Warren Heritage Byway

CORRIDOR MANAGEMENT PLAN

Prepared for the New Jersey Department of Transportation and Local Stakeholders by Parsons Brinckerhoff and Heritage Conservancy

November 2010

Note on Byway Name

As this Corridor Management Plan was in final preparation, the Study Committee agreed to change the name of the byway from the Route 57 Scenic Byway to the Warren Heritage Byway. The new name reflects the historic theme of the byway and the corridor's significance in Warren County's history. The original name is used throughout the plan document.

Contents

Acknowledgments iv

I. Introduction 2
II. Corridor Qualities 10
III. Vision Statement 46
IV. Management Strategies 50
V. Land Use and Development Along the Byway 58
VI. Roadway Usage and Safety 74
VII. Signage, Utilities and Site Furnishings 90
VII. Interpretive Plan 104
IX. Tourism and Marketing Opportunities 114
X. Implementing the Plan 132

Appendix A:
Nearby Features and Side Trips A1

Appendix B:
Physical and Visual Survey Methodology B1

Appendix C:
Signage and Visual Clutter Assessment C1

Appendix D:
Institutional Survey D1

Appendix E:
Crash Analysis E1

Acknowledgments

Many people contributed their time, energy, and insight to the preparation of this Corridor Management Plan. The following individuals and organizations deserve special appreciation for their efforts:

Brian Appezzato, Senior Planner, Warren County Planning Department
George Baldwin, Township Committee, Mansfield Township
Peter Banta, Musconetcong Watershed Association
Beth Styler Barry, Executive Director, Musconetcong Watershed Association
Joseph Bristow, Town Council, Hackettstown
Sandi Cerami, Executive Director, Washington Borough Business Improvement District
Art Charlton, Director, Warren County Public Information Department
Jeffrey DeAngelis, Deputy Mayor, Franklin Township
David K. Dech, Planning Director, Warren County Planning Department
Gerald DiMaio Jr., Town Council, Hackettstown
John DiMaio, NJ State Assemblyman
Miriam Dunne, NJDEP Department of Fish and Wildlife
Elaine Emiliani, Deputy Mayor, Greenwich Township
Robert Goltz, President/CEO, Warren County Regional Chamber of Commerce
Michael Helbig, NY NJ Trails Conference
Michael Kovacs, Township Committee, Washington Township
Michael Lavery, Mayor, Hackettstown
William Leavens, President, Musconetcong Watershed Association
Thomas J. Marshall Jr., Warren County Morris Canal Committee
Scott McDonald, Mayor, Washington Borough
Brian Morrell, President, Canal Society of New Jersey
Ellen Nerbak, Township Committee, Mansfield Township
Steve Noble, Hackettstown
David Peifer, Highlands Project Director, ANJEC
Amy Perkins, Franklin Township Historic Committee
Robert Resker, Administrator, Warren County Department of Land Preservation
Judy Rosensteel, Franklin Township Historic Committee
John G. Trontis, CPRP, Director, Hunterdon County Parks and Recreation

Municipal and County Support

Franklin Township
Greenwich Township
Hackettstown
Mansfield Township
Washington Borough
Washington Township
Warren County

NJDOT Staff

John Micikas, Bureau of Statewide Planning
Laine Rankin, Division of Project Development
Debbie Hirt, Office of Community Relations
Cindy Bloom-Cronin, State Scenic Byways Coordinator

Study Team

Pamela Lebeaux, Deborah Hartman,
Peter Kremer & Andrew Smith, Parsons Brinckerhoff
Karen Williamson, Heritage Conservancy

I.

Chapter One:

Introduction

I. Introduction

The Route 57 Scenic Byway is a two-lane roadway in Warren County, New Jersey. The 19 mile byway runs through Greenwich Township, Franklin Township, Washington Borough, Washington Township and Mansfield Township to Hackettstown. As it crosses Warren County, Route 57 weaves its way through the region's distinctive mountain ridges. The valleys between these forested ridges are occupied by agricultural areas interspersed by densely populated villages, boroughs and towns. Like beads on a thread, Route 57 links these urban areas with the surrounding farmland in a rhythm all its own. The route, one of the most rural state highways remaining in New Jersey, was designated a State Scenic Byway in February 2009. It offers visitors a chance to uncover rich layers of history along with outstanding recreational opportunities. Key points of interest are shown in Figure 1.1.

Historic Influences

Major influences shaping the byway corridor include its history as a working landscape, its transportation heritage, and the region's role as a center of technological innovation in the 19th and early 20th centuries. Route 57 follows a trail first established by the Lenni Lenape Indians to connect camp sites and villages with hunting and fishing grounds. The route was subsequently used by Europeans as they came on horseback and in wagons to settle in the region or to travel to nearby cities. As the Early American population grew, farm produce, raw materials and manufactured products needed a way to and from markets in larger population areas such as the Lehigh Valley and New York City. In 1806, a turnpike

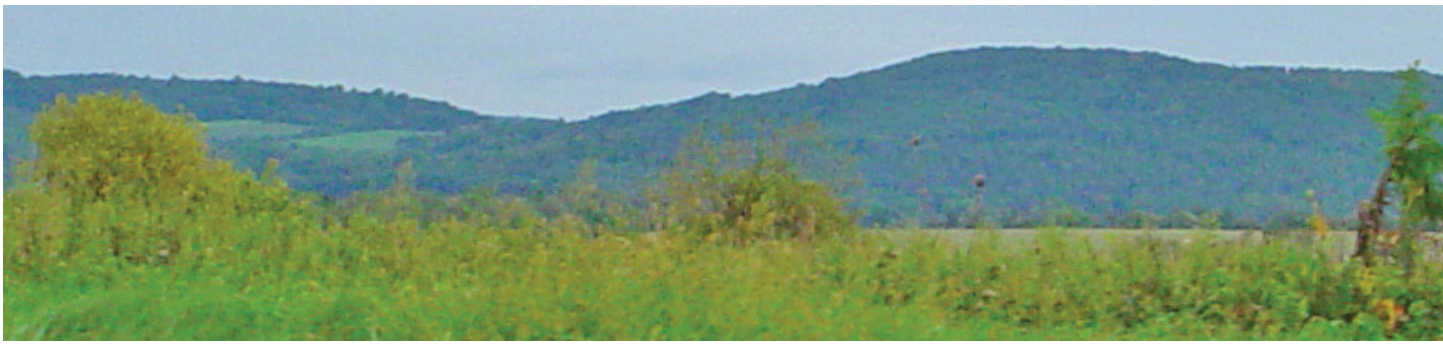
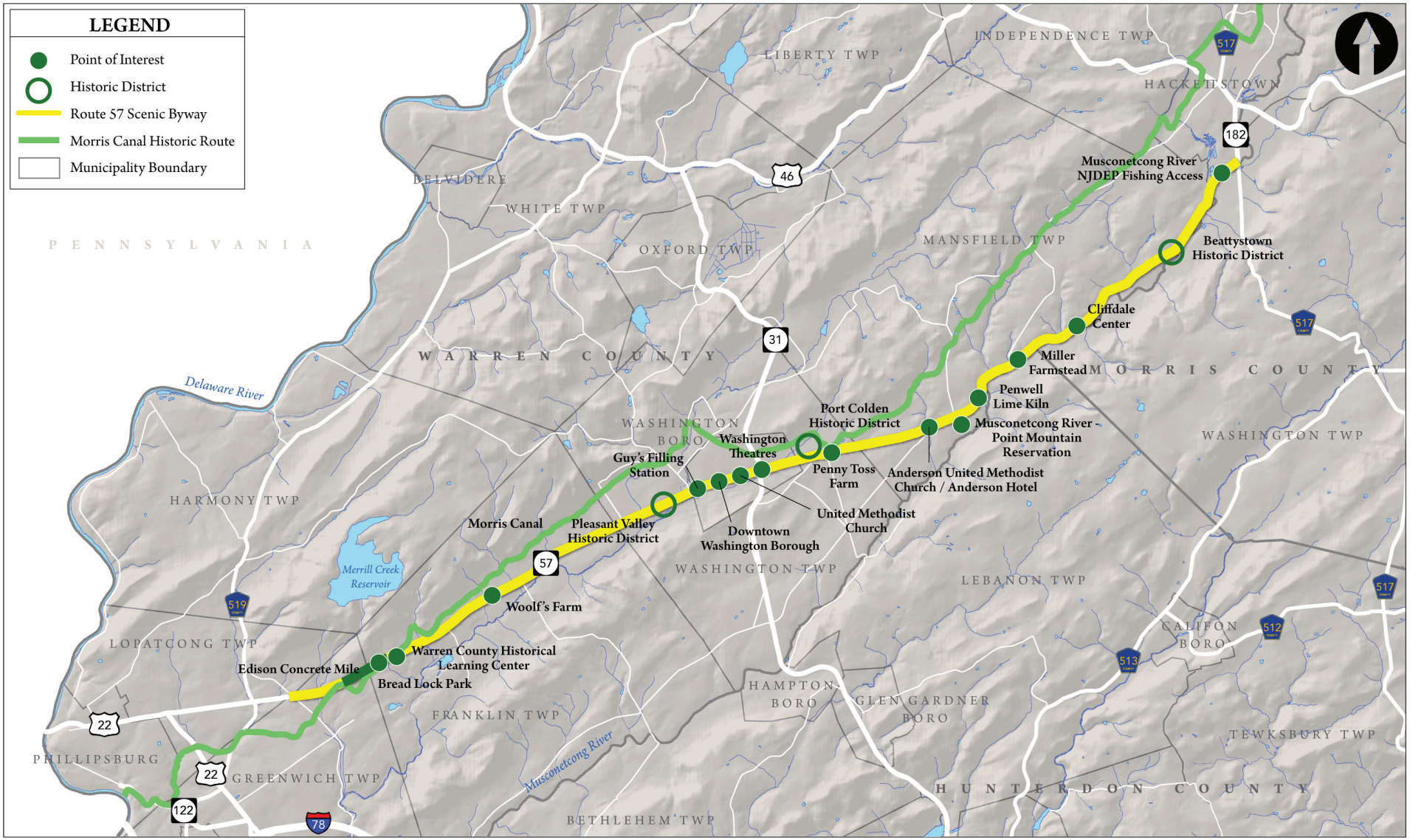


Figure 1.1

Points of Interest Map

Route 57 Scenic Byway Corridor



was established between Phillipsburg and Morristown following the current alignment of Route 57 to accommodate increasing traffic.

The construction of the Morris Canal followed in 1831, paralleling Route 57 for much of its length and connecting Phillipsburg with Newark and Jersey City. Completed in 1831, the Morris Canal stretched 109 miles and required 32 lift locks and 23 water-powered inclined planes to overcome the greatest elevation change of any canal in the world – a total of 1,674 feet. The canal has been designated a Historic Civil Engineering Landmark by the American Society of Civil Engineers in recognition of the ingenuity involved in the design and construction of the water turbine system used to operate the inclined planes.

Historical Photo of Morris Canal near Brass Castle (from New Jersey Archives)

From 1900 to 1919, Thomas Alva Edison applied for 49 patents relating to the process of making cement, most notably for the invention of a long rotary kiln that was used in the Portland Cement plant he built in New Village, near Stewartsville, and that was licensed to other cement manufacturers. One mile of the Morris Turnpike, now Route 57, was constructed in 1912 as an experiment using Edison's concrete. Over 90 years old, the concrete surface is still visible today.

Route Description

Located within the Highlands physiographic province, the Route 57 corridor traverses a landscape that is typical for this region. Here, broad mountains made of metamorphic rock flank narrow valleys formed by sedimentary rock and glacial action. Bounded by Scotts Mountain on the north, Pohatcong Mountain in the middle and Point Mountain on the south, Route 57 winds between these ridges and travels through the watersheds of three streams: the Lopatcong Creek, Pohatcong Creek and Musconetcong River.

The lakes, streams and rivers within the Route 57 corridor are valuable water resources, with many segments serving as either warm water fisheries or trout production or maintenance waters. Three segments of the Musconetcong River have received a Wild and Scenic River designation from the U.S. Congress due to the free-flowing condition

of the river and its remarkable natural, scenic, historic and recreational features. The Musconetcong flows roughly parallel to Route 57, creating beautiful vistas and recreational opportunities.

Greenwich Township MP 2.07-3.58

Starting at the western section of Route 57 at Milepost 2.07, the byway begins in Greenwich Township. Local legend has it that Chigachook, the hero in James Fenimore Cooper's novel; "The Last of the Mohicans" was buried under a tree in the Old Greenwich cemetery. Greenwich Township has been at the center of early transportation history, such as the Morris Canal, and the first cement highway in the state of New Jersey. An historical marker on Route 57 describes Thomas Edison's "Concrete Mile," located nearby.

Franklin Township MP 3.58-8.37

Proceeding along Route 57, Franklin Township, named in honor of Benjamin Franklin, is host to several historical locations worthy of a visit by the Route 57 traveler. New Village (MP 4.6) is a community formed around activity with the Morris Canal and later a trolley system that went from Port Colden to Phillipsburg. In 1898, Thomas A. Edison found a valuable deposit of cement rock underlying the valley and built a large cement mill there. It is also home to the village of Broadway (MP 6.4), which received its name because the Morris Turnpike was very wide in this area. The Morris Canal runs closest to Route 57 in Franklin Township.

The Warren County Historical Learning Center at MP 4.2 features the remnants of Lock #7 of the Morris Canal, known as the Bread Lock, and the foundations of the associated Locktender's house and mule barn. Inside the Learning Center, visitors can see a working model of Lock #7. One room in the Learning Center is dedicated to the displays of Native American artifacts and the interpretation of Lenni Lenape culture.

The Morris Canal Greenway project is a joint effort of the Warren County Morris Canal Committee, Friends of the Morris Canal, the Canal Society of New Jersey, Waterloo Village and the NJ DEP Division of Parks and Forestry

to preserve and interpret the remains of the canal for educational and recreational purposes. A work in progress, the greenway will follow the historical alignment of the canal when it is completed and will incorporate several parks and open space areas that have been protected by these agencies, Warren County and local municipalities. Many sections of the canal have been cleared with the help of volunteers. Several guide books are available to help visitors locate remnants of the canal and understand the part they played in the canal's operation.

Grist Mill at Pleasant Valley

Washington Township and Borough MP 8.37-12.67

Washington Borough is wholly contained within Washington Township. Traveling west to east, one enters the Township, then the Borough, then back into the Township. The Warren County Community College is located at MP 8.5. Washington Township is home to the Pleasant Valley Historic District (MP 9.1), which is listed on both the State and National registers. This small village grew around a creek and mill, and has retained many of its original buildings.

Continuing east along Route 57, Washington Borough (MP 9.8-11.6) is the hub for many commercial establishments that sell antiques, artwork and other collectibles along the Route 57 corridor. Visitors can enjoy shopping for jewelry, china, pottery, folk art, primitives, silk flowers, country items, furniture, vintage clothing, stained glass windows, glassware, home decorations, dolls, porcelain, trains, farm implements, fine art, and postcards in the area. Washington Borough also hosts a farmers market from June through September.

Washington Theatres, MP 11.0

Several significant buildings exist in Washington Borough for visitors to view. Among them are Guy's Filling Station (MP 10.3), reminiscent of the early days of autos, United Methodist Church (MP 10.9), and Washington Theaters (MP 11.0).

The Village of Port Colden, listed on the State and National historic Registers, is located on the eastern edge of Washington Township, along the Morris Canal. It has a number of historic buildings in the Greek and Gothic Revival style.

Church at Anderson, MP 14.1

Mansfield Township MP 12.67-20.54

Entering Mansfield Township, the views become more attractive as the Musconetcong River gets closer to the roadway. The hamlet of Anderson (MP 14.1) is a favorite scenic spot with its historic homes, hotel, and church at the bottom of a large hill.

One of the best locations to access the river for recreation and other uses is the Point Mountain Section of the Musconetcong River Reservation at MP 14.4. This site consists of over 700 acres of parkland along the Musconetcong Mountain range and gorge, providing visitors with opportunities for mountain biking, fishing, horseback riding, canoeing, cross-country skiing, hiking, hunting, nature study and picnicking.

Miller Farmstead, MP 15.8

Departing from the River Reservation, travelers encounter Penwell Lime Kiln #1 (MP 14.7) just off Route 57. A site of countywide importance, this lime kiln is representative of the process used to burn limestone rock. The resulting lime was used to stabilize and change the pH of farm soils and was incorporated in a variety of construction materials.

Historic Beattystown, MP 19.3

Beginning at MP 15.3 and continuing through MP 18.2, travelers along Route 57 can see glimpses of the Musconetcong River flowing alongside the highway. Across from the river at MP 15.8 is Miller Farmstead, a cluster of outbuildings and a farmhouse listed on the State and National Historic Registers. The farmstead covers 108 acres, and was constructed in 1924 in the Greek Revival style.

Historic Beattystown (MP 19.3), originally known as Beatty's Mill, was settled circa 1760. The oldest historic village in Mansfield Township, it was originally settled as a mill town. At that time, it was the most important trade center on the southeastern edge of what would become Warren County.

View of Musconetcong River near Mansfield and Hackettstown

Hackettstown MP 20.54-21.1

At the easternmost portion of the drive, visitors enter Hackettstown. Here there is an entrance to the NJDEP Musconetcong River Fishing Access (MP 20.7).

Corridor Management Plan

This plan describes the special qualities of the Route 57 Scenic Byway and outlines strategies for the preservation, enhancement, and interpretation of the corridor's unique resources. The plan sets forth a vision for the future of the byway, along with practical steps to make its special features more apparent and accessible to visitors. The Corridor Management Plan was developed through the dedicated efforts of a collaborative working group representing a variety of perspectives including local officials, County agencies, civic groups, non-profit organizations with an interest in the area's heritage, and the New Jersey Department of Transportation (NJDOT), which has jurisdiction over the roadway. NJDOT provided financial support for the preparation of this Corridor Management Plan.

II.

Chapter Two:

Corridor Qualities

II. Corridor Qualities

A byway's unique qualities determine its significance and form the basis for the management and interpretive strategies in the Corridor Management Plan (CMP). Management strategies are designed to preserve or enhance the byway's special qualities, while interpretive strategies help to convey their significance to byway visitors.

The National Scenic Byway Program has established six intrinsic qualities, or criteria, for assessing the significance of a byway: historic, archaeological, cultural, scenic, natural, and recreational. New Jersey's Scenic Byway Program also uses these six criteria in assessing each byway's significance. In evaluating these characteristics, the byway corridor can be defined as the lands and places along the route, including: 1) features that can be seen from the byway, 2) destinations along the route that relate to the byway's themes and are accessible to visitors, and 3) resources that contribute to the corridor's character and identity, such as historic districts, farmland and natural features. These other resources may include features that characterize the corridor's overall landscape or help to tell the story of how the landscape has been shaped by human activity.

As evident in the nomination application, the Route 57 corridor exhibits all of the six intrinsic qualities to varying degrees. The interrelationship of these qualities contributes to the region's distinctive sense of place. The corridor's historic qualities stand out as the most significant in comparison to other intrinsic qualities, suggesting that an historic theme may be the most appropriate for the byway's interpretive programs.

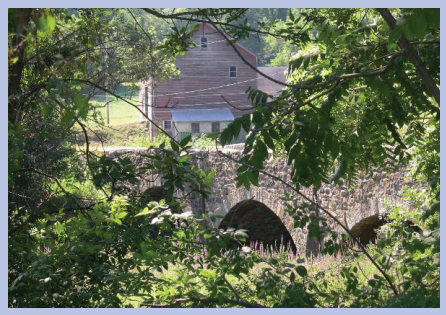
Historic Qualities

The Route 57 corridor contains a remarkable collection of resources which can help present the historical development of the region. These existing archaeological sites, engineering structures, historic neighborhoods, cultural landscapes, and industrial and transportation complexes represent tangible and vivid reminders of the past that can bring this long and storied history to life. The corridor's 19th century industrial, technological and transportation heritage, including the role of the Morris Canal, are especially significant, as is Thomas Edison's early 20th century work in cement production.

Miller Farmstead (NHRP, SR)

This farm complex consists of a primary residence, a stone tenant house, overshot bank barn, wagon house, and several other small buildings. Two beautiful 19th century stone arch bridges are on Route 57 and on the continuation of Watters Road, south of Route 57. Two 18th century buildings stand on either side of Watters Road, while the main farmhouse and braced frame barn complex date primarily to the mid-19th century.

Miller Farmstead



1860 Stone Arch Bridge and Builder's Plaque at Miller Farmstead

Early Industry in the 18th and 19th Centuries

In the first quarter of the 18th century, the land now encompassed by Warren County was purchased from the Native Americans and subsequently surveyed. Between 1713 and 1824, the area was within Morris County and then, Sussex County. In 1824, Warren County was formed on land separated from Sussex County by a legislative act.

Some of the earliest settlers arrived in the 1810s, drawn by a burgeoning charcoal industry, which sprung up due to the readily available iron ore, along with the streams that provided waterpower and abundant hardwood forests that provided fuel. One of the earliest forges was at Squires Point, on the Musconetcong River south of Port Murray. The forge failed before the Revolutionary War, and transitioned to agricultural usage (Mansfield Township Environmental Commission 1981: n.p.).

The earliest settlements on land that became Warren County were in Greenwich, Pahaquarry and Oxford Furnace, a few miles west of Route 57. Oxford Furnace was settled around 1726, but after the iron furnace was constructed in 1741 to process ore from the area's rich deposits, the community and others like it became "magnets for skilled and unskilled laborers, farmers, mechanics and businessmen" (Warren County Cultural and Heritage Commission n.d.: 121).

Limestone Industry

Several of the area's historic resources illustrate the importance of the limestone industry in the early 18th century. **Penwell Lime Kiln (SHPO DOE)** is a site of countywide importance, representative of the process used to burn limestone rock. The resulting lime was used to stabilize and change the pH of farm soils and was incorporated in a variety of construction materials.

The **Beattystown Historic District (NRHP, SR)** has 18th century houses which were once inhabited by farmers and workers at the limestone and shale quarries nearby. Originally settled in 1750, Beattystown was the site of a Revolutionary War march and encampment in 1777.

By the late 18th century, many farmers owned their land—a French journalist traveled through the area of the Route 57 corridor in 1794 and "was impressed by the great pride of land ownership" (Mansfield Township Environmental Commission 1981: n.p.). He noted the 200-acre Miller Farm, a farm along Route 57 in Mansfield Township that is still in operation today. In the late 18th century and into the early 19th century, Warren County witnessed a shift in agriculture from subsistence farming to growing crops for commercial purposes.

Stewartsville Village Historic District (SHPO DOE) including the Muchler House (SHPO DOE) and Schillinger House Site (SHPO DOE)

This early 19th century village was purportedly an important social, transportation and trade center for Greenwich Township, then primarily rural. The existence of historic farmsteads helps to retain the area's historic rural character. The Morris Canal, New Jersey's first turnpike, and the New Jersey Central Railroad all intersected in Stewartsville.

The Stewartsville Historic District includes 19th Century homes on Route 57.

The Route 57 corridor was also being more densely settled; and mills, taverns, kilns, tanneries and other establishments were built to service the growing population. In Mansfield Township, one of the first settlements along the Route 57 Corridor centered around a mill built along the Musconetcong River, where Beattystown is now located. The mill pre-dated the Revolutionary War and was the largest commercial center in the area, more important than nearby Hackettstown through the first quarter of the 19th century.

The need for transportation of both agricultural and industrial goods from their place of origin to market resulted in the development of a turnpike between Beattystown and Phillipsburg. It was a route used by farmers to get their produce to Easton, Pennsylvania, across the Delaware River from Phillipsburg. In the early 1800s, the western portion of this road was incorporated into the newly laid out Washington Turnpike. The development of this early roadway system had a positive impact on the economic growth of the area.

The Morris Canal

Another development in the early 19th century with a major impact on the economic growth of Warren County was the development of the Morris Canal. The canal was conceived by Morristown businessman George Macculloch,

> *… who envisioned a commerce route that could surmount North Jersey's rugged terrain to ship coal, iron ore, farm produce and other products across the state. To conquer an unprecedented 1,674-foot change in elevation – 760 feet from the Delaware River at Phillipsburg up to Lake Hopatcong, the summit level, and 914 feet back down to tidewater at Newark Bay – the Morris Canal used a series of locks and a new innovation, the inclined plane* (www.njskylands.com).

The canal was completed in 1831 between Newark and Phillipsburg, and four years later it was extended to Jersey City, encompassing a route of about 109 miles (including feeders). In Phillipsburg, the canal connected with the Lehigh Navigation and Delaware Canal via an outlet lock and cable ferry that crossed the Delaware River. Figure 2-1 is an historic map of the canal route.

The canal's elevation change of 1,674 feet was the greatest of any canal in the world. Lake Hopatcong, the highest point along the canal, was enlarged to feed water to the canal in both directions. In addition to the 23 lift locks that were used to move barges through elevation changes of less than 10 feet, the Morris Canal is significant for its pioneering use of inclined planes which were used to overcome elevation changes of over 20 feet.

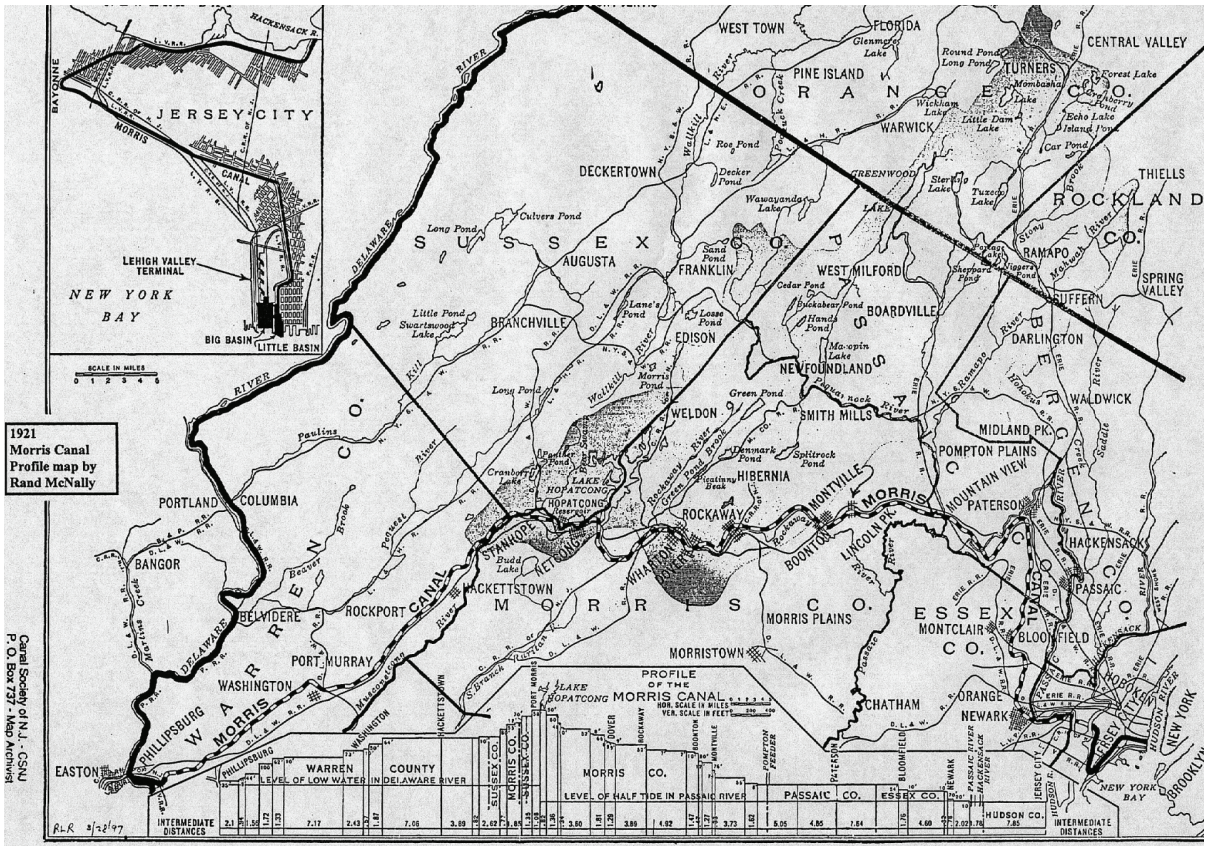
The technology used to build and operate the canal was innovative. To overcome a 1,674-foot change in elevation along the route, 23 lift locks and 23 inclined planes were built, seven in Warren County. Manned flat-bottomed canal boats had tillers for steering and the boats were guided by mules and mule drivers on the towpaths above the canals. The boat speed was about two miles per hour and the trip across New Jersey took about five days. During the 1850s and 1860s, the water wheels of the inclined planes were replaced with more efficient water turbines.

Bread Lock Park

The canal spurred the growth of communities along its route, called "ports." In Warren County, from Hackettstown southward were Rockport, Port Murray, Port Colden and Port Warren. During the 19th century, towns along the Morris Turnpike, Phillipsburg, Washington, and Hackettstown, along with Belvidere on the west side of the county, thrived as agricultural centers, supporting the farmers of the region. These towns also became industrial centers during the 19th century.

By the 1840s, the Morris Canal was shipping substantial amounts of high-grade iron ore westward to the prosperous anthracite furnaces of the Lehigh Valley and Upper Bucks County. Traffic on the canal peaked in 1866, when it carried 899,220 tons of freight. The rise of railroads and their use for shipping the area's resources resulted in a decrease in the importance of the canal as a coal carrier. In the 60-year

Figure 2-1. Map of Morris Canal Route. From Canal Society of New Jersey.



period following the 1871 acquisition of the canal by the Lehigh Valley Railroad Company, the importance of the canal waned. Finally, in 1922, the canal passed into the hands of the state government, which in 1924 made the decision to abandon the canal. Within five years, the canal was largely destroyed (www.canals.org).

Today, evidence of the canal, including the towpath and related structures, remains at several locations within the Route 57 scenic byway corridor. The most obvious remnants of the canal that can be viewed include a boat basin at Port Murray in Mansfield Township, a portion of the canal and towpath in Washington Township at Meadow Breeze Park, a one-mile length of canal prism and towpath at Florence Kuipers Memorial Park in Hackettstown, and a guard lock and towpath trail at Saxton Falls in Stephens State Park in Hackettstown.

Three canal stores once existed in Washington Township at Brass Castle, Bowerstown, and Port Colden. On the northwest side of Washington Borough, the plane tender's house still stands on Plane Hill Road. The canal ran through Washington Borough, from northwest at Plane 7W to the southeast at Lock 6W at Port Colden.

West of Washington Borough, the canal route closely parallels Route 57, running north of the highway until it crosses the road at New Village. Bread Lock Park has been developed as a roadside attraction on Route 57, near mile marker 4 in New Village. The park at the location of Lock 7 West is known as the "Bread Lock" because the lock tender's wife sold freshly baked bread and other items to the boatmen on the canal as they waited to go through the lock. The park contains a section of the canal prism (the now grassy path where the water once flowed), a buried lock, and the sites of the mule barn and lock tender's house. The Warren County Historic Learning Center, operated by the Warren County Morris Canal Committee, is also on the Bread Lock Park property.

Plane 9 West, located at Port Warren, is the key extant canal feature at a site on Route 519 in Greenwich Township. This plane had an elevation change of over 100 feet—the longest on the canal—and many features of the inclined plane have been excavated and restored. Visible today are the underground housing for the mechanical lift system, the

Plane 9 West at Port Warren

Historic Marker & Shelter for Mechanical Lift

Lift Keeper's House and Excavated Materials

Tailrace

View looking down at underground equipment

tail race, the keeper's house, and numerous other excavated features and materials.

The Morris Canal Greenway project is a joint effort of the Friends of the Morris Canal, the Canal Society of New Jersey, Waterloo Village and the NJ DEP Division of Parks and Forestry to preserve and interpret the remains of the canal for educational and recreational purposes. A work in progress, the greenway will follow the historical alignment of the canal when it is completed and will incorporate several parks and open space areas that have been protected by these agencies, Warren County and local municipalities. Many sections of the canal have been cleared with the help of volunteers.

Several guide books are available to help travelers locate remnants of the canal and understand the part they played in the canal's operation. The Warren County Morris Canal Commission sponsors one or two bus trips each year to visit remnants of the Morris Canal within the county.

The waning of the canal's importance is tied to the coming of the railroad to Warren County. A number of railroad lines traversed the county in the 19th century. Examples are the Morris and Essex Railroad, built through Warren County in 1850, and the Delaware Lackawanna and Western Railroad, which came through the area in 1853.

Edison's Cement Works and the Early Automobile Era

The historical significance of the byway corridor continued into the 20th century and the automobile era. Thomas Edison founded the Edison Portland Cement Company in 1899 and in 1902, built a massive plant at New Village. The factory was the source of cement used in construction projects across the country, including Yankee Stadium. In 1908, Edison built the first mile of concrete road in New Jersey, located near New Village on Edison Road.

Edison's Concrete Mile

An historic marker on Route 57 in New Village (Franklin Township) identifies a one-mile segment of the road as "the first concrete highway in New Jersey and one of the first in America," built of Edison Portland Cement in 1912. Remnants of Edison's massive Portland Cement Company can be found on nearby Edison Road.

Guy's Washington Filling Station (NRE)

This eclectic gas station, still in operation on Route 57 in Washington, dates to the 1920s and remains relatively unchanged from its original form. The facility architecturally represents a transportation resource of the first quarter of the 20th century.

Edison experimented with rock-crushing technology in producing cement. He was a pioneer in the development of the rotary kiln and he introduced the first long kilns used in the concrete industry (www.rumford.com). Edison promoted the use of cement and advocated for its use in a number of new ways, including for housing. His concrete housing effort began around 1908 with Edison claiming that concrete homes would "revolutionize American Life" (www.flyingmoose.org), but the concept never caught on despite a substantial financial investment by Edison. In 1908, he built 11 cast-in-place concrete houses in Union, New Jersey. Another complex of Edison concrete houses were built in Phillipsburg, now designated as the Valley View Historic District.

By 1906, fours years after the cement plant opened, it had unfortunately become a money pit.
Author Adam Goodheart wrote:

> *Incredibly, despite such spectacular failures, the Edison Portland Cement Company remained in business. It lost millions of dollars, went bankrupt twice and published a book with the unlikely title* <u>*The Romance of Cement*</u>*. A few years after its founder's death in 1931, the company closed for good.*

The foundations of the former cement factory are now obscured. However, interpretation of the cement factory in conjunction with local sites and the Edison National Historic site in West Orange, NJ, would have the potential of creating a unique visitor attraction.

Easton & Washington Traction Company following Route 57 under the Delaware, Lackawanna and Western Railroad (Source: New Jersey Historical Society Collection)

During the early 20th century, the Route 57 corridor evolved and continued to serve as a prominent transportation link within Warren County. In 1906, the Easton & Washington Traction Company commenced trolley service between Phillipsburg and Washington. The line was reorganized as the New Jersey Interurban Company in 1923, and in 1925 bus service replaced the trolley operations. The old turnpike, today's Route 57, also served the local farming industry, which had evolved from general grain production and orcharding to primarily dairy operations by the century's end.

Earle S. Eckel's Autogiro Port and Pleasant Valley Historic District

Earle Eckel's interest in transportation is evident in his business adventures in fuel oil, automobiles and, most notably, the autogiro, a precursor to the helicopter, which used an unpowered rotor to fly. Having purchased the historic Larson mill and farm in Pleasant Valley, he constructed a runway and hangars to house the autogiros which he bought from Harold Pitcairn, who was testing and improving the technology in the U.S. for use in commercial air flights. Eckel also renovated the historic home and converted the mill to a hydroelectric power plant to serve his homestead. Several structures survive including the two Autogiro hangars, the mill, the main house and several related structures.[1]

Former Autogiro port in Pleasant Valley

Nearby Historic Features

Several other historic resources that help to tell the story of Warren County's role in the evolution of industrial and transportation technology are described in Appendix A. These include Oxford Furnace, the site of America's first successful "hot blast" in 1835, and several historic districts closely tied to the Morris Canal's heritage, including the Port Colden and Port Murray historic districts. Also included is Waterloo Village, a National Register Historic Site that includes a 19th century town associated with the Morris Canal and a re-creation of a Lenni Lenape village. While not in regular operation at this time, Waterloo Village represents a potential future interpretive resource near the byway. Other nearby resources include the National Canal Museum, located just across the Delaware River from Phillipsburg, and the Hugh Moore Canal Park in Glendon, Pennsylvania which offers guided canal boat rides and tours of a locktender's house.

Archaeological Qualities

Archaeological qualities have been defined as characteristics that are "physical evidence of historic or prehistoric human life that are visible and can be inventoried and interpreted." The resources must be scientifically significant, as well as visible and accessible to the public. It is important that visitors are able to learn about the past from the resources

along the scenic byway. (Yamada, *Scenic Byways: A Design Guide for Roadside Improvements* [2]) The principal archaeological resources of the Route 57 Byway corridor include traces of the area's Native American culture, which are not directly accessible to visitors, and remnants of its industrial and transportation heritage, which were discussed in the preceding section on Historic Qualities.

Lenni Lenape Heritage

Warren County has a rich history that extends back to prehistoric occupation of the area by the ancestral groups of the Lenape peoples (later known as the Delaware Indians). These groups occupied the area of Warren County for thousands of years before the arrival of the first European settlers in the early 18th century. Although these native peoples had a profound effect on the later historic development of the region, the tangible remains of their heritage can be hard to recognize. Route 57 offers an opportunity for visitors and local residents to gain a deeper understanding and appreciation of the first occupants of the region. In particular, the mark of these first peoples can be seen in the place names and transportation routes within the Route 57 corridor.

All of New Jersey and eastern Pennsylvania was once the territory of the Lenape native peoples. The name Lenape is often translated as meaning "original people" in the local Algonquin language (http://www.tolatsga.org/dela.html). In historic times, however, the groups were referred to as Delaware Indians, as they inhabited the shores of the bay that early explorers had named in honor of English nobleman Sir Thomas West (the Third Lord de la Warr). Although all Lenape shared linguistic and cultural connections, the group was comprised of a number of distinct regional groups. The area of northern New Jersey was the territory of the Munsi (or Munsee) dialect group. This name is taken to mean "people of the stony country", referring to the geography of their traditional highland home territory (Wacker 1968:14).

Munsi folklore recounts that Warren County was the tribe's traditional seat of power, although in later times the council fire was moved north across the Delaware River into Pennsylvania (http://www.metzler.us/sources/armstrong.html). It is believed that this move may have been prompted

by the Lenape defeat at the hands of the powerful Iroquois Confederacy that extended its regional dominance from their New York heartland into north New Jersey. Although the Iroquois consented to allow the Munsi to remain, it appears that much of the population may have decided to move north, as the otherwise attractive Musconetcong and Pohatcong river valleys of Warren County were only sparsely settled when Europeans began to arrive in the 18th century. In 1758, the remaining leaders of the Munsi signed a treaty in nearby Easton, Pennsylvania, relinquishing all claims to their traditional lands in north New Jersey (Wacker 1983:23). Despite the lack of a significant Lenape population in Warren County today, the mark of these first peoples can be seen in the settlement patterns, place names and transportation routes within the Route 57 corridor.

Lenape Place Names

Although the most of the physical remains of the Lenape settlement in the area have disappeared, one of the most recognizable influences is the large number of Lenape names that are still used to identify the natural features and settlements today.[3] The major waterways that run through Warren County are still known by their original Lenape names: the Musconetcong ("clear running stream"), Pohatcong ("place of the stream in the hills"), and Netcong ("place of the stream") all bear Lenape names, as does Lake Hopatcong ("place of deep water"). One can well imagine a roadside interpretive program that uses native place names to highlight the region's Lenape heritage.

Traditional Transportation Routes

Just as many early European settlements occurred near abandoned Lenape villages, many of today's existing transportation routes, including Route 57, were influenced by the alignments of trails and footpaths laid out by native travelers. Over thousands of years these travelers created paths to move through the area, finding the easiest passages through the Pohatcong Mountains and the best fords across the Musconetcong River and its tributaries.

It is understandable that the early colonists would have taken advantage of the existing paths, and would continue to

Warren County Historical Learning Center

This site features the remnants of Lock #7 of the Morris Canal, known as the Bread Lock, and the foundations of the associated Locktender's house and mule barn. Inside the Learning Center, visitors can see a working model of Lock #7 along with models of Oxford Furnace and Shippen Manor. One room in the Learning Center is dedicated to the displays of Native American artifacts and the interpretation of Lenni Lenape culture.

develop the most useful as horse and wagon paths. As the county continued to develop, many of these roads continued to be improved and were eventually paved, while the fords were eventually replaced by bridges. As has been noted elsewhere, transportation has played a central role in the development of Warren County, as the wide valley between the Pohatcong Mountains and Musconetcong River provided one of the region's best natural transportation corridors. The Morris Turnpike, Morris Canal, railroad and trolley lines, and finally Route 57 were laid out along the river valley, just like the earlier native footpaths and hunting trails.

Although the detailed routes of these early Native American paths have become obscured, their general alignments have been plotted. Warren County is believed to have contained portions of three of the major native trails: the Allamatunk Trail and the eastern and western branches of the Malayolick Path.[4] All three paths extended south from the Delaware River, crossing the Musconetcong Valley, and then connected to other trails which provided movement east toward the Raritan Bay and the Atlantic Coast. The map to the left depicts several Lenape trails.[5] As a result, all three would have crossed some portion of the Route 57 alignment. Just as the current road has numerous signs noting where the Morris Canal crossed the current road alignment, a similar program noting the general location of the native trails crossings, would provide visitors a way to recognize and appreciate the influences of the region's first travelers.

Scenic Qualities

Among the most striking aspects of the Route 57 corridor are its many scenic vistas. Although there is evidence of modern development—and even suburban sprawl—along the corridor, there are also numerous opportunities to get a glimpse of the rolling hills of the Highlands, the picturesque waters of the Musconetcong River, and the acres of fertile farmland that are emblematic of this northwestern corner of the Garden State. The diverse mixed hardwood forest includes tree species from different zones, producing an unusual diversity of fall colors.

The Route 57 Corridor is nestled in a valley between natural features that include the Marble, Scotts, and Upper Pohatcong

mountains to the north and Pohatcong Mountain and the Musconetcong River to the south. Travelers experience exceptional scenic vistas that have become increasingly vulnerable to development pressures. Over 30 individual viewsheds have been identified along the road's length.

Scenic Byways: A Design Guide for Roadside Improvements, prepared by the USDA Forest Service for FHWA, elaborates on the definitions and requirements of the six intrinsic qualities of scenic byways. According to the guide, the scenic quality is "defined by the contribution of the byway resources to the overall visual quality of the landscape." The byway's features "must be representative, unique, irreplaceable, or distinctly characteristic of the area" and there must be frequent viewing opportunities along the byway.[6]

Physical and Visual Surveys

As part of the research for the Corridor Management Plan, the project team and community volunteers conducted field inventories of the corridor's physical and visual features, as required by the New Jersey Scenic Byways Program. Two separate driving tours were organized, one to inventory the physical features or the corridor (the physical survey) and another to determine the visual quality of the corridor. Heritage Conservancy performed preliminary fieldwork to identify fifteen segments of Route 57 having similar visual characteristics, using road intersections or other physical features to mark the beginning and end of each segment, as shown on the following pages. Examples of the scenery within each segment, starting from Greenwich Township and heading east, are provided in Figure 2.2 to highlight the different scenic images found along the roadway.

The purpose of the physical survey was to identify landscape features that should be managed to maintain or improve the corridor's visual quality, and to help determine priorities for potential management activities. Participants rated the visual attributes of each roadway segment on a scale of -5 to +5, with +5 being the highest possible score. Negative values indicated the presence of features that detract from scenic value and should be addressed, while the positive values were associated with features that enhance the scenic experience.

Broadway (Segment 5) scored highest followed by Woolf's Farm (Segment 4). These segments have diverse landforms such as mountains and rolling terrain and offer panoramic views along this portion of the corridor. Anderson/Point Mountain (Segment 11) and Musconetcong River Valley (Segment 12) also had fairly high scores. Areas with fewer natural features, such as Downtown Washington (Segment 8), Washington Transition (Segment 9) and Hackettstown (Segment 15) scored the lowest. More details on the physical survey are provided in Appendix B.

Further information was provided by the visual survey, which rated the quality of the views along the byway according to three criteria: unity, intactness, and vividness. The visual survey found most of the scenery along Route 57 to be of medium or high quality. The Woolf's Farm segment (Segment 4) and the Musconetcong Valley from the Village of Anderson to Beattystown (Segments 12 and 13) received the highest scores. The transitions in and out of Washington Borough (Segment 7 and 9) and into Hackettstown (Segment 15) received the lowest scores. The visual survey methodology and results are described in more detail in Appendix B.

The rating team was also asked to identify the most interesting features and most noticeable detractions within each segment. The findings provide insight into why certain segments received a higher evaluation than others. Scenes of the mountains, farms, woodlands, and streams were viewed favorably along with unique cultural and architectural features such as a stone arch bridge, a church, a cemetery or a tank. Views of abandoned structures, parking lots, storage areas, cell towers, and signs were considered major detractors. (A separate inventory of utility and sign clutter in the corridor was also conducted as background research for the Corridor Management Plan and can be used, along with the survey results, to help develop priorities for managing the corridor's visual qualities.)

An overall scenic rating of the corridor was developed by combining the results from the two surveys (see Figure 2-3). The results mirror the findings from the visual survey, with the segments associated with Woolf's Farm, the Musconetcong River Valley and Hances Brook (Segments 4, 12, and 13) receiving the highest rating.

Figure 2.2: Visual Survey Segments

Entering Greenwich Township

Examples of local businesses featuring antiques and auction items of interest to the traveler

View across valley to Pohatcong Mountain

Visual Survey Segments

Segment 1 - Stewartsville
Greenwich Twp Municipal Boundary Line to Richline Hill Road

The scenery begins with businesses and well-kept homes in the Village of Stewartsville and gradually evolves to a rural landscape with a mixture of small farms, low-density residential properties and roadside commercial establishments.

Segment 2 - Pohatcong Mountain/Valley
Richline Hill Road to New Village Gateway

This segment includes a section of concrete highway, known as the Edison Concrete Mile, in addition to the longest and deepest view of the farm-filled valley between the Pohatcong and Musconetcong Mountain Ranges. The rural scenery also includes roadside low-density residential and commercial land uses.

Figure 2.2 (cont.): Visual Survey Segments

Visual Survey Segments

Segment 3 - New Village
New Village Gateway to New Village Gateway

A series of picturesque old stone buildings mark the entrance to New Village, the first in a series of small town landscapes along Route 57.

Views of New Village

Segment 4 - Woolf's Farm
(Pohatcong Mountain/Valley Continued)
New Village Gateway to Route 643/Asbury Road

Two expansive views of the fertile agricultural valley can be seen within this segment

View of Woolf's Farm from the crest of a hill along Route 57

View of farm and mountains approaching Broadway

Figure 2.2 (cont.): Visual Survey Segments

Street Scene in Broadway and Views of the United Methodist Church and Cemetery

View of Warren County Community College with Pohatcong Mountain as a backdrop

Visual Survey Segments

Segment 5 - Broadway
Route 643/Asbury Road to Halfway House Road

The Village of Broadway consists of a small town cluster of primarily residential structures. A church and its cemetery are interesting features of this community

Segment 6 - Civic Center - Pohatcong Mountain/Valley Continued
Halfway House Road to Pleasant Valley Road

Views of farmland and some industrial buildings occur along the west side of Route 57 while public facilities occupy the east side including a municipal building, vocational-technical school, library, and community college. Due to deep building setbacks, land development does not obscure views of the mountain ranges.

Figure 2.2 (cont.): Visual Survey Segments

Visual Survey Segments

Segment 7 - Washington Transition
Pleasant Valley Road to Ramapo Way
The density of commercial land uses increases through this area in a manner resembling a moderate form of strip-shopping or highway-commercial development

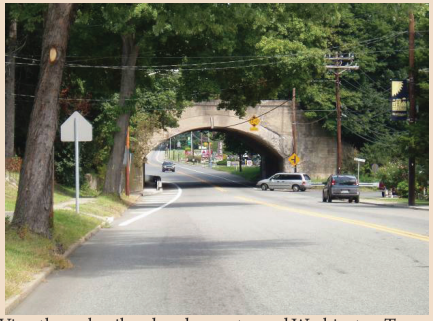
Typical roadside commercial development in Washington Township

Segment 8 - Washington Downtown
Ramapo Way to RR Overpass
This segment has a unified small urban town landscape. A mix of residential and commercial land uses offering a variety of architectural styles are tied together by recent streetscape improvements.

Downtown streetscape in Washington Borough

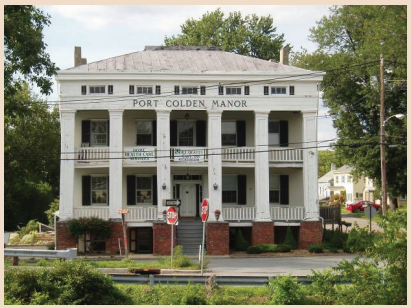
Example of architectural variety in downtown Washington Borough

Figure 2.2 (cont.): Visual Survey Segments


View through railroad underpass toward Washington Township

Typical commercial streetscape in Washington Township

View of farm at McCullough Road



Port Colden Manor

Tank at National Guard Station

View Across from the National Guard Post

Visual Survey Segments

Segment 9 - Washington Transition
RR Overpass to McCullough Road
The railroad overpass frames the beginning of the visual transition from an urban borough to the surrounding rural communities. Residential and commercial development is juxtaposed with brief scenes of farmland without necessarily making a physical or aesthetic connection to downtown Washington Borough. The former Port Colden Manor is a distinctive architectural element, even though it is setback from the road and is in need of repair.

Segment 10 - Penny Toss Farm (Begin Musconetcong Valley)
McCullough Road to Clinton Avenue
The landscape returns to a scattering of rural residential and commercial buildings along the roadside interspersed by broader views of farmland with the mountains in the background. Military vehicles in front of the **Army National Guard Station** add flavor to the rural scenery.

Figure 2.2 (cont.): Visual Survey Segments

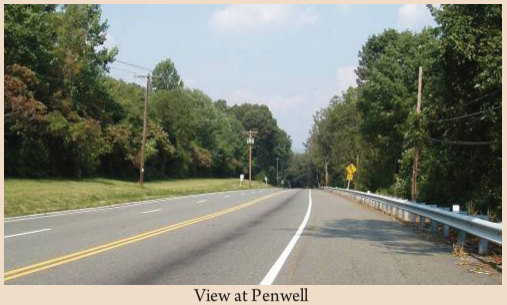
Visual Survey Segments

Segment 11 - Anderson/Point Mountain
Clinton Avenue to Penwell Road
Descending into the Village of Anderson, travelers enjoy views of the historic church and hotel with Point Mountain as a backdrop. Complementary views of an elementary school and municipal park flanked by the mountain range are equally inviting.

Village of Anderson

Elementary school with municipal park behind and mountain range across the street.

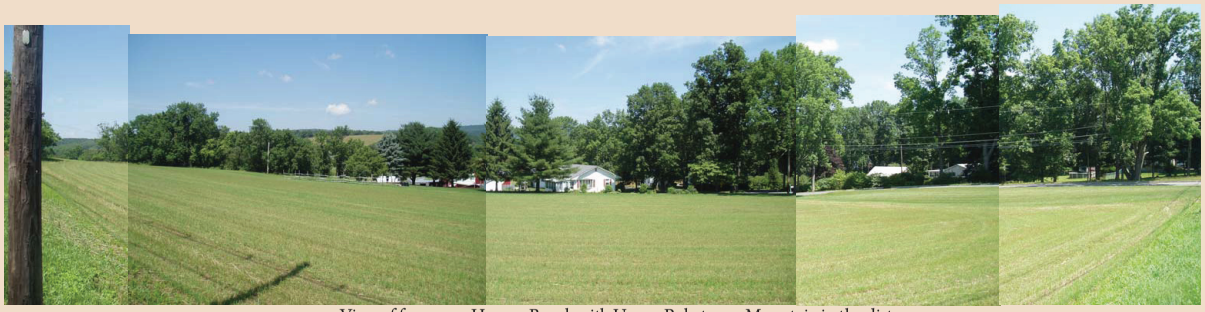
Segment 12 - Musconetcong River Valley
Penwell Road to Old Turnpike Road @ NJDEP Fishing Access
The heavily wooded roadside vegetation is interrupted by scattered residential, commercial and agricultural structures. The Musconetcong River weaves through the surrounding landscape, closely paralleling Route 57 for several short distances.



View at Penwell

View of Musconetcong River

Figure 2.2 (cont.): Visual Survey Segments



View of farm near Hances Brook with Upper Pohatcong Mountain in the distance

Three scenes along Route 57 in Beattystown

Typical commercial streetscape in Mansfield Township with landscaping for parking lot shade and screening

Entering Hackettstown

Visual Survey Segments

Segment 13 - Hances Brook
Old Turnpike Road @ NJDEP Fishing Access to Tri-County Volunteer Fire Company
The valley along Hances Brook is another scenic image of local agricultural operations.

Segment 14 - Beattystown
Tri-County Volunteer Fire Company to Airport Road
The quaint architecture of the historic district associated with the Village of Beattystown is the feature of this segment.

Segment 15 - Entering Hackettstown
Airport Road to Route 182/517
This segment is characterized by relatively dense roadside commercial development, some of which is softened by attractive landscaping, in both Mansfield Township and Hackettstown.

Figure 2.3: Overall Scenic Rating by Segment

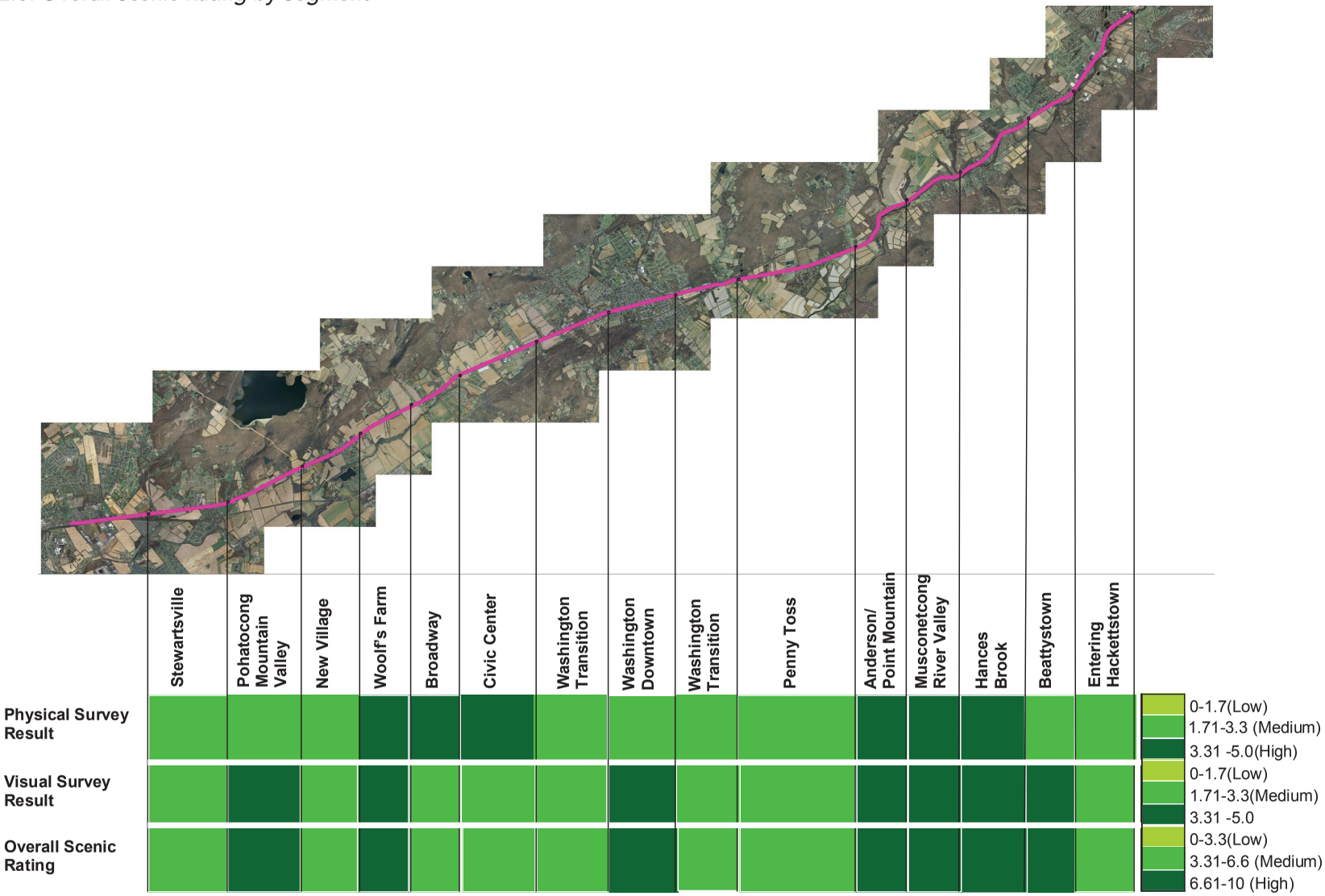
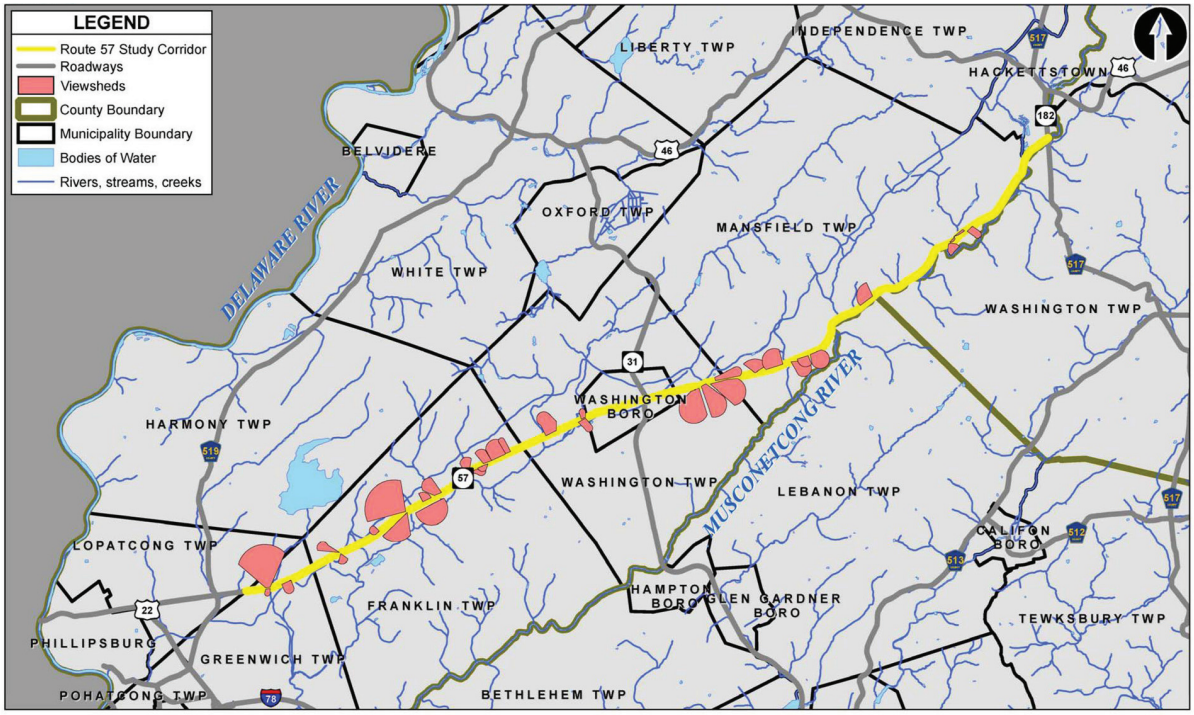


Figure 2.4: Route 57 Scenic Viewsheds, 2003



Source: Vollmer Associates, "Route 57 Scenic View Assessment," prepared for NJDOT, Revised Draft Report, April 2003

Study committee members remarked that the alternating pattern of confined views in the small towns and more expansive views of farmland in the intervening rural areas creates an appealing rhythm to the scenery. Since there are no formally designated roadside viewing areas along Route 57, travelers experience this pattern as part of one continuous driving experience.

Another source of information on the corridor's visual quality is an earlier assessment of scenic viewsheds completed for the New Jersey Department of Transportation in 2003. That study identified over 30 viewsheds along the corridor, as shown in Figure 2-4.

Cultural Qualities

A byway's cultural resources can include places, events, or activities that reflect the character's unique settlement patterns, its economy and occupations, civic traditions, folkways, crafts, and artistic traditions (*Scenic Byways: A Design Guide for Roadside Improvements* [7]) The Route 57

corridor offers opportunities to experience the area's farming culture, both through the many pick-your-own farms along the corridor and the nearby Warren County Farmers' Fair, one of the few remaining authentic agricultural fairs in Northern New Jersey. Educational programs, local theaters, museums, antiques, arts and crafts and special events allow visitors to interact with residents and share in the vitality of the region.

Farms and Farm Produce

There are over 82,000 acres of farmland in Warren County, more than 20,000 of which have been preserved. In comparison to other counties in the rest of the state, Warren County generates the highest market value for its livestock, poultry, and related products and ranks in the top ten for nearly all other major agricultural products. In addition to

Table 2-1: Farm Produce with Route 57 Scenic Byway Corridor

Name and Location of Farm	Arts and Crafts	Baked Goods	Bedding Plants	Christmas Trees	Cider	Comm. Supp. Ag	Dairy Products	Displays	Floral Decorations	Free Range Turkey	Fruits	Gifts	Greenhouse	Herbs	Landscape Materials	Organic Produce	Pick-Your-Own	Preserves	Petting Zoo	Picnic/Play Area	Refreshments	Rides	Roadside Market	Special Events	Trees and Shrubs	Vegetables
Apgar's Cider Press Phillipsburg	X				X		X				X	X						X					X			
Asbury Natural Village Farm Asbury						X										X							X			X
Asbury Raspberry Farm Asbury											X						X									
Best's Fruit Farm Hackettstown		X	X		X						X										X		X			
Donaldson Farms Hackettstown		X			X		X		X		X	X		X			X	X	X		X	X	X			X
Dutch Valley Tree Farm Washington Township				X					X																	
Greenwood Farm Washington																							X			X
Hidden Hollow Farm Washington Township	X			X	X							X					X									
Kash Farm Hackettstown													X	X			X		X				X			X
Mt. Bethel Xmas Tree Farm Port Murray		X		X	X				X								X									
Penny Toss Farm Washington	X		X						X		X				X								X		X	X
Perfect Christmas Tree Farm Phillipsburg				X				X	X												X					
Piazza Farms & Greenhouses Phillipsburg			X						X				X										X			X
Piteo Poultry Farm Hackettstown						X																				
Skytop Farm Port Murray										X				X		X							X			X
Tree-Licious Orchards Port Murray		X									X						X						X			X
Vienna Hill Farm Hackettstown			X				X				X												X			X
Well-Sweep Herb Farm Port Murray		X			X				X			X		X						X				X		

Source: Compiled by Heritage Conservancy from New Jersey Fresh, www.state.nj.us/jerseyfresh/index.html; the New Jersey Christmas Tree Growers Association, www.njchristmastrees.citymax.com/page/page/3965401.htm, Warren County Public Information Office, and field observation

sustenance, agriculture has played a critical role in shaping the culture of Warren County and local granges in Stewartsville, Asbury, and other communities provided a support system for farmers. Although the landscape is changing, Route 57 has retained its rural character, traditions, crafts, and its agriculture land use patterns remind residents and visitors of the long-standing importance of farming in this part of the Garden State.

The Route 57 scenic byway corridor is home to many farms that offer a variety of produce to the public as shown in Table 2-1. Sweet corn, peppers, squash, beans, tomatoes, and fresh fruit can be found throughout the various seasons. Many farms feature "pick-your-own" crops of strawberries, flowers, pumpkins, and apples. During the fall harvest, visitors can participate in hayrides, cider tasting, petting zoos, and corn mazes. At Christmas time, there are a number of farms that offer "choose and cut" Christmas trees along with wreaths and grave blankets. Fresh baked goods, jellies and jams, spices, and dairy products can be found at many roadside markets. Each of these activities allows visitors to experience the area's farming culture directly.

Antiques, Arts and Crafts

Hackettstown and Washington Borough are the hubs for more than a dozen commercial establishments that sell antiques, artwork, and other collectibles along the Route 57 corridor. Visitors can enjoy shopping for pottery, folk art, country items, furniture, vintage clothing, stained glass windows, glassware, home decorations, dolls, porcelain, trains, farm implements, fine art, and postcards in the area.

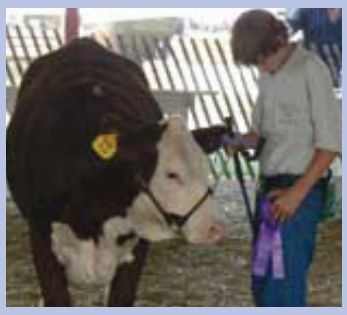
Special Events

A variety of special events are held along the byway corridor, spanning the four seasons and highlighting the customs, traditions, and way of life in this region of New Jersey. The largest area event is the nearby Warren County Farmers' Fair held each July (see sidebar).

- The Washington Borough Business Improvement District sponsors an Annual Car Show (June), Festival in the Borough (July), Annual Arts and

Nearby Cultural Feature: Warren County Farmers' Fair

The largest area event is the Warren County Farmers' Fair and Balloon Festival which draws 35,000 to 40,000 visitors each year. Held annually in nearby Harmony Township, the fair is one of the few remaining authentic agricultural fairs in Northern New Jersey. The fair began as a gathering of farmers, mechanics, and manufacturers in 1859 and became the Warren County Farmer's Fair in 1937. Today, this week-long event held each July features livestock exhibits, antique car and tractor shows, exhibits of traditional arts and handicrafts, children's activities, carnival rides, music, truck/tractor pulls and demolition derbies.



Crafts Festival (when), monthly Antiques Flea Market, and First Friday entertainment, drawing tens of thousands of people to Washington throughout the year. Washington Borough also provides summer outdoor entertainment on three stages.

- Events in Washington Township include: the fall carnival and family festival held at the Warren County Community College and Crafts in the Warren Hills, a juried craft event held every November.
- The Warren County Community College offers children's programs and a visiting author series, among other events.
- In Hackettstown, the Warren County Regional Chamber of Commerce hosts an annual Spring Festival in April that includes live entertainment, rides, petting zoo, nature activities, crafts, and games, while the Hackettstown Rotary Club organizes the annual Memorial Motor Madness car show held in May.

Natural and Recreational Qualities

The natural and recreational qualities of the Route 57 byway are closely intertwined. Many of the most exceptional recreational opportunities in the area involve experiencing nature in its different dimensions. For this reason, they are presented jointly here.

The natural quality of a byway can be defined by "features that are both visible and relatively undisturbed by human influence," but even where there is substantial human alteration, "a byway can still be considered for natural qualities… if the traveler's primary impression is of a landscape with great natural beauty" (*Scenic Byways: A Design Guide for Roadside Improvements*).

Located within the Highlands physiographic province, the Route 57 corridor traverses a landscape that is typical for this region. Here, broad mountains made of metamorphic rock flank narrow valleys formed by sedimentary rock and glacial action. Bounded by Scotts Mountain on the north, Pohatcong Mountain in the middle and Point Mountain on the south, Route 57 winds between these ridges and travels through the watersheds of two streams: the Pohatcong Creek and Musconetcong River. The diversity of ecosystems within

this landscape provides habitat for numerous flora and fauna. Significant stands of forest, grassland, agricultural, wetland and aquatic habitat are responsible for supporting abundant game species, such as cottontail rabbits, wild turkey, gray squirrels and white-tailed deer, in addition to 20 threatened or endangered species in Warren County as noted in Table 2-3.

Critical forest and grassland habitat can be found in association with the Lopatcong and Pohatcong watersheds,

Table 2-3.
Threatened & Endangered Species of Warren County

Species Common Name *(Latin Name)*	Threatened	Endangered
Amphibians		
Long-Tailed Salamander *(Eurycea longicauda)*	X	
Birds		
Bald Eagle *(Haliaeetus leucocephalus)*		X
Barred Owl *(Strix varia)*	X	
Bobolink *(Dolichonyx oryzivorus)*	X	
Cliff Swallow *(Hirundo pyrrhonota)*	X	
Cooper's Hawk *(Accipiter cooperii)*		X
Grasshopper Sparrow *(Ammodramus savannarum)*	X	
Great Blue Heron *(Ardea herodias)*	X	
Pied-billed Grebe *(Podilymbus podiceps)*		X
Red-Headed Woodpecker *(Melanerpes erythrocephalus)*	X	
Red-Shouldered Hawk *(Buteo lineatus)*	X	
Savannah Sparrow *(Passerculus sandwichensis)*	X	
Upland Sandpiper *(Bartramia longicauda)*		X
Vesper Sparrow *(Poocetes gramineus)*		X
Invertebrates		
Dwarf Wedgemussel, *(Alasmidonta heterodon)*		X
Mitchell's Satyr *(Neonympha m. mitchelli)*		X
Mammals		
Bobcat *(Lynx rufus)*		X
Reptiles		
Wood Turtle *(Clemmys insculpta)*	X	
Bog Turtle *(Clemmys muhlenbergi)*		X
Timber Rattlesnake *(Crotalus horridus)*		X

Source: Warren County Environmental Resource Inventory, prepared by the Warren County Environmental Commission, December 1998. http://www.co.warren.nj.us/Environment/wildlife.html

while critical wetland habitat is located within the Musconetcong watershed. These ecosystems not only attract waterfowl, raptors and passerines following the Eastern Continental Flyway on their way to other destinations but also provide a home for more than 160 species of breeding birds found in Warren County.

The lakes, streams and rivers within the Route 57 corridor are valuable water resources, with many segments serving as either warm water fisheries or trout production or maintenance waters. Three segments of the Musconetcong River have received a Wild and Scenic River designation from the U.S. Congress due to the free-flowing condition of the river and its remarkable natural, scenic, historic and recreational features. The importance of the New Jersey Highlands as a source of drinking water was the impetus for the recent adoption of the New Jersey Water Protection and Planning Act by the state legislature.

Nearby Recreational Feature: Merrill Creek Reservoir

In the process of creating a 650-acre man-made reservoir to provide stored water for hydroelectric purposes, several power companies also preserved more than 2,200 surrounding acres of land including a portion of Scotts Mountain. The site is one of only a few nesting areas for bald eagles in northern New Jersey and one of four hawk-watching sites in Warren County. This location holds the state record for the number of broadwing hawks seen in one day.

Opened in May 1989, the reservoir's purpose is to store water for release to the Delaware River during periods of low flow. The reservoir provides approximately 5 miles of shoreline for fishing, boating, wildlife observation, and environmental management. A visitor center provides exhibits and environmental programs for persons of all ages, while hiking trails allow access to the environmental preserve. Merrill Creek Reservoir has become an important research station as open spaces around the area become increasingly developed.

Hiking, fishing, cross-country skiing, camping, canoeing, bicycling and horseback riding are some of the activities found throughout the Route 57 scenic byway corridor. Migrating hawks, nesting eagles, trout-stocked rivers, rolling farmland, dense forest, and open fields are just a few of the sights that a novice hiker or a seasoned backpacker may see. Support services such as bait and tackle shops, kayak and canoe outfitters, and bicycle shops are available on the corridor.

The nearby Merrill Creek Reservoir offers exceptional opportunities for hawk-watching, among other activities (see sidebar). State and county parks feature passive recreational activities related to enjoying the outdoors, while municipal parks also include athletic facilities. The combined resources provide the visitor with a wide range of leisure opportunities. Other recreational opportunities include several golf courses, ballooning and railroad excursions. There are also two old-time roller skating rinks operating in the corridor.

Musconetcong River, Reservation and Wildlife Management Areas

The Musconetcong River drains a 157 square-mile watershed area and is a major tributary to the Delaware River. The main stem of this 42-mile long river is classified by NJ Department of Environmental Protection as trout maintenance water, with eighteen tributaries classified as trout production streams and two tributaries designated as wild trout streams for their ability to support breeding populations of brook or brown trout.

The New Jersey Department of Environmental Protection Division of Fish and Wildlife owns a number of sites that, when combined, protect more than 1,300 acres of land along the Musconetcong River. Several of these sites provide public access to the river for fishing and boating within the Route 57 scenic byway corridor. One of these access points is located just outside of Hackettstown and consists of a small driveway and stone parking area that provides access to the Musconetcong River. Fishermen, naturalists and those on lunch break heavily use this natural area.

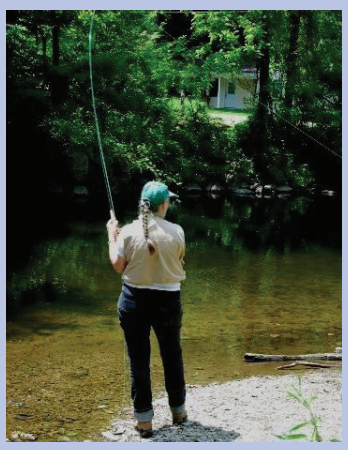
The Charles O. Hayford State Fish Hatchery

The Charles O. Hayford Fish Hatchery in Hackettstown, operated by the New Jersey Department of Environmental Protection's Division of Fish and Wildlife since 1911, raises more than 500,000 warm and cool water fish annually. The fish are stocked into public waters throughout the state for the enjoyment of licensed anglers. Types of fish raised here include channel catfish, largemouth and smallmouth bass, Northern Pike, gambusia ("mosquitofish"), and Bluegill Sunfish. The hatchery is closed to general public visitation. However, the Pequest Hatchery in nearby Oxford (also operated by the Division of Fish and Wildlife) offers tours and environmental education programs.

Musconetcong River

Cliffdale Center

Located along the Musconetcong River in Port Murray, this streamside property was preserved by Warren County and transferred to Heritage Conservancy, a non-profit land trust involved in the preservation of natural and historic resources, as a site for its conservation education and preservation activities, in addition to providing riverfront access for recreation and environmental education. The property is currently being used for fishing and boating events while renovations to the building are being completed.



Wattles Stewardship Center

An environmental stewardship center has been established at the 358-acre Wattles Farm property in Mansfield that was recently preserved through a partnership between Warren County, the NJDEP Green Acres program, and the Audubon Society. Located on Asbury-Anderson Road, the site combines farming, wildlife habitat and public open space. The property includes an historic stone farmhouse that serves as a stewardship center, farm fields, barns, a stable, woodlands and frontage on the Musconetcong River. The NJDEP Division of Fish and Wildlife has developed a parking area with access to the river for fishing.

Birding and Wildlife Trails

The New Jersey Skylands Birding and Wildlife Trails program is a collaborative effort between the Federal Highway Administration, New Jersey Department of Transportation, New Jersey Audubon Society, New Jersey Department of Environmental Protection and New Jersey Office of Travel and Tourism to encourage travelers to enjoy natural areas across the state. Three of these trails – known as Discover Diversity, Feathers/Fens and Forests, and Pequest to Pohatcong – traverse the Route 57 scenic byway corridor and include stops at several of the natural and recreational intrinsic qualities listed in this report (see Figure 2.5), while the Hunterdon's Highlands trail is located nearby.[8]

Canoeing and Kayaking

The 1996 *New Jersey Trails Plan* identifies the Musconetcong River as an eligible component for the State Trail System due to its potential for offering a high-quality recreational experience for hiking, canoeing and kayaking. The plan recommends measures to protect the river and improve public access:

"Although there are frequent dams and weirs, which must be portaged, the course may be canoed for most of its length after heavy rainfalls. However, the most viable canoe run is from the confluence of Lubber's Run in Allamuchy State Park to Bloomsbury for a distance of approximately 31 miles. Below Bloomsbury there are at least three or four dams, which must be portaged, in addition to two water diversions

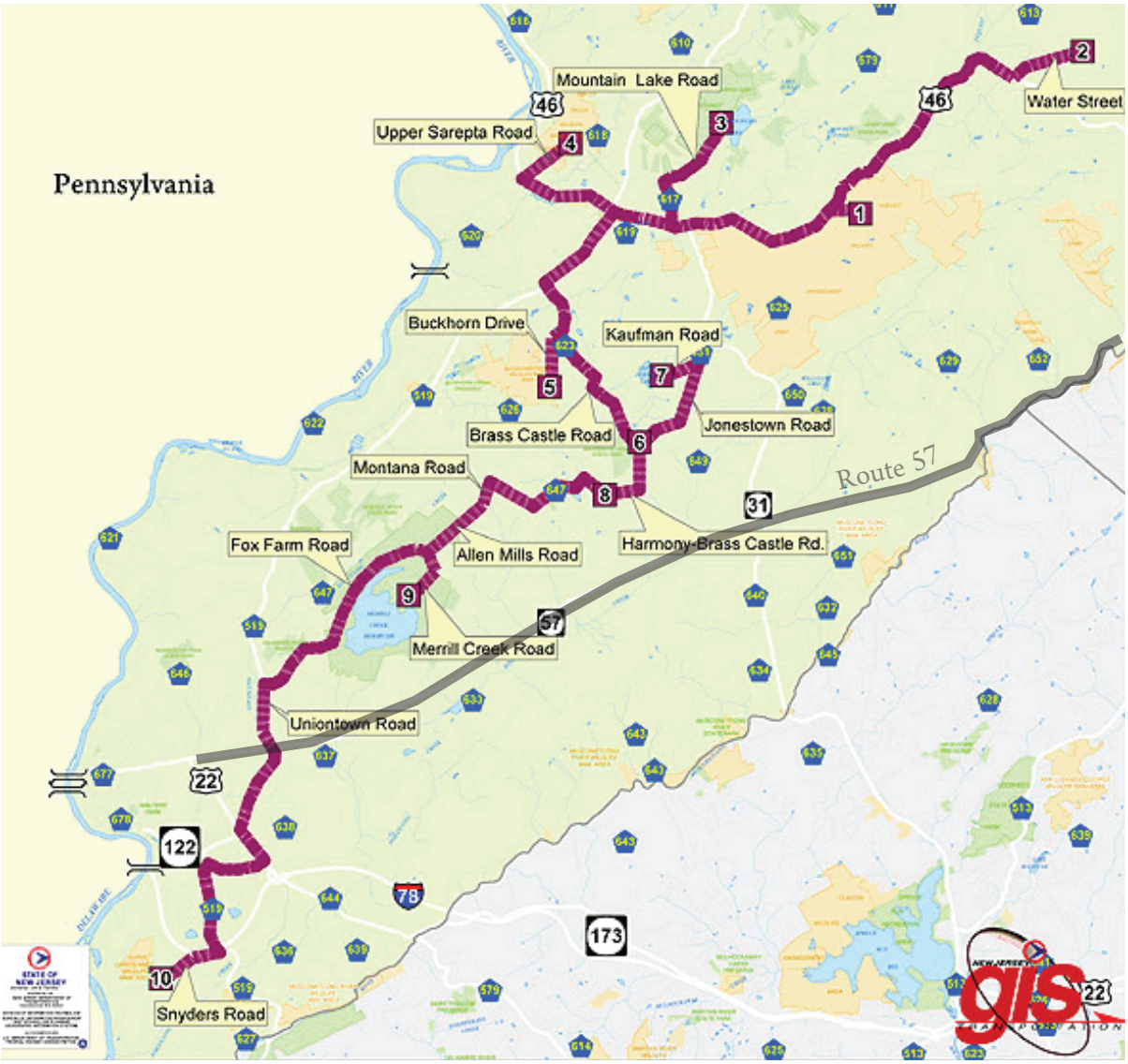


Figure 2.5: Pequest to Pohatcong Birding and Wildlife Trail Source: NJDOT

from the river to canals operated by paper mills. After periods of heavy rains, the current may be swift and canoes can clear the rocky river bed. Between Hackettstown and Bloomsbury, Class II rapids may also be encountered. Through the New Jersey Department of Environmental Protection's Green Acres Program, property has been acquired along the Musconetcong that is to be part of a Musconetcong Greenway, which would include development of a pedestrian path along the river as well as access for river recreation. Current needs include acquiring easements or title to areas along the river

Nearby Recreational Feature: Stephens State Park

Located near Route 57 in Hackettstown, Stephens State Park includes Saxton Falls and remnants of the Morris Canal. The park hosts a variety of events, including nature scavenger hunts for children, mountain bike rides, historical reenactments of frontier camping and Lenape crafts, and trail hikes. Recreational amenities include primitive campsites, picnic areas, playgrounds, trails and restrooms.

in order to close gaps and have a continuous greenway for protection of the river while accommodating appropriate public access. A canoe camping site along the river should also be considered."[9]

Bicycling

Sections of Route 57 meet the New Jersey Department of Transportation's guidelines for bicycle compatibility, and while it is not a designated bike route, experienced cyclists can be seen along the route. Other cycling opportunities within the corridor include numerous side roads and parallel streets near Route 57. Steep slopes to the north make many of the intersecting roads north of Route 57 challenging, while easier rides can be found to the south. In Broadway, Asbury Road provides cycling access to Asbury and links with numerous back country roads, many with scenic views. In Washington Township, Watters Road and Old Turnpike Road roughly parallel route 57 to the north and south, respectively. Each of these roads provides access to networks of country roads that could be used to form loop routes of varying length. Several paved trails are also available, including a 2.15 mile long bike path at Meadowbreeze Park in Washington Township. The Morris Area Freewheelers' website at www.mafw.org provides information on bicycling and tours for members. A bicycle outfitter in Hackettstown offers recreational bicycle trips.

Nearby Natural and Recreational Features

Additional natural features and recreational destinations just off the corridor or in nearby communities are described in Appendix A. These include Roaring Rock Park in Washington Township, which offers wooded hiking areas and a pond with fishing access; the Rockport Pheasant Farm in Hackettstown, open daily to the public; and the newly established Musconetcong

River Resource Center, located in Asbury, which provides educational and recreational programs for the watershed and serves as a meeting place for hikers, paddlers, birders, artists, and fishermen.

(Endnotes)

1 The Eckel Family Museum at http://www.goes.com/~deckel/index.html
2 Yamada, 13.
3 Wacker 1968, 28.
4 Wacker 1968, 26.
5 Map of Lenape trails from: Woodruff, Ann Schillingburg and F. Alan Palmer. "The Unalachtigo of New Jersey." Online Publication by Cumberland County Library, Bridgeton, New Jersey. <http://www.co.cumberland.nj.us/facts/history/unalachtigo/unalachtigo.html>, No Date.
6 Alan Yamada, et al. *Scenic Byways: A Design Guide for Roadside Improvements*. (Prepared for US DOT FHWA Coordinated Federal Lands Highway Technology Implementation Program; Prepared by USDA Forest Service, San Dimas Technology and Development Center, July 2003), 10.
7 Yamada, 13.
8 New Jersey Wildlife Trails at www.njwildlifetrails.org
9 *NJ Trails Plan* at http://www.njtrailsplan.org. 1996. 62-63.

III.

Chapter Three:

Vision Statement

III. Vision Statement

Communities along Route 57 envision a corridor that builds on a sense of place and emphasizes the distinctive character of the region, with special emphasis on the following dominant themes:

- A Transportation Heritage – From Native American trails and footpaths, to the Morris Turnpike and Morris Canal; from the Morris and Essex Railroad and Easton and Washington trolley, to the modern state highway, this corridor has been a crucial route through the Lopatcong, Pohatcong and Musconetcong valleys for centuries.

- A Working Landscape – Route 57 weaves through working agricultural lands and villages that harness local natural resources in distinctive ways, following a scenic corridor that has been shaped by generations of resident farmers and businessmen. The landscape of the Lopatcong, Pohatcong and Musconetcong valleys is not only marked by growth and development, but also by the preservation of open space, viewsheds and wildlife ecosystems.

- A History of Innovation – The corridor provides historical and physical evidence of a wealth of discoveries and significant technological progress in the 19th and early 20th centuries. Notable examples include the engineering marvels of the Morris Canal and Edison's Concrete Mile, which helped to launch the American driving experience.

Through these themes, the Scenic Byway will emphasize the unique qualities of the towns, villages, and environment along Route 57 for both residents and visitors.

In the future, the Scenic Byway will have helped the communities along Route 57:

- To preserve and enhance the beauty of natural, cultivated, and built landscapes and their relationship to our history, culture, and future.

- To enhance tourism in proximity to centers of

recreation and commerce.

- To encourage land uses that create and complement scenic viewsheds, vistas, and panoramas.
- To highlight historic sites and, through heritage tourism, help residents and tourists discover the stories in the landscape.
- To mitigate the tensions between preservation and development.

IV.

Chapter Four:

Management Strategies

IV. Management Strategies: Maintaining and Enhancing the Byway's Intrinsic Qualities

A key element of the Corridor Management Plan is a set of strategies for maintaining the byway's intrinsic qualities over time for the benefit of byway users, area residents, and other stakeholders. Also included are strategies to enhance the byway's special qualities and make them more accessible and meaningful for byway users.

Historic/Archaeological Resource Strategies

GOALS:
Preserve the most important visible reminders of the region's historic and archaeological significance.

Promote an understanding of the past through stewardship, visitor facilities and interpretive programs.

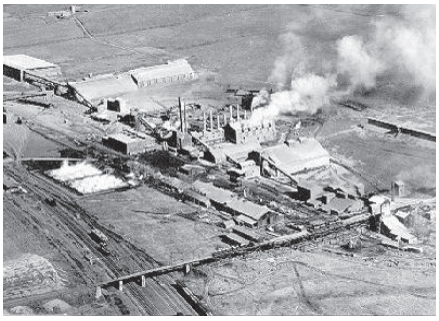
STRATEGIES:

H1
Support efforts to protect and preserve critical Morris Canal sites along the byway including Bread Lock, Plane 9, the Port Murray Historic District, and others. Where needed, improve access to these sites and create interpretive linkages among them.

H2
Support the Morris Canal Greenway initiative and work with project sponsors to create strategic linkages between the Greenway and the Route 57 Byway.

H3
Improve the visibility of the Edison Concrete Mile site.

H4
Establishment of a heritage museum at Bread Lock Park to showcase key resources and information associated with the Morris Turnpike, Morris Canal, the region's historic railroad and trolley lines, Thomas Edison's cement works, the Autogiro Port, and early Lenni Lenape trails, among



View of Former Edison Portland Cement Company

other resources. Also investigate the potential to enhance the Autogiro port.

H5
Conduct a detailed study of the historic buildings and other facilities along the byway to identify those resources that contribute most to the byway's historic and scenic qualities. Assess the need for preservation measures to protect these priority structures and identify measures, such as façade easements, tax incentives or grants for façade improvements, adaptive reuse or other means to preserve these resources and enhance their contribution to the byway. This study should include short and long term recommendations and potential funding sources.

H6
Support local historical societies in their efforts to preserve historic resources along the Byway.

Anderson Hotel

H7
Investigate the potential for adaptive reuse of the Anderson Hotel, possibly as a visitor's center for the byway.

H8
Investigate the feasibility of creating a Heritage Area based upon the byway's historic resources.

H9
Work with landowners and government agencies to identify and preserve archaeological resources. Develop a program for interpreting and displaying archaeological resources as appropriate.

Scenic Resource Strategies

GOALS:
Preserve the byway's outstanding scenic views for posterity.

Protect and enhance the corridor's scenic qualities while encouraging compatible economic development and respecting the rights of property owners.

STRATEGIES:

S1
Identify measures to preserve the most highly ranked scenic vistas along the byway, including those located along Broadway, Woolf's Farm, Anderson/Point Mountain, the Musconetcong River Valley, and Hances Brook. Where appropriate, consider options for the purchase of scenic easements, farmland preservation or land acquisition; establish priorities and investigate funding opportunities for these measures.

S2
Support initiatives to preserve farmland and open space along the byway, where this would contribute to the byway's scenic qualities. Recognizing that viable farms are key to preserving farmland, identify opportunities to help support local farming in coordination with the Warren County Agricultural Development Board, the Warren County Board of Recreation Commissioners, and the NJ State Agriculture Development Committee.

S3
Encourage the municipalities to plan carefully for new development that is compatible with the character of the byway and minimally intrusive on the view from the road. Seek grant funding to develop a model corridor overlay zoning ordinance that would help the municipalities with this objective. A Scenic Corridor Overlay Zone could be voluntarily adopted by interested municipalities to help regulate the visual character of new development. The Scenic Corridor Overlay Zone could be used to reduce the visual impacts of new structures, parking, signs, and other features that might obstruct existing vistas. Such an ordinance could

also include design standards for historic villages that would encourage development compatible with existing historic structures.

S4
Where development proposals are currently in process, encourage municipalities to work with developers to promote site plans and building designs that minimize scenic intrusions and are visually compatible with the byway.

S5
Support efforts to encourage infill development and redevelopment in existing centers along the corridor, including Washington Borough, as a means of providing new jobs, housing, and tax base without affecting rural landscapes.

S6
Identify strategic locations for scenic pull-offs that will allow byway visitors to take more time to enjoy the byway's scenic vistas. Work with NJDOT and the municipalities to develop pull-offs/parking areas and appropriate signage, along with maintenance plans to ensure the future upkeep of these facilities. One or more of these pull-offs could also provide access to outdoor recreational facilities along the byway.

S7
Conduct a study to determine and plan priority actions for improving the byway's visual quality. This "beautification" plan would address issues such as abandoned buildings, debris, and other unsightly features along the byway as well as the potential for façade improvements. The following are recommended components of this plan:

- Encourage and assist byway municipalities in undertaking improved management of abandoned buildings, abandoned vehicles, roadside debris and similar visual detractors through such measures as increased enforcement of ordinance provisions, enactment of improved ordinances, or incentive programs.

- Identify priority locations for installation of screening treatments, such as landscaping or fencing, to conceal aesthetically intrusive roadside

elements such as industrial equipment storage, vehicle storage, dumpsters, and unsightly industrial buildings. Investigate options to fund and implement screening treatments and to provide for ongoing maintenance.

- Identify priority locations for potential façade improvements and landscaping to improve the appearance of existing properties. This could include treatments to help commercial buildings "blend in" with their surroundings and where appropriate, create a more unified, town-like appearance. (This action should be coordinated with historic façade improvements that may be undertaken as part of the historic resource strategies.) Investigate potential funding sources for façade and landscaping improvements.

S8
Identify measures for creating a more distinctive appearance and identity to the roadside in the transition zones in Washington Township that serve as an entrance to the township and an approach to downtown Washington Borough.

S9
Coordinate scenic conservation and enhancement efforts with the related strategies discussed in the Signage Plan section of the Corridor Management Plan. For example, the model corridor overlay zoning ordinance described in S3 above could include sample regulations concerning the size, placement and appearance of on-premise advertising signs, and the beautification efforts described in S7 could encompass efforts to reduce roadway sign clutter.

Cultural Resource Strategies

GOALS:
Encourage cultural activities to provide seasonal recreational interest, express local community values, and support economic development efforts.

Enhance programming to increase the byway traveler's understanding of the unique culture and significance of the corridor.

STRATEGIES:

C1
Identify how existing cultural events can be supported, enhanced and coordinated with byway tourism and marketing activities.

C2
Identify ways in which new cultural events can be developed to highlight the intrinsic resources of the byway corridor and support resource protection efforts. For instance, special events could be used to celebrate and promote the byway, potentially incorporating Canal Days-type activities, antique shows, historic house tours, and walks or car rallies along the Concrete Mile, among others.

C3
Encourage development of special programs that show aspects of agricultural life.

Natural and Recreational Resource Strategies

GOALS:
Protect the corridor's natural qualities and recreational assets.

Encourage byway users to enjoy the area's natural beauty and gain awareness of its ecological diversity through recreational and educational activities.

STRATEGIES:

N1
Support initiatives to protect environmental quality and preserve the natural resources that contribute to the byway.

N2
Support the implementation of the Musconetcong River Management Plan, which identifies a variety of goals, objectives and key actions for recreation and resource protection.

N3
Improve access to the Musconetcong River for environmental education programs and for recreational activities, such as boating and fishing. Investigate the potential to improve existing parking for river access on land owned by NJDOT in Mansfield Township, just north of Penwell.

N4
Improve access and parking at strategic recreational locations where needed; coordinate this effort with the identification of scenic pull-offs (see Strategy S6 above).

N5
Identify opportunities to attract and serve recreational travelers with a special interest in canoeing or kayaking, fishing, hiking, bicycling, horseback riding, cross-country skiing or related natural resource-based outdoor activities. Investigate the need for and potential to provide additional camping facilities near the byway, potentially including a canoe campsite along the Musconetcong River.

N6
Investigate the feasibility of establishing an alternate bicycle route parallel to the byway (or sections of the byway), potentially utilizing the canal towpath.

N7
Develop a bicycle touring map or guide indicating area roads that are suitable for bicycling. This effort should be coordinated with local bicycle clubs and outfitters.

N8
Compile and provide information on hiking opportunities along the corridor, with mapping and guidance on trip lengths, terrain and difficulty level; this information could be provided via a future byway website (see Tourism/Marketing Strategies T3 and T6).

V.

Chapter Five:

Land Use & Development

V. Land Use and Development Along the Byway

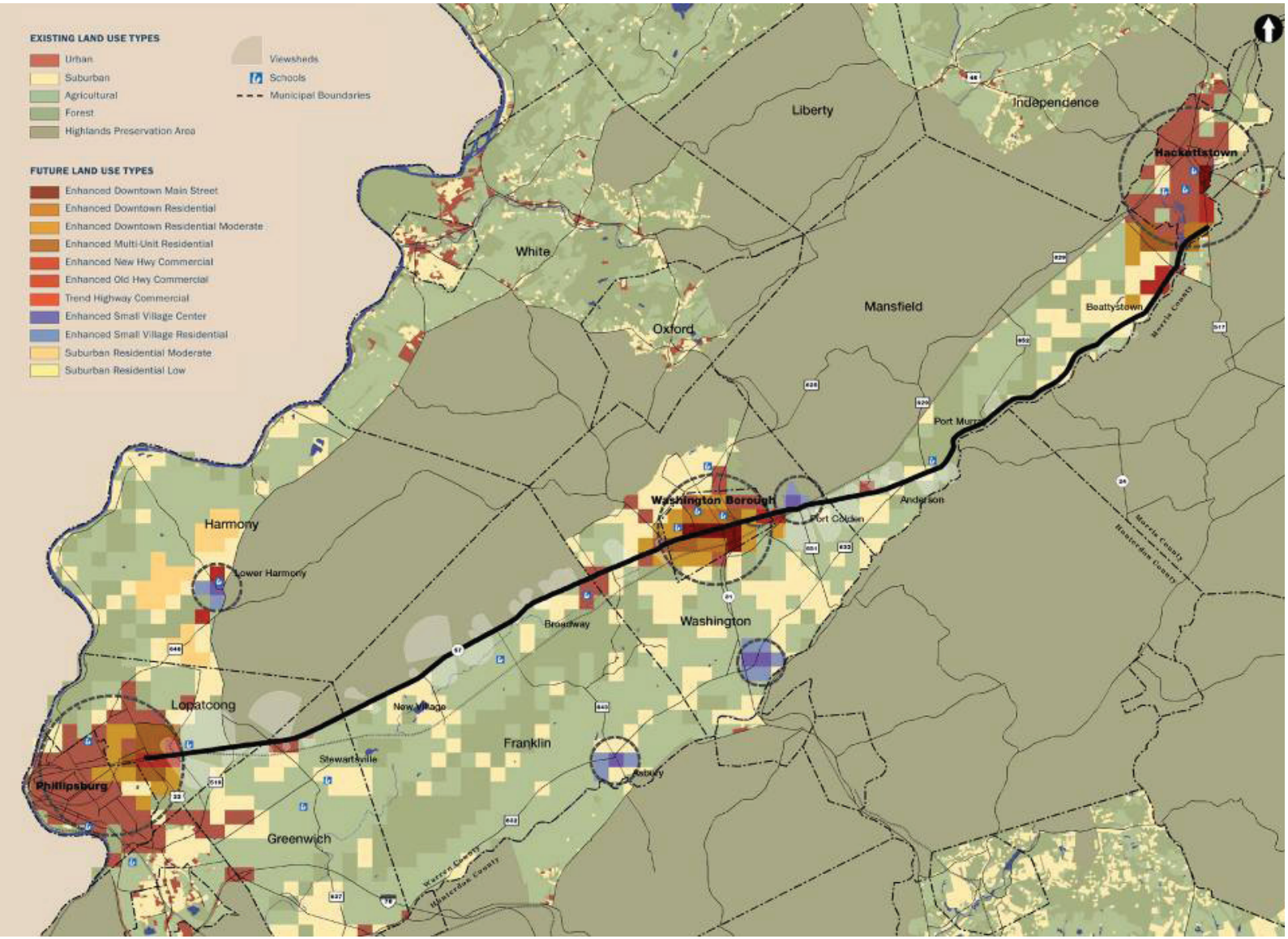
The character of the Route 57 Scenic Byway is strongly affected by the land uses travelers encounter along the route. Historic homes help define the character of the port villages, while traditional commercial buildings with tree-lined sidewalks create the classic "Main Street" appearance of downtown Washington. In contrast, open space and farmland provide access to many of the mountain vistas prized by area residents.

The corridor's historic and scenic qualities are especially vulnerable to the effects of new housing or commercial development along the roadway while new developments that are not carefully designed to be compatible with the character of the area could diminish the appeal of the byway. Corridor communities need the ability to grow and change over time. The key question is how the byway communities can prepare for necessary growth and respect the rights of property owners while maintaining those qualities that make the area special.

These questions are similar to those addressed by the Route 57 Corridor Plan, an integral land use and transportation plan which was developed in 2005-2006 with community participation and support from NJDOT.[1] The plan, which covered a larger area than this Corridor Management Plan, recommended a development scenario for the region that would focus growth in and around existing urban centers, protecting agricultural land and views between the centers (see Figure 5-1). Four mixed-use villages were also envisioned to complement the town center development, building upon the local heritage of port villages. Some of the plan's features included:

- Integrating existing commercial development on Route 57 into unified village centers;
- Encouraging the placement of new highway commercial buildings into walkable networks of streets and blocks, potentially including new "Main Streets" parallel to Route 57;

Figure 5-1. Preferred Growth Scenario, Route 57 Corridor Plan (November 2006)



Source: Prepared by Parsons Brinckerhoff and Renaissance Planning Group for New Jersey Department of Transportation, November 2006.

- Encouraging "infill" development in downtown areas,
- Providing for a variety of housing types in new suburban developments, as well as connections to public parks and institutional buildings;
- Creating regional greenway trails that link corridor villages, parks, and other attractions.

A set of development principles and design guidelines was proposed to help interested municipalities implement these concepts. These guidelines and other tools and resources were compiled in an implementation toolkit, which is still available as a reference for the scenic byway at www.state.nj.us/transportation/works/studies/rt57/maps.htm.

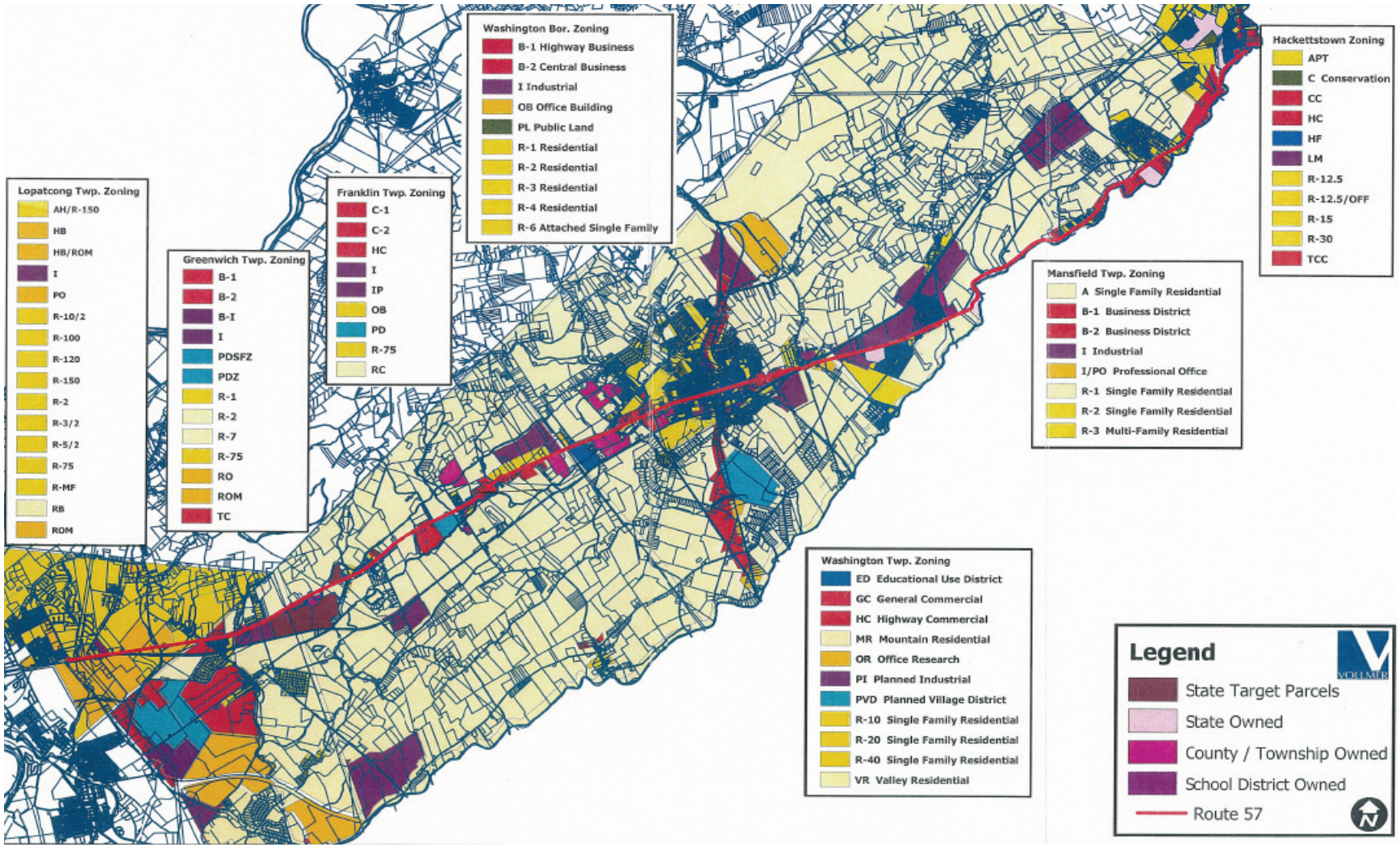
Regulations Affecting Future Development

Future development along the byway is subject to a complex set of factors including market conditions, local zoning, Council on Affordable Housing (COAH) requirements and environmental regulations. In particular, the Highlands Water Protection and Planning Act (Highlands Act), passed in August 2004, has established significant constraints on future development in the region.

Local development regulations for land along the byway are varied. Figure 5-2 presented on the following page is a composite zoning map of the Route 57 corridor.[2] The eastern end of the byway is zoned for lower density single residential on three acre lots, medium-density residential on half-acre lots, and business districts of one acre lots. In Washington Township, existing zoning accommodates primarily low-density residential development. Washington Borough is mostly built out and is a candidate for infill development and redevelopment.

Directly on Route 57, at Port Colden near the Mansfield Township border, there are areas zoned for Planned Industrial on three acre lots and Valley Residential on four acre lots. Development of this Valley Residential zone could affect scenic viewsheds, depending on the location and design of new structures; this area appears to be one of those most vulnerable to the potential loss of scenic resources. To the west, in Franklin Township, much of the zoning is Rural

Figure 5-2. Composite Zoning Map, Route 57 Municipalities, prepared by Vollmer Associates for NJDOT, revised April 2003



Conservation, while in Greenwich Township, much of the land available for potential development (south of Route 57) has low-density residential zoning. The outcome and impact of current zoning on the byway's scenic and historic resources will be heavily dependent on the implementation of the Highlands Regional Master Plan, discussed below.

Highlands Act & Highlands Regional Master Plan

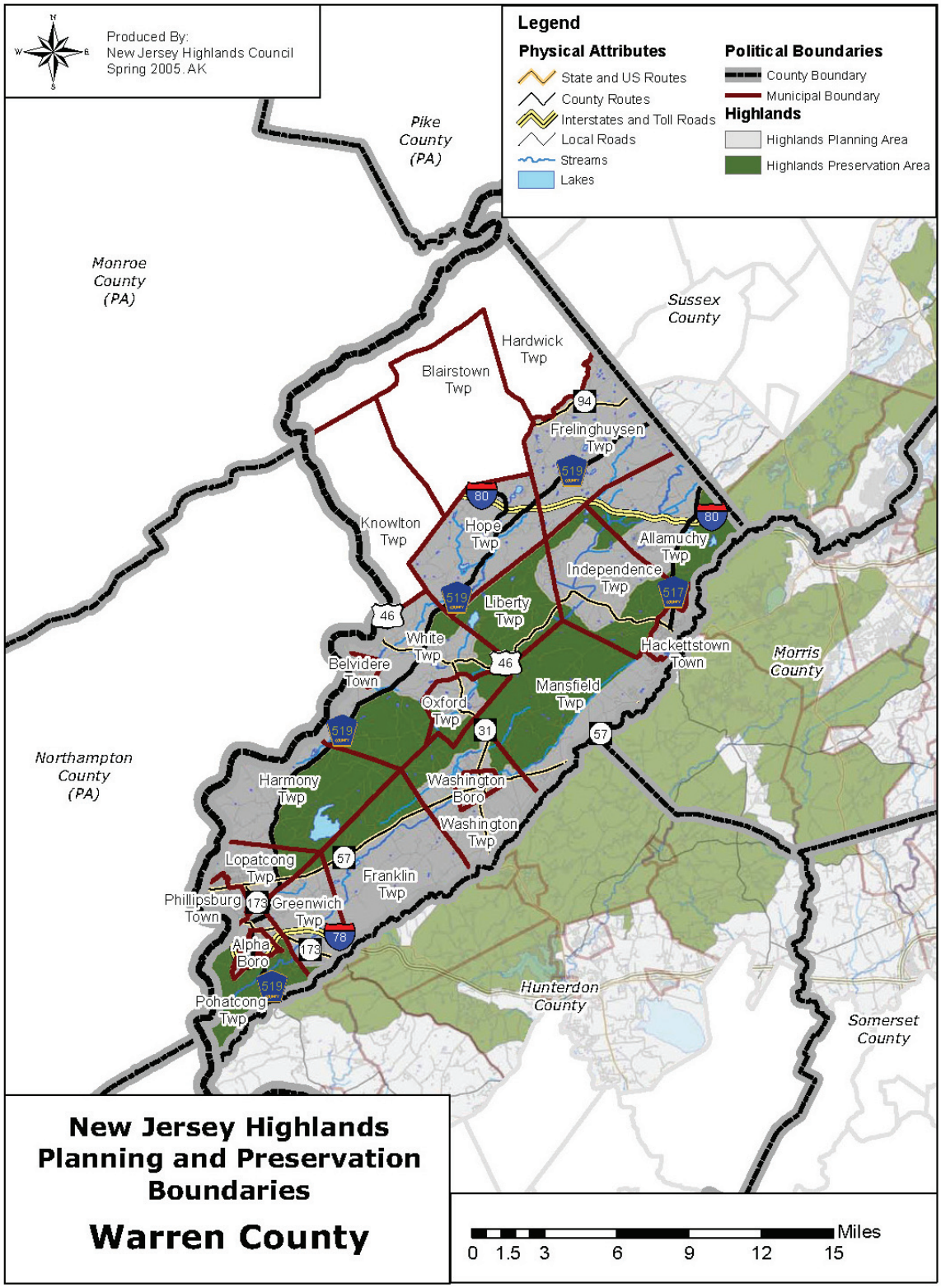
The Highlands Act is an extremely important influence on future land development in the byway region. The Act established the Highlands Preservation Area, with significant development restrictions, and the Highlands Planning Area, where development is less controlled but still subject to certain regulations, including designated Conservation Zones. The byway corridor includes lands in both the Preservation Area and Planning Area, adding a layer of complexity to efforts to identify and protect locally valued resources and steer land development accordingly.

Figure 5-3 on the following page depicts the Highlands Preservation and Planning Areas in Warren County. At the western end of the byway, the Preservation Area covers the land north of Route 57, with the Planning Area to the south of the roadway. The result is that most of Greenwich Township and a significant amount of Franklin Township are in the Planning Area. However, some of the key viewsheds along the western end of the corridor are protected by their inclusion in the Highlands Preservation Area.

In the central area, within Washington Township, the boundary between the Preservation Area and Planning Area shifts north of Route 57, placing Washington Borough within the Planning Area. Toward the eastern end of the byway in Mansfield and Hackettstown, the situation is reversed from the western end. Here the Planning Area begins just north of Route 57, while the areas to the south (located in Morris County) lie in the Preservation Area.

The Highlands Council approved its Regional Master Plan (RMP) in July 2008. The RMP provides a comprehensive set of environmental and preservation policies for the region. In general, these policies appear to be in harmony

Figure 5-3. Highlands Preservation and Planning Areas



with the Route 57 Scenic Byway vision. For example, the RMP is supportive of land use strategies such as agricultural preservation, cluster development, and conservation of scenic and historic resources. An initial set of 131 scenic resources has been designated including National Historic Landmarks, public parks, forests and recreation areas. A process for nominating additional scenic resources is called for but has not yet been implemented. Similarly, an initial set of historic, cultural and archaeological resources has been designated based on State Historic Preservation Office listings.

Many of the details of the RMP's implementation are still being worked out. One aspect which is uncertain is the provision for Transfer of Development Rights (TDR), a program in which property owners in areas targeted for preservation can transfer development rights to investors in designated receiving areas. While the sending zones for the Highlands TDR program are established, receiving zones are voluntary and have not been set.

In the Preservation Area, municipal master plans and development regulations must be modified to conform to the RMP through what is called the Plan Conformance process. Participation in Plan Conformance is voluntary for those municipalities entirely in the Highlands Planning Area. To date, four byway communities have filed Petitions for Plan Conformance: Franklin, Greenwich, Washington Township and Hackettstown. The petitions and associated documents are currently under review by the Highlands Council.

Related Plans

Other local plans that may influence future development along the byway include the individual municipalities' Master Plans (existing and those with new Plan Conformance components), their COAH plans, and area plans such as the Washington Borough Downtown Revitalization Plan (2002). At the County level, the Warren County Strategic Growth Plan developed in 2005 provides policy guidance for local plans and public investment within a general framework of smart growth.

Also relevant are the North Jersey Transportation Authority's long-range transportation plan and the Musconetcong River Management Plan, developed to support the Musconetcong's designation as a Wild and Scenic River. Greenway and trail plans for several regional facilities could also play a role in shaping future land use.

Byway Resources Vulnerable to Land Use Impacts

The Scenic Byway Corridor Committee identified the following as some of the most vulnerable resources along the byway:

- Musconetcong River
- Farmland
- Open Space
- Ridgelines
- Morris Canal, Edison Mile, and historic industrial structures (buildings, dams, mills)
- Historic Villages

They noted the loss of traditional scale and community character that can occur with land development. Historic villages such as Beattystown are among the special places vulnerable to assimilation. The existing sequence of "town view, open space view, town view, open space view" provides a rhythm and diversity that is diminished by poorly planned development.

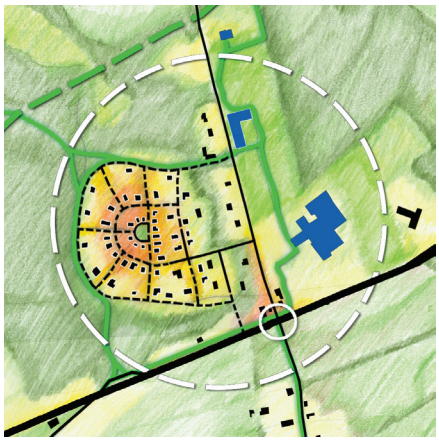
Land uses seen by some as having a negative impact on the quality of the byway include strip malls, "McMansions," junkyards, deteriorating or abandoned buildings, sign clutter, a lack of sidewalks, and poorly planned development in general. Land uses viewed as having a positive impact include agriculture, recreation, open space, historic interpretation, sidewalks, alleys, and well-planned development.

Potential Strategies to Guide Future Land Use

A number of strategies and techniques are available to guide future land use along the byway and help protect the corridor's

valued qualities. These range from outright acquisition of land or scenic easements to regulatory strategies, such as Scenic Corridor Overlay Zoning or Conservation Zoning. Another approach is the use of Design Guidelines to encourage compact community forms and attractive building types that harmonize with the surrounding landscape and reinforce, rather than disrupt, existing community character.

A set of proposed design guidelines for the Route 57 corridor municipalities were developed as part of the NJDOT Route 57 Corridor Plan initiative in 2006 and are available online at http://www.state.nj.us/transportation/works/studies/rt57/maps.shtm. The guidelines are tailored to a variety of place types including village centers, rural neighborhoods, neighborhood centers, commercial centers, and downtowns. They define recommended characteristics of streets, buildings and frontage, parks and open space for each of the place types, as well as for parking and signage. The guidelines are one of the resources that can be used in preparing a model Scenic Corridor Overlay Zone for the byway (see Management Strategy S3).



Rural neighborhood concept incorporates small scale retail with housing and farm uses

Village center concept with small, mixed use core surrounded by residences and open space

Land Acquisition and Scenic Easements

The most direct method of protecting key scenic or historic resources from the impacts of land development is to acquire the land or development rights through a conservation easement. Management Strategies S1 and S2 envision the use of such methods to preserve the most highly ranked scenic vistas along the byway.

A conservation easement is a legal agreement between a land owner and a qualified land trust, government entity, or conservation organization with the purpose of protecting natural resources. Through this voluntary deed restriction, the land owner retains ownership, but some control—such as water rights or the right to develop or subdivide the land—is given to the partner organization. An easement may qualify as a federal tax-deductible charitable donation and reduce property taxes for the landowner, while restricting development, protecting habitat, and conserving land for the future.

Public sector programs that may assist with the acquisition of specific parcels of land along Route 57 include NJDEP's

Green Acres Program and Warren County's Department of Land Preservation. Private land trusts are another resource. Resources for acquiring preservation easements include the State Agriculture Development Committee's "Planning Incentive Grants" (PIGs), which target active farmland. Some of these programs require that the land in question be part of a municipal open space or farmland preservation plan.

If an easement's primary goal is preserving the scenic qualities of a specific parcel of land or viewshed, it is often referred to as a scenic easement. The acquisition of scenic easements to preserve viewsheds along highways is an eligible category for transportation enhancement funding under NJDOT's Local Aid program. (The acquisition of scenic or historic sites qualifies, as well.) Under this program, NJDOT seeks to "promote the protection of scenic and historic values through acquisition of scenic easements and historical sites adjacent to a scenic highway."

Where the property in question is farmland, the Planning Incentive Grant (PIGs) program of the NJ State Agriculture Development Committee is another potential resource. PIGs are available for the purchase of development easements to permanently protect large tracts of contiguous farmland. Municipalities seeking these grants must have adopted a Farmland Preservation Plan element in their local master plan. The Farmland Preservation Plan may be part of a municipality's greater open space plan, or it may be a separate element. It should be noted that farmland preservation and scenic preservation do not always coincide. For instance, the owners of preserved farm properties may have the right to construct additional farm buildings or to grow tall crops, including tree farms, that could potentially obscure existing views.

Other potential resources for land preservation are described in the Highlands Council technical report "Land Preservation and Stewardship," published in 2008.

Scenic Corridor Overlay Zoning

Scenic Corridor Overlay Zoning is another promising technique for preserving the byway's scenic resources as discussed in Management Strategy S3. The creation of

an Overlay District would not change the underlying use categories (e.g., Residential, Highway Commercial, etc.) and it would not prohibit development. However, future development within the Overlay District could be subject to more stringent standards designed to reduce the visual impact of new structures, parking, signs, and other features that might obstruct existing vistas. At their option, municipalities along the byway could elect to adopt a Scenic Corridor Overlay Zoning Ordinance to protect critical viewsheds and other scenic resources within their own jurisdiction. In order to do so, they would also need to incorporate the identified scenic resources and preservation goals in their Master Plans.

The following are some the features that could potentially be regulated through Scenic Corridor Overlay Zoning:

- Building height, mass, and siting
- Building materials, colors and styles
- Parking
- Landscaping and grading
- Trees and woodlands

For example, some municipalities require or recommend that commercial buildings include windows, surface textural treatments, and a pitched roof to avoid the appearance of a flat "box" on the landscape. Building orientation may also be regulated to avoid exposing rear facades to public roadways. Within residential subdivisions, standards for achieving variety among buildings may also be developed. Another approach is to specify building styles and materials that are aesthetically compatible with the agricultural setting or consistent with existing historical styles (e.g., traditional farmstead, 18th century village). A prototype or "pattern book" of preferred styles could be created to aid developers in understanding local preferences.

Scenic vistas are vulnerable not only to poorly designed or situated buildings, but to the visual impacts of large parking lots. For this reason, parking should also be carefully regulated within a Scenic Corridor Overlay District.

The Corridor Overlay zoning ordinance could include requirements for landscaping to soften and buffer constructed features such as commercial buildings, gasoline stations, and signs. Some municipalities also regulate the grading of

building sites, in order to preserve existing contours and help ensure that future development is harmonious with existing topography. Landscaping may also be required to provide for naturalistic transitions between preserved areas and developed areas. To implement these provisions, developers would be required to file landscape plans (and potentially, grading plans) along with their site plans. The landscape plans would show how existing landscape features would be preserved or modified, and the extent and type of new landscaping. Sample provisions for landscaping ordinances are available from Scenic America's website at http://www.scenic.org.

Within the Scenic Overlay District, development could also be subject to landscape requirements to protect certain categories of existing trees and other vegetation (such as farm hedgerows, mature tree stands or established meadows that form part of a critical viewshed).

View of Woodside subdivision, Alexandria Township, Hunterdon County with preserved open space along roadside

Conservation Zoning

Conservation Zoning is another promising technique that can benefit landowners as it protects the byway's qualities. Conservation Zoning (and Conservation Subdivisions) work on a simple principle: development is allowed on a portion of a land parcel, with the remainder of the land placed in conservation. Typically, developers may construct the same number of units that would have covered the parcel under conventional zoning, by reducing the size of the individual lots. Homes can then be sited on the property in such a way as to minimize impacts on natural resources and scenic views.[3]

The overarching technique is to let the location of those features of greatest value for preservation – whether scenic views, forests, stream corridors, or best quality farmland – drive the design of each project. The approach can be used on either a voluntary basis with developer incentives, or on a mandatory basis. An advantage to the municipality is the ability to preserve natural resources without having to purchase development rights. Developers benefit through reduced costs for infrastructure and construction. In addition, developers often find that homes in a conservation subdivision are especially attractive to buyers due to the amenity value of the conserved features.

As a first step in implementing conservation zoning, participating municipalities would spell out conservation goals in their Master Plans, along with an inventory and map of specific features to be preserved. Once specific conservation goals are established, the tools and techniques below could be tailored to address the community's specific needs.

- **Cluster development ordinances** are one of the regulatory tools available for implementing conservation zoning. White Township in Warren County has a Cluster Development Ordinance which contains provisions for the preservation of open space and scenic vistas as viewed from public roads.[4] Applicants seeking major subdivision approval anywhere in White Township must apply for a mandatory or lot-averaging subdivision and provide a plan of the area to be retained as open space. In cluster developments, the Township's minimum lot size of 3 acres is reduced to a minimum of 1 ½ acres. Designated open lands within subdivisions are permanently deed restricted from further subdivision.

- **Incentive zoning** allows developers to increase the number of lots by a factor such as 25 percent or more, in exchange for clustering the development and preserving the balance of undeveloped land. In East Amwell, a 50 percent density bonus is offered to developers who use the municipality's open lands zoning to retain 75 percent of a tract for farming or natural resource conservation. However, a single family dwelling may also be placed on the preserved lot.

- **Rural highway zoning** is a design and conservation technique that aims to retain the traditional rural appearance of a highway corridor. By working with developers and employing design guidelines, new homes are carefully sited and designed to minimize their visual impact from the road. For instance, on open sites such as farmland, new homes can be clustered to resemble groupings of farmhouses, while employing traditional vernacular architecture

in terms of scale, roof pitch and building materials. New homes can be easily related to existing brush and hedgerows, or placed behind new buffer plantings. On wooded sites, houses can be tucked behind existing treelines through the use of a long winding driveway. Commercial businesses are encouraged to locate within town centers and at intersections, rather than along the more open scenic portions of the highway.

The regulatory tools described here are some of the techniques that byway municipalities may consider to guide future land use along the byway. A number of land use strategies were included among the Management Strategies for scenic resources, presented in the previous chapter. Byway municipalities are encouraged to consider ways of incorporating the goals of the byway as they develop and implement land use plans and regulations.

(Endnotes)

1 Prepared by Parsons Brinckerhoff and Renaissance Planning Group for New Jersey Department of Transportation, November 2006.

2 Route 57 Corridor Plan Implementation Toolkit, prepared by Parsons Brinckerhoff and Renaissance Planning Group for NJDOT, March 2006. Available online at: http://www.state.nj.us/transportation/works/studies/rt57/maps.shtm

3 Map is reproduced from the Route 57 Scenic View Assessment, prepared by Vollmer Associates for NJDOT, revised April 2003

4 Useful references for this approach include Designing Open Space Subdivisions: A Practical Step-By-Step Approach (1996), by Randall Arendt, available from American Planning Association Planners Book Service, as well as Hunterdon County's "Model Ordinance for the Protection of Natural, Cultural, and Historic Resources in Major Subdivisions," (2005) Hunterdon County, NJ Environmental Toolbox Committee.

5 White Township Ordinance No. 2005-13: "An Ordinance of the Township of White Establishing Mandatory Cluster and Lot Averaging Requirements, Natural Resource Conservation Calculations for the Protection of Constrained Lands, Stream Corridor Buffer Requirements and Regulations for the Protection of Steep Slope Areas."

VI.

Chapter Six:

Roadway Usage & Safety

VI. Roadway Usage and Safety

Route 57 has long been an important east-west connector within Warren County. The roadway will continue to serve a variety of transportation needs in addition to accommodating byway visitors. This section describes the byway's transportation characteristics, usage, and safety and operational conditions. It also outlines strategies for improving transportation access, mobility and safety along the byway.

Roadway Characteristics

Route 57 is classified as a Rural Principal Arterial in portions of Franklin Township and Mansfield Township, and an Urban Principal Arterial elsewhere. Much of the roadway has a posted speed limit of between 40 and 50 miles per hour. Exceptions include a one mile section covering most of Washington Borough from milepost 10.2 to 11.2 where the speed limit drops to 30 and 25 mph, and a short section of 30 mph in Mansfield Township in the vicinity of the Beattystown Historic District, between Brentwood Terrace (MP 18.94) and Airport Road (MP 19.36).

Roadway lanes are consistent at 12 feet in width through the corridor with no median. Two lanes are provided throughout, with the exception of a half-mile section in Mansfield in the vicinity of Penwell Road where a third lane is provided for slow-moving westbound traffic along a steep incline. Shoulder width varies from a minimum of 3 feet to as much as 12 feet. A short section of less than 2/10 mile between the intersections at Route 57 and Route 31 and the Rte 31/57 connector in Washington Borough has no shoulder, but for most of the corridor the shoulder width is at least 6 feet or on-street parking is provided in lieu of a shoulder.

Roadway Usage

Route 57 serves a wide variety of vehicles, including trucks and other commercial vehicles, buses, and farm vehicles, as well as bicyclists and pedestrians.

Passenger Vehicles

Route 57 traffic volumes vary by location. Annual average daily traffic ranges from 12,000 vehicles east of Route 31 in Washington Township to 20,700 at the approach to Hackettstown, based on NJDOT data from 2006. The road serves a variety of trip types, including local and commuter travel. Future travel projections performed in a previous NJDOT needs assessment indicated that Route 57 in its current configuration would adequately serve passenger travel needs for at least the next 20 years.[1]

Trucks

Because of its location between two major interstate highways (I-78 and I-80) and the sparse nature of the roadway network in this part of the state, Route 57 draws some trucking activity. NJDOT data from 2002 indicate a truck percentage of 7.8% (3.8% heavy trucks) on Route 57 near the eastern terminus in Hackettstown. Currently no large warehousing or trucking facilities are located along the corridor, but several establishments are serviced by heavy trucks, including several archival facilities in Franklin Township and large retail centers in both Greenwich and Mansfield. Trucking activity along Route 57 is not impeded by any height restrictions associated with existing overhead bridges or other structures.[2]

Farm Vehicles

Farming is an active component of the local economy. While farm vehicles are not a major presence on the roadway, they do need to be accommodated on Route 57. Seasonal commercial farm traffic needs may include transporting of equipment in the early spring and late fall for planting and field preparation, and transporting of equipment and harvested crops during the growing season.[3] Many active farms are located directly adjacent to Route 57, west of Washington Borough and in the Port Colden area. In Mansfield Township, most of the active farmland is located north of Route 57, and many of these farms are without direct access to Route 57. The presence of an existing shoulder, 6 feet or more in width many areas, accommodates most farm equipment requiring direct access to Route 57.

Public Transit

Route 57 adequately accommodates existing transit operations. Warren County and NJ Transit provide transit service along Route 57. Warren County operates the Route 57 Shuttle Bus Service. Two separate routes provide daily service between Phillipsburg and Hackettstown. Shuttles make scheduled stops at commercial and retail locations, the Warren Hospital, Warren County Community College, and the municipal building housing the Department of Health and Meals on Wheels. In addition to designated locations passengers may flag down a shuttle bus at safe locations along the route. Within Warren County, NJ Transit administers three *Wheels* suburban transportation routes: Route 973 operates along the perimeter of Hackettstown and connects the eastern terminus of Route 57 with the Train Station/Park and Ride Lot; Routes 890 and 891 serve Phillipsburg and each crosses the western terminus of Route 57. The NJ Transit Train Station/Park and Ride Lot in Hackettstown is the closest park and ride facility to Route 57.

Bicycles

A majority of Route 57 is considered bicycle compatible by NJDOT standards, based on posted speed limits and lane and shoulder widths. While bicyclists can be observed using the corridor, there are no dedicated on or off-road bicycle facilities. During a previous Route 57 study, local officials expressed concern about bicycle safety, and the idea of establishing a dedicated bike lane was opposed by local stakeholders. A recommended approach is to develop an alternative bicycle route through the area suitable for casual bicycling, while enhancing bicycling conditions on Route 57 to better accommodate experienced cyclists who opt to use the roadway.

Pedestrians

Pedestrian activity is light throughout the corridor, with the exception of downtown Washington Borough and the commercial areas in Mansfield Township and Hackettstown. Sidewalks are very limited throughout the corridor. Sidewalk locations currently include the following:

Washington Borough:
North Side of Route 57: Starts at Terrace Street and continues through downtown and under the RR overpass, with intermittent sections of sidewalk continuing east toward the Washington Township line.

South Side of Route 57: Starts at Ramapo Street and continues through downtown to Railroad Street. Several intermittent sections continuing east, with last segment corresponding to new Heritage housing development near the Washington Township line.

Mansfield Township:
Beattystown: There is a short section (less than 100 feet) on both sides of the road.
Shopping Areas: Sidewalk is located along the frontage of the following businesses or shopping centers: Mansfield Commons and Comfort Inn on the north side of Route 57, and Bottle King, Walgreens and Riverside Plaza on the south side.

Crosswalks are provided at several major signalized intersections, but other intersections lack crosswalk markings, pedestrian push-buttons and ADA-compliant curb ramps. Other pedestrian deficiencies include poor connectivity between downtown Washington Borough and adjacent commercial sites.

The recently completed Washington Borough streetscape improvements, implemented with support from NJDOT, have addressed some of the pedestrian issues in the Borough. A variety of off-road greenway and trail concepts (Morris Canal Greenway, Highlands Trail, Warren Trail, and the Musconetcong River Trail) in the corridor vicinity are under discussion which could provide alternative bicycle and/or pedestrian access throughout the area, as well as providing recreational opportunities for future scenic byway users.

Safety and Operational Assessment

Several factors were analyzed to help determine existing conditions and identify potential areas for improvement on the corridor:

- Highway Operations
- Geometrics, Guide Rail, Utility, and Access Management
- Crash Records

Highway Operations

A comprehensive transportation analysis of the roadway was performed for NJDOT by the Louis Berger Group in 2003.[4] The study found that traffic volumes were generally higher along westbound Route 57 during both the weekday AM and PM peak hours, with approximately two-thirds of peak hour traffic occurring in the westbound direction. Traffic conditions were analyzed for 19 locations within the study corridor, including both signalized intersections and highway segments. The majority of the signalized intersections located within the byway limits were found to operate at a level of service (LOS) "D" or better during the AM and PM peak hour, with the exception of the following five locations:

- Route 57 and Port Murray Road/Point Mount Road
- Route 57 and Route 31
- Route 57 and Brass Castle Road
- Route 57 and Liberty Road/North Main Street
- Route 57 and Uniontown Road (improvements in preliminary design)

The two unsignalized intersections analyzed within the study area operated at an acceptable LOS during the AM and PM peak hours. All two-lane sections analyzed operated at acceptable levels of service with the exception of the section between Millbrook-Asbury Road and Brass Castle Road during the PM peak hour (LOS E, average travel speed 39.1 mph).

A few deficient interchanges were noted. Liberty Road/North Main Street has sharp approach angles that impede sight distances. A number of other geometric deficiencies in the corridor result in poor sight distances. Narrow or absent shoulders were a commonly listed geometric deficiency, as well as the lack of dedicated turning lanes in several locations with high volumes of turning vehicles.

NJDOT has several spot improvement projects completed or underway to address the safety and operational deficiencies identified. Additional limited investment may be appropriate over time to correct spot deficiencies and enhance the safety of byway travelers.

Roadway Features

To supplement the findings of the Berger study and meet the requirements of the New Jersey Scenic Byway Program, PB performed a screening level assessment of the corridor's roadway features including geometrics, guide rail, utility clearance, sight lines and driveway access. The assessment was based on a videotape of the roadway in both directions taken by PB staff in 2006. It did not include an in-depth review of design elements based on as-built plans, nor was a separate field investigation made. However, the video did reveal several elements that appear not to meet current design standards and could potentially be addressed in the future. Examples of deficient features that were observed are vertical and horizontal stopping sight distance, guide rail deficiencies, utility clearances, intersection sight lines, driveway sight lines, and driveway access. Control design elements such as superelevation, vertical under-clearance, minimum radius of curve, bridge capacity and horizontal clearance cannot be assessed without an in-depth plan review.

- **Vertical and Horizontal Stopping Sight Distance:** Vertical and stopping sight distances are substandard on Route 57. Further investigation is warranted.

- **Guide Rail:** In various spots through the project corridor, the existing guide rail is not up to standards. In several locations at small bridges or culverts the guide rail is either less than minimum length, lacks the appropriate approach flare treatment, or the approach end treatment is not up to standards (i.e., Breakaway Cable Terminals rather than the current SRT or Extruder Terminal). In addition, it was noted that some of the end treatments fail to provide protection for an impact from the opposite direction. On many of the small bridges the trailing end side was within the clear zone and could be impacted from the opposite direction. However,

there are many factors at work preventing a standard design application, including driveway locations, intersections, and topographic features.

- **Utility Clearance:** The existing utility poles adjacent to the roadway are not outside of the clear zone for the design speed. It may be possible to address this issue in the future through relocation of utility poles.

- **Intersection and Driveway Sight Lines:** Sight obstructions are apparent along the corridor that affect both driveways and intersecting streets. Several driveways are obstructed from view due to vegetation, walls adjoining the highway at the property frontage, roadside appurtenances such as signs, or stored articles on the adjoining property.

- **Driveway Access:** There are numerous private and commercial driveways adjoining the roadway through the corridor that do not meet the NJDOT Access Code. Many driveways are too wide and several overlap with the adjoining property. Also, many driveways do not meet current standards on separation between adjoining owners.

Crash Records

A crash analysis was performed for the byway using NJDOT data for the years 2003-2005. The analysis is based on highway segments as defined by NJDOT and uses crash rates (crashes per million vehicle-miles). Four segments of the byway were found to have crash rates higher than the 2005 statewide rates for similar roadways. Two of these segments are in Washington Borough (Shabbecong Creek to Grand Avenue and Grand Avenue to Prosper Way), one is in Mansfield (Airport Road to the Hackettstown border), and one is in Hackettstown (Mansfield border to Route 182).

- **MP 10.15 – MP 10.41**
  Shabbecong Creek to Grand Avenue, Washington Borough
  This relatively built-up 0.26-mile segment of Route 57, consisting of 2 travel lanes with a shoulder, is located in the western portion of Washington Borough. Several local roads leading to/from older

medium-density residential neighborhoods intersect with the mainline. The crash rate for this section is 3.84 crashes per million vehicle-miles—30 percent greater than the statewide rate for 2005 for this type of segment (2.96).

- **MP 10.41 – MP 11.19**
  Grand Avenue to Prosper Way, Washington Borough
  This 0.78-mile segment, which runs through the downtown area of Washington Borough, has the highest crash rate in the corridor, 6.52 per million vehicle-miles (53 percent greater than the statewide rate of 4.27 for this type of segment). On-street parallel parking is located on both sides between N. Lincoln Avenue and Vannatta Street. Three signalized intersections fall within this segment, including N. Lincoln Avenue, Belvidere Avenue, and Route 31. Crashes generally cluster around the Route 31 intersection and western portion of the downtown area between Wandling and Lincoln Avenues.

- **MP 19.35 – MP 20.54**
  Airport Road to Trout Brook (Mansfield Township/Hackettstown Town Line), Mansfield Township
  This 1.19 -mile segment of Route 57 runs through the eastern section of Mansfield Township, a low-density suburban area with big box retail stores, light industry, and adjacent residential subdivisions. The cross-section type is two lanes with a shoulder. Four signalized intersections with dedicated turn lanes fall within this segment, including Airport Road, Allen Road/Newburgh Road, and entrances to two shopping centers. This segment has a crash rate of 3.03—just 2 percent greater than the statewide crash rate for the year 2005 (2.96).

- **MP 20.54 – MP 21.10**
  Trout Brook (Mansfield Township/Hackettstown Town Line) to Route 182, Hackettstown
  This 0.56-mile segment of Route 57 runs through the southernmost portion of Hackettstown. The State Fish Hatchery, as well as a suburban residential neighborhood, and free-standing commercial/retail

businesses (including a gas station and restaurants) abut this segment. Three local roads, including Lawrence Drive, Herbert Lane, and Laurie Terrace, connect an adjacent suburban residential area with the mainline. One signalized intersection at Route 182 (the eastern limit of Route 57) falls within this segment, which has a crash rate of 4.69 (10 percent higher than the statewide crash rate for the year 2005).

The types of crashes prevalent on the corridor were also analyzed. Table 6.1 shows for each segment the crash types that exceeded the statewide average. Left turn, angle, and animal crashes are prevalent in the corridor, exceeding the statewide average for a majority of the segments. Many segments exceed the statewide average in several categories. The segment of Mansfield from MP 19.35-20.54 has the highest number of these, with 6 of the 12 categories higher than the statewide average. A detailed discussion for each segment is provided in Appendix E.

Recent Improvement Initiatives

The New Jersey Department of Transportation has recently completed a variety of improvement projects along Route 57 including safety improvements and traffic calming projects. All improvements were designed to preserve the scenic qualities of the corridor.

A traffic calming and gateway initiative was implemented in 2006 to slow traffic and enhance local identity and motorist awareness at four historic villages on the corridor: Stewartsville, New Village, Broadway, and Beattystown. The traffic calming scheme includes the use of light-brown colored pavement on the shoulders to create a visual impression of a narrowed travel way, along with specially designed gateway signs and landscaping.

Recently implemented traffic calming and gateway initiative in Broadway.

NJDOT has also completed or initiated spot improvements at the following locations along the byway:

- Merrill Creek Bridge, Greenwich Township: replacement of the Route 57 bridge over Merrill Creek and the reconstruction of Route 57 from the

Table 6-1. Summary of Crashes in the Route 57 Corridor, 2003-2005

Milepost Range	Municipality	Number of Crashes – 2003 to 2005	Crash Rate – 2003-2005*	Statewide Average Crash Rate – 2005*	Percent Above/ Below Statewide Crash Rate – 2005	Same Direction-Rear End	Same Direction-Sideswipe	Angle	Left Turn	Head-on	Overturned	Pedestrian	Pedacycle	Fixed Object	Animal	Parked Vehicle	Unknown/Other
2.00 - 2.84	Greenwich Township	47	4.1	4.27	-3.98%	X			X					X	X		
2.84 - 2.94	Greenwich Township, Franklin Township	26	1.86	2.96	-37.16%				X	X				X	X		
3.94 - 5.18	Franklin Township	39	2.48	4.27	-41.92%				X	X					X		X
5.18 - 6.53	Franklin Township	26	1.52	2.96	-48.65%				X	X					X		X
6.53 - 7.10	Franklin Township	12	1.13	4.27	-73.54%			X				X			X		
7.10 - 8.37	Franklin Township	25	1.03	2.96	-65.20%			X		X				X	X	X	
8.37 - 9.28	Washington Township	22	1.27	4.27	-70.26%			X	X		X				X	X	
9.28 - 9.73	Washington Township	7	0.82	2.96	-72.30%			X	X						X		
9.73 - 10.15	Washington Twp., Washington Borough	22	2.75	4.27	-35.60%	X			X			X					
10.15 - 10.41	Washington Borough	19	3.84	2.96	29.73%	X		X	X								X
10.41 - 11.19	Washington Borough	5	6.52	4.27	52.69%			X	X			X				X	X
11.19 - 12.67	Washington Borough, Washington Twp.	32	1.56	2.96	-47.30%			X	X	X					X		
12.67 - 14.39	Mansfield Township	49	2.38	4.27	-44.26%						X	X			X		
14.39 - 14.95	Mansfield Township	20	2.26	4.38	-48.40%			X	X	X		X			X		
14.95 - 18.44	Mansfield Township	74	1.34	4.29	-68.76%					X				X	X		
18.44 - 18.94	Mansfield Township	8	1.01	2.96	-65.88%			X						X	X		
18.94 - 19.35	Mansfield Township	16	2.47	4.27	-42.15%	X		X						X	X		X
19.35 - 20.54	Mansfield Township	63	3.03	2.96	2.36%				X	X	X	X			X		X
20.54 - 21.10	Hackettstown Town	54	4.69	4.27	9.84%	X											X

*# of crashes per million vehicle-miles

vicinity of Beacon Street to the vicinity of Lows Hollow Road.

- Route 57 Culvert Replacement, Washington Borough: replacement of a culvert at MP 10.16 to eliminate flooding, widening of shoulders at the culvert crossing, and installation of sidewalk.

These projects have the potential to enhance the corridor's performance and safety and improve the quality of the byway users' experience.

In summary, considerable prior work has been done to investigate safety conditions in the corridor and to identify and develop improvement projects to mitigate the deficiencies observed. While only 4 of the 21 roadway segments experienced crash rates in excess of statewide averages, minor improvements are warranted at certain locations to enhance the safety of byway travelers. NJDOT has already made progress in implementing a series of spot improvements and traffic calming initiatives to address the safety and operational issues in the area. Safety concerns at other locations should be further investigated and addressed as part of the Corridor Management Plan implementation. These may include improvements to geometrics, sight lines, access and guide rail in selected locations over time as feasible.

Roadway and Transportation Strategies

GOALS:
Maintain and enhance mobility and safety for all modes of travel along the Route 57 byway.

Improve access to points of interest along the byway.

STRATEGIES:

R1
Provide parking areas at various destinations and points of interest along the byway. One or more of these might serve as a public rest area or tourism information center.

R2
Support the installation of parking areas in Washington Borough in association with the streetscape improvements.

R3
Identify areas for pedestrian improvements that will support exploration of byway features at the pedestrian scale. For example:

- If the Morris Canal towpath is restored for public access in the future, make provisions for a safe highway crossing where the towpath intersects Route 57 near Bread Lock Park.
- Encourage improvements to local sidewalk networks that will also benefit byway visitors. Examples may include improved linkages between Washington Borough and destinations in Washington Township.

R4
Investigate opportunities to widen the roadway shoulder to a consistent width of 6 feet to better accommodate all roadway users.

R5
Improve bicycle compatibility on the byway by installing bicycle-compatible drainage grates and modifying features that encroach on the shoulder, such as guide rail.

R6
Develop a separate pathway network, roughly parallel to Route 57, to provide mobility alternatives for pedestrians and bicyclists. Bicycle paths and multi-use trails would provide non-motorized access to byway destinations and would form recreational assets in themselves, helping attract people to the byway.

- One option is the restoration of the Morris Canal and associated towpath for public access and trail use (see Strategy H2, Morris Canal Greenway). Other trail concepts in the corridor vicinity include the Highlands Trail, Warren Trail, and Musconetcong River Trail.
- Investigate linking future pathways with existing bicycle/pedestrian trails developed by Mansfield and Greenwich Townships.
- Consider incorporating the two stone bridges near the Franklin Township Municipal Building in a future pathway network.
- Investigate converting abandoned rail corridors to

rail-trails. One candidate is a potential rail-trail on tracks located near the intersection of Routes 57 and 31.

R7
Seek opportunities to improve levels of service at the intersections of Route 57 with Port Murray Road, Route 31, Brass Castle Road, and Liberty Road and consider intersection improvements at approach of Route 57 to Route 182 as proposed in NJDOT's Hackettstown Mobility Study.[5]

R8
Investigate visibility at the intersection of Route 57 and Anderson Road, where guide rail may obstruct the view of the roadway.

R9
Consider using signs to deter large trucks from turning onto Watters Road and Cherry Tree Bend Road (where they are sometimes misdirected by GPS devices). Coordinate with sign strategy SU1.

R10
Identify priorities for improvements related to existing guide rails, utilities, sight distance, and driveway access points. Encourage inclusion of these improvements in future roadway maintenance efforts and/or land development initiatives.

R11
Investigate placing "High Crash Location" and "Deer Crossing" warning signs at locations above statewide average for crashes to alert drivers and encourage greater caution in these areas. Coordinate with sign strategy SU1.

R12
Improve provisions for the removal of deer killed in collisions.

R13
Update and review crash records every 3 years to monitor conditions.

R14
Ensure that scenic byway related improvements do not distract drivers in a manner that could create new safety hazards.

R15
During future maintenance efforts in the corridor, consider installing guide rail that is more aesthetically pleasing and in keeping with the scenic surroundings, such as powder coated guide rail.

(Endnotes)

1 Route 57 Needs Assessment/Concept Development Study, prepared for NJDOT by Louis Berger Group, May 2003; 2006 traffic volume data, NJDOT Straight Line Diagrams http://www.state.nj.us/transportation/refdata/sldiag/_Booklet.pdf; accessed June 10, 2009

2 NJDOT Bureau of Data Resources, Station ID 1-1-43, Year 2006; accessed April 26, 2007

3 Palouse Scenic Byway Corridor Management Plan

4 Route 57 Needs Assessment/Concept Development Study, op. cit.

5 Hackettstown Mobility Study: Enhanced Purpose and Need Final Report, prepared for NJDOT by Parsons Brinckerhoff, January 2009

VII.

Chapter Seven:

Signage, Utilities, and Site Furnishings

VII. Signage, Utilities and Site Furnishings

The scenic quality of a roadway is influenced significantly by the presence of signs, above-ground utilities, and street furnishings. As part of the overall assessment of Route 57's effectiveness as a scenic byway, an inventory and assessment of these features was completed throughout the corridor in the fall of 2006 and the spring of 2007 covering the following elements:

- Billboards
- Other Signage
- Cell towers and high-tension wire towers
- Utility poles and wires
- Street furniture (Washington Borough)

Information for Washington Borough was subsequently updated to reflect new streetscape improvements. A detailed diagram of the inventory findings is provided in Appendix D.

Billboards

Billboards along Route 57 tend to be clustered in the rural villages and at the junctions with county roads. Greenwich and Franklin Townships have several billboards that interfere with scenic views of open fields and rolling hills and are clustered in the Coopersville, New Village, and Broadway areas. In Washington Township, billboards are clustered in Pleasant Valley, just west of Brass Castle Road, and in Port Colden, near Washburn Lane. Billboards in Washington Borough are concentrated at the Route 31 intersection and east of the railroad overpass. The number of billboards tapers off in the eastern portion of the corridor, with a few scattered in Mansfield Township and no billboards in Hackettstown. Several of these billboards coincide with the some of more scenic viewsheds along the route, and others distract attention from historic and natural features.

Other Signage

Several other types of signs can be found along Route 57 in addition to billboards. Gateway signs denote the entrances to

villages and municipalities along the scenic byway that might not otherwise be acknowledged. Some of these traditionally green signs delineate the municipal boundary, while others show a pastoral scene and are coordinated with tan shoulder treatments and landscaping at village entrances.

A few signs indicate where to turn to take a "side trip" to visit an attraction off of the byway. All of the side trip signs are very small and can easily be missed when traveling at higher speeds. Some important side trips are inconsistently marked, like Shippen Manor, or not marked at all, such as a visit to Point Mountain or Rockport Pheasant Farm.

Food service signs highlight only a few of the eating establishments along the byway. Gas and lodging service signs are noticeably absent. There are some signs indicating the entrance to important destinations along Route 57 that feature the intrinsic characteristics of the scenic byway. However, some sites are not marked at all, such as the NJDEP fishing access parking area near Old Turnpike Road at MP 17.97.

Although each of the municipalities along Route 57 regulates the size, construction and placement of on-premise signs, there is a diversity of on-premise signs along Route 57. Signs at some of the newer shopping areas have been designed to cluster the names of the individual businesses in a group to minimize the amount of signage needed to advertise these establishments.

Cell tower at Sunshine Tree and Landscape

Cell Towers and High-Tension Wire Towers

There are two cell towers and one high-tension wire tower along Route 57. One of the cell towers is located in Franklin Township to the east of Richline Hill Road in the vicinity of the Edison Concrete Mile. This cell tower stands exposed a short distance from the roadway and impacts one of the major viewsheds along the scenic byway, as shown in the left photograph.

The other cell tower is located at Magnum 57 near Old Turnpike Road, directly opposite from an NJDEP fishing access parking lot along the Musconetcong River. Travelers on Route 57 are unlikely to see this cell tower since it is tucked back from the roadway in a wooded area. However, fishermen have a clear view of the cell tower from NJDEP parking lot (see photo to right).

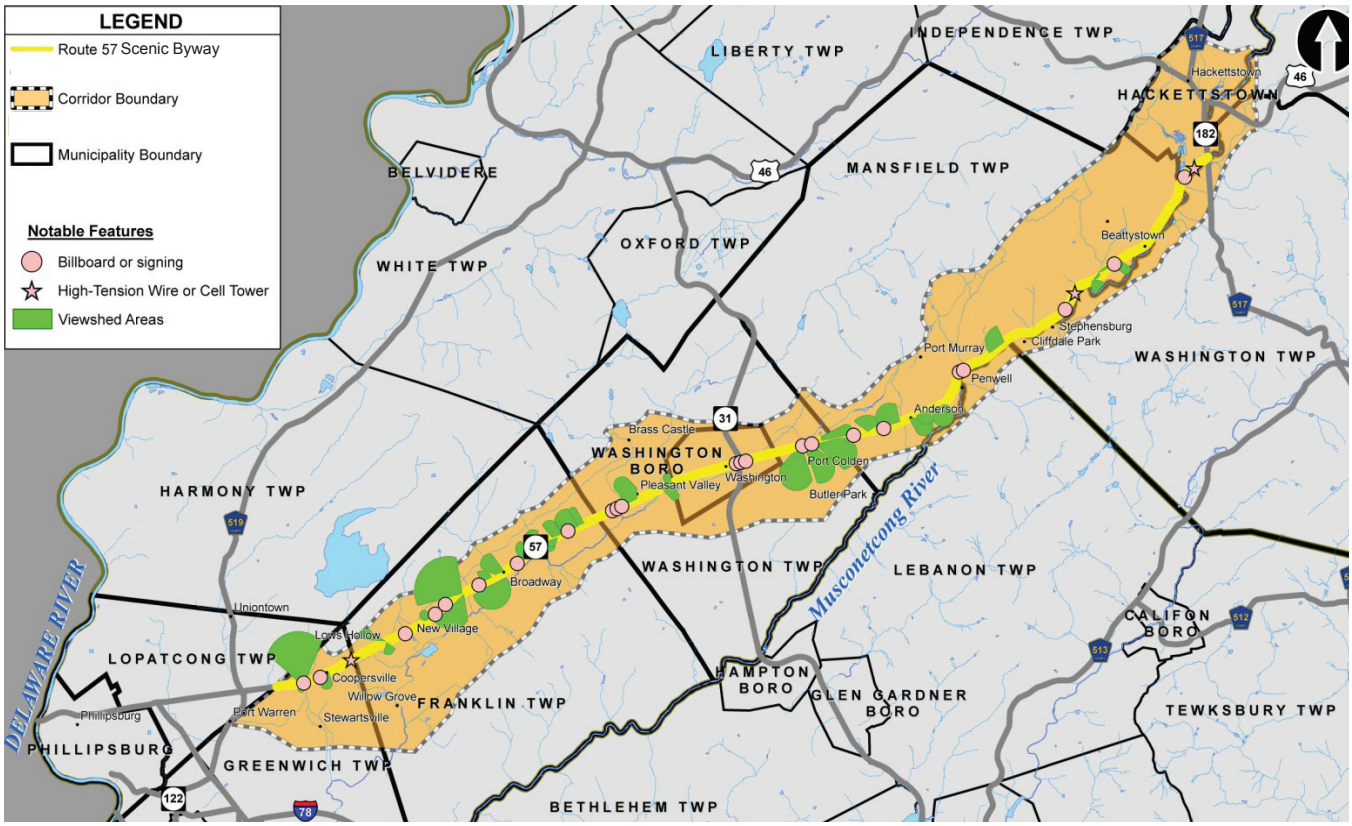
Figure 7-1 shows the location of billboards, cell towers and high-tension wire towers along Route 57.

View of cell tower near Old Turnpike Road from NJDEP parking lot

Utility Poles and Wires

The Route 57 corridor is served primarily by above-ground electric and telephone utilities that line the roadway. Unfortunately, many of these poles and wires detract from the general surroundings and scenic views. It is unlikely that efforts to relocate these utilities underground will occur in the near future. However, it would be helpful if any future

Figure 7-1: Billboards and Cell/High Tension Wire Towers in the Corridor



Positive examples of utility wire and pole placement along Route 57

MP 14.00 (Anderson Road) – In this photograph (view facing west), utility poles on both sides of Rt. 57 are placed near large trees and therefore less apparent to the motorist. Nearby trees provide an aesthetically pleasant background.

MP 15.00 (between Penwell Road & Old Turnpike Road) – In this location (view facing east), utility poles on both sides of Rt. 57 are set back from the road sides and disguised by a thick canopy of trees.

MP 20.76 (Lawrence Drive) – In this photograph (view facing west), side-running overhead wires on the westbound side of Rt. 57 are set back from the curb and hidden by trees.

repairs or replacements would take into consideration the visual impact of these facilities on the scenic byway. There are several positive examples of utility wire and pole placement along Route 57, as described above, which can serve as a guide to the location of such utilities.

Street Furniture and Amenities in Downtown Washington Borough

A streetscape improvement project has been completed along two blocks in downtown Washington Borough on

Washington Avenue between Lincoln Avenue (MP 10.65) and School Street (MP 10.89). The street in this area has been improved with new, broad concrete sidewalks with a total width of approximately 18 feet and an average effective width of approximately 15 feet. The block between School Street and Lincoln Avenue is notably wider, averaging greater than 20 feet. The new sidewalks also include newly planted trees. Pale brick colored pavers have been used to create a three foot wide strip adjacent to the curb. This identifies the portion of the sidewalk where plantings, trash receptacles, and other obstacles are located and helps define the buffer between pedestrians and traffic. The combination of these features creates an open, pedestrian friendly design.

Streetscape Improvements, Washington Borough

A curb bulb out has been recently been added to the streetscape between Lincoln Avenue and School Street. The feature is approximately 50 feet long, and significantly improves pedestrian visibility and reduces the crossing distance on Washington Avenue. The bulb out is complemented by colored and textured pavement surrounding the cross walk, as shown below. Several types of street furniture/amenities were found during the inventory:

Newspaper box and trash receptacle

- Trash Receptacles – Brown, pebble-faced trash receptacles were found on both blocks. These receptacles appeared to be in fair condition, though visually out-of-character with the rustic/historic nature of the Borough. On the south side, there were four trash receptacles between Lincoln and Belvidere Avenues, and five receptacles between Belvidere Avenue and School Street. On the north side, there were six receptacles between Belvidere Avenue and School Street, and three between Belvidere and Lincoln Street.

- Newspaper Boxes – One metal newspaper box was found on the south side of Washington Avenue, clustered with a trash receptacle.

- Planters - A series of wooden half-barrels planted with flowers are scattered throughout the downtown corridor.

- Lamposts - Newly installed lampposts were found throughout this segment on both sides of the street.

Mailboxes are a valued streetscape amenity.

A recently installed Victorian-style clock serves as a focal point for the Borough's Main Street.

The appearance of these lampposts on the south side of the street is greatly diminished by overhead utilities, presenting a cluttered scene. Conversely, such obstructions are absent on the north side of the street, creating a cohesive visual character and design.

- Mailboxes - Mailboxes were found near the southeast corner of the Belvidere Avenue intersection and the southwest corner of Lincoln Avenue intersection – both good locations for a mailbox.

- Clock - A town square style clock was also found on the westbound side, between School Street and Belvidere Avenue.

- Banners – Pole-mounted banners grace the entire borough. Some of the banners advertise the farm market at the intersection of Routes 57 and 31, held on Fridays from 3 to 7 p.m. from June through October.

Sign Programs and Related Improvements

An important aspect of any scenic byway project is the implementation of a program for placing signs, utilities and site furnishings that complements the traveling experience without adversely compromising the aesthetic qualities of the roadway. The design and placement of various types of signs is critical to insuring that a traveler can explore the byway with confidence, encouraging return visits. Utility structures, while a necessary part of our lives, can inadvertently mar the traveling experience if they are not carefully located. Site furnishings can either welcome or inconvenience a traveler in need of a respite if they are not strategically installed.

Signage Program

An understanding of how travelers prepare for, embark upon and return from a trip along a scenic byway is helpful in developing a sign, utility and site furnishing program. America's Byways Resource Center has published a *Wayshowing for Byways* booklet that provides tools and techniques to assist byway leaders in creating the signage

component of such a program. The booklet explains that there are five stages to the byway traveling experience as shown in Figure 7-2.

The first two stages consist of choosing and preparing to visit a particular scenic byway based upon information collected in advance of the trip. Marketing and tourism materials and resources developed to promote a scenic byway as a travel destination should be designed and coordinated with the signs along the byway. For example, a scenic byway map could include symbols for the mile markers placed on the roadway to make it easier for travelers to determine how long the byway is and where certain points of interest can be found. The third stage is the "go/do" process of taking the

Stage	Description	Some common wayfinding needs
Choose	The point at which a prospective traveler chooses from all the available options and competition that he or she would like to plan and prepare to take a byway-based trip.	Where is the byway? What is there to see and do? How much time should/will it take?
Prepare	The stage during which the prospective byway traveler plans and prepares for the trip.	How will we get there? Where will we stay, eat and shop? How much time should we allot to travel to and on the byway? Where are the intrinsic qualities and attractions of the byway?
Go/Do	This, of course, is the 'event' itself and what will provide the great core memories for the traveler.	Where are the entry points to the byway? How do we know this is a byway—something special? How do we stay on the route? How do we get back on the route if we get off the route? Where are the attractions along the route? Where can we get information along the route? Where do we get services?
Recall	With a memorable byway travel event (Go/Do), we all need things that will help us recall those impressive sites, interpreted stories and personal experiences.	What will help us recall the good times we had on the trip? Maps to refresh memories? Pictures of landmarks and travel companions? Where was the awesome overlook? Remember where we took that side trip and discovered the fossils?
Do Again	This is perhaps the most important stage or behavior—providing people with the experience or incentive to: 1) Revisit the byway 2) Travel to a different byway *and/or* 3) Encourage someone else to visit the byway	Where are those good maps we had from our last trip there? Where can we find another byway to explore? We need to show our friends where to go.

Figure 7-2.

Source: America's Byway's Vista Newsletter, September/ October 2009

trip itself and should be supported by a system of signs that clearly:

- Indicate that the traveler is entering/leaving/ continuing along the byway, such as gateway, byway logo and route marker signs;
- Orient the traveler to the variety of intrinsic resources to be seen along the byway, such as signs denoting the location of a visitor center;
- Provide directions to and from points of interest, such as directional or other navigational signs;
- Confirm the traveler's arrival at a point of interest, such as site entrance signs; and
- Explain the value of the intrinsic resource being visited, such as historic markers and interpretive signs.

An effective signage system should result in a favorable travel experience that will encourage a person to recall pleasant memories of the trip (fourth stage) and return to see the same sights again or further explore the byway's resources (fifth stage). Travelers are unlikely to become repeat visitors if they get lost on their trip or become confused about what they can and cannot see due to poor signage.

The signage system should recognize the difference between "wayfinding" and "wayshowing" as described below and support the "wayshowing" process in a manner that minimizes sign clutter:

- Wayfinding - the mental process that turns a travel goal into decisions, actions and behaviors. A process of determining and following a path or route between an origin and a destination. Travelers do this.
- Wayshowing – the communication of information to aid travelers in setting desired goals, making decisions and taking appropriate actions. Byway providers do this.

The configuration of Route 57 as a relatively straight roadway without any major jogs or turns should make the task of developing gateway and route confirmation signage fairly easy. However, Route 57 lacks good signage to direct travelers to information centers or points of interest. Site entrance signage is also inconsistent and is often placed parallel versus

perpendicular to the roadway, making it difficult to see these signs from the road while driving at 50 miles per hour. Interpretive signage is also needed, since many of the sites are not manned and are geared for self-guided exploration, and should be coordinated with existing historical markers.

The New Jersey Scenic Byway Program is currently working with byway representatives across the state to develop design guidelines for byway signs. The aim is to promote a consistent style for byway logos and route marker signs that will establish greater awareness of the byways and enhance statewide tourism and marketing efforts. Each byway will have a unique, simple logo that distinctly reflects its individual identity. Byway signs will include both the individual logos and a common statewide element. NJDOT is also developing a byway sign manual and providing guidance on optimal sign placement for each byway.

Outdoor Advertising

Once a state scenic byway designation has been obtained, existing off-premise advertising is grandfathered and can remain as long as these signs are maintained and not abandoned. However, new off-premise signs within 660 feet of the scenic byway are not allowed in accordance with Title 16 Chapter 41C Roadside Sign Control and Outdoor Advertising regulations. Off-premise signs include billboards and any other signs placed on a property or premise that advertise goods or services that are actually made or otherwise obtained at another property (i.e. off-premise).

The Route 57 byway sign program should provide procedures for working with NJDOT to monitor and enforce compliance with the off-premise outdoor advertising regulations associated with a scenic byway designation, especially with regard to billboards which often have the greatest impact on the aesthetics of a byway. The visual quality of a scenic byway can also be enhanced through the development of guidelines for the installation of on-premise signs that can be used by local municipalities to coordinate their sign control ordinances, codes and policies.

Utility Placement

The Route 57 corridor has historically been served by above ground electric, telephone and cable television utilities which parallel both sides of the highway in many cases. Although it is unrealistic to expect that these existing utilities could be relocated underground without considerable expense, future land development projects along Route 57 should be encouraged to provide all utilities underground, especially where the land development projects occur within scenic viewsheds. The aesthetically sensitive placement of cell towers is particularly important, since the height of these structures enables them to be seen from great distances.

Site Furnishings

Site furnishings include a wide variety of amenities encompassing benches, light posts, trash receptacles, planters, mailboxes, banners, trail markers, water fountains, gates, bumper blocks/curbing, clocks, kiosks, tree grates, newspaper stands, restrooms, fencing, pet waste bag dispensers, and safety features such as an emergency phone or hazard indicators. The majority of site furnishings currently found along Route 57 can be seen in downtown Washington Borough and are attractive components of the new streetscape improvements. The selection of site furnishings should be based upon a careful review of the needs of travelers for such amenities, the long-term durability of the materials used to manufacture them with regard to wear and tear and potential vandalism, and their overall purchase, installation, maintenance and replacement costs.

Signage, Utility and Site Furnishing Strategies

GOALS:
Create a sign system that helps guide and inform byway visitors without compromising the aesthetic qualities of the corridor.

Work to reduce the visual impact of utility poles and wires along the byway.

Provide site furnishings as appropriate to enhance the byway user's experience.

SU1
Develop a sign system that supports wayshowing and provides guidelines for the design and location of gateway, logo, route marker, visitor information, navigational, directional, site entrance, historic marker and interpretive signs. Coordinate this system with tourism and marketing efforts at the state, county and local level and with sign-related transportation strategies.

SU2
Work with NJDOT and its sign consultant to create a logo for Route 57 that captures the essence of what a traveler would experience along this roadway.

SU3
Work with NJDOT to develop procedures for monitoring and enforcing compliance with outdoor advertising regulations. Consider paying willing landowners/billboard companies to remove billboards within scenic viewsheds, if funding can be obtained.

SU4
Review the land use ordinances, codes and policies of each municipality to determine the extent to which design guidelines are already in place to encourage aesthetically pleasing signs in their communities. Work with municipalities to improve existing municipal sign regulations to support the aesthetics of Route 57, as needed, and promote consistency.

SU5
Work with local utility companies to identify future utility projects that might have an impact on the unique scenery of Route 57 and develop ways to minimize aesthetic impacts.

SU6
Review the land use ordinances, codes and polices of each municipality to determine the extent to which guidelines are in place to control the number and placement of cell towers in their communities. Work with municipalities to improve existing municipal cell tower regulations to support the aesthetics of Route 57, as needed, and promote consistency.

SU7
Identify the kinds of site furnishings that can enhance the traveling experience along Route 57 and recommend ways in which these site furnishings can be aesthetically and cost effectively placed in the landscape. Work with landowners associated with points of interest to purchase, install and maintain desired site furnishings.

VIII.

Chapter Eight:

Interpretive Plan

VIII. Interpretive Plan

Interpretation is a tool used to enhance a traveler's experience through educational activities. These educational activities can be "any communication process designed to reveal the meanings and relationships of cultural and natural heritage to the public, through first-hand involvement with an object, artifact, landscape or site."[1] Various forms of media can be used to support interpretive activities such as kiosks, websites, printed materials, lectures, film, signage, oral histories, audiotapes, replicas, exhibits, displays, photographs, reenactments, maps, simulations, models, live programs and performances.

In order for interpretive activities to be successful they must:

- Explain how the object or discussion topic relates to the visitor,
- Use information to reveal hidden value and provoke a greater understanding and appreciation (rather than present information as an end in itself),
- Connect the visitor to a larger story or experience,
- Be tailored to meet the needs of various age groups (i.e., children versus adults), and
- Provide and coordinate self-guided and guided learning opportunities that engage as many senses as possible, since travelers "retain 10% of what they read, 20% of what they hear, 30% of what they see, 50% of what they see and hear, and 90% of what they say and do."[2]

Interpretive activities can be organized around a particular geographical location, historical period, or theme. In the case of a scenic byway, activities designed to highlight the geographical location should concentrate on interpreting resources within the boundaries of the byway corridor. With regard to developing educational programs that feature a specific theme or historical period, the activities should accurately reflect time frames and thematic content that is generally recognized by professional historians and educators. Period and thematic interpretive activities can incorporate information about resources physically located outside of the byway corridor, as long as there is a clear temporal or story connection to elements within the byway corridor.

The New Jersey Historic Preservation Plan recommends the following contexts for creating interpretive activities according to the state's chronological history:

New Jersey Statewide Historic Contexts	
Paleo Indian and Early Archaic	11,500 - 8,000 years ago
Middle Archaic	8,000 - 6,000 years ago
Late Archaic	6,000 - 3,000 years ago
Early/Middle Woodland	3,000 - 1,200 years ago
Late Woodland	1,200 years ago - 1500 A.D.
European Intrusion	A.D. 1500 – A.D. 1700
Initial Colonial Settlement	A.D. 1630 – A.D. 1775
Early Industrialization, Urbanization and Agricultural Development	A.D. 1775 – A.D. 1860
Suburban Development	A.D. 1840 – A.D. 1940
Immigration and Agricultural, Industrial, Commercial, and Urban Expansion	A.D. 1850 – A.D. 1920
Metropolitan New Jersey	A.D. 1910 – A.D. 1945
Modern New Jersey	A.D. 1945 - Present

New Jersey Thematic Historic Context		
Agriculture in NJ	Government and Politics in NJ	Maritime History in NJ
Architecture in NJ	Immigration in NJ	Planned Communities of NJ
Commerce in NJ	Industry in NJ	Public Welfare in NJ*
Education in NJ	Landscape & Garden History in NJ	Religion in NJ
Entertainment/Recreation in NJ	Military History in NJ	Transportation in NJ
* i.e., (Institutions, Health & Medical)		

The plan also suggests several themes for organizing interpretive activities based upon recognized topics in New Jersey's history:

In order to improve the travel experience along Route 57, future interpretive activities should use the intrinsic characteristics of the byway corridor to tell stories that:

- Explore the physical features of the area to create a sense of place and distinguish the byway corridor as a destination, not simply a region to drive through;

- Communicate how human interaction with these physical resources has shaped the landscape and culture of the byway corridor over time; and

- Explain the impact of historical events on present day society and the future of local communities along the byway.

The intrinsic resources of Route 57 appear to be well-suited to the development of interpretive activities related to the natural and geologic resources of the byway corridor, the themes associated with transportation, agriculture, industry and recreation, and the historical contexts associated with Native American life and the industrialization periods of A.D. 1175 to A.D. 1860 and A.D. 1850 to A.D. 1920. Where appropriate, interpretive programs can integrate stories from various geographical, chronological and thematic contexts, since they are often related. However, such relationships should be clearly communicated so as not to confuse the traveler. The following suggestions outline the kinds of stories, among others, that could be told along Route 57 as part of an overall interpretive program.

Geographical Focus and Recreation Theme:

This topic focuses on describing the natural and geologic resources of the Highlands Region of New Jersey and explaining how they contribute to the scenery of the corridor and support outdoor recreational activities. Possible stories include:

- What are the characteristics of the Ridge and Valley physiographic province (ridges made of metamorphic rocks and valleys made of sedimentary rocks, particularly limestone)?
- What are the flora and fauna of the region?
- What is unique about the water resources of this region (i.e., the designation of the Musconetcong River as Wild and Scenic River and as a Trout Unlimited Home River)?
- How do these resources support nature-based recreation?

- How do local animal husbandry activities support recreational activities (i.e., pheasant breeding and fish hatcheries)?

Native American Life:

The influences of the Lenni Lenape Indians along the Route 57 corridor are subtle but important. Travelers should find it interesting to learn about how their lives set the stage for eventual occupation of the region by immigrants from the New World. Possible stories include:

- Who are the Lenni Lenape people?
- What were the settlement patterns and cultural practices of the Lenni Lenape?
- What evidence do we have of their existence and how was it collected (archaeology)?
- What is the relationship between the Lenni Lenape language and local place names?
- What is the relationship between traditional Indian footpaths and today's roadway network?

Agriculture Theme:

The first European settlers to the area subsisted on farming, which has been and continues to be the backbone of the many of the communities along Route 57. Possible stories include:

- What natural resources attracted early immigrants to the area and how did this affect migration and settlement patterns?
- Why did they choose to immigrate to America and what was their ethnic background?
- What culture practices did they bring with them?
- What are the components of a typical Early American farm and where can we see examples of early farm buildings?
- What were the common agricultural practices of the day and what was farm living like?
- What is the relationship of farming to the grist and saw milling industries?
- What kinds of farming activities are still underway today and what farms are accessible to the public?

Transportation Theme:

Route 57 has been a transportation corridor for centuries and each new form of transportation has left its mark along the byway. Possible stories include:

- What is the purpose of transportation (movement of people, goods and services)?
- What destinations or markets did/does the Route 57 corridor connect?
- What were the earliest forms of transportation along the byway (Native American pathways) and where were they located?
- How did these Native American pathways evolve into our present-day transportation network?
- What changes have occurred in the various modes of transportation used over time?
- Which modes of transportation had the greatest influence on the Industrial Revolution and why?
- Why is the Morris Canal considered a civil engineering marvel?
- What inventions in transportation were made along Route 57 (Edison Cement Mile and Autogyro) and what impact did these inventions have on the success of various transportation methods?

Bread Lock Park

Industrial Theme and Industrialization Historical Periods:

Local industries provided a livelihood for those not involved in farming. Many of the most important socioeconomic advances in America are tied to the development of new industries and industrial products. Possible stories include:

- How were natural resources along Route 57 used to support local industry (wood fuel, water power, limestone and iron ore)?
- How is waterpower harnessed and used for industry (grist/saw milling, paper, etc.)?
- How was limestone quarried and used to make agricultural fertilizers and cement?
- How were forests harvested to make charcoal and how was charcoal used as a fuel?

Former site of Cornish & Company, a leading piano and organ manufacturer located in Washington Borough. Washington Borough gained a reputation for the manufacture of musical instruments as early as 1850, when the first melodeons were made there by John A. Smith, and in 1860 when Robert Hornbaker began building organs in town.

- How was iron ore discovered and molded into iron products?
- What were the lifestyles of the ironmaster and laborers (and other industry owners and workers)?
- What role did African-Americans play in the region's industrial history?
- How were villages formed around local industries?
- What is the relationship between these early industries and present-day manufacturing operations?

Interpretive Strategies

GOALS:

Develop a comprehensive interpretive program to tell the stories of the Route 57 Scenic Byway in ways appropriate to a variety of audiences.

Coordinate interpretive activities with existing area programs to maximize the use of resources.

I1
Develop an interpretive program for the proposed heritage museum planned for Bread Lock Park. In addition to interpreting the transportation and technological history of the byway corridor, this museum could include exhibits and programs pertaining to the geographical, Native American, agricultural, and industrial history of the byway (see also Management Strategy H4).

I2
Coordinate with interpretive activities for the Morris Canal, such as programs at area parks and at Waterloo Village where other canal remnants are housed. Investigate opportunities to include the byway's port villages in a linked interpretive program for byway visitors.

I3
Enhance the interpretive information provided on Edison Concrete Mile with information on the Portland Cement Company. Research and verify the role of the Concrete Mile in Edison's demonstration of paved road technology to Henry

Ford. Explore the potential for a coordinated interpretive program with the Edison National Historic Site operated by the National Park Service in West Orange, New Jersey and with the Valley View Historic District in Phillipsburg.

I4
Conduct a two-part study to develop a longer term comprehensive interpretive program for the byway and implement the study recommendations. The following steps are envisioned for the study:

Phase 1: Assessment

- Identify and assess the quality of existing interpretive activities and materials along the byway.
- Meet with representatives involved in existing interpretive activities to discuss ways in which storytelling along the byway can be improved.
- Document which intrinsic resources are the most appropriate for interpretation. Factors to be considered include the degree of public access, the integrity or quality of the resource, the strength of the resource's relationship to the stories associated with the selected geography, historical period or theme, and the availability of existing interpretive materials or programs.

Phase 2: Program Design

- Identify the principal or priority audiences for interpretive programs based on the identified resources.
- Determine which communication techniques are most appropriate and cost effective for telling the byway's story to each audience and establish priorities for program development.
- Evaluate how interpretive programs can complement proposed tourism and marketing efforts.
- Identify ways of coordinating with and building upon existing interpretive activities and incorporating new partners to improve storytelling programs.
- Identify needed resources to implement these improvements, seek necessary funding and develop an action plan for implementation.

(Endnotes)

1 Tilden, Freeman. *Interpreting Our Heritage.* University of North Carolina Press, North Carolina. 1957.

2 Glaser, R. (1983, June). *Education and Thinking: The Role of Knowledge.* Technical Report No. PDS-6. Pittsburgh, PA: University of Pittsburgh, Learning and Development Center.

IX.

Chapter Nine:

Tourism and Marketing Opportunities

IX. Tourism and Marketing Opportunities

One of the advantages of scenic byway designation is the ability to attract new tourists to the corridor, along with the local revenues they generate. A well-planned tourism marketing strategy can promote awareness of the byway's special features and expand the pool of potential visitors. To develop an appropriate marketing strategy for the Route 57 Scenic Byway, it is important to consider the different types of visitors who might be attracted to the byway, the range of interests they may have, and the information sources they are likely to use in planning a trip. In addition, the availability and variety of traveler support services, such as food and lodging, need to be considered.

Visitation Patterns

Travelers use several different approaches in planning a trip. One approach is based on location: a traveler decides to visit a specific geographical area, such as New Jersey or Warren County. Having made that decision, the traveler then looks to see what there is to do in the area and forms an itinerary. Another approach is based on personal interests. Here, a traveler looks for specific resources, regardless of location, that satisfy his/her personal interests. For example, a person who collects antiques would be expected to seek out new places where antiques are sold, while a family that enjoys hiking might look for new trails to explore. Lastly, there are impromptu visitors, those travelers who are already in the area and upon learning about the Route 57 byway might spontaneously choose to drive the route or visit one or more points of interest.

In 2008, over 70 million visitors came to New Jersey, spending an average of $107 per person per day. Warren County's share of the total tourism expenditures was estimated to be $88.7 million. While significant, this was the lowest amount of any New Jersey county. Source: IHS Global Insight, "NJ Tourism Preliminary 2008 Results," 2009 New Jersey Governor's Conference on Tourism, March 2009

Existing Marketing of Byway Resources

The following is an overview of the existing marketing efforts used to attract different kinds of travelers to the area and help them plan their visit. These existing marketing programs and associated information channels provide key opportunities to promote the byway and its intrinsic resources.

Marketing Based Upon Location

The New Jersey Commerce, Economic Growth and Tourism Commission, through its Office of Travel and Tourism, provides an annual *New Jersey Travel Guide*, the www.visitnj.org website and the 1-800-Visit-NJ telephone number to introduce travelers to major points of interest and selected support services throughout the state. The agency has divided New Jersey into six travel regions. The Route 57 byway is located within the Skylands Region, which encompasses Warren County along with Hunterdon, Morris, and Somerset counties. The travel guide states that the Skylands Region features "historic villages, museums, romantic getaways, agriculture and eco tourism, water sports, fishing, antiquing, golfing, tours, shopping, fine dining and excellent accommodations."[1] Travelers are directed to the Warren County Convention and Visitors Bureau to obtain more detailed visitor information. The state also operates four welcome centers within the Skylands Region that could potentially be used to market the byway. These welcome centers are located outside the Route 57 byway corridor in Bridgewater, Columbia, Flemington and Harding.

www.visitnj.org

The privately owned *Skylands Visitor Magazine* is an alternative source of information for travelers who pay for an $8 annual subscription to this quarterly publication describing "recreation, events, destinations, services and various other things worthy of attention in and around the Northwest New Jersey Skylands."[2] The magazine includes in-depth articles on points of interest, a calendar of activities, a directory of sites and services, and a map. The associated www.njskylands.com website provides similar information for free over the internet and advertises special travel packages. Several attractions along Route 57, such as the Morris Canal, Musconetcong River and Rockport Pheasant Farm, are featured in the website's "profiles and destinations" section. In 2005, the magazine published a special edition called *The Wonders of Warren County* highlighting annual events and attractions associated with the Delaware Water Gap Region, Pequest Watershed, Musconetcong Valley, Phillipsburg and Farms. This publication is a useful reference for developing a byway marketing program. The magazine and website are part of a privately operated business known as Guest Services, Inc.

The Warren County Convention and Visitors Bureau (WCCVB) is a relatively new service of the Warren County Regional Chamber of Commerce, with an office in Washington Borough. The bureau's www.visitwarren.com website welcomes visitors by providing information about the county, chamber, weather conditions, transportation routes and accessibility. The website, which is currently in the developmental stage, is organized into sections pertaining to accommodations, activities, outdoors and sports, attractions and events. The annual Warren County Tourism Guide provides information on things to do and an events calendar. The Bureau also maintains brochure racks at its two offices in Washington Borough and Phillipsburg, the NJ Department of Motor Vehicles Office, the Wayne Dumont Administration Building, Centenary College, Warren County Community College, Hotel Belvidere, and Washington Borough and Hackettstown Business Improvement District Offices.

The Warren County Public Information Department supports the work of the Warren County Convention and Visitors Bureau by maintaining an office and website to respond to questions from the public. The department's http://www.co.warren.nj.us website provides links to the WCCVB, Skylands Magazine and New Jersey Office of Travel and Tourism and its personnel distribute pamphlets and other literature about destinations in response to inquiries.

The Washington Borough Business Improvement District and the Hackettstown Business Improvement District also work to attract visitors and advertise local events and services on their respective websites, www.washingtonbid.org and www.hackettstownbid.com. Each also has a strategic plan for enhancing its downtown area with improved streetscapes, parking and wayfinding systems. These strategic plans are consistent with and complement the goals of the scenic byway in helping to attract and accommodate increased visitation.

Marketing Based Upon Personal Interests

A variety of marketing and informational materials relating to specific interests or hobbies are available to travelers, including several publications featuring sites and activities within the byway corridor. For example, the *New Jersey Trails Map* distributed by the NJDEP Division of Parks and Forestry

lists rivers for canoeing or pleasure boating and describes the Musconetcong River as "one of the longest canoeable rivers of northern New Jersey."[3] NJDEP's Division of Fish and Wildlife provides a booklet with detailed information for anglers and boaters that lists access areas across the state, including several within the Route 57 byway corridor.[4] The Centenary Stage Company advertises its annual season of performances in a brochure that describes the shows, lists the schedule of performances and provides ticket information. The New Jersey Office of Travel and Tourism has prepared the *Enjoy Four Seasons of Agriculture in the New Jersey Skylands* brochure in collaboration with the County Agricultural Development Boards for travelers interested in visiting local farms, several of which are along Route 57. Some materials are distributed by private organizations, such as the annual directory of campground and recreational vehicles park sites published by the New Jersey Campground Owners Association.[5] Numerous other booklets and brochures are available to the public, many of which are accompanied by a website where travelers can access additional information about potential destinations and activities.

Marketing Based Upon Impromptu Visitation

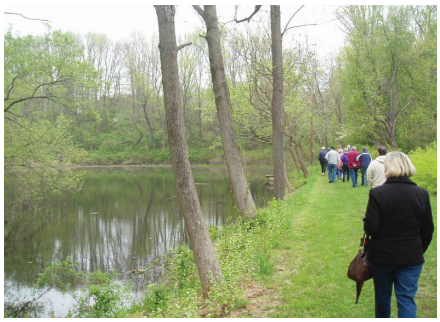
Many people enjoy impromptu visits to points-of-interest they discover along their journey. As noted in the New Jersey Tourism Master Plan, scenic byways provide a special opportunity for these "pass through" visitors to explore attractions not readily apparent from major highways.[6] These individuals often learn about destinations and activities from signage, by word-of-mouth as they encounter people on their trip, or by picking up brochures placed at gas stations, restaurants, or other businesses they stop at on their way. The sporadic way in which these visitors engage with tourist attractions and services makes marketing efforts more challenging, since the manner in which these visitors access tourist information cannot easily be predicted.

Promotion of the Byway's Distinctive Features

Regardless of which approach travelers use to arrive in the region, byway promotional activities will need to highlight the corridor's unique features. Building on the intrinsic qualities of the byway as described in Chapter 2, three distinct tourism initiatives can be identified: heritage tourism, agritourism, and ecotourism.

Heritage Tourism

According to the National Trust for Historic Preservation, heritage tourism is defined as "traveling to experience the places and activities that authentically represent the stories and people of the past and present."[7] The Travel Industry Association of America recently undertook a study of the "importance of culture and history as a valuable product for the tourism industry" in association with Smithsonian Magazine. *The Historic/Cultural Traveler* report summarizes the findings of this study as follows:[8]



Visitors explore the Canal Boat Basin and Towpath in Port Murray

- In 2002, more than 80% of those U.S. adults who took a trip longer than 50 miles one-way from home visited a cultural feature (approximately 118 million tourists). These people are considered heritage travelers.

- Most heritage travelers arrive by car and stay over at hotels, motels and bed & breakfasts an average of 5.2 nights on their trip. They spent more than other travelers (an average of $623 vs. $457 per trip) and are likely to be more educated and affluent.

- Heritage travelers often lengthen their trip to visit more attractions, either during the planning stage or once they have arrived at their destination. A total of 44% added part of one day, 25% one extra night, 15% two extra nights, and 16% three or more extra nights.

- Heritage travelers most often plan their trip based upon information received from friends and relatives and the internet, followed by a brochure, travel book, magazine, hotel visitor guide, television, newspaper, and travel agency.

- In selecting a vacation or destination, the majority of travelers sought out places that provided new learning experiences and activities related to their hobbies or interests. The most frequent destinations are historical places/museums and cultural events/festivals.

The New Jersey Office of Travel and Tourism distributes a brochure, *Discover New Jersey's History*, that lists heritage sites open to the public within each county. The brochure describes eight sites in Warren County, including two within the byway corridor: Hackettstown Historical Society Museum and the Warren County Historical Learning Center.

Chapter 2 described the byway's many historic resources, as well as archaeological and cultural qualities that could be encompassed in a heritage tourism initiative for the byway. The corridor's unique heritage destinations, such as Bread Lock Park, could potentially be cross-marketed with other area heritage sites, including Oxford Furnace and the National Canal Museum in Easton, Pennsylvania. The proposed heritage museum at Bread Lock Park would greatly increase the visibility of the corridor's heritage resources to potential travelers, as would the establishment of a designated heritage area based on local resources, a concept currently in the exploratory stage. Several other sites with potential historic appeal include the Washington Theatre, Guy's Filling Station, and two old-time roller skating rinks.

"Every place in America – rural area, small town, Native American reservation, urban neighborhoods and suburban center – has distinctive cultural and heritage assets that can potentially attract visitors and their spending. Each must discover and value its own culture and heritage and decide for itself what kind of tourism and how many visitors are appropriate/desired to meet their tourism goal, and what assets it wants to share with visitors."[9] For heritage tourism to be successful, these assets must reveal the character of a place and provide a uniquely American experience.

Agritourism

Farming is another key dimension for tourism in the corridor. Some of the most outstanding scenic resources of the byway correspond to expansive views of farmland, and many byway

visitors are likely to enjoy a stop at a local farm. Agritourism is emerging as an important way for farmers to diversify and improve cash flow, helping to maintain the profitability of farming and the retention of agricultural lands.[10] In New Jersey as elsewhere, working agricultural landscapes reflect the efforts of generations of farm families and often provide a defining sense of culture, heritage, and rural character. Agritourism provides educational opportunities for school children and adults to learn about the state's agrarian heritage, the production of food, and resource stewardship. Finally, many agritourism operations provide consumers with direct access to fresh, locally-produced farm products."[11]

Agritourism connects the people who supply food with those who consume it.

The NJ State Agricultural Development Committee has drafted an Agricultural Management Practice to "guide the development of agritourism activities on commercial farms."[12] Interviews with a sample of New Jersey farm owners already conducting agritourism on their lands revealed a wide variety of on-farm recreational activities as shown in Table 9-1. Nearly half (46%) of those farmers interviewed in northern New Jersey counties, including Warren County, indicated that agritourism was a significant growth opportunity, with an additional 31% stating that agritourism was a moderate growth opportunity.[13] These farmers have successfully used word of mouth in combination with road signage, internet websites, print media, and maps to advertise their agritourism activities. The New Jersey Department of Agriculture's database and Jersey Fresh program are also important tools for informing the public of available farm-based activities.
Long run strategies for expanding agritourism in the area could include measures to help farmers overcome obstacles that can affect venturing into agritourism. The most significant hurdles tend to be marketing and liability issues. Other key issues include costs, staffing issues and state and local regulatory restrictions.[14]

There are several existing agritourism destinations along Route 57:

- Miller Farmstead (scenic view)
- Perfect Christmas Tree Farm
- Penny Toss Farm (farm stand and garden plants)
- Washington Borough and Hackettstown Farmers Markets
- Woolf's Farm (farm stand and scenic view)

Table 9-1. Examples of Existing Agritourism Activities at New Jersey Farms

Arts Festival	Harvest & Wine Education Day
Bakery	Haunted House
Bare-Foot Grape Stomping	Hay Pyramid
Bed & Breakfast	Hay Rides
Bee-Keeping Classes	Hiking
Bird Watching	Holiday Horse and Carriage Rides
Birthday Parties	Hunting
Bonfires	Kid's Day (make gifts for Mother's Day)
Bouncing Pit for Children	Lectures for Clubs
Bunny House (Easter)	"Let's Make a Difference Day" to Help Homeless People
Camping for Appalachian Trail Hikers	Made On-Site Food Products
Canning & Freezing Classes	Music Events
Clydesdale Horses	NJ Audubon Weekend
College Wine Education Classes	Nursery & Green House Activities
Cooking Using Fresh Produce Classes	Orchid Open House
Corn Mazes	Pedal Tractors for kids
Corporate Education & Training Events	Petting Zoos
Courtyard Obstacle Course	Pick Your Own
Crafts	Picnicking
Customer Appreciation Weekend	Pie-Making Demonstrations
Deli	Plant Auctions
Donut Eating Contest	Playground
Easter Egg Hunt	Pony Rides
Educational Barn	Private Parties
Educational Brochures	Private Tours
Educational Dairy Tours	Pruning Classes
Educational School Tours	Pumpkin Carving
Educational Themed Corn Maze	Read & Pick Program (Pre-School)
Face-painting	Retail Farm Stand
Fall Harvest Festival	Revolutionary War Re-Enactments
Family Fun Days	Sand Box
Farm Museum	Scarecrow Making Contest
Farm to School Programs	Scavenger Hunts
Farm Tours	School Farm Camp for Inner-City Kids
Farm Vacations	Seed Spitting Contest
Farm Work Experience	Seed to Sale and Tree Species Education
Father's Day Pig Roast	Story Barn (covering educational topics)
Festivals/Special Events	Tricycle Course
Fishing	Valentine's Day Wine Dinner
Floral Products	Vineyard Tours
Fundraisers for Organizations	Visual (Non-Petting) Zoo
Gardening Classes	Wagon Train Rides
Giant Hay Bales & Tunnel	Weddings & Receptions
Group Tours for 4-H Groups and Girl Scout Troops	Wine Tasting
Halloween Costume Contests	Winery Tours
Hands-on Activities About Farming	"You Cut" Christmas Trees

Source: Rutgers University Food Policy Initiative, 2006

Other agricultural sites have been identified as side trips:

- Donaldson Farm (farm stand, pick-your-own, processed foods, special events)
- Kash Farm (pick-your-own, garden plants, petting zoo)

- Tree-Licious Orchards (farm stand, pick-your-own, baked goods)
- Well Sweep Herb Farm (garden plants and special events)

In addition, the annual Warren County Farmers' Fair is a unique nearby destination that draws new visitors interested in farming and local culture to the area each year. In recognition of the economic potential of agritourism, the New Jersey Highlands Council recently awarded $50,000 in grant funding to the Warren County Convention and Visitors Bureau to promote agritourism throughout the county via billboards, print media, radio advertisements and its website.

Ecotourism

While there are many definitions of ecotourism, for the purpose of this plan it can be defined as travel to an outdoor area for the purposes of participating in nature-based recreation, in a manner that has a minimal impact on natural resources and supports local conservation and economic development efforts. Inherent in this definition is the understanding that the outdoor area is to be designed to accommodate public access in an environmentally responsible way and that visitors will make every effort to "leave no trace"[16] of their recreational activities behind.

In 2007, the New Jersey Department of Environmental Protection released a report of the economic value of natural resources in the state. The report indicated that "ecotourism (defined here to include wildlife watching and recreational hunting and fishing) accounts for about $3.1 billion of economic activity, which supports 37,000 jobs; this economic activity accounts directly and indirectly for a significant portion of New Jersey's Gross State Product and an estimated $1 billion of wage and salary income to New Jerseyans."[17] However, this study does not explore the impact of other kinds of nature-based recreational activity on the state's economy.

Participation data at the national level can shed some light on the potential impact that all forms of outdoor recreational activities can have on the economy. The Outdoor Foundation, a non-profit organization established by the

Outdoor Industry Association, regularly studies trends in nature-based recreational activities and their economic impact. The Foundation's 2008 participation report reveals the most popular recreational activities for persons 6 years of age and older in the United States based upon the annual frequency of participation, as shown in Table 9-2. On a nationwide basis, the greatest numbers of participants are involved in wildlife viewing, bicycling and hiking.[18] The American jobs supported by various outdoor recreational activities and the industries that rely on them is highlighted in Figure 9-1.[19]

The New Jersey Office of Travel and Tourism has prepared several brochures to promote ecotourism in the New Jersey Skylands and across the state.[20] These brochures provide information on biking, canoeing/kayaking, horseback riding, camping, hiking, bird watching, bouldering, cross-country skiing, fishing, gardens, nature study, hunting and boating. The New Jersey Department of Environmental Protection also distributes an annual *Fish and Wildlife Digest* and *Hunting Digest* that are full of information of interest to anglers and hunters. The New Jersey Audubon Society has teamed up with the NJ Department of Transportation, Department

Table 9.2

Favorite Outdoor Activities of All Americans, Ages 6 and Older
By frequency of participation

1. Running/Jogging/Trail Running:
3.87 billion outings / 92 outings per runner or jogger (trail or road)

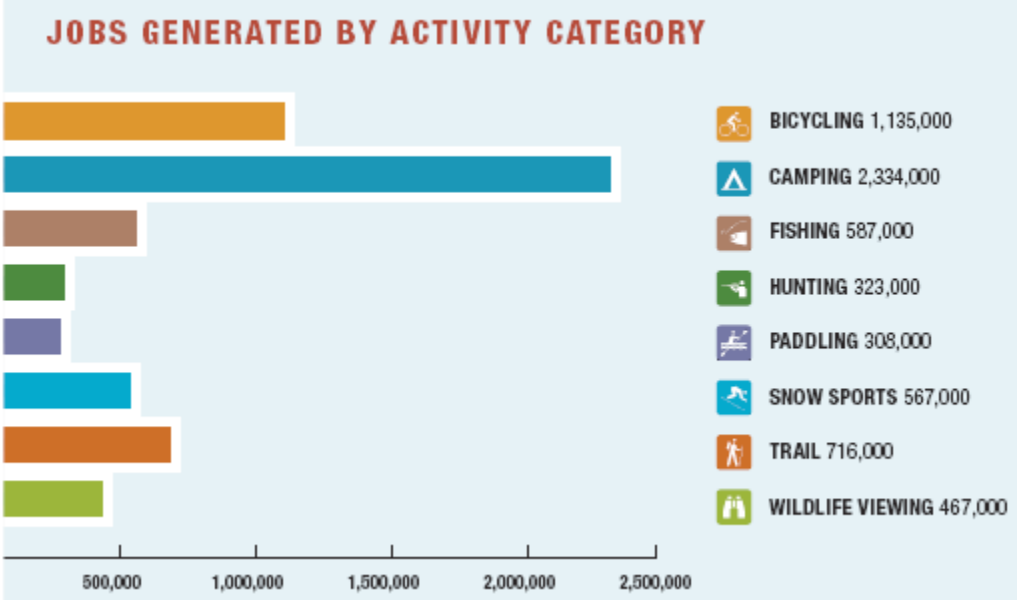
2. Bicycling (Any Type):
2.62 billion outings / 62 outings per bicyclist

3. Fishing (Any Type):
1.09 billion outings / 21 outings per angler

4. Wildlife Viewing (More Than ¼ Mile from Vehicle/Home):
638 million outings / 28 outings per wildlife watcher

5. Skateboarding:
454 million outings / 54 outings per skateboarder

Figure 9.1 – Total of U.S. Jobs Supported by Outdoor Recreation



Source: Outdoor Industry Foundation, 2006

of Environmental Protection and the Office of Travel and Tourism to produce and distribute a map of *Skylands Birding and Wildlife trails in Warren County*.

Warren County Community College now offers a degree in ecotourism, combining "business, science and general education courses to prepare students for leadership roles in the nature-based and travel professions" and position them to "transfer to four-year institutions to pursue careers in Park, Recreation and Leisure Services Management or Tourism Management."[21]

Chapter 2 described the many natural and recreational resources of the Route 57 byway corridor that could be promoted in an ecotourism initiative. There may also be opportunities to cross-market the byway with nearby recreational attractions such as the Allamuchy Natural Area, Merrill Creek Reservoir, Pequest Wildlife Management Area, and the Point Mountain Reservation in Hunterdon County.

Traveler Support Services

Travelers require a variety of support services on their trip, and the quality of these services can influence their decision to visit or return to an area to see additional points-of-interest. Some of the most important services are bathrooms, parking facilities, gas stations, ATM machines and places to eat and drink, including restaurants of all kinds and picnic areas for those who bring their food with them. For those who stay overnight, the availability of various kinds of lodging is also key, including accommodations for travelers coming in recreational vehicles. Travelers with families look for activities that will please all age groups and abilities, while those with more specific interests want to find out where they can rent equipment, take classes, be greeted by a tour guide or go shopping for a certain item.

Tourism and Marketing Strategies

GOAL:
Promote tourism as an economic development tool for the scenic byway corridor.

STRATEGIES:

T1
Coordinate tourism promotional activities with wayfinding efforts described in the Signage Study, especially with regard to the byway logo, signage placement and name. It is important that travelers receive consistent messages regarding the identity of a particular place and its relationship to larger tourism programs.

T2
Conduct an assessment of existing tourism and marketing activities and potential tourism opportunities along Route 57:

- Examine the existing patterns of visitation along the byway corridor and compare with the existing schedule of events in the region.
- Identify heritage tourism, agritourism and ecotourism destinations and verify the willingness

of such destinations to participate in a coordinated marketing effort.

- Evaluate the ability of these destinations to accommodate tourists.
- Inventory the type, location and quality of support services, identify gaps and confirm whether these service providers are interested in participating in byway tourism initiatives.
- Determine the combination of destination and support facility improvements that would prompt visitors to stay overnight, thereby increasing travel expenditures along the scenic byway.
- Document how existing heritage tourism, agritourism and ecotourism experiences and products along Route 57 are currently being advertised and the existing marketing tools being used.
- Analyze which information channels are most likely to reach potential visitors with varying interests.
- Investigate existing and potential destinations and services along the byway where tourist information can be provided such as visitor centers, scenic pull-off areas, restaurants, etc.
- Identify potential partner organizations for tourism promotion such as the Warren County Community College ecotourism program, among others.

T3
Prepare a tourism and marketing plan for the byway based upon the results of the assessment to:

- Engage local stakeholders in determining the desired amount of tourism to achieve a sustainable balance between economic development and conservation goals.
- Determine potential target visitor markets.
- Identify new and improved ways of promoting tourism experiences and products along the byway to maximize visitation. For example, explore opportunities to develop or expand area farmers' markets or to promote the use of Warren County produce in local restaurants.
- Recommend separate, yet coordinated, strategies for heritage tourism, agritourism and ecotourism. Agri-, eco- and heritage tourism initiatives are

different. However, they should be coordinated, since they may try to "capture" the same travelers who are equally interested in natural, cultural and historic resources.

- Develop opportunities to "package" individual agri-, eco- and heritage tourism activities together to create a more meaningful travel experience. Coordinate the content of these activities with the Interpretive Plan and the existing schedule of events in the region.
- Recommend measures for improving traveler support services and facilities.
- Identify the various forms of media that will be used to distribute tourist information and the desired distribution sites and methods.

T4

Develop marketing tools that can be easily distributed to visitors regardless of which approach they use to plan their trip (i.e., based upon location, personal interests, or impromptu visit), such as:

Website for the Upper Freehold Historic Farmland Byway in Monmouth County www.upperfreeholdbyway.org

- A simple brochure or fold-out map of the byway route with information on major points of interest and visitor services.
- A byway website that includes an overview of the byway, a touring map visitors can download and print, and links to websites for destinations and services along the byway. Both the New Jersey State Scenic Byways Program website and the America's Byways website, www.byways.org can readily establish links to the Route 57 byway website, allowing state and national travelers to find out about the byway.
- Themed activity brochures targeted to specific interests such as fishing, bicycling, antiquing and industrial heritage;
- An historic-look postcard set with old photographs of the byway that could be sold as souvenirs or used in promotions;
- A children's guide to the byway, possibly including an old-fashioned travel bingo game based on the byway.
- A brochure of accessible facilities along the byway for visitors with disabilities.

T5
Prepare heritage tourism, agritourism and ecotourism destinations and support services for visitation:

- Work with destination and support service representatives to identify the specific improvements needed to support tourism and assist them in finding financing to implement these improvements.
- Ask local municipal officials to review and modify, as necessary, land use policies and practices to support tourism activities.
- Provide training and educational materials related to customer service/hospitality, marketing strategies (especially cross-selling) and financial plan preparation for destination and support service representatives.

T6
Collaborate with key agencies to cross-promote and enhance visitor attractions. For example:

- Contact the New Jersey Office of Travel and Tourism to make sure that destinations and support services along Route 57 are mentioned in its travel guides.
- Work with the Warren County Convention and Visitors Bureau to coordinate tourism activities along Route 57.
- Work with Phillipsburg and the Edison National Historic Site to collaborate on activities that can include a visit to the Concrete Mile.
- Work with Hunterdon County Parks and Recreation Department to encourage visitors to observe the Route 57 scenic byway corridor from Point Mountain's scenic overlook.
- Partner with the Delaware & Lehigh Canal National and State Heritage Corridor, Canal Society of NJ and Warren County Canal Commission to coordinate education and visitation related to canal-based resources.
- Work with The Crossroads of the American Revolution Heritage Area to coordinate visits to colonial-period heritage resources.
- Coordinate ecotourism promotional efforts with the array of existing nature centers and environmental education programs along the corridor, including

Rack Display at the Warren County Chamber of Commerce and Convention and Visitors Bureau Office in Washington Borough

the Musconetcong River Resource Center, Wattles Stewardship Center, Merrill Creek Reservoir, Hunterdon County Parks, Cliffdale Center, Pequest Wildlife Management Area, the New Jersey Skylands Birding and Wildlife Trails program, and other area parks and organizations to encourage exploration of the area's natural resources.

- Arrange for website cross-listings with byway destinations, nearby attractions and other partner organizations.

T7

Support the efforts of the Hackettstown and Washington Borough Business Improvement Districts to implement their strategic plans. For example, a pocket park with interpretive panels could be established in downtown Washington Borough on the site of the former antiques market.

T8

Develop a system for measuring the success of agri-, eco- and heritage tourism efforts along the byway and sharing the results with the public. The National Scenic Byways Resource Center has developed *A Toolkit for Building a Scenic Byway Economic Impact Study* to assist communities in assessing the economic benefits of scenic byway designations.[22]

T9

Arrange for byway representatives to attend conferences and workshops to stay current on heritage tourism, agritourism, and ecotourism opportunities, issues, research and trends.

(Endnotes)

1 New Jersey Department of State, Division of Travel and Tourism, *New Jersey Travel Guide*, Trenton, NJ. 2009

2 Guest Services, Inc., *Skylands Visitor Magazine.* Columbia, NJ.

3 NJDEP Division of Parks and Forestry, Office of Natural Lands Management, *New Jersey Trails*, June 1998.

4 NJDEP Division of Fish and Wildlife, Bureau of Freshwater Fisheries, *New Jersey Places to Fish – Lakes, Ponds, Reservoirs and Streams Open to Public Access and Delaware River Boat Access Sites*

5 *New Jersey Campground & RV Park Guide*. New Jersey Campground Owners Association. 2009.

6 New Jersey Tourism Master Plan. Prosperity New Jersey, Tourism Industry Advisory Committee, with Deloitte & Touche, August 1997.

7 National Trust for Historic Preservation website at http://www.culturalheritagetourism.org/howToGetStarted.htm
8 Patkose, Margaret, Andrea M. Stokes and Dr. Suzanne D. Cook. *The Historic/Cultural Traveler, 2003 Edition.* Travel Industry of American (with funding support from Smithsonian Magazine). Washington, D.C. Pages 3 and 4.
9 *A Position Paper on Cultural and Heritage Tourism in the United States.* U.S. Department of Commerce and the President's Committee on the Arts and the Humanities. 2005. Page 5.
10 Schilling, Brian J., Lucas J. Marxen, Helen H. Heinrich, and Fran J.A. Brooks. *The Opportunity for Agritourism Development in New Jersey.* Food Policy Institute of Rutgers, the State University of New Jersey. October 2006.
11 Ibid, Page 2.
12 Ibid, Pages 8 and 9.
13 Ibid, Page 44.
14 Ibid, Page 54
15 Ibid, Page 39.
16 Leave No Trace Center for Outdoor Ethics. http://www.lnt.org/index.php
17 *Valuing New Jersey's Natural Capital: An Assessment of the Economic Value of the State's Natural Resources.* New Jersey Department of Environmental Protection. Trenton, NJ. April 2007. Page 23.
18 *Outdoor Recreation Participation Report 2008.* Outdoor Foundation. Page 10.
19 Ibid. Page 11.
20 New Office of Travel and Tourism. *Skylands Eco-Trips. Explore Ecotourism in New Jersey's Skylands. New Jersey Discover Adventure/Nature.*
21 Warren County Community College website at http://www.warren.edu/portal/home/detail.asp?iData=579&iCat=280&iChannel=20&nChannel=Prospective%20Students
22 Economic Development Research Group, Inc. and PA Consulting, Inc. *A Toolkit for Building a Scenic Byway Economic Impact Study.* National Scenic Byways Resource Center. Spring 2001.

X.

Chapter Ten:

Implementation Plan

X. Implementing the Plan

This Corridor Management Plan has identified goals and strategies for preserving and enhancing the corridor's unique qualities, improving access and transportation, developing a sign program, interpreting byway resources, and encouraging tourism. These actions will require coordination among a variety of organizations over a period of several years. Table 10-1 lists the identified strategies that were outlined in more detail in various chapters of the plan, along with expected time frames for implementing them. The table also identifies potential resource organizations that may be able to assist with implementation, and possible funding sources, where known. The map in Figure 10-1 highlights several of the recommended actions. Not all of the actions can be illustrated graphically, and although an action may not appear on the map, it is no less important than those included.

The institutional survey conducted for the plan identified several related initiatives and resources for implementation. The survey findings are presented in Appendix D. Private foundations are another potential source of funding for implementation.

Byway Management... Moving Forward...

The nomination of Route 57 as a scenic byway was initially sponsored by Heritage Conservancy, a non-profit land trust with a mission to preserve natural and historic resources, with the support of local municipalities along the roadway. Although the conservancy wishes to remain involved in the implementation of the corridor management plan by providing technical support to stakeholders and by carrying out appropriate byway-related projects in keeping with its mission, the Study Committee agreed that a new administrative structure would encourage broader participation by the stakeholders and present new opportunities for stakeholders to take on various leadership roles. For this reason, the Study Committee recommends that it reorganize as a council under a cooperative agreement, in a manner similar to the Musconetcong River Management Council being used to oversee the implementation of the River Management Plan for the Musconetcong Wild and Scenic River. The byway municipalities have also formally

requested that Warren County serve as the fiscal agent on behalf the stakeholders, if the County Freeholders agree to this arrangement.

The membership of the proposed council would consist of a representative from each municipality along the scenic byway in addition to the following groups, among others agencies and organizations with an interest in implementing the Corridor Management Plan:

- Canal Society of New Jersey
- Hackettstown and Washington Borough Business Improvement Districts
- Heritage Conservancy
- Hunterdon County Parks and Recreation
- Musconetcong Watershed Association
- New Jersey DEP Division of Fish and Wildlife
- NY NJ Trails Conference
- Warren County (could include representatives of the Department of Land Preservation, Planning Department and Morris Canal Committee)
- Warren County Regional Chamber of Commerce/ Convention and Visitors Bureau

A memorandum of understanding would be signed by any members desiring a voting seat on the council outlining their roles and responsibilities. Bylaws would be prepared to guide the day-to-day operations of the council and outline the process for electing officers. The council form of administration would enable each member of the council to work both independently and/or collaboratively with other council members to complete a recommendation of the Corridor Management Plan. Heritage Conservancy and Warren County are willing to assist the stakeholders in making the transition to a council form of administration.

Table 10.1: Implementation Plan Matrix (cont.)

Strategy	Time Frame				Potential Resource Group	Potential Funding Sources/Organization
	Short	Med	Long	Ongoing		
MANAGEMENT STRATEGIES						
HISTORIC/ARCHAEOLOGICAL RESOURCES (see pg. 50)						
H1 - Support efforts to preserve, protect, and link Morris Canal sites			●	●	Warren County Morris Canal Committee (WCMCC)	WC, NJ Green Acres, Historic Preservation Programs
H2 - Support Morris Canal Greenway initiative		●		●	WCMCC, Canal Society of NJ	WC, NJ Green Acres Planning Incentive Grant
H3 - Improve visibility of Edison Concrete Mile		●			Byway Stakeholders	National Scenic Byway Program (NSBP)
H4 - Establish heritage museum at Bread Lock Park		●		●	WCMCC	Warren County (WC), NSBP
H5 - Conduct study of historic preservation needs and priorities	●				Byway Stakeholders, Warren County Cultural & Heritage Commission (WCCHC)	NJ Historic Preservation Office
H6 - Support preservation efforts by local historical societies				●	Historical Societies	Garden State Historic Preservation Trust Fund
H7 - Investigate adaptive reuse of Anderson Hotel		●			Mansfield Twp, Warren County	WC, NSBP
H8 - Investigate creation of Heritage Area			●		Byway Stakeholders	National Park Service (NPS), Private Donors
H9 - Identify and preserve archaeological resources				●	WCCHC	WC, NSBP, NJ Green Acres
SCENIC RESOURCES (see pg. 52)						
S1 - Identify and implement measures to preserve highest ranked scenic vistas	●				Warren County Planning Department, Municipalities	WC, Municipalities, NSBP, NJ Green Acres
S2 - Support local farming and farmland/open space preservation				●	Warren County Agricultural Development Board, Warren County Board of Recreation Commissioners	WC, State Agricultural Development Committee/State Farmland Program Planning Incentive Grant, NJ Green Acres
S3 - Develop model Scenic Corridor Overlay Zone for local consideration	●				Warren County Planning Department, Municipalities	WC, Municipalities, NSBP
S4 - Encourage developers to minimize the scenic impacts of their projects	●			●	Municipalities, Developers	N/A
S5 - Support infill development and redevelopment				●	Municipalities, Business Improvement Districts (BIDs)	U.S. EPA Brownfield Program
S6 - Identify and develop locations for scenic pull-offs		●		●	Byway Stakeholders	NSBP
S7 - Develop byway "beautification" plan to reduce unsightly features	●			●	Byway Stakeholders	Byway Stakeholders
S8 - Improve appearance of Washington Twp transition zones approaching Washington Boro		●			Washington Township	NSBP
S9 - Coordinate scenic conservation efforts with Signage Plan				●	Byway Stakeholders, NJDOT	N/A
CULTURAL RESOURCES (see pg. 54)						
C1 - Coordinate existing cultural events with byway tourism and marketing	●			●	Warren County Convention & Visitors Bureau (WCCVB), WCCHC, BIDs, Byway Stakeholders	N/A
C2 - Develop new cultural events to highlight byway		●		●	WCCVB, WCCHC, BIDs, Byway Stakeholders	WCCVB, WCCHC, BIDs, Byway Stakeholders
C3 - Develop programs focused on agricultural life		●		●	WCCVB, WCCHC, Byway Stakeholders	NJ Cultural Heritage Trust, National Endowment for the Humanities (NEH)

Table 10.1: Implementation Plan Matrix

Strategy	Time Frame				Potential Resource Group	Potential Funding Sources/Organization
	Short	Med	Long	Ongoing		
NATURAL AND RECREATIONAL RESOURCES (see pg. 55)						
N1 - Support initiatives to protect environmental quality				●	Byway Stakeholders, Musconetcong Watershed Association (MWA)	U.S. EPA Region 2, NPS, Byway Stakeholders
N2 - Implement Musconetcong River Management Plan				●	Musconetcong River Management Council (MRMC)	MRMC Members, NPS, Variety of Public/Private Donors
N3 - Improve access to Musconetcong River and develop parking facilities		●			NJDEP Fish & Wildlife, NJDOT, MWA	NJ DEP, NJDOT Local Aid, NJ Green Acres
N4 - Improve access and parking at strategic recreational locations			●		Byway Stakeholders, Property Owners	Byway Stakeholders, Property Owners, NSBP
N5 - Identify priority investments to better serve recreational travelers		●			Byway Stakeholders, WCCVB	Byway Stakeholders, WCCVB
N6 - Investigate establishment of alternate bike route parallel to byway			●		WC, NJDOT, Byway Stakeholders	NJDOT Bikeway Grant
N7 - Develop bicycle touring map	●				Byway Stakeholders	Byway Stakeholders, NSBP
N8 - Compile information on hiking opportunities	●				Byway Stakeholders	Byway Stakeholders, NSBP
ROADWAY AND TRANSPORTATION STRATEGIES (see pg. 84)						
R1 - Provide parking areas at various destinations and points of interest			●		Byway Stakeholders, Property Owners	Byway Stakeholders, Property Owners, NSBP
R2 - Support the installation of parking areas in Washington Borough		●			Washington Borough, Washington Borough BID, Property Owners	Washington Borough, WBBID, Property Owners
R3 - Identify improvements to support exploration of byway features on foot		●		●	Byway Stakeholders, Municipalities, BIDs, WC	Byway Stakeholders, Municipalities, BIDs, WC
R4 - Investigate potential to achieve more consistent shoulder width			●		Municipal Engineers, NJDOT	NJDOT, NSBP
R5 - Install bicycle-compatible grates and reduce obstacles in shoulder		●			Municipal Engineers, NJDOT	NJDOT, NSBP
R6 - Develop off-road network as alternative route for bicyclists and pedestrians			●		Byway Stakeholders, Municipalities, BIDs, WC	NJDOT Bikeway Grant
R7 - Improve traffic operations at certain intersections			●		Municipal Engineers, NJDOT	NJDOT Local Aid
R8 - Investigate visibility at the intersection of Route 57 and Anderson Road	●				Municipal Engineers, NJDOT	NJDOT
R9 - Consider using signs to help large trucks avoid narrow side roads	●				Municipal Engineers	NJDOT
R10 - Incorporate safety improvements in maintenance or development projects				●	Municipal Engineers, NJDOT, Property Owners/Developers	NJDOT, Property Owners/Developers
R11 - Investigate use of warning signs at locations with crash history				●	Municipal Engineers, NJDOT	NJDOT
R12 - Improve provisions for the removal of deer killed in collisions	●				WC, NJDOT, Byway Stakeholders	WC, NJDOT, Byway Stakeholders
R13 - Update and review crash records periodically to monitor conditions				●	Municipal Engineers, NJDOT	NJDOT
R14 - Avoid introducing new driver distractions as byway program develops				●	Byway Stakeholders	N/A
R15 - Consider installing more attractive guide rail during future maintenance projects			●	●	Byway Stakeholders, NJDOT	NJDOT
SIGNAGE, UTILITIES AND RELATED STRATEGIES (see pg. 100)						
SU1 - Develop coordinated sign system for wayshowing and visitor information		●			NJDOT Scenic Byway Program, Byway Stakeholders	NSBP
SU2 - Work with NJDOT to create byway logo	●				NJDOT Scenic Byway Program, Byway Stakeholders	NJDOT
SU3 - Develop and implement a process for monitoring compliance with outdoor advertising regulations	●			●	Byway Stakeholders, NJDOT	NJDOT
SU4 - Review local sign codes and potential improvements for aesthetics, consistency	●				Municipalities	NJDCA Office of Smart Growth
SU5 - Work with utilities to identify ways to minimize aesthetic impacts		●		●	Utility Companies, Byway Stakeholders	Utility Companies
SU6 - Review local regulations on cell towers and potential for improvements	●				Warren County Planning Department, Municipalities	Warren County Planning Department, Municipalities
SU7 - Identify and develop site furnishings to enhance traveler experience		●			Byway Stakeholders, BIDs, Property Owners	Byway Stakeholders, BIDs, Property Owners

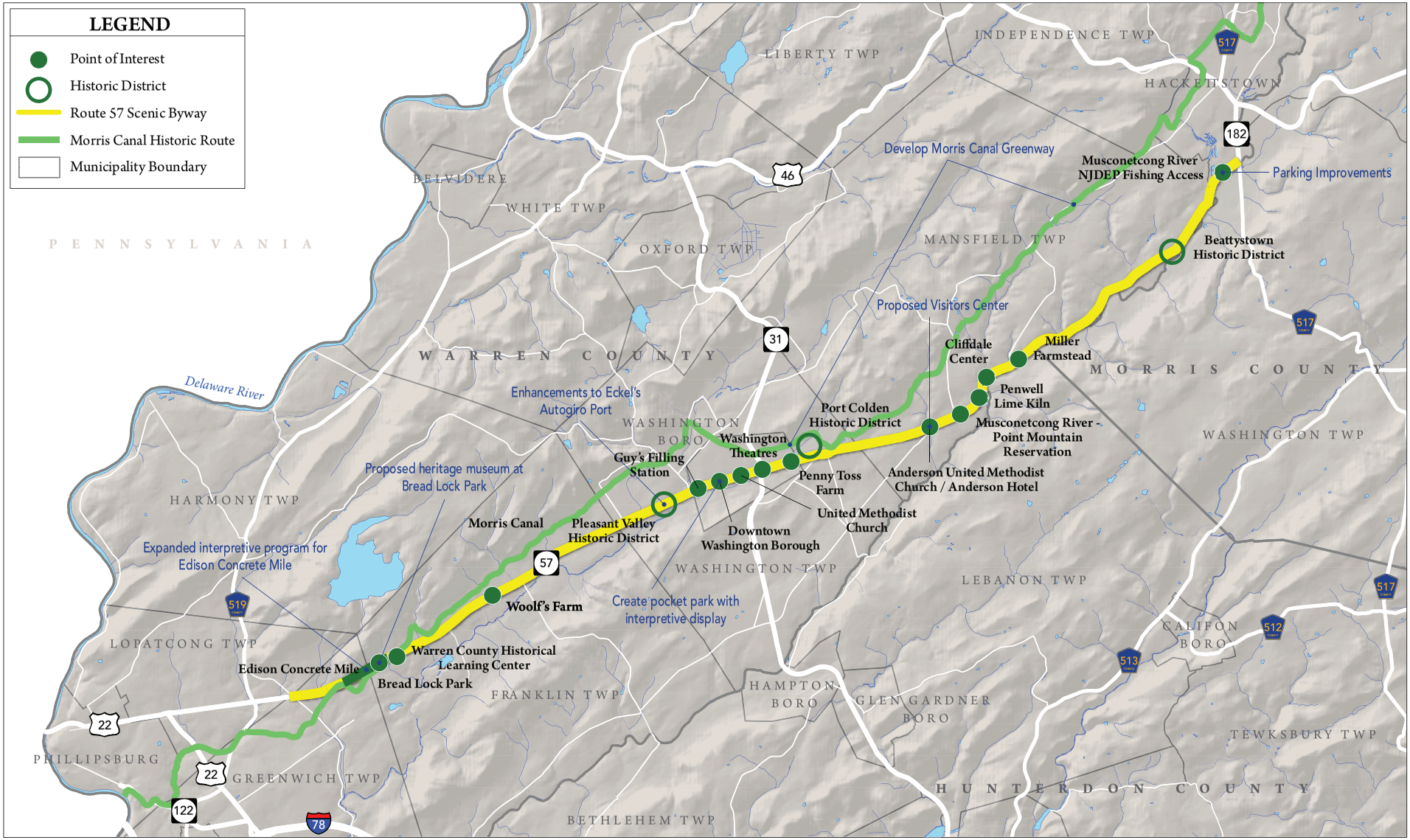
Table 10.1: Implementation Plan Matrix (cont.)

Strategy	Time Frame				Potential Resource Group	Potential Funding Sources/Organization
	Short	Med	Long	Ongoing		
INTERPRETIVE STRATEGIES (see pg. 109)						
I1 - Develop interpretive program for proposed heritage museum		●			WCCHC, WCMCC, Byway Stakeholders	NSBP, NJ Historical Commission, WC
I2 - Support development of coordinated interpretive program for Morris Canal		●			WCMCC, Canal Society of NJ, Byway Stakeholders	NSBP, WC, Canal Society of NJ, Byway Stakeholders
I3 - Interpret Edison Concrete Mile with ties to Edison National Historic Site		●			NPS, WCCHC, Byway Stakeholders	NSBP, NPS, WC, Byway Stakeholders, NEH, American Concrete Institute
I4 - Conduct study to develop comprehensive interpretive program	●				WCCHC, WCMCC, Byway Stakeholders	NSBP, WC, Byway Stakeholders
I5 - Implement comprehensive interpretive program			●		WCCHC, WCMCC, Byway Stakeholders	NSBP, WC, Byway Stakeholders
TOURISM AND MARKETING STRATEGIES (see pg. 125)						
T1 - Coordinate tourism promotional activities with wayfinding efforts				●	WCCVB, BIDs, Byway Stakeholders	WCCVB, BIDs, Byway Stakeholders
T2 - Conduct assessment of existing tourism and potential opportunities	●				WCCVB, BIDs, Byway Stakeholders	NSBP, WCCVB, BIDs, Byway Stakeholders
T3 - Prepare tourism and marketing plan		●			WCCVB, BIDs, Byway Stakeholders	NSBP, WCCVB, BIDs, Byway Stakeholders
T4 - Develop marketing tools			●		WCCVB, BIDs, Byway Stakeholders	NSBP, WCCVB, BIDs, Byway Stakeholders
T5 - Prepare destinations and support services for visitation		●		●	Byway Stakeholders, Property Owners	Byway Stakeholders, Property Owners
T6 - Collaborate with key agencies to cross-promote and enhance attractions		●		●	WCCVB, BIDs, Byway Stakeholders	WCCVB, BIDs, Byway Stakeholders
T7 - Support Business Improvement District plans				●	Hackettstown BID, Washington Borough BID	BIDs, Byway Stakeholders
T8 - Develop system for measuring tourism success		●			WCCVB, BIDs, Byway Stakeholders	NSBP, WCCVB, BIDs, Byway Stakeholders
T9 - Arrange for attendance at tourism workshops				●	WCCVB, BIDs, Byway Stakeholders	WCCVB, BIDs, Byway Stakeholders

Figure 10.1

Issues and Opportunities Map

Route 57 Scenic Byway Corridor



XI.

Appendices

Appendix A:

Nearby Features and Side Trips

Appendix A: Nearby Features and Side Trips

Beyond the resources described in the intrinsic resources narrative, the Route 57 byway corridor and nearby communities offer a number of resources and destinations that can add to a visitor's experience of the area's intrinsic qualities. The listing below includes three groups: cultural, historical/archaeological, and natural/recreational.

Historic and Archaeological Resources

A number of important historic resources are located near the byway and help to tell the story of the area's early development and its role in the evolution of technology. Several of these resources are accessible as side trips from the byway, while others contribute to an understanding of the interrelated elements of the area's history.

Hackettstown Historical Society Museum

The museum's collection includes furnishings, local artifacts, and memorabilia, as well as an extensive local history and genealogy library. Visitors are welcome to the museum, which is housed in a home built in 1915, Wednesday, Friday and Sunday, 2-4 p.m., with individual tours and groups by appointment.

National Canal Museum and Hugh Moore Canal Park

The National Canal Museum and Hugh Moore Canal Park are located just across the Delaware River from Phillipsburg in Easton and Glendon, PA. The museum in Easton houses an extensive collection of artifacts, photographs, maps, and documents detailing the historic development of the nation's industrial canal system, with particular emphasis on the Delaware, Lehigh, and Morris Canals. Costumed interpreters at Hugh Moore Canal Park in Glendon offer guided canal boat rides and tours of a locktender's house. Additional exhibits at the museum and the Emrick Technology Center at Hugh Moore Park display information on the local railroading, steel making, paper processing industries. Admission fees are charged to access the exhibits, rides and tours.

Pony Pratt Truss Bridge
Copyright P.S. Green

New Hampton Pony Pratt Truss Bridge (NR, SR)

"On Rymon Road over the Musconetcong River between Warren and Hunterdon Counties, this is one of the few remaining examples in the United States (one of three in New Jersey) of this early type of prefabricated cast-iron bridge. It has had very few alterations and remains in excellent condition. It was built in 1868 by William Cowin of Lambertville. The Pratt truss, originally of wood but later completely of iron, was America's first scientifically designed truss bridge. Later, in modified forms, the Pratt bridge became the standard all-steel truss bridge for American highways and railroads."[2]

Ruins, Oxford Furnace and summer concert at Shippen Manor

Oxford Industrial Historic District (SHPO DOE, NRHP, SR) including Oxford Furnace (NRHP, SR), Shippen Manor (NRHP, SR) and Oxford Historic District (SR)

This district encompasses the historic village of Oxford Furnace. The furnace dates to 1741, and was followed by the Shippen Manor House in 1754. Oxford Furnace operated continuously for over 220 years, and saw a series of innovations in various methods of heating the blast for extracting iron ore. It was the site of the first successful "hot blast" in America in 1835. The district contains a number of beautiful stone structures—including the restored Shippen Manor House, which is now home to a museum, a small remnant of the furnace, a foundry, and a stone grist mill converted to a church. An outdoor movie and music series is held during the summer at Shippen Manor.

Phillipsburg Railroad Historians Museum

The Phillipsburg Railroad Historians, Inc. operates a museum that includes railroad memorabilia, photographs, and equipment displays, including full-size trains representing the five railroad lines that historically served the town: the Central Railroad of New Jersey; the Lehigh and Hudson River; the Delaware, Lackawanna and Western; the Lehigh Valley; and the Pennsylvania Railroad. An engine house is used to display a public service trolley and Mack Rail Bus owned by other railroading clubs in the area. Visitors can also take a ride on the miniature Centerville & Southwestern Railroad, a replica of an existing steam railroad line.[3]

Phillipsburg Union Railroad Station (COE)

The railroad station is maintained by the volunteer organization known as The Friends of the New Jersey Transportation Heritage Center. It currently houses an extensive collection of historic rail, trolley, truck, canal, and ferry exhibits, artifacts, models and information that comprise the NJ Heritage Center collection. The site is open on Saturdays and Sundays during the summer and on special dates in the fall and winter.

Philipsburg Union Railroad Station

Port Colden Historic District (NR, SR)

When the Morris Canal was completed in 1831, Port Colden was named for Cadwallader D. Colden, who was president of the Morris Canal and Banking Company at that time. Port Colden was unusual among the canal towns in Warren County as it had both a lock and an inclined plane. The town contains remnants of the canal and boat basin and good examples of regional architecture of the 19th century, such as the Colden School and Port Colden Manor, a former hotel.

Port Colden Manor

Port Murray Historic District (SR)

The site of Port Murray was first surveyed in 1752. The completion of the Morris Canal in 1831 (hence the term "port") and the Morris & Essex Railroad in the mid-19th century contributed significantly to the growth of Port Murray. Port Murray became an important settlement, serving as the only station on the Morris & Essex Railroad in Mansfield and the intersection of railroad, canal, and trolley routes.

The northern section of the district retains its compact village form. Outside the compact village are good examples of regional 19th and 20th century vernacular architecture and some high style architecture from the second half of the 19th century. Visible canal remains include a section with water and parts of the towpath. The railroad station and three row houses built for dairy workers circa 1900 have been restored.

Port Murray Village Architecture

Port Murray Railroad Station

Waterloo Village

This 400-acre National Register Historic Site is located just north of Hackettstown in Allamuchy Mountain State Park was previously managed by the Waterloo Foundation for the Arts as part of a lease agreement with the State of New

Lenni Lenape Longhouse at Waterloo Village from Waterloo Village website

Jersey. The site includes three main areas of interest:

- A 19th century town associated with the Morris Canal consisting of a general store, gristmill, blacksmith shop and Victorian homes in addition to remnants of a lock and inclined plane. The Canal Society of New Jersey formerly operated a museum at this site and still hosts an annual Canal Days Festival each June.
- A primitive farm house (relocated from another site) and livestock area.
- A re-creation of a Lenni Lenape village with longhouses, wigwams, artifacts and a simulated archaeological dig.

Educational programs taught visitors about life on the Morris Canal, the daily activities on an early New Jersey farm and the culture of the Lenni Lenape Indians. Special events were provided every weekend from May through October and included: Demonstrations on weaving, sheep shearing and horse care; historic games; wine and beer festivals; Flag Day, 4th of July and other holiday celebrations, knitting and quilting workshops; antique fairs and arts carnivals; planting and harvest activities; and music and dance performances. If a new operator for this site can be obtained, it is possible that these attractions can once again be open to the public.

Valley View Historic District

Valley View Historic District (SHPO)

Although Thomas Edison's New Village concrete plant was never financially successful, it did give Warren County a number of interesting historic resources, including a unique neighborhood of concrete houses. Built for workers at the nearby Ingersoll-Rand Industrial Plant in Phillipsburg, this residential complex represents one of the few existing examples of this unusual architectural innovation. Now named the Valley View Historic District the neighborhood has recently undergone a restoration effort.

Scenic Resources

Many of the nearby resources feature scenic qualities in addition to their value as historic, natural, or recreational destinations. A notable example is Point Mountain described later on under natural and recreational resources.

View of Route 57 Scenic Byway Corridor from Point Mountain Overlook

Cultural Resources

Centenary College (Seay Hall, NR, SR)

Chartered by the New Jersey legislature in 1867, Centenary College was originally established in Hackettstown as a preparatory school for men and women in association with the Methodist Church. The college opened in 1874 and it became the first such institution in New Jersey to offer degrees to women. In 1976, the college began offering four-year degrees and in 1988 became a co-educational institution. The Edward W. Administration Building (also known as Seay Hall) was built in 1901 and is listed on the National Register for Historic Places. "The three-story building is iron framed and is an example of Beaux Arts Classicism. On either side are two dormitories in the Italian Renaissance style. There is a chapel on the second floor and large formal front parlors on the first floor."[1]

Centenary Stage Company

Centenary College in Hackettstown is home to the Centenary Stage Company, a separate non-profit professional equity organization. The new 500-seat Lackland Performing Arts Center offers drama, dance and musical performances open to the public. The company's special programs include a women playwrights project, young performer workshops,

Performance at Centenary Stage Company in Hackettstown

open-captioned performances to serve disabled patrons, lunch buffet matinees, a talk-back program with the cast and staff, a jazz series and theatre trips abroad.

Warren County Farmers' Fair

The largest area event is the Warren County Farmers' Fair and Balloon Festival which draws 35,000 to 40,000 visitors each year. Held annually in nearby Harmony Township, the fair is one of the few remaining authentic agricultural fairs in Northern New Jersey. The fair began as a gathering of farmers, mechanics, and manufacturers in 1859 and became the Warren County Farmer's Fair in 1937. Today, this week-long event held each July features livestock exhibits, antique car and tractor shows, exhibits of traditional arts and handicrafts, children's activities, carnival rides, music, truck/tractor pulls and demolition derbies.

Natural and Recreational Resources

Several natural and recreational resources located just off-corridor or in nearby communities add to the richness of the byway area and could be valuable side trips for interested byway visitors.

Allamuchy Natural Area

Approximately 2,400 acres of Allamuchy Mountain State Park have been set aside as a natural area consisting of northern marshlands, successional fields, and forests of mixed oak hardwoods, hemlock-spruce, and swamps. Fifteen miles of trails provide access to the natural areas for wildlife observation and fishing.

Meadow Breeze Park

Cataract Park

Cataract Park, located in Washington Township, overlooks Route 57 and is accessible on foot from Newbury Road (opposite the Mansfield shopping center).

Fairway Valley Golf Club

Fairway Valley is located in a beautiful country setting in "The Valley of the Hawk" in Washington. This nine-hole, public course offers a challenge to golfers of all skill levels.

Fairway Valley Golf Club

Griffith Woods Natural Area

This natural area is located at the northeastern edge of Lake Marguerite Wildlife Refuge. A 44-acre park, it was founded in 1998 through a land donation of the Griffith family. The park contains hiking trails through wooded and rocky terrain, connecting to the adjacent wildlife refuge.

Lake Marguerite Wildlife Refuge

Established in 1981 and located on 22 acres in Washington Township, the wildlife refuge is a short drive northeast of the Jonestown Road and Brass Castle Road intersection. An annual children's fishing derby sponsored by the Junior Women's Club are held at the refuge each spring. Open fields, woodlands, a small pond, streams, and hiking trails can be found at Lake Marguerite Wildlife Refuge.

Mansfield Recreation Park

This park is located on Port Murray Road, behind the Mansfield Elementary School and just off Route 57 in Port Murray. This small community park provides tennis, basketball, soccer, baseball and softball facilities, and plenty of parking. A walking/running path encompasses the grounds while a small, enclosed facility is centered within the park.

Meadow Breeze Park

A community park located in Washington, Meadow Breeze Park provides soccer, softball, and baseball fields in addition to volleyball and basketball courts. Ample parking is available in a variety of locations and picnic pavilions and restrooms are located near the Meadow Breeze Lane entrance. Set in the rolling hills of the Musconetcong Valley, the park provides a great location for a picnic lunch or strolls along its

perimeter trail. The park contains ¼ mile-long stretch of the Morris Canal and towpath.

Merrill Creek Reservoir

In the process of creating a 650-acre man-made reservoir to provide stored water for hydroelectric purposes, several power companies also preserved more than 2,200 surrounding acres of land including a portion of Scotts Mountain. The site is one of only two nesting areas for bald eagles in northern New Jersey and one of four hawk-watching sites in Warren County. This location holds the state record for the number of broadwing hawks seen in one day.

Opened in May 1989, the reservoir's purpose is to store water for release to the Delaware River during periods of low flow. The reservoir provides approximately 5 miles of shoreline for fishing, boating, wildlife observation, and environmental management. A visitor center provides exhibits and environmental programs for persons of all ages, while hiking trails allow access to the environmental preserve. Merrill Creek Reservoir has become an important research station as open spaces around the area become increasingly developed.

Minebrook Golf Club

Minebrook Golf Club

Built in 1919, Minebrook is now one of New Jersey's oldest golf clubs. It is located in Hackettstown, and it has evolved over time from the nine-hole Musconetcong Country Club to the eighteen-hole Hidden Hills Golf Club in the 1960s and finally to its present state. It is known as a well-designed course in a beautiful, natural setting.

Musconetcong River Resource Center

The River Resource Center is the home of the Musconetcong Watershed Association, a non-profit organization "dedicated to protecting and improving the quality of the Musconetcong River Watershed, including its natural and cultural resources, through community involvement in public education and awareness programs, water monitoring, and sustainable land management. With funding support from Warren County, the center has been constructed according to the U.S. Green Building Council Leadership in Energy and Environmental Design (LEED) Green Building Rating System to demonstrate new technologies including the use

of a composting toilet, geothermal/heat pump HVAC and sustainable architectural design and building materials. The site is intended to be "the starting point for hands-on watershed-based educational programs, field trips and recreational activities" in addition to serving as a "meeting place for hikers, paddlers, birders, artists, and fishermen." The Musconetcong Watershed Association sponsors a variety of events including the annual 4-mile "Run/Walk for the River" fundraiser which starts and ends in Asbury.

New Jersey Hot Air Balloon Festival

This event is conducted annually in association with the Warren County Farmers' Fair and includes daily mass balloon launches, free flights and tethered rides, weather permitting. Approximately 20 to 30 balloon pilots participate in this event. At other times of the year, travelers interested in taking a balloon ride can contact one of the local balloon companies to arrange for a trip.[4]

New York, Susquehanna and Western Technical and Historical Society

The New York, Susquehanna and Western Technical and Historical Society operates a steam train ride along the Delaware River from Phillipsburg to Carpentersville in conjunction with the New Jersey Transportation Heritage Center. The train features a 1989 2-8-2 Mikado type locomotive (one of the last made in the world) and 1950's-era commuter coaches from the Long Island Railroad.

Steam Train along the Delaware River operated by the New York, Susquehanna and Western Techincal and Historical Society

Pequest Wildlife Management Area

This 4,000 acre site includes river frontage, woodland, fields and farmland. The New Jersey Department of Environmental Protection Division of Fish and Wildlife operates two fish hatcheries from this location: the Pequest Trout Hatchery and the Charles O. Hayford State Fish Hatchery. The Pequest Hatchery rears 600,000 trout each year. The Natural Resource Education Center offers tours of the fish hatchery along with environmental education programs and interactive displays about local wildlife and geology.

Point Mountain, Musconetcong River Reservation

Located in Hunterdon County just across the Musconetcong River from Port Murray, Point Mountain is the fifth highest

point in Hunterdon County, rising more than 900 feet above sea level. The scenic overlook atop the mountain offers a "must see" expansive view of the Route 57 scenic byway corridor and surrounding landscape, in addition to being a great location from which to observe the annual hawk migration or even the occasional fox, coyote, or black bear.

This preserve consists of over 700 acres of parkland along the Musconetcong Mountain range and gorge, providing visitors with opportunities for mountain biking, fishing, horseback riding, canoeing, cross-country skiing, hiking, hunting, nature study and picnicking. Over four miles of trails provide year-round access to outdoor activities and excellent opportunities for birding and fly-fishing.

Roaring Rock Park

Roaring Rock is a 401-acre park located in Washington Township on Brass Castle-Harmony Road, 0.6 miles from the Route 647 intersection. The park consists of wooded areas for hiking, a pond with fishing access, and the Brass Castle Creek.

Rockport Pheasant Farm

Ring-necked Pheasant

The Rockport Pheasant Farm, a division of the New Jersey Division of Fish and Wildlife, is located on Rockport Road in Hackettstown. Here over 50,000 ring-necked pheasants are raised each year for sport hunting. The farm is open daily to the public from 7:30 AM to dusk. Pheasants, peacocks, and turkeys, in addition to whitetail deer, ducks, and geese can be observed at the farm. In the "Egg Room" visitors can watch some of the 160,000 eggs laid between March and July as they are disinfected, sorted and moved to incubators. Group orientations can be arranged and a scenic hiking loop around the breeder yards provides striking views of the valley.

YMCA Camp Bernie

In addition to traditional youth camping programs, this facility offers programs in horseback riding and mini-bike riding. Educational programs are provided 40 weeks out of the year in four subject areas: environment, recreation, living history and team building. Winterized cabins support group and family camping experiences in all seasons.

(Endnotes)

1 Warren County Environmental Resource Inventory. Warren County Environmental Commission. 52.

2 Warren County Environmental Resource Inventory. Warren County Environmental Commission. 59.

3 Image courtesy of Phillipsburg Railroad Historians, Inc. http://www.prrh.org/index.html.

4 New Jersey Hot Air Balloon Festival at http://www.balloonfestnj.com/

Appendix B:

Physical and Visual Survey Methodology

Appendix B: Physical and Visual Survey Methodology

Two separate driving tours were organized to evaluate the scenic resources of Route 57; one tour to create an inventory of physical features (a physical survey) and another tour to determine the visual quality (a visual survey) of the corridor. Each tour was conducted on a different day. Heritage Conservancy performed preliminary fieldwork to identify fifteen segments of Route 57 having similar visual characteristics, using road intersections or other physical features to mark the beginning and end of each segment.

Physical Survey

The physical survey for Route 57 Corridor was conducted in October 2006. A group of five people participated in the survey, scoring the north and south sides of the corridor separately. Various physical features were scored under the following five major categories as required by the New Jersey Scenic Byway Program:

Landforms:	Mountains, cliffs, hills, rolling terrain, flat terrain, valleys
Land cover (water):	Rivers streams and canals, waterfalls, lakes and ponds wetlands
Land cover (vegetation):	Woodlands, meadow or pasture, croplands, street trees, lawns
Land cover (manmade):	Industrial or commercial structures, institutional structures, agriculture structures, residential structures, parks, cemeteries or golf courses, historic features, meandering alignment, intersecting roadways, traffic volume, railroads, utility lines, towers, walls or fences, docks piers or marinas, bridges or roadway structures, parking lots, landfills or quarries, billboards or signage, junk graffiti or litter
Landscape composition and effects	Panoramic views - natural or manmade, focal point - natural and manmade, seasonal effects

The purpose of the physical survey was to identify landscape features in need of management and help determine how management activities should be prioritized. Participants were given a rating sheet to score the segments along with a handout explaining how to score the above listed attributes. A sample scoring sheet is attached at the end of this appendix as Figure B-1. All of the physical features identified in each segment were scored on a scale of -5 to +5, with -5 being the lowest possible score and +5 being the highest possible score. Negative values indicated the presence of features that detract from scenic value and should be addressed, while the positive values were associated with features that enhance the scenic experience of the segment.

Score results from the physical survey (on a scale of -5 to +5) were normalized on the scale of 1 to 5 (low to high). Average scores were calculated separately for the north and south sides of the highway and preserved for reference, in case there was a large difference between the two sides within a particular segment. The average of the combined scores for both sides of the road was calculated

to obtain the overall score for a particular segment. Scores ranging from 2.89-3.13 were categorized as low; 3.13-3.38 as medium and score range of 3.38-3.62 as high, since there were no scores below 2.89.

Broadway (Segment 5) scored highest followed by Woolf's farm (Segment 4). Anderson Point Mountain (Segment 11) and Musconetcong River Valley (Segment 12) scored fairly high. Washington Downtown (Segment 8) and Washington transition (Segment 9) scored the lowest. Broadway and Woolf's farm have diverse landforms like mountains and rolling terrain and offer panoramic views as one travels along this segment of the corridor. These segments score high in all physical features. Downtown Washington along with its transition zones are predominantly manmade/urban. These scenes lack many of the natural landform and land cover (water) characteristics included in the physical inventory process, resulting in a lower overall score for these segments. Similarly, Hackettstown (Segment 15) scored relatively low in the physical survey due to fewer natural physical features.

Visual Survey

The New Jersey Scenic Byways Program Manual states that "the visual survey is based on the premise that the overall pattern and availability of landscapes, historic features and recreation resources within the scenic byway are equally important as the road itself or any individual physical feature or set of features. Scenic natural or cultural features (such as agricultural lands, marshes, shorelines, and forests) exist most attractively in combinations that are coherent and harmonious. The visual survey complements the physical survey by ensuring that the landscape has an exceptional compositional merit, so that the route provides opportunities for an outstanding travel experience." Three "visual elements" are used to rate the quality of the views along a scenic byway: unity, intactness and vividness. A definition for each of these elements is provided below, based upon information in the New Jersey Scenic Byways Program Manual and the Palouse Scenic Byway Application Visual Analysis Discipline Report:

Unity: The degree to which the individual visual components of the landscape are assembled to form a coherent, appealing image. Unity refers to the degree of compatibility among the landscape elements and their compositional harmony.

Intactness: The integrity of visual order in the natural and man-made landscape and the extent to which the landscape is free from visual encroachment.

Vividness: The visual impression received from contrasting landscape elements as they combine to form a striking image with distinctive quality, resulting in a truly "memorable" experience.

A rating sheet was prepared for members of the Study Committee to assess each segment of Route 57 with regard to unity, intactness and vividness, included as Figure B-2. The rating sheet was accompanied by a handout explaining how unity, intactness and vividness can be scored on a scale of one to five, with one being the lowest possible score and five being the highest possible score. The handout was prepared based upon the Palouse Scenic Byway Application Visual Analysis Discipline

Report because it provided photographic examples of scenes from the State of Washington that were similar in nature to those encountered along Route 57.

Seven members of the Study Committee agreed to serve on a rating team to complete the visual survey. The rating sheet and associated handout were reviewed with the rating team prior to conducting the visual survey as part of a training session. The rating team was able to practice scoring scenery using the photographic examples from the State of Washington without being inappropriately influenced in advance by actual images of Route 57.

The visual survey was conducted in the morning on Saturday, April 18, 2009, under ideal spring weather conditions (sunny and warm). The north and south sides of Route 57 were evaluated separately. Average scores were calculated for both the north and south sides of the roadway. These results were preserved for reference in case there was a large difference between the north and south side scores within a particular segment. A combined average was computed to obtain the overall score for a particular road segment.

The overall scores were grouped, ranging from low to high, using the average score and the standard deviation. Any score below 1 standard deviation was categorized as low, within 1 deviation as medium, and over 1 deviation as high. Scores ranging from 0 to 2.6 were classified as low, 2.6 to 3.7 as medium, and 3.7 to 5 as high.

The visual survey results show that most of the scenery along Route 57 ranges from medium to high in value. The landscape at Woolf's Farm (Segment #4) and of the Musconetcong Valley from the Village of Anderson to Beattystown (Segments #12 and #13) received the highest scores. The transitions in and out of Washington Borough (Segments 7 and 9) and into Hackettstown (Segment #15) received the lowest scores.

The rating team was also asked to identify the most interesting features and most noticeable detractions within each segment. The findings provide insight into why certain segments received a higher evaluation than others. Scenes of the mountains, farms, woodlands, and streams were viewed favorably along with unique cultural and architectural features like a stone arch bridge, a church, a cemetery or a tank. Views of abandoned structures, parking lots, storage areas, cell towers, and signs were considered major detractions. Farmland preservation, screening of objectionable items, signage standards, façade design/preservation, and abandoned structure renovation/removal were the most frequently requested actions to improve the visual quality of Route 57.

The study committee members remarked that the alternating pattern of confined views in the small towns and more expansive views of farmland in the intervening rural areas creates an appealing rhythm to the scenery. Since there are no formally designated roadside viewing areas along Route 57, travelers experience this pattern as part of one continuous driving experience.

Combined Results:

An overall scenic rating of the corridor was developed by adding the score results from the visual and physical survey, as shown in Figure B-3. The results mirror the findings from the visual survey with the segments associated with Woolf's Farm, the Musconetcong River Valley and Hances Brook (Segments 4, 12 and 13) receiving the highest rating. These segments have the best combination and variety of compatible physical and visual features. The transition areas leading into and out of Washington Borough and Hackettown (Segments 7, 9 and 15) received the lowest ranking due to the presence of some detracting features and the lack of continuity among physical and visual elements. Sign clutter was a significant factor in the ranking of these segments. Although nine segments received a medium ranking, their attractive qualities should not go unappreciated. Future efforts to preserve and enhance the existing scenery along Route 57 should recognize the contribution that each segment makes to the overall travel experience and give equal attention to protecting scenic attributes and remediating eyesores wherever they occur along Route 57.

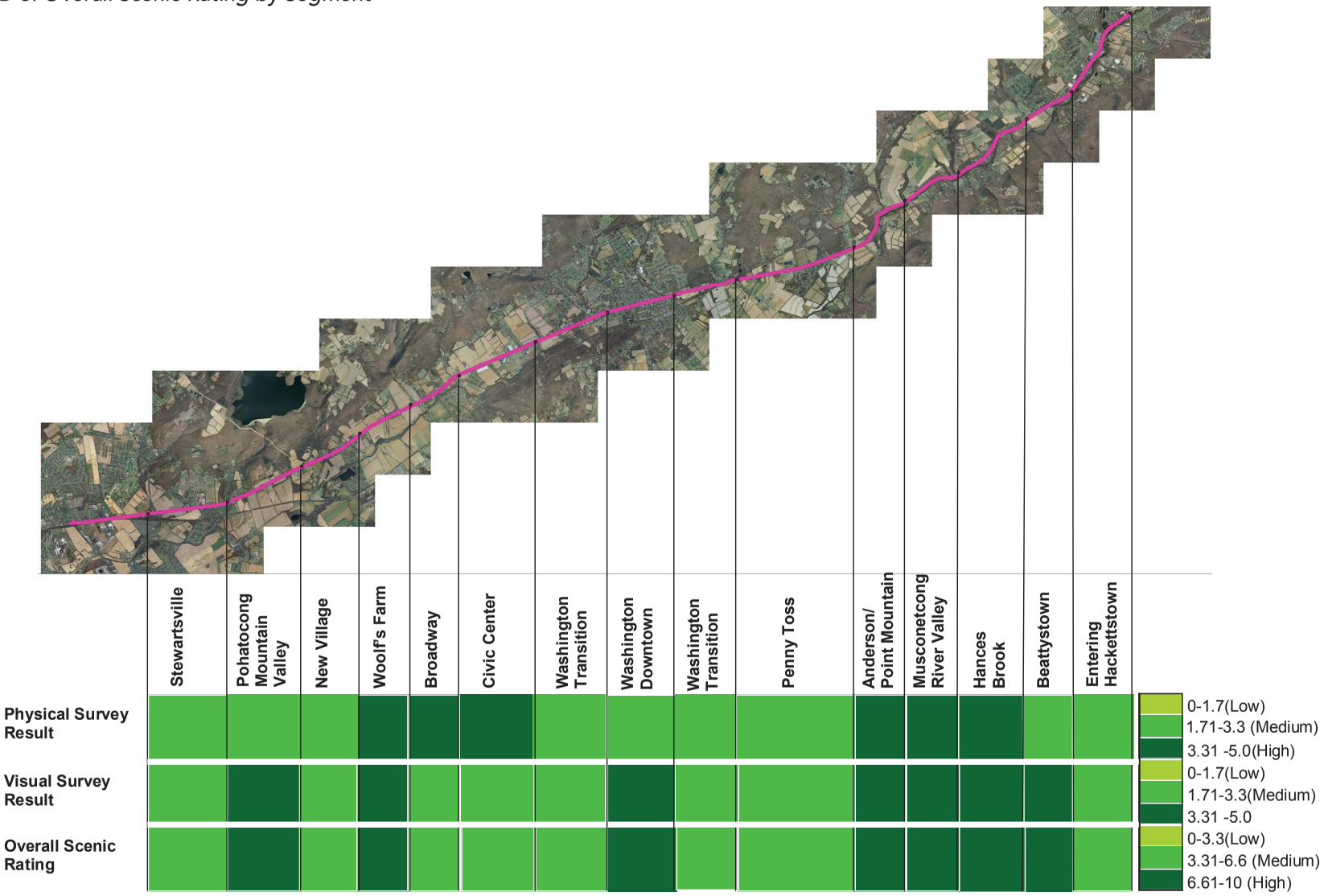
Figure B-1: Sample Physical Survey Scoring Card

Municipality																							
Posted Speed																							
	Milepost												Milepost										
	Visual Significance												Visual Significance										
	-5	-4	-3	-2	-1	0	1	2	3	4	5		-5	-4	-3	-2	-1	0	1	2	3	4	5
Landform																							
Mountains																							
Cliffs																							
Hills																							
Rolling Terrain																							
Flat Terrain																							
Valleys																							
Land Cover - Water																							
Rivers, Streams, and Canals																							
Waterfalls																							
Lakes and Ponds																							
Wetlands																							
Land Cover - Vegetation																							
Woodlands																							
Meadow or Pasture																							
Croplands																							
Street Trees																							
Lawns																							
Land Cover - Manmade																							
Industrial or Commercial Structures																							
Institutional Structures																							
Agricultural Structures																							
Residential Structures																							
Parks, Cemeteries, or Golf Courses																							
Historic Features																							
Meandering Alignment																							
Intersecting Roadways																							
Traffic Volume																							
Railroads																							
Utility Lines																							
Towers																							
Walls or Fences																							
Docks, Piers or Marinas																							
Bridges or Roadway Structures																							
Parking Lots																							
Landfills or Quarries																							
Billboards or Signage																							
Junk, Graffiti or Litter																							
Landscape Composition and Effects																							
Panoramic Views - Natural or Skyline																							
Focal Point - Natural and Manmade																							
Seasonal Effects																							

Figure B-2: Sample Visual Survey Rating Sheet

Segment	1	2	3	4	5
Average	☐	☐	☐	☐	☐
Unity	5 ☐ 4 ☐ 3 ☐ 2 ☐ 1 ☐	5 ☐ 4 ☐ 3 ☐ 2 ☐ 1 ☐	5 ☐ 4 ☐ 3 ☐ 2 ☐ 1 ☐	5 ☐ 4 ☐ 3 ☐ 2 ☐ 1 ☐	5 ☐ 4 ☐ 3 ☐ 2 ☐ 1 ☐
Intactness	5 ☐ 4 ☐ 3 ☐ 2 ☐ 1 ☐	5 ☐ 4 ☐ 3 ☐ 2 ☐ 1 ☐	5 ☐ 4 ☐ 3 ☐ 2 ☐ 1 ☐	5 ☐ 4 ☐ 3 ☐ 2 ☐ 1 ☐	5 ☐ 4 ☐ 3 ☐ 2 ☐ 1 ☐
Vividness	5 ☐ 4 ☐ 3 ☐ 2 ☐ 1 ☐	5 ☐ 4 ☐ 3 ☐ 2 ☐ 1 ☐	5 ☐ 4 ☐ 3 ☐ 2 ☐ 1 ☐	5 ☐ 4 ☐ 3 ☐ 2 ☐ 1 ☐	5 ☐ 4 ☐ 3 ☐ 2 ☐ 1 ☐

Figure B-3: Overall Scenic Rating by Segment



Appendix C:

Signage and Visual Clutter Assessment

Appendix D:

Institutional Survey

Appendix D: Institutional Survey

As part of the Corridor Management Plan, an institutional survey of byway jurisdictions and stakeholder organizations was conducted from December 2009 – February 2010. The purpose of the survey was three-fold: to better understand each agency's interests, to learn about their plans and policies that relate to the byway, and to identify any resources that these organizations might be able to contribute to the implementation of the Plan. Two slightly different versions of the survey were distributed, one for agencies and the other for municipalities.

Completed surveys were received from the Warren County Convention and Visitors Bureau, the Warren County Economic Development Corporation, Warren County Planning Department, the Warren County Regional Chamber of Commerce, the Canal Society of New Jersey, the Morris Canal Committee, the NJDEP Division of Fish and Wildlife, Heritage Conservancy, and Mansfield Township.

Related Initiatives, Plans and Policies

The survey began by asking whether the agencies had any initiatives underway that might affect Route 57 and the surrounding landscape. A related question asked about existing or proposed plans, policies, regulations or other land stewardship controls in place to maintain, enhance, or protect intrinsic resources along Route 57. Responses included the following:

- **Morris Canal Greenway.** This initiative is a partnership of the Warren County Morris Canal Committee, the Canal Society of New Jersey, and other groups to establish a greenway along the historic corridor of the Morris Canal. The Greenway concept incorporates elements of scenic, natural, archaeological, historic and recreational resources. The following activities are planned or underway to help maintain, enhance or protect these resources:
    - A 25-year Action Plan is currently being prepared for the Greenway, which will help define the resource commitment needed to develop the Morris Canal corridor.
    - The County has acquired approximately one-third of the canal right-of-way across the county, thus placing it in public ownership. The County has also enacted development standards to protect the Canal.
    - The Morris Canal Committee performs continuing maintenance of the property, clearing trees and vegetation from the canal prism and towpath, which contributes to maintaining this scenic resource.
    - Efforts are underway to preserve Inclined Plane 9W. Plans are being developed to excavate fill from the newly acquired Plane 10W in Phillipsburg; the original turbine is believed to be under the stone. In addition, the Canal Society hopes to encourage preservation of the former home of Captain Campbell, an African-American canal boat owner and operator.
    - An attempt is being made to divert Lopatcong Stream away from the Canal to preserve the integrity of the stream from clay and coal deposits in the canal prism and towpath.

  - Efforts are also being made to promote hiking along the canal from Phillipsburg to Plane 9W and to explore additional hiking along the canal through Franklin Township to Mansfield and beyond.

- **Bread Lock Museum and Lock Park** – being actively developed by the Morris Canal Committee and partner organizations
- **Musconetcong River Management Plan** – for the Wild and Scenic River, being implemented under the leadership of the Musconetcong River Management Council.
- **Heritage Conservancy's Musconetcong Watershed Lasting Landscapes initiative** – this initiative unites open space protection and historic preservation at the "landscape level." It involves a five-step process, called ACRES, that uses a combination of analysis, community-based planning, resource protection, environmental management and sustainability nurturing efforts to preserve a critical mass of natural and historic resources within a large region.
- **Cliffdale Center** – the Heritage Conservancy's Cliffdale Center preserves a portion of the Musconetcong Riverfront, a natural resource, as well as providing fishing and paddling opportunities for the public, a recreational resource.
- **Fishing Access** on the Musconetcong Watershed Management Area – the NJDEP has plans for parking area improvements at fishing access points.

Historic Structures and Properties

The survey requested information on historic sites owned or controlled by agencies or, in the case of municipalities, historic sites and districts identified and registered in the municipality. The following properties were mentioned:

- The Morris Canal properties that have been publicly acquired are owned by Warren County.
- In Mansfield Township, Port Murray, Beattystown, Fritz's Farm and Cemetery are registered; the Anderson Hotel is not. Mansfield does not have a Historic Commission, however the Environmental Commission is responsible for the upkeep of any historic properties that may be owned by the Township, such as the historic One-Room Schoolhouse.
- NJDEP Division of Fish & Wildlife mentioned an historic mill in Lebanon Township, south of Musconetcong River off River Road.

Special Images of Route 57 and its Surroundings

Agencies and jurisdictions were asked whether Route 57 and the surrounding landscape have a special image within each jurisdiction or service area. Responses included:

- Canal Society of New Jersey - The historic and scenic values and general cultural landscape of agricultural land and historic communities along the Route 57 corridor, especially in

the locales of the Morris Canal site, are important contributors to the character and charm of the Morris Canal Greenway and serve as the cultural context of the canal corridor.

- Warren County Planning Department - The mix of the rural landscape can give the Morris Canal visitor a sense of what the area looked like when the canal was operating.
- Mansfield Township – Musconetcong River, Point Mountain View and the shopping district that is designed to enhance and fit into the landscape.
- Morris Canal Committee – Much of the Morris Canal preceded both railway, trolley lines and Route 57. It provided the blueprint for transportation facilities following in the twilight of its 100 years of service.
- Heritage Conservancy – The most dramatic views occur along the Edison Concrete Mile in Franklin Township and from the top of Point Mountain. However, the alternating pattern of broad valley/mountain views and narrow downtown streetscapes are very appealing in their contrast. We are concerned that these views may be lost over time if steps are not taken to coordinate future development in a way that complements these unique views.
- NJDEP Division of Fish & Wildlife – Route 57 is special because of its proximity to the Musconetcong River.

Special Features to Promote or Improve

Additional questions asked about special features along the byway within each jurisdiction or agency service area that should be promoted or improved. Responses included:

- Features to Promote:
    - Warren County Convention & Visitors Bureau – Break Lock Park
    - Canal Society of New Jersey - The Morris Canal sites are of primary importance to the Canal Society but also of great importance are preservation of the surrounding cultural landscape and viewsheds.
    - Warren County Planning Department - Morris Canal facilities could be better promoted for bird watching, hiking, archaeological and historical tourism purposes.
    - Mansfield Township – Fishing, proposed walking trail, Fritz's cemetery, canal bed.
    - Morris Canal Committee – The Port Colden and Port Murray locks, boats basin, and canal towpath all hold potential for significant future development.
    - Heritage Conservancy - Efforts should focus on promoting the local history (especially the Morris Canal and Edison Concrete Mile), the recreational opportunities associated with water resources (especially the Musconetcong River and Merrill Creek reservoir) and local agriculture (in connection with the Warren County Fair and agritourism sites).
    - NJDEP Division of Fish & Wildlife - Several access points to the Musconetcong River on or just off of Route 57

- Features to Improve:
    - The Canal Society would wish to see the Morris Canal corridor made accessible to the public for historic interpretation and recreational purposes.
    - Warren County Planning Department - Where determined in the 25 year Action Plan, Morris Canal facilities may be upgraded for hiking, biking and walking facilities.

- Mansfield Township – Fishing locations, bird watching, hiking.
- Heritage Conservancy – there are a variety of significant resources along Route 57 which could be improved to support economic development and the quality of life in the area. The most important resource to enhance would be the Morris Canal and its related structures, as it could serve as the spine for sharing the rich history of the area with residents and visitors alike.
- NJDEP Division of Fish & Wildlife – NJDOT-owned land in Mansfield Township, just north of Penwell, could be improved for parking for access to the river. Fish and Wildlife land on Route 57 in Mansfield near Hazen Road/Watters Road is another location where parking could be improved.

Support for Economic Development

The survey asked about current efforts to promote or support economic development activities, as well as any manpower, financial or other resources available to help coordinate and/or implement economic development activities to enhance the byway. Responses included the following:

- Warren County Regional Chamber of Commerce provides support for economic development and tourism. The Warren County Economic Development Corporation is one of four agencies of the Chamber of Commerce. The Economic Development Corporation works to enhance and build the economic structure of Warren County. It provides assistance to businesses to relocate and/or remain in Warren County and provides information and consulting to the business community.
- The Canal Society of New Jersey offers expertise regarding the history, significance and interpretation possibilities for the Morris Canal Greenway. They have assisted in the past in development of recreational trails along the canal corridor in other locations and in the development of interpretive signage.
- Morris Canal Committee is composed of volunteer resources with technical/administrative staff support from the Warren County Department of Land Preservation and the Warren County Planning Department.
- Mansfield Township has an active Economic Development Committee that works with the County Economic Development Corporation. The Township has an Open Space, Farmland Preservation, Recreation, and Historic Preservation tax.
- Heritage Conservancy supports economic development by assisting landowners and communities in understanding the economic benefits associated with natural resource protection and historic preservation; taking steps and adopting policies to protect these resources, and adaptively reusing historic buildings. They offer personnel and limited financial capacity to support local stakeholders in their efforts to promote the kind of economic development that can be derived from the conservation and sustainable use of natural and historic resources.

NJDEP Division of Fish & Wildlife recognizes that there are great economic spin-offs from trout fishing. They promote trout fishing in the spring through advertising on their website, radio and direct mail. They offer the ability to cross-promote through their state website: www.njfishandwildlife.com.

Support for Activities of Interest to Visitors/Tourists

Additional questions addressed current efforts to provide or promote activities of interest to visitors and resources available to help coordinate or implement activities to support byway visitation. Responses included the following:

- Warren County Convention & Visitors Bureau (one of four agencies of the Warren County Regional Chamber of Commerce) promotes historic locations and tourism areas. Examples of events the Bureau promotes and operates include the North Warren Fourth of July Spirit of Americana Celebration, Phillipsburg Motor Madness Car Show, Hallowfest Parade, and Warren County Classic Car Show.
- The Warren County Regional Chamber of Commerce holds large events like the Spring Festival throughout the community.
- The Canal Society of New Jersey helps to promote heritage tourism associated with the Morris Canal Greenway. It offers public tours and historic interpretation of Morris Canal sites.
- The Warren County Morris Canal Committee promotes and runs a semi-annual tour of the Morris Canal from Phillipsburg to Saxton Falls. Every tour has been fully booked months in advance for the last several years. The Morris Canal museums are open to the public on the first Sunday of each month from spring to fall.
- Morris Canal Committee has proposed identifying all businesses within a 1,500 ft. corridor centered on the canal path, which would allow these to be promoted as places to stop for food, rest, or shopping while hiking, cycling and exploring sites. The Morris Canal Bank printed its own currency, which might be revived as a promotional tool for "Canal Days" discounts.
- Heritage Conservancy recently acquired the Cliffdale Center, with frontage on both Route 57 and the Musconetcong River, with assistance from Warren County. They have already collaborated with the Musconetcong Watershed Association and Trout Unlimited to improve river access on their property for fishing and paddling activities, and will continue to provide new and improved activities. The Cliffdale Center building is currently being renovated to provide restaurant facilities that can be used by travelers.
- NJDEP Division of Fish & Wildlife – Trout season is huge – April, May and October are big months for visitors and residents to trout fish on the Musconetcong.
- Resources available to help support byway visitation include:
    - Warren County Convention & Visitors Bureau – has a website that promotes events and tourism locations, creates a tourism magazine for Warren County, and sends a weekly e-newsletter to over 1200 people.
    - Canal Society of New Jersey could help with periodic public tours and interpretation of the Morris Canal corridor, in collaboration with the Warren County Morris Canal Committee. The Society has been a support of the Morris Canal Committee over the past few decades and would be happy to continue in that capacity to support the promotion of the Morris Canal Greenway within Warren County.
    - Morris Canal Committee has assigned one member to assume Scenic byway responsibilities.
    - Heritage Conservancy has personnel and limited financial capacity to help local stakeholders implement the recommendations of the Corridor Management Plan on a continuing basis, particularly those recommendations related to the conservation and sustainable use of natural and historic resources which are in keeping with the

organization's mission. Their experience in providing technical assistance to the Delaware & Lehigh Canal National Heritage Corridor would be useful in this effort, since the goals of the Corridor Management Plan are similar to those of a heritage corridor.

Other Comments

- Morris Canal Committee – We believe the Morris Canal in Warren County is a signature recreational and historic facility. The Freeholders have strongly endorsed any efforts to acquire additional former canal properties, preserve and restore historic sites and artifacts, and promote the Canal for the enjoyment of all.
- Mansfield Township support the scenic byway efforts, but does not want to place restrictions that would hurt their residents.

Appendix E:

Crash Analysis

Appendix E: Crash Analysis – Overrepresented Crash Types by Roadway Segment

The following information is based on an analysis of NJDOT crash data for Route 57 for the years 2003-2005.

MP 2.00 – MP 2.84
Lopatcong/Greenwich Township Line to east of Lows Hollow Road (Coopersville)
Greenwich Township

This segment of Route 57 runs through the northernmost portion of Greenwich Township, where land uses are agricultural, older suburban residential (with a recently built low-density subdivision located off the mainline in Stewartsville), and intermittent light industrial. This segment contains one signalized intersection at Liberty Road/N. Main Street (CR 637, which leads to Uniontown Road and Stewartsville), as well as several unsignalized T-intersections with local roads leading to an older residential neighborhood. Between 2003 and 2005, 47 crashes occurred in this segment, which has a crash rate of 4.10 (4 percent lower than the 2005 statewide average of 4.27 crashes/mvm for this cross-section type). Overrepresented crash types include same-direction rear end, left turn, fixed object, and animal. Collisions with deer (spread evenly throughout the segment) are nearly five (5) times greater in this segment than the 2005 statewide average. Same-direction rear end crashes are prevalent at all intersections in the segment, while left turn crashes (more than double the 2005 statewide average) are mainly confined to the Liberty Road/N. Main Street intersection. Fixed object crashes are distributed fairly evenly.

MP 2.84 – MP 2.94
East of Lows Hollow Road (Coopersville) to stream culvert
Greenwich Township and Franklin Township

This segment of Route 57 runs through portions of Greenwich and Franklin Townships with many farms and open spaces. Only Richline Road intersects the mainline; this intersection is unsignalized. Between 2003 and 2005, twenty-six (26) crashes occurred in this segment, which has a crash rate of 1.86 (37.2 percent lower than the 2005 statewide average of 2.96 crashes/mvm for this cross-section type). Overrepresented crash types include left turn, head on, fixed object, and animal. Animal crashes are the most common crash type in this segment (eight occurred between 2003 and 2005); collisions with animals are five (5) times greater in this segment than the statewide average for that crash type.

MP 3.94 – MP 5.18
Stream culvert to south of Pohatcong Creek
Franklin Township

This stretch of Route 57 runs through the New Village section of Franklin Township, where land uses are agricultural, older residential situated on smaller lots, and newer single-family residential located in a small subdivision off the mainline. This segment contains two unsignalized intersections:

Stewartsville Road and Edison Road. Between 2003 and 2005, thirty-nine (39) crashes occurred in this segment, which has a crash rate of 2.48 (41.9 percent lower than the 2005 statewide average of 4.27 crashes/mvm for this cross-section type). Overrepresented crash types include same direction-rear end, left turn, head on, and animal; they were distributed fairly evenly throughout the segment. The number of left turn, head on, and animal crashes (though small) was significantly greater than the 2005 statewide averages for those crash types.

MP 5.18 – MP 6.53
Pohatcong Creek to Millbrook/Asbury Road (CR 643)
Franklin Township

This segment runs between the New Village and Broadway sections of Franklin Township; land uses are mainly agricultural here. Two intersections (one signalized and one unsignalized, located at Millbrook/Asbury Road and Whites Road, respectively) fall within this segment of the corridor. Between 2003 and 2005, a total of twenty-six (26) crashes occurred in this segment, which has a crash rate of 1.52 (48.6 percent lower than the 2005 statewide average of 2.96 crashes/mvm for this cross-section type). Overrepresented crash types include left turn, head on, animal, and unknown/other; distribution of these crash types is fairly even throughout the segment. Collisions with deer are especially acute and eight (8) times greater in this segment than the 2005 statewide average.

MP 6.53 – MP 7.10
Millbrook/Asbury Road (CR 643) to stream culvert
Franklin Township

This 0.57-mile segment runs through the Broadway section of Franklin Township, a small rural-residential neighborhood with older houses and mobile homes situated on small lots. Several local roads (all dead-end) intersect the mainline at unsignalized T-intersections. Between 2003 and 2005, just twelve (12) crashes occurred in this segment, which has a crash rate of 1.13 (73.5 percent lower than the 2005 statewide average of 4.27 crashes/mvm). Overrepresented crash types include angle, pedestrian, and animal. Angle crashes, which are double the statewide average in this segment, cluster around the Millbrook Road and Franklin Street intersections. The lone pedestrian crash, which involved a pedestrian and a bicycle, occurred at MP 7.00, just south of Halfway House Road.

MP 7.10 – MP 8.37
Unidentified stream culvert to Franklin/Washington Township Line
Franklin Township

This 1.27-mile segment passes through a rural portion of Franklin Township. Land uses are principally agricultural, with a newer single-family residential area situated in a subdivision slightly off the mainline (on Copperfield Drive). Several local roads (all dead-end) and Halfway House Road connect with the mainline at unsignalized T-intersections. Between 2003 and 2005, twenty-five (25) crashes occurred along this segment, which has a crash rate of 1.03 crashes per million vehicle-miles (65.2 percent lower than the 2005 statewide average of 2.96 crashes/mvm). Overrepresented crash types include angle, head on, fixed object, animal, and parked vehicle. The number of head on crashes (two) is five times greater in this segment than the 2005 statewide average. Animal crashes (all collisions

with deer) are the most common crash type in this segment and nearly seven (7) times greater in this segment than the 2005 statewide average. Overrepresented crashes are distributed evenly throughout the segment, with most occurring away from intersections.

MP 8.37 – MP 9.28
Franklin/Washington Township Line to east of Pleasant Valley/Mill Pond Road
Washington Township

This 0.91-mile segment runs through the Pleasant Valley section of Washington Township; land uses are mainly agricultural, with some light industrial, low-density residential, and institutional uses (the Warren County Community College and Warren County Vocational Technical School are located just south of Little Philadelphia Road). Little Philadelphia Road, Buttermilk Bridge Road, and Pleasant Valley/Mill Pond Road all connect with the mainline at unsignalized intersections. Twenty-two (22) crashes occurred along this segment between 2003 and 2005. The actual crash rate for this segment, 1.27 crashes/mvm, is 70.3 percent less than statewide average of 4.27 crashes/mvm. Overrepresented crash types include angle, left turn, overturned, animal, and parked vehicle. The incidence of animal crashes (all of them collisions with deer) in this segment is eight (8) times greater than the 2005 statewide average for that crash type. Overrepresented crashes are distributed evenly throughout the segment, with most occurring away from intersections.

MP 9.28 – MP 9.73
Pleasant Valley/Mill Pond Road to Brass Castle Road (CR 623)
Washington Township

This 0.45-mile segment runs through a more built-up section of Washington Township (Pleasant Valley), where land uses consist of retail-commercial (a small shopping center), low-density residential (along Pleasant Valley Road), and woods/open space. Two roads intersect the mainline segment; these include Pleasant Valley/Mill Pond Road (unsignalized) and Brass Castle Road (CR 623) (signalized). Brass Castle Road provides access to a newer suburban residential neighborhood just north of the mainline. Between 2003 and 2005, seven (7) crashes occurred in this segment, which has a crash rate of 0.82 crashes per million vehicle-miles (below the statewide average of 2.96 crashes/mvm for this cross-section type). Overrepresented crash types include angle, left turn, and animal, with most of these occurring away from intersections. The incidence of animal crashes (all of them collisions with deer) in this segment is fifteen times (15) greater than the 2005 statewide average for that crash type.

MP 9.73 – MP 10.15
Brass Castle Road (CR 623) to Shabbecong Creek
Washington Township & Washington Borough

This 0.42-mile segment runs through a small portion of Washington Township and the western portion of Washington Borough. Land uses along the segment are diverse, with retail-commercial, light industrial, and medium-density single-family residential. Several local roads (all of them dead-end) provide access to various residential clusters located off the mainline; each of these T-intersections is unsignalized. Between 2003 and 2005, twenty-two (22) crashes occurred along this segment, which has a crash rate of 2.75 crashes per million vehicle-miles (below the statewide average of 4.27 crashes/

mvm for this cross-section type). Overrepresented crash types include same direction-rear end, left turn, and pedestrian. The most common overrepresented crash type is same direction-rear end (15 occurred), with the majority of these happening at or near Brass Castle Road and Christine Place. A single pedestrian crash involving a left turning vehicle occurred at Christine Place.

MP 10.15 – MP 10.41
Shabbecong Creek to Grand Avenue
Washington Borough

This 0.26-mile segment runs through a medium-density residential neighborhood in the western/central portion of Washington Borough (a large multi-family garden apartment complex on Ramapo Way also adjoins segment); light industrial land uses are located near the Prospect Avenue intersection. Several local roads, all of them connecting with the mainline at unsignalized intersections, lead to/from these residential areas. One intersection, at Prospect Street, is an unsignalized cross intersection. Between 2003 and 2005, nineteen (19) crashes occurred along this segment, which has a crash rate of 3.84 (30 percent greater than the statewide average of 2.96 crashes/mvm for this cross-section type). Overrepresented crash types include same direction-rear end, angle, left turn, and unknown/other. The most common overrepresented crash type is same direction-rear end (12 occurred), with a particularly high incidence at Ramapo Way. The incidence of same-direction rear-end crashes in this segment is 40 percent greater than the 2005 statewide average.

MP 10.41 – MP 11.19
Grand Avenue to Prosper Way
Washington Borough

This 0.78-mile segment runs through the downtown portion of Washington Borough. Land uses in this segment are a mix of retail-commercial and medium-density residential. Three signalized intersections, including a major junction with Route 31, fall within this segment; there are several unsignalized intersections as well. Between 2003 and 2005, eighty-eight (88) crashes occurred in this segment, which has a crash rate of 6.52 (53 percent greater than the statewide average of 4.27 crashes/mvm for this cross-section type and *the highest in the corridor*). Overrepresented crash types include angle, left turn, pedestrian, parked vehicle, and unknown. Angle and left turn crashes cluster around the Route 31 intersection. Collisions with parked vehicles are most common in western end of the downtown area between Wandling and Lincoln Avenues and nearly five (5) times greater in this segment than the 2005 statewide average. All four pedestrian crashes are confined to two intersections: Lincoln Avenue and Belvidere Avenue/Broad Street. The incidence of pedestrian crashes in the segment is almost six (6) times greater than the 2005 statewide average for that crash type.

MP 11.19 – MP 12.67
Prosper Way to Washington/Mansfield Township Line
Washington Borough & Washington Township

This 1.48-mile segment passes through the easternmost part of Washington Borough and the Port Colden section of Washington Township. Land uses in this segment consist of light industrial, wooded open space, and agricultural. This segment has several unsignalized intersections with collector and

minor arterial roads. Between 2003 and 2005, thirty-two crashes (32) occurred in this segment, which has a crash rate of 1.56 (below the statewide average of 2.96 crashes/mvm for this cross-section type). Overrepresented crash types include angle, left turn, head on, and animal. Like other rural sections of the corridor, the incidence of animal crashes is much higher—12 times greater—than the statewide average for that crash type. Animal crashes (all of them collisions with deer) account for more than one-third of all crashes in this segment, and gravitate toward the more open eastern end of the segment (near the Mansfield Township Line).

MP 12.67 – MP 14.39
Washington/Mansfield Township Line to Port Murray Road (CR 629)
Mansfield Township

This 1.72 -mile segment runs between the Washington/Mansfield Township Line and the Anderson section of Mansfield Township, a small village-like cluster of older single-family dwellings. Land uses in this segment consist of light industrial, wooded open space, agricultural, religious, and one-family residential. Several unsignalized intersections with local roads, collectors, and minor arterial roads, including a junction with a county road (Anderson Road/CR 632), fall within this section. There is one signalized intersection at Port Murray Road (CR 629). Between 2003 and 2005, forty-nine (49) crashes—including one fatal crash at Anderson Road—occurred in this segment, which has a crash rate of 2.38 (below the statewide average of 4.27 crashes/mvm for this cross-section type). The fatal crash at Anderson Road (which intersects Route 57 at an angle) was a left turn crash, which occurred when a vehicle passing westbound on the mainline struck a vehicle attempting to turn left onto Anderson Road. Overrepresented crash types include overturned, pedestrian, and animal. The lone pedestrian crash occurred near Komar Road, a cut-through between Anderson Road and Route 57. Sixteen animal crashes (all of them collisions with deer) account for nearly one-third of all crashes in this segment and are scattered throughout the corridor. The incidence on animal crashes in this segment is nearly twelve (12) times greater than the statewide average for that crash type.

MP 14.39 – MP 14.95
Port Murray Road (CR 629) to east of Penwell Road
Mansfield Township

This 0.59-mile segment runs through the Penwell section of Mansfield Township. Land uses in this segment are mainly agricultural, although a large tract is dedicated to the Mansfield Elementary School and Recreational Park. Penwell Road and an access road to the elementary school connect with the mainline segment at unsignalized intersections. Between 2003 and 2005, 20 crashes occurred in this segment, which has a crash rate of 2.26 (below the statewide average of 4.38 crashes/mvm for this cross-section type). Overrepresented crash types include angle, left turn, head on, pedestrian, and animal; these crash types are generally scattered throughout the segment. The number of animal crashes (five) is almost nine (9) times greater than the statewide average for that crash type.

MP 14.95 – MP 18.44
East of Penwell Road to west of Hazen Road
Mansfield Township

This curvy 3.49-mile segment—the longest in the Route 57 corridor—runs through the Cliffside Park and Stephensburg sections of Mansfield Township and alongside the Musconetcong River for much of its length. Land uses in this segment include wooded open space and agricultural, with some low-density residential and light industrial in the two villages. Several collectors and one minor arterial (Stephensburg Road) connect with the mainline segment at unsignalized intersections. Seventy-four (74) crashes occurred in this segment between 2003 and 2005. However, the crash rate was 1.34, significantly less than the statewide average of 4.27 crashes/mvm for this cross-section type. Overrepresented crash types include head on (one of which was fatal), fixed object, and animal. Head-on crashes (six of them occurred) are generally clustered between Penwell Road and Watters Road, and between Old Turnpike Road and Flowers Avenue. The number of head on crashes is nearly six (6) times greater than the statewide average for that crash type. Fixed object crashes are scattered throughout the segment. Like other rural sections of the corridor, the incidence of animal crashes is much higher (15 times greater) than the statewide average for that crash type. Animal crashes account for 43 percent of all crashes in this segment, with a somewhat greater incidence in the western end of the segment.

MP 18.44 – MP 18.94
West of Hazen Road to Brantwood Terrace
Mansfield Township

This 0.50-mile segment runs through a portion of Mansfield Township with a mixture of suburban-residential and agricultural uses. Two unsignalized roads, Hazen Road and a Claremont Road, connect with the mainline segment. Between 2003 and 2005, eight (8) crashes occurred in this segment. The crash rate per million vehicle-miles is 1.01 (less than the statewide average of 2.96 crashes/mvm for this cross-section type). Overrepresented crash types include angle, fixed object, and animal. Angle crashes, which account for 25 percent of all crashes in this segment, are clustered between Hazen Road and Claremont Road; the number of angle crashes is three (3) times greater in this segment than the statewide average for that crash type. The number of animal crashes is nearly nine (9) times greater in this segment than the statewide average for that crash type.

MP 18.94 – MP 19.35
Brantwood Terrace to Airport Road
Mansfield Township

This 0.41-mile segment passes through a lower density suburban-residential area. Brantwood Terrace, a local road which provides access to a single-family residential subdivision, and Kings Highway connect with the mainline segment. Between 2003 and 2005, sixteen (16) crashes occurred in this segment, which has a crash rate of 2.47 crashes per million vehicle-miles (less than the statewide average of 4.27 crashes/mvm for this cross-section type). Overrepresented crash types include same direction-rear end, angle, fixed object, animal, and unknown/other. Eight same-direction rear end crashes account for 45 percent of all crashes in this segment and are clustered between the Kings Highway and Airport Road intersections. The number of animal crashes is four (4) times greater in this segment than the statewide average for that crash type.

MP 19.35 – MP 20.54
Airport Road to Trout Brook (Mansfield Township/Hackettstown Town Line)
Mansfield Township

This 1.19-mile segment runs through the easternmost portion of Mansfield Township. Land uses along this segment are principally suburban—big box retail-commercial with adjacent low-density residential are predominant. Four signalized intersections fall within this segment located at Airport Road, the Mansfield Commons shopping center, Allen Road/Newburgh Road, and the ShopRite shopping center. Sixty-three (63) crashes occurred in this segment between 2003 and 2005. The crash rate per million vehicle-miles is 3.03, slightly higher than the statewide average of 2.96 crashes/mvm for this cross-section type. Many crash types are overrepresented in this segment, including left turn, head on, overturned, pedestrian, animal, and unknown/other. The number of left turn crashes (11) is five (5) times greater than the 2005 statewide average for that crash type. Left turn crashes cluster around the Allen Road/Newburgh Road intersection and the ShopRite shopping center entrance. The lone pedestrian crash occurred at Nikkitin Way (adjacent to Trout Brook), which provides additional access to/from to the ShopRite shopping center as well as a multi-family garden apartment complex.

MP 20.54 – MP 21.10
Trout Brook (Mansfield Township/Hackettstown Town Line) to Route 182/CR 517
Hackettstown Town

This 0.56-mile segment runs through the southernmost portion of Hackettstown. Land uses along this segment are one-family suburban residential and retail-commercial, except for the State Fish Hatchery and some wooded open space along the Musconetcong River. One signalized intersection (at Route 182/CR 517) and three unsignalized intersections (all with local roads leading to a residential neighborhood) fall within this segment. Between 2003 and 2005, 54 crashes occurred in this segment, which has a crash rate of 4.69 crashes per million vehicle-miles, slightly higher than the 2005 statewide average of 4.27 crashes per/mvm for this cross-section type. Same-direction rear end crashes (occurring mostly at Route 182, but also prevalent at the unsignalized Lawrence Drive and Laurie Terrace intersections) account for 69 percent of all crashes in the segment. Thirty-seven (37) same direction-rear end crashes occurred in this segment, which is 150 percent greater than the 2005 statewide average for that crash type. Unknown/other crash types were also overrepresented in this segment.