



The Bayshore Heritage Byway

Corridor Management Plan

Corridor Management Committee Final Draft

November 2012



SOUTH JERSEY
BAYSHORE
COALITION



NEW JERSEY
DEPARTMENT OF
TRANSPORTATION

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Corridor Management Plan
Corridor Management Committee FINAL DRAFT

Prepared for
South Jersey Bayshore Coalition
and the New Jersey Department of Transportation

Prepared by
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In association with
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November 2012

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Available at http://www.lardnerklein.com/bhb_index.html

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4. Protected Lands
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- Character Areas Map (PDF)
- Visual Survey Results (PDF)
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- Physical Survey Maps (PDF file - 4.3 mb)
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1. Introduction



Figure 1 – Northern Gateway to the Bayshore Heritage Byway at Hawks Bridge

1.1. The Bayshore Heritage Byway

The Bayshore Heritage Byway guides visitors through the rich natural and historical landscape of New Jersey’s “western shore.” The 142-mile long byway begins on Hawks Bridge Road/CR 540 in Mannington Township and traverses three counties along the Delaware Bay – Salem, Cumberland and Cape May – before reaching its southern terminus at Cape May Point State Park. Along the way, the byway passes through several towns and villages, including historic Salem City, Bridgeton, Port Norris, Mauricetown, Dennisville and West Cape May. Seven spurs extend from the main route taking visitors to Fort Mott State Park; Caviar and Bayside; Fortescue State Marina and Beaches; the Bayshore

Discovery Project; East Point Lighthouse; the Cape May-Lewes Ferry and Sunset Beach.



Figure 2 – The Delaware River Estuary As Seen from Bayside Near the Mouth of the Cohansey River



Figure 3 – Historic Salem City

1.2. Purpose of the Plan

In 2009, the New Jersey Department of Transportation (NJDOT) and the byway sponsor, the South Jersey Bayshore Coalition (SJBC), received a grant under the National Scenic Byways Program of the Federal Highway Administration (FHWA), for the Bayshore Heritage Byway. The National Scenic Byways Program’s mission is “to provide resources to the byway community in creating a unique travel experience and enhanced local quality of life through efforts to preserve, protect, interpret and promote the intrinsic qualities of designated byways” (<http://byways.org/learn/program.html>, accessed 6 April 2012). The development of the Bayshore Heritage Byway Corridor Management Plan (CMP) is required to complete the New Jersey state designation process and is the next step following the state scenic byway designation to become eligible for national scenic byway designation.

The purpose of the CMP is to help SJBC, NJDOT and Cape May, Cumberland and Salem Counties protect and promote the rich natural and cultural resources found throughout the byway corridor and devise strategies for sustainable tourism development based on that heritage.

This corridor along the Delaware Bay is significant for its vast wetlands and estuarine ecology that provide habitat for numerous species of shorebirds, serve as spawning grounds for horseshoe crabs and support a rich history of oyster fishing and other maritime activity. This plan highlights the region’s unique Bayshore heritage, providing an inventory of the many natural, historical and cultural resources along the byway and interpreting the stories that connect them. Based on the resources present, the plan offers strategies to ensure their future protection and preservation. Some examples include strategies for land and resource conservation. Others may involve the development and marketing of theme-based itineraries, or wayfinding and roadside enhancements to make it easier to find and follow the byway.

1.3. Organization of the Plan

The Bayshore Heritage Byway is divided into the following five chapters:

- Chapter 1 includes an introduction to the CMP planning process and a brief overview of the vision and goals for the byway.

- Chapter 2 discusses byway qualities, including an inventory and assessment of the byway’s visual and physical characteristics and the institutional structure that guides development. This chapter also describes the primary and supporting intrinsic qualities that make the byway a unique and special corridor.
- Chapter 3 presents a detailed account of visiting and experiencing the byway, including finding the byway, information and facilities available for visitors, existing transportation conditions that can be expected and adjacent land use development in the communities surrounding the byway.
- Chapter 4 provides solutions for effective management of the byway.
- Chapter 5 discusses implementation recommendations and actions for the byway.

1.4. Planning Context and Process

This CMP was developed through the concerted efforts of the sponsoring organization, the South Jersey Bayshore Coalition and numerous volunteers from partnering jurisdictions, agencies, organizations and communities. Part of the initial outreach effort is the establishment of the Corridor Management Committee (CMC). The CMC includes officials from each county and municipality, representatives from various community organizations along the byway, private citizens, representatives from the sites and attractions along the corridor and other stakeholders. As members of the CMC, these volunteers met regularly to infuse the planning process with local knowledge, provide input on the management strategies developed and identify priorities for implementation. CMC participation and the development of management strategies were organized around seven CMC meetings and two rounds of public workshops. Each meeting focused on a different topic or aspect of byway management. Additional or supplemental meetings were held to address targeted issues that arose during the planning process.

Below is a brief summary of the meetings that have taken place to develop the CMP.

- Meeting #1 – Vision and Goals: The first CMC meeting was held on October 24, 2011, at the Luciano Center at Cumberland County College. This meeting began with an introduction to the CMP process and a discussion of some of the existing challenges along the byway. In a breakout exercise, meeting attendees were asked to write down what they considered to be the byway’s top three assets. They were also asked to identify the top three challenges and how they will know



Figure 4 – Wetlands at Egg Island



Figure 5 – Greenwich Historic Architecture



Figure 6 – A.J. Meerwald Schooner
(Courtesy of Citizens United to Protect the Maurice River and its Tributaries)

when their byway has become a success. Based on the responses to these three questions and the discussion that followed, a vision statement and set of goals were drafted for the byway.

- Meeting #2 – Preservation and Conservation: Held on January 19, 2012, the meeting focused on developing priorities for preservation and conservation within the corridor. Participants identified projects of importance and the group brainstormed potential funding opportunities, assistance programs at the state and local levels and potential partners.
- Meeting #3 – Enhancement Strategies: Held on February 16, 2012, this meeting addressed current land use conditions and potential future changes in land use. The CMC identified projects and programs that they are aware of that will affect land use along the byway. A discussion of potential enhancement projects followed, focusing on three scales of enhancement: corridor-wide, community-based and site-specific. At each scale, enhancement strategies were presented along with best practices and potential projects along the Bayshore Heritage Byway. CMC members provided their input by listing on colored index cards general locations that are in need of care and attention, the types of enhancement projects that are needed and site-specific enhancement projects to be implemented in the next five years.
- Meeting #4 – Heritage Tourism Development: Held on March 15, 2012, this CMC meeting focused on initial observations regarding potential heritage and nature-based tourism opportunities as a means of increasing the range of things to see and do in the Bayshore region. Special attention was given to maintaining the overall quality of sensitive natural and cultural attractions, as well as the other resources that may support them.
- Meeting #5 – Interpretive Development Strategies: At this meeting held on April 19, 2012, the CMC identified interpretive resource opportunities associated with both natural and cultural resources as well as linkages between each of the potential sites with interpretive themes and subthemes. The result of the meeting was a list of high potential sites and areas where the byway story can be told in an exciting manner and where each site and its context have the highest probability of being conserved or preserved over time.
- Meeting #6 – Context Sensitive Roadside Safety and Signage Strategies: At this meeting, held on May 17, 2012, the CMC discussed and identified strategies for increasing the safety of the route by helping visitors to find and follow the byway and use context-sensitive solutions to address safety and capacity issues for

its roadways. The CMC also developed strategies for increasing transportation choices, especially the suitability of the route for bicycle touring.

- **Meeting #7– Draft Plan Revisions and Implementation Strategies:** This meeting was held on July 19th and resulted in the recommendations contained in Chapter 5.
- **Public Meetings:** The first series of public meetings was held on November 16 and 17, 2011. A meeting was held in each county to introduce residents to the project and gather local input on byway issues and opportunities. The second series of public meetings was held on June 20 and 21, 2012. Meetings were held in each county, to present the draft byway management recommendations, management and funding strategies and strategies for increasing byway awareness.

1.5. Visions and Goals for the Byway

Based on the initial feedback obtained at the first CMC meeting and public meetings held in October and November 2011, respectively, a comprehensive vision and a set of topical goals for the Bayshore Heritage Byway were developed. Attendees at both sets of meetings were asked a series of questions designed to gain a better understanding of their vision for the byway, as well as attractions / amenities that are needed to make the byway a success. Attendees also identified byway assets or “must-see” sites and attractions, as well as byway challenges or areas in need of attention.

The Bayshore Heritage Byway tells the story of centuries of connections between the communities and cultures along the Delaware Bay and Estuary and the rich and abundant natural resources that support them. The waters, tributaries and related lands of the Delaware Bay and Estuary provide for globally significant important birding areas and host vast migrations of shorebirds every spring and fall. Bayshore communities grew and thrived based upon the region’s natural resources include fishing, trapping, crabbing, oyster and caviar processing, shipbuilding, iron making, milling, glass making and salt hay farming in addition to traditional agriculture.

The Bayshore Heritage Byway will help its communities to build upon these strong connections to its globally significant natural resources and maritime heritage by enticing both visitors and residents alike to linger, learn and enjoy the region’s natural beauty, heritage and hospitality. The



Figure 7 – Public Meeting in Cape May County



Figure 8 – Public Meeting in Salem County

The Vision for the Byway

The Bayshore Heritage Byway will help its communities to build upon these strong connections to its globally significant natural resources and maritime heritage by enticing both visitors and residents alike to linger, learn and enjoy the region's natural beauty, heritage and hospitality.

The Bayshore Heritage Byway will help its communities to increase awareness and understanding of the qualities that make the Delaware Bayshore region globally and nationally significant.

The Bayshore Heritage Byway will foster regional cooperation and collaboration that is needed to develop the touring route into a destination for heritage and nature-based tourism while protecting the natural and cultural resources that make it an interesting and worthwhile place to visit and live.

byway is an opportunity for visitors to experience natural wonders; bask in breathtaking sunsets; and reflect on local, regional and national history.

The Bayshore Heritage Byway will help increase awareness and understanding of the qualities that make the Delaware Bayshore region globally and nationally significant. The Bayshore Heritage Byway will foster regional cooperation and collaboration that is needed to develop the touring route into a destination for heritage and nature-based tourism while protecting the natural and cultural resources that make it an interesting and worthwhile place to visit and live.

The following topical goals were developed for the Bayshore Heritage Byway:

Conserve and Preserve the Byway's Intrinsic Qualities

Develop and implement a community-based and collaborative approach to conservation and preservation that focuses on the Bayshore region in a manner that respects the rights and responsibilities of private property owners while insuring that the byway corridor's character defining features will be preserved and maintained.

Enhance the Experience of Visiting the Byway

Establish the byway as a destination by developing a strong identity through consistent signage; visitor facilities; a unified, context-sensitive aesthetic; and community support of byway management and maintenance.

Expand Heritage and Nature-based Economic Development Opportunities

Utilize the byway and New Jersey's business development resources to help the region build its capacity to attract and retain those travelers with an interest in the Bayshore's rich natural and cultural heritage and develop marketable programs and activities, along with expanded business opportunities, that increase the comfort level of visitors – such as good food, nice places to stay, a more welcoming community appearance – and keep them coming back time and time again.

Uncover the Stories Depicting the Bayshore's Rich Natural Heritage and Community Life

Establish a new program that builds upon the interpretive resources of the Coastal Heritage Trail (originally developed by the National Park Service) and ties together the stories associated with the natural

heritage and historical places in order to create a seamless, coherent and educational travel experience.

Increase the Range and Safety of Travel Choices and Opportunities

Enhance the quality and safety of the byway-related travel experience for all modes of transportation by expanding the range of travel opportunities for pedestrians and bicyclists as well as those who use public transportation and by utilizing context sensitive approaches to address future roadway safety and capacity projects.

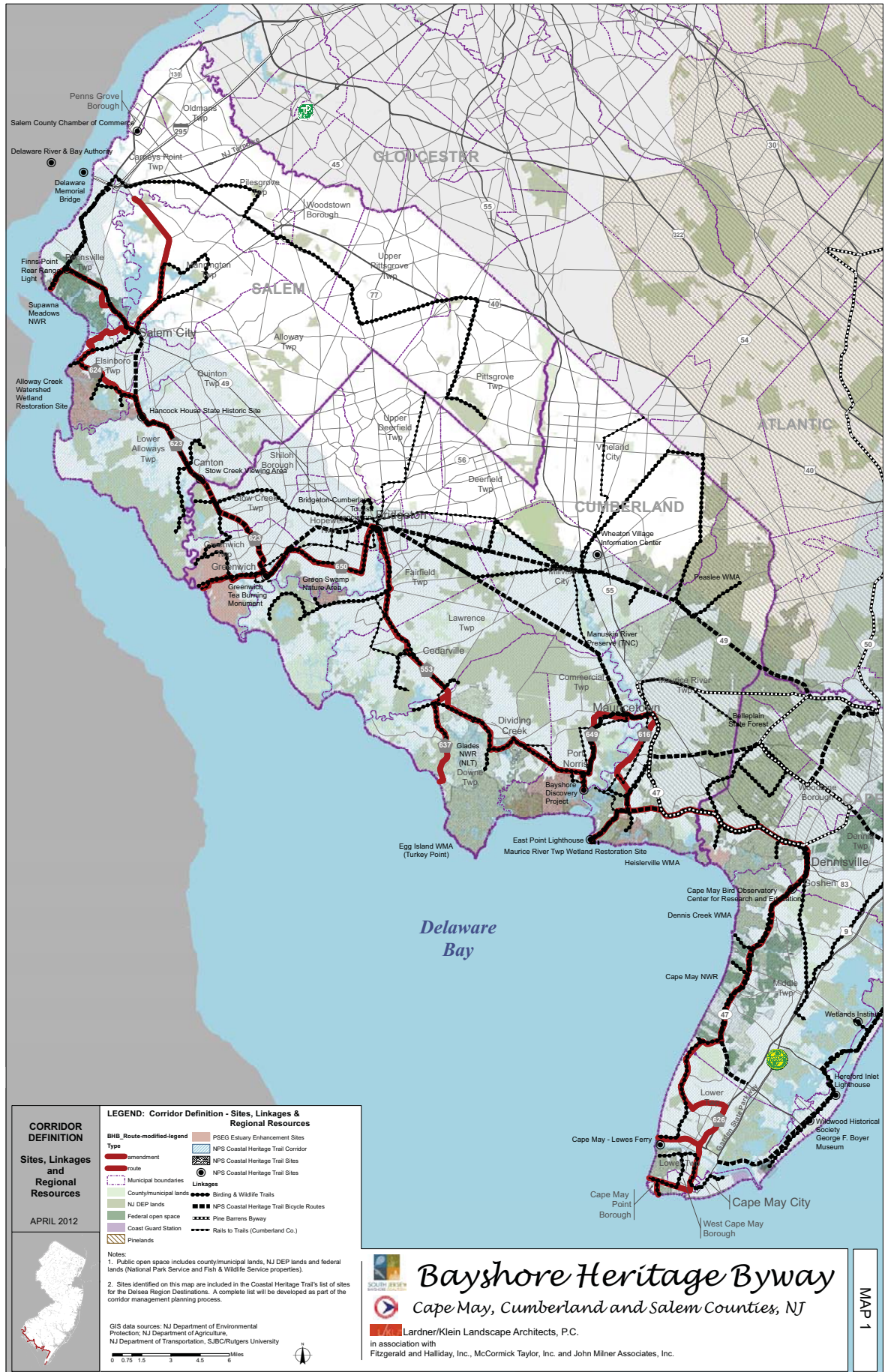


Figure 9: Location of the Bayshore Heritage Byway

2. Byway Qualities



Figure 10 – Mannington Meadows

2.1. Byway Route Description

The Bayshore Heritage Byway winds along the shoreline of the Delaware Bay from Mannington Township in Salem County to Cape May Point State Park at the southern tip of New Jersey, Figure 9 on page 8. Along the way, the route skims the shoreline but then delves further inland, crosses over rivers and tributaries and passes through rolling farmland and historic villages. The majority of the route follows county roads with a few stretches along state routes, primarily NJ Routes 49 and 47. Much of the route is on two-lane rural roads with paved shoulders.

A trip along the byway from the northern terminus to the southern begins at milepost 1.53 on Hawks Bridge Road/County Route 540 (CR 540).



Figure 11 – Fort Mott State Park



Figure 12 – View of Bay from Fortescue Beach



Figure 13 – Bayshore Discovery Project

After driving through Mannington Meadow, travelers arrive in Historic Salem and follow the route through the historic city’s downtown. A right onto NJ Route 49 (NJ 49) takes visitors onto a byway spur leading to Fort Mott State Park, while a left onto NJ 49 takes visitors through Elsinboro, a series of residential neighborhoods along the Salem River. From Elsinboro, the route follows Fort Elfsborg-Hancocks Bridge Road/CR 624 and crosses Alloway Creek as it passes through Hancocks Bridge. Turning right onto Harmersville-Canton Road/CR 623, on which the route passes through the village of Canton before crossing into Cumberland County.

In Cumberland County, travelers continue along CR 623 to the historic village of Greenwich. Here they can take a right onto Bacons Neck Road and head out to the Bay on the Caviar/Bayside Tract Spur. Otherwise, the route leaves Greenwich on Bridgeton Road/CR 607, ultimately heading north to Bridgeton. After crossing the Cohansey River in Bridgeton, the route heads south, passing through Fairfield and then Cedarville. Just south of Cedarville, visitors can head out to the Bay again, this time on the Fortescue Spur, which passes through the village of Newport before turning left onto Fortescue Road/CR 637 and continuing out to the estuarine wetlands and Bayshore village of Fortescue. Meanwhile, the main route continues through the village of Dividing Creek and the town of Port Norris. In Port Norris, a fourth spur leads to Bivalve, the home port of the A.J. Meerwald Schooner and the site of the Discovery Project. Leaving Port Norris the byway turns further inland to Mauricetown and crosses over the Maurice River. Heading back towards the Bay, the route takes travelers through a series of villages – Dorchester, Leesburg and Heislerville – in Maurice River Township and then to the East Point Lighthouse, which is the terminus of the fifth byway spur. Leaving Heislerville, the byway follows NJ 47 through Delmont and across the Cape May county line.

Once in Cape May County, travelers continue along NJ 47 through Eldora and expansive wetlands that are part of the Dennis Creek Wildlife Management Area (WMA). In Dennisville, the byway veers south. It then passes through the historic village of Goshen in Middle Township. South of Goshen, the original 2009-designated route, followed NJ 47 south until turning right onto Seashore Road/CR 626 and then followed CR 626 through Lower Township and over the Cape May Canal. However, through public involvement in the corridor management planning process, the route through the southern portion of Middle Township and all of Lower Township was revised.

An alternate route was nominated by the mayor of Lower Township with support from the mayor of Middle Township, along with residents from both communities that provides more direct access to the Delaware Bay and takes travelers past several sites associated with byway themes. The amended route, approved by NJDOT, follows NJ 47 south of Goshen to Bay Shore Road/CR 603 in Middle Township. The byway then continues on CR 603 through Lower Township to Breakwater Road/CR 613 via Fishing Creek Road. From Breakwater Road the byway turns right onto CR 626 and heads south through the Cold Spring Historic District.

A sixth spur was also added to the byway. It follows US Route 9 (US 9) out to the Cape May-Lewes Ferry terminal. South of the Cape May Canal, the byway follows CR 626 into West Cape May and out to Delaware Bay sites, including Cape May Point State Park and Sunset Beach on Sunset Boulevard/CR 606.

Complete turn-by-turn driving directions are provided in Appendix 1.

2.2. Corridor Definition

Although the byway route described above is at the heart of this planning effort, this document is specifically referred to as a corridor management plan, not a byway management plan. In preserving, maintaining and enhancing the experience for visitors who travel along the byway and the quality of life for the community members who live along it, the management strategies in this plan address the byway corridor. The definition of the corridor, while it certainly includes the byway route, must be expanded to include all of the elements that contribute to the travel experience. The corridor includes:

- The road itself and associated right-of-way;
- The view from the road;
- Places to visit along the way that are related to byway themes; and
- Regional resources associated with the byway.

The road itself and associated right-of-way is the byway route as described above is shown on Appendix 2, Map 1.

The view from the road is also referred to as the byway viewshed. Appendix 2, Map 2 shows the byway viewshed in red. Particularly where the byway reaches out to the shoreline, these views can be expansive, in some cases extending all the way across the Bay to the



Figure 14 – Eldora Nature Preserve



Figure 15 – Cape May – Lewes Ferry Terminal



Figure 16 – Hancocks Bridge-Fort East Road (County Highway 624)



Figure 17 – Upland Farms and Forests Visible from the Byway



Figure 18 – Egg Island WMA

Delaware shore. In other locations, the views are shorter, interrupted by a hedgerow or building. Nevertheless, each vista opportunity is critical to the visual experience one has driving along the byway. Changes to these views – for example, the collapse of a billboard or the erection of a building – can positively or negatively affect a traveler’s experience. By including what can be viewed from the byway in the corridor definition, appropriate management strategies can be devised to preserve these views. The nearby stands of native woodlands that define the limits of the views (Figure 17) are also included in the corridor as they contribute to the significance of the birding and wildlife habitat associated with the Bayshore region.

The Bayshore Heritage Byway has many nearby places to visit that are related to byway themes but are not immediately adjacent to the route. Numerous wildlife observation platforms, like the one at the Egg Island (WMA) in Cumberland County; walking and bicycling trails, like those at Turkey Point; beaches, including Elsinboro Neck in Salem County or Reed’s Beach in Cape May County; and historic sites, like Cape May City, a National Historic Landmark and National Register Historic District, are only a short distance from the byway and require travel on the byway route to reach them. Sites such as these provide access to the byway’s intrinsic qualities and allow visitors to experience what makes the Delaware Bay and Bayshore unique and special. Such sites are included in the definition of the byway corridor because they help tell the stories associated with the natural, cultural and historical significance of the region and should be supported by byway management efforts.

Finally, the Bayshore is rich with regional resources associated with the byway. These include the Delaware Bay itself and the numerous tributary streams and related marshes that flow into it and support its rich wildlife habitat. Extending northward from the byway are New Jersey’s Pine Barrens, most of which are included in the Pinelands National Reserve, the Pine Barrens Byway from Batsto and Tuckerton in the north to Dennisville and Port Elizabeth in the south and the Jersey Shore to the east.

2.3. Byway Inventory and Assessment

As part of the CMP process, the New Jersey Scenic Byways Program requires that an inventory and assessment of the resources along the byway be conducted as a basis for future management strategies. As stated in a National Scenic Byway Program handbook, *Byway Beginnings: Understanding, Inventorying, and Evaluating a Byway’s*

Intrinsic Qualities, a “comprehensive and accurate inventory and assessment of the scenic resources along the byway ... will yield information that will identify and help to prioritize opportunities for management of the scenic corridor” (Swimmer, Whiteman and Taintor).

Information for the inventory and assessment is gathered through three surveys conducted along the byway, relating to visual, physical and institutional qualities.

- Physical Survey – identifies and rates a number of features associated with vegetation, structures and landscape effects.
- Visual Survey – examines the compositional merit of the landscape – how individual features work together in the landscape to affect the quality of the traveler’s visual experience.
- Institutional Survey – evaluates existing programs to determine potential to which the scenic byway may be managed to preserve and enhance its attributes.

While the institutional survey is conducted for each jurisdiction along the byway route, for the purpose of conducting the physical and visual surveys, the byway was divided into 47 character areas irrespective of political boundaries. Character areas – varying in length from one tenth of a mile to several miles – indicate stretches of the byway route with similar visual characteristics. Over the course of the visual survey, the character areas were revised slightly to create 49 character areas. These areas are shown in Appendix 2, Map 3.

Each of these surveys and its results for the Bayshore Heritage Byway are described in the following sections.

2.3.1. Visual Survey

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 (The New Jersey Scenic Byways Program 38).



Figure 19 – Cape May City
(Courtesy of Cindy Bloom-Cronin)

Process

The visual survey for the Bayshore Heritage Byway was conducted in September, 2011 by a group that included CMC members and project consultants. The group spent a day touring the byway, evaluating each of the 49 character areas according to three factors: vividness, intactness and unity.

- Vividness is the memorability of landscape components as they combine in striking and distinctive visual patterns.
- Intactness is the visual integrity of the natural and man-built landscape and its freedom from encroaching elements.
- Unity is the visual coherence and compositional harmony of the landscape considered as a whole (Blair, et al 1979).

For each character area, raters assigned a value of -5 to +5 for vividness, intactness and unity, whereby a rating of -5 indicated that the character area has a negative impact on the experience of the traveler and should be given a high priority for mitigation; a rating of -1 or +1 indicated that the character area has little impact on the traveler's experience and should receive a low priority for being addressed in the management plan; and a rating of +5 indicated that the character area makes a positive contribution to the experience of the traveler and should be given a high priority for management measures that protect or enhance the area.

Results

The tables below list the character areas that received the highest and lowest ratings. Not surprisingly, those with the highest ratings have open vistas out to the bay or across large swaths of lush marshland. Others feature largely intact historical districts with well-preserved structures and a few include stretches of forest where the tree canopy extended over the roadway to enclose the traveler in a shady refuge. These character areas are described in greater detail in conjunction with the byway's scenic qualities in 2.4.2. Supporting Intrinsic Qualities on page 67.

Those character areas with lower ratings are generally more developed. In particular, these character areas include industrial lots, commercial properties and billboards or cluttered signage. Such areas tend to exist in transition areas between the open stretches of rural or natural landscape and the byway towns and villages.

TABLE 1 – VISUAL SURVEY: CHARACTER AREA RATINGS

Total of Averages	Character Areas with Highest Ratings
14.0	Character Area 19: Bayside/Caviar Spur
13.9	Character Area 17: Chestnut Road and Character Area 39: Glade Road Wetland
13.5	Character Area 18: Greenwich
12.5	Character Area 11: Fort Elfsborg-Hancocks Bridge Road – Closed Canopy Woodland
12.4	Character Area 3: Historic Salem, Character Area 34: Discovery Project Spur and Character Area 36: West Cape May
Total of Averages	Character Areas with Lowest Ratings
-4.1	Character Area 44: Cape May-Lewes Ferry Spur
-5.4	Character Area 22: Grove Street Transition
-7.6	Character Area 2: Mannington Transition
-11.4	Character Area 43: CR 626 to Cape May Canal

2.3.2. Physical Survey

While the visual survey looks at the landscape as a whole, the physical survey looks at the individual features that compose a particular landscape. These include natural features such as mountains, valleys, rivers and lakes as well as man-made features such as buildings, utility lines, parking lots, landfills and billboards. Each of these features may have a positive or negative impact on the visual experience and influence a visitor's overall impression of the byway.

Process

The physical survey was conducted for the Bayshore Heritage Byway on November 3 and 4, 2011. As part of an evaluation of the byway inventory and assessment required by the New Jersey Scenic Byways program, the methodology used for the physical survey of the Bayshore Heritage Byway (BHB) differed slightly from that outlined in the program handbook. Currently, the inventory and assessment involves three surveys: physical, visual and institutional. While these surveys are useful to the planning process in that they force the byway sponsor, stakeholders

and consultants to become intimately familiar with the byway and demand a critical examination of it, the process for the BHB physical survey was modified to eliminate redundancy and increase efficiency while preserving the intent of the surveys.

Revised Methodology

The Bayshore planning effort offered the opportunity to try something new to help eliminate redundancy and improve the effectiveness of the physical survey as a planning tool. If it proves to be a positive revision, it could help to reshape the way these tools are used on other byways in the future. This method is summarized below.

During the visual survey, in addition to rating the intactness, unity and vividness of each character area, participants were asked to list the prominent physical features they saw. The features listed were those that influenced their impression of the character area and contributed to the rating of that area. In addition to listing the features, several participants added a (+) or (-) to indicate whether a particular feature contributed positively or negatively to the character area. Others provided a written description indicating the beauty or unattractiveness of each feature.

Instead of conducting a second byway tour with volunteers, the consultant team's staff performed additional field work along the byway in order to complete the survey. Following the visual survey, the participants' lists of physical features were combined into a single list for each character area. This list served as a basis for the field work and the following tasks were performed to complete the physical survey:

- Confirmed the locations of the noted features (for example a power line crossing, a billboard, or a view of an historic home) within each character area and use a GPS unit to record their locations for mapping.
- Identified any additional physical feature types that were not recorded during the visual survey – these would be recurring elements, not just a one time element – for example there were stretches of guardrail that most everyone noticed, but few noticed the historic bridge parapet walls along the roadway).
- Assessed physical features as intrusions or as positive assets based on field observations and participants' observations during the visual survey.
- Took photographs of physical features identified.

- Created a map showing the locations of physical features that are in need of some kind of enhancement or screening.
- Created a map showing the locations of where physical features are important to preserve in place as a critical element of the roadway or viewscape.

Results

Based on the data gathered through the physical survey, along with the results of the visual survey, areas along the byway were identified as opportunities for enhancements. Areas in need of care are identified in Appendix 2, Map 8 in gray, while areas in yellow already offer a positive experience as indicated by high ratings during the visual and physical surveys. Several of the areas in need of care are transition areas entering and leaving towns and villages along the byway, including the transition from Mannington to Salem City, south of Bridgeton on Grove and South Streets, approaches to Port Norris in both directions, on CR 626 in Lower Township and the proposed Cape May-Lewes Ferry spur. Several villages were also identified as candidates for gateway enhancements as a means of sprucing up the approach to the village, establishing a village identity and promoting it as part of the larger Bayshore Heritage Byway community. Additional locations for site-specific enhancements were identified over the course of the physical survey process. All of these candidates for enhancement are identified on the Proposed Byway Enhancements Map (Appendix 2, Map 8) and are described in greater detail in Strategy 4.2. on page 143 of this plan.

Appendix 3 presents documentation of the physical survey including a description of the features observed in each character area as well as photographs of these features. A series of maps in an atlas format shows where the features are located along the byway.

2.3.3. Institutional Survey

The institutional survey is the third survey required by the New Jersey Scenic Byways Program. While the visual and physical surveys are based on a visual assessment of the byway, the institutional survey focuses on the policies and programs in place in the jurisdictions along the byway that influence land use and development along the route. These include ordinances, planning documents (e.g., master plans, design guidelines, etc.), farmland or open space preservation programs/plans, overlay districts and other policies that may influence the CMP process.

Process

The institutional survey began with a search of all county and municipal web sites for all planning documents and ordinances available online. This search was followed by numerous phone interviews with county planning directors, planning board chairpersons or, in some cases, the mayors of various jurisdictions. Through these interviews, the consultant team ensured that they were not missing any critical information and confirmed that they had a full understanding of the material available for each jurisdiction.

The following paragraphs summarize some of the key planning themes of the communities along the byway.

NEW JERSEY COASTAL AREA FACILITY REVIEW ACT (N.J.S.A. 13:19)

The State of New Jersey recognizes that uncoordinated development along the New Jersey shore has already had an impact on fragile ecosystems and that regulation is necessary to prevent pollution, destruction of vital wildlife habitat, increases in rainwater runoff and destruction of the natural beauty that attracts visitors. Regulation of coastal activities is also necessary in some cases to prevent loss of life and property from coastal storms, erosion and flooding. CAFRA applies to projects near coastal waters in the southern part of the state. The CAFRA area begins where the Cheesequake Creek enters Raritan Bay in Old Bridge, Middlesex County. It extends south along the coast around Cape May and then north along the Delaware Bay ending at the Kilcohook National Wildlife Refuge in Salem County. The law divides the CAFRA area into pieces or zones and regulates different types of development in each zone. Generally, the closer you are to the water, the more likely it is that development will be regulated. Every community along the byway is located within the CAFRA boundary, therefore development within wetlands, floodplains, etc. is regulated by the State. As such, many of the communities do not have separate floodplain or wetlands regulations or other environmental restrictions within their zoning ordinances.

NEW JERSEY RIGHT TO FARM ACT

The Act was passed by the New Jersey Legislature in 1983 and amended in 1998. The Act protects responsible commercial farmers from public and private nuisance actions and unduly restrictive municipal regulations. In the event of a dispute, an individual or municipality aggrieved by the operation of a commercial farm is required to file a formal complaint with

the appropriate County Agriculture Development Board (CADB), or the State Agriculture Development Committee (SADC) in counties where no CADBs exist, prior to filing action in court. The Right to Farm Program has also established a formal conflict resolution process to help farmers, neighbors and municipalities resolve such disputes. Because many of the lands along the byway are actively farmed and because farming is a significant source of employment for the byway communities, currently 14 byway communities have Right to Farm ordinances within their existing zoning and/or land development regulations.

PINELANDS COMPREHENSIVE MANAGEMENT PLAN

Several of the byway communities fall within the Pinelands National Reserve, protected by the New Jersey Pinelands Commission. The Pinelands Comprehensive Management Plan was developed to regulate all development activities within the Reserve. Municipalities falling wholly or partially within the Pinelands, such as Maurice River Township and Dennis Township, need to incorporate or comply with Pinelands policies within their Master Plan and land development ordinances. It should be noted that since such a large portion of Maurice River Township is located within the Pinelands National Reserve, the Pinelands Commission, through the Pinelands Comprehensive Management Plan, regulates much of the Township.

RIVER CONSERVATION DISTRICTS/OVERLAY ZONES

Several of the byway communities have included river conservation or river overlay zones within their zoning ordinances. The purpose of these districts or zones is to ensure the protection and enhancement of the natural resources associated with the Maurice River and its tributaries. The boundaries of these zones/districts vary by community, however, the regulations within each community stipulate the following:

- Permit reasonable and compatible uses of land, including the continuation of existing land and water uses;
- Preserve and protect existing wetlands, floodplains, fish and wildlife habitat areas, historic resources, natural recreation values and other environmentally sensitive areas within the river corridor;
- Delineate specific development and site design standards regulating land use within the river corridor;
- Conserve the water quality of the river and prevent degradation of its quality, purity, clarity and free-flowing condition;



Figure 20 – Roadway Sign for Pinelands National Reserve

- Ensure that any development which may occur shall be done in an orderly manner consistent with the natural environment and aesthetic qualities of the river and its tributaries;
- Encourage the identification, preservation and interpretation of historical and archaeological sites along Maurice River and its tributaries;
- Prohibit the siting of landfills, dumps, waste storage and incineration facilities, sludge farming, radioactive waste facilities and/or any other uses that pose a direct threat to the outstandingly remarkable resources and attributes of the Maurice River and its tributaries.

All permitted uses located within the river overlay zones or districts must comply with stringent river conservation standards which outline protocols for pollution control (from septic tanks), removal of trees and natural vegetation and grading and filling. Currently Maurice River Township, Millville City and Commercial Township have river corridor conservation districts or overlay zones within their zoning and land development ordinances.

FARMLAND PRESERVATION

Most of the communities located along the byway are steeped in agricultural history. Farming continues to play a major/active role in resident's daily lives and the economic health of the byway communities. While only a handful of byway communities have their own plans (separate from the county plan), farmland preservation is very important to the counties and communities along the byway. Currently, communities work very closely with their CADB and the SADC to obtain funding for outright property purchase or the purchase of conservation easements. To aid in this effort and to also stress the importance of farmland preservation, Salem, Cumberland and Cape May counties have all enacted direct taxes (\$0.02 in Salem County and \$0.01 per every \$100 of assessed property value in Cumberland and Cape May counties) for farmland and open space preservation; all monies collected are placed in Farmland and Open Space Preservation Trust Funds and are used towards the purchase of farmland or open space properties and/or easements, although the purchase of conservation easements is currently the most popular method of preservation. In addition, Mannington Township will contribute one (1) percent of the easement purchase price to landowners wishing to preserve their farmland. Other trends/techniques being used or planned for farmland preservation include the following.



Figure 21 – View of Agricultural Landscape along Chestnut Road Near Stow Creek

CLUSTER ZONING OR TRANSFER OF DEVELOPMENT RIGHTS (TDR)

Communities along the byway are moving towards using different types of zoning techniques to aid in the preservation of farmland and open space. Several communities in Cumberland County are currently using cluster zoning to preserve farmland and open space (e.g., new residential developments are required to cluster housing to reserve space for neighborhood parks). Additionally, Hopewell Township incorporated a TDR Element into its 2011 Master Plan update.

AGRICULTURAL DISTRICTS / ZONES

These zones are primarily used for active farming and restrict uses to only those associated with farming and residences of farm employees.

ALTERNATE FUNDING SOURCES

Although the counties have dedicated trust funds for farmland and open space preservation, it is becoming more apparent that additional funding is needed, especially when municipalities are obligated to provide a local match for grant funding. Since farmland and open space preservation is a priority for all of the byway communities, all of the plans reviewed to date have listed several sources of possible future monies and have recognized the need for creativity when it comes to continuing farmland and open space preservation programs.

OPEN SPACE AND OPEN SPACE PRESERVATION/PLANNING

Most of the municipalities currently have existing preserved open space or open space plans as elements of their master plans or as separate planning documents. All of the plans recognize the need for inter- and intra-municipal linkages via trails as well as additional active and passive recreational opportunities within their respective communities, including taking advantage