the activity, so that the byway is routinely in the public eye? For items like brochures and tours that are produced for visitors, consider the local audience as well. Alerting residents to the availability of these products reassures them that “things are happening” and may attract needed volunteers and sponsors. Providing a photo and caption to the media is a simple way to be noticed without the need to write lengthy news releases – take photos of members of the committee at work or posed in front of the results of a project (or as it starts).

Undertaking Early Actions

For its first year, the committee should look for “easy wins,” projects that build enthusiasm, momentum, and visibility. Four of the best ideas generated by the committee are described here.

Rolling Out the Plan

Soon after the CMP is approved by the Township, the Byway Advisory Committee should hold a gathering of public officials, other interested individuals, and representatives of the media to explain the plan and first steps. Key individuals representing the Township, the Martins Creek-Jacoby Watershed Association, and other partners should be invited to say a few words. This is an event worthy of dignitaries (members of Congress, Pennsylvania legislators, and the Governor) who should be invited and recognized. The event should include a “ribbon-cutting” or “ground-breaking” type of photo opportunity. A “how to” web link for announcement ceremonies and other events can be found from the Preserve America event planning website: <http://www.achp.gov/PATOOLKIT/>

Annual Summit

While the first public meeting for the byway is largely to roll out the CMP, it could also act as a first “annual summit.” Such an annual event could bring together all involved in the byway for a longer meeting for inspiration, exchange of ideas and experience, coordination, and training. Done well, such an event becomes something for all to look forward to, a shared experience that can also become a reference point for things everyone has learned together from year to year.

Annual Visitor Information Products

The Slate Belt Council of Governments publishes an annual guide to things to see and

do in this region. Another opportunity would be to create a “place mat”, an ideal format to showcase a scenic byway, since it is large enough to allow for a map plus text and illustrations. Collaborating with the Slate Belt COG and Chamber of Commerce on such projects could become an annual milestone for visibility.

Local Tours

A “Doors Open” or other kind of tour event of the region’s small museums is an ideal activity for both visibility and encouraging the growth of public appreciation for such sites. A true “Doors Open” event is targeted to residents, offering free admission, coordinated openings of sites that are not always open at the same time, tours behind-the-scenes, and other special programs. Even for sites that do not charge admission, such events can be beneficial by turning routine open hours into something special. “Doors Open” events are becoming a popular way to organize museums and other cultural sites on a regional basis. Other relatively simple tours include guided walking tours – perhaps offering one or two sites to visit that are not ordinarily open – and tours of private farms or homes.

Establishment Phase (initial 3-5 year period)

1. Establish a regionally scaled Byway from Easton to Delaware Water Gap:
 - Communicate with adjoining townships about the benefits of byway designation and seek endorsements of the expanded corridor management planning effort from involved local and state government entities
 - Seek state designations for the Byway from Township, Borough and City governments for the Route 611 corridor throughout Northampton County (Williams Township and Easton to the Delaware Water Gap)
 - Seek Scenic Byway Program funding to extend the corridor management plan to cover the expanded Byway
 - Seek National Scenic Byway Designation – next designation period is unknown (depends upon reauthorization of the current SAFETEA-LU Federal Transportation Bill)
 - Establish a point of contact and process for input and review of roadway-related plans, programs and projects initiated by PennDOT, Northampton County, or the Township that may affect the Byway
2. Pursue funding with partner organizations for additional agricultural easements within the Agricultural Security Areas in the Township (this is also a potential Scenic Byway Program Grant for FY 12 – applications typically out in March 2011)
3. Pursue Community Conservation Partnerships Program Grant (C2P2) funding for the development of a detailed master plan and final design for the footpath system to connect interpretive sites along the Byway, including pedestrian safety measures such as traffic calming. Appendix III, Concept Plans has a description of the specific recommendations and statements of probable cost that can feed directly into the grant application.
4. Develop and pursue funding for a “green highway” demonstration project for cooperative water quality benefits for farm and roadway runoff
5. Seek funding for a small museum cooperative touring and museum management program for the extended byway region (PHMC) and use the resulting event/touring

program as demonstration project for the benefits of developing the Byway and to highlight opportunities for historic preservation in the communities

6. Seek Scenic Byway Program funding for the development of a regional interpretive master plan/visual and graphic identity plan coupled with initial applications and installations (FY 13 – applications typically due in March of 2012)
 - Development and printing of a byway visitor guide and maps
 - Development of mobile and/or technology assisted interpretive installations
 - Development of outdoor exhibits at priority sites
 - Development of initial seasonal events (small museum tour, farm to table event, Delaware River activity or event, etc.)
 - Installation of related exhibits in the Township Welcome Center
7. Use the extended Byway as a means of organizing regional partners in the development of hospitality training program and a farm-to-table program linking Delaware River Valley farms to restaurants and farmers markets in Easton, at Lafayette College, and other regional destinations

Development Phase (5-10 year period)

Upon designation of the Byway as a National Scenic Byway or other similar recognition program, develop the following projects and programs

8. Based upon the master plan for interpretive development and visual/graphic identity, establish a user friendly web page (preferably linked or part of Discover Lehigh Valley web site) including visitor information for the regional byway with regular updates and a listing of events
9. Preparation, installation and publication of updated byway touring maps/guides, interpretive materials, and interpretive panels, visitor information kiosk(s), and wayfinding (based on results of detailed interpretive/visual and graphic identity plan)
10. Develop a physical design master plan for traffic calming (if not part of footpath system) and pedestrian safety measures in Martins Creek and Riverton (add other village areas from other communities that may evolve from the extended corridor management plan, if applicable)
11. Expand opportunities for Delaware River related events and activities using the Township's Welcome Center as a host site for events (such as a concert series, river touring activities, bicycle touring events, or farm to table events)

Sustaining Phase (year 11 and beyond)

The overall vision and goals of the Byway will lead towards the establishment of a sustainable byway over time through implementation of the planned projects noted above. Once these activities have been accomplished, byway management will shift to those actions that help to sustain the byway over time. Appendix IV, Implementation, lists all of the proposed actions recommended in the plan and described in Chapter 4, potential partners for that action, the phase and priority level, and the potential budget that should be established for that action. All of the projects are organized according to the goals outlined in the plan.

Managing and Protecting Historic Resources

While Lower Mount Bethel Township and the Martins Jacoby Watershed Association have a tremendous track record in preserving agricultural lands and open space, historic resources in the Township have not had the same level of attention. Preservation “by default” is not a long-term solution for making sure that the Townships agricultural, industrial, and river-related heritage survives. At the same time, it is not necessary for the Township to create any new commissions or review authorities to preserve their historic resources (see option 3 below). Non-chartered municipalities in the Commonwealth of Pennsylvania such as Lower Mount Bethel Township have the option to manage and protect significant historic resources through the following means:

1. The **Pennsylvania Historic District Act** (Act 167 of 1961) allows local governments to adopt a special purpose historic district ordinance without having any zoning regulations in place. However, the significance and boundary of any proposed historic district created under the authority of this legislation must first be certified by the Pennsylvania Historical and Museum Commission (PHMC). The municipality is to create a Historic Architectural Review Board (HARB) for reviewing any changes to contributing resources within the district using specific criteria and detailed procedures outlined in the legislation. Designed to protect concentrations of historic buildings, there is little flexibility in administering the provisions of this Act which can be cumbersome for smaller municipalities who have a limited number of staff.
2. Article VI of the Pennsylvania Municipalities Planning Code (MPC) allows municipalities with zoning regulations in place to protect significant historic resources independent of the Historic District Act. Incorporating authority into the local zoning code for preserving “places having unique historical, architectural or patriotic interest or value”, the municipality has considerable discretion in determining how this objective may be accomplished. For instance, a community may decide to provide different standards in determining parking requirements, setbacks and conditional uses for properties containing historic buildings or perhaps an archeological survey is required prior to development for land parcels located in archeologically sensitive areas. Typically administered by a Historical Commission in association with the Zoning Hearing or Planning Board created under a municipality’s charter, this approach is useful for communities that lack a concentration of historic buildings that would otherwise form a traditional historic district.
3. Adopting a Conservation District overlay to assist in preserving and protecting historic resources is a third management tool available to municipalities in Pennsylvania also authorized under the MPC. Initially developed for managing natural and environmental resources, conservation districts have been used recently in Pennsylvania and communities across the nation for preserving the overall uniqueness and character of historic buildings, neighborhoods and landscapes. Perhaps offering the most flexibility, conservation districts are customized to meet the specific need of the resource being managed and preserving the overall character of an area. For example, a municipality may choose to avoid regulating specific exterior architectural details on historic buildings, and focus only on regulating demolitions and new construction. Requirements set forth in the enabling ordinance, as long as they are kept simple, can be implemented as part of routine planning and zoning procedures for the municipality.

Byway Sustainability and Livability

The National Scenic Byway Program has for the last several years established an emphasis on Livability as part of its grant program. Livability, according to FHWA, has six key elements, five of which (with the exception of the housing element) are directly applicable to the Byway and should be emphasized in shaping the implementation strategies for the corridor management plan:

- Provide more transportation choices
- Promote equitable, affordable housing
- Enhance economic competitiveness
- Support existing communities
- Coordinate policies and leverage investment
- Value communities and neighborhoods

A well-managed scenic byway is an economic development tool while at the same time giving the communities through which it passes additional means and methods to maintain their overall quality of life. The actions listed in Table 5-1 fit naturally into five of the six categories.

The emphasis on **improving the non-motorized choices** within Martins Creek and Riverton, as well as connecting to the Byway's interpretive sites and river access opportunities fits naturally into the offering of more transportation choices.

The emphasis on the role of heritage, agricultural and nature-based tourism for the byway will help to **enhance the economic competitiveness** of the Lehigh Valley by offering opportunities for visitors to stay longer and therefore increase economic activity through spending at restaurants, farmers's markets, farm-to-table events, lodging, and other travel related expenses.

The importance and role of Smart Transportation and Context Sensitive Solutions as tools for maintaining the character defining features of the Byway provide **support for existing communities** while at the same time increasing the safety of the Byway.

The Byway can **leverage investments by collaborating with other partners** especially the specific groups that have been participating in the plan: Lower Mount Bethel Township (and eventually its neighboring municipalities within Northampton County along the Delaware River); Martins-Jacoby Watershed Association, the Delaware and Lehigh Heritage Corridor, Discover Lehigh Valley; the National Park Service and its community-based partners (including the Delaware Water Gap, the Delaware Wild and Scenic River, the Delaware River Water Trail), the Slate Belt Council of Governments and Chamber of Commerce; the Lehigh Valley Planning Commission, PennDOT, and Northampton County.

Finally, byway management can play important role in **enhancing the overall quality of life of the communities and neighborhoods** through which it passes. By establishing, developing and sustaining the Byway as described in the corridor management plan, the quality of live in Lower Mount Bethel Township will be enhanced by helping the Township to achieve the vision of their community as outlined in the Comprehensive Plan, the Open Space Plan, and the Corridor Management Plan.

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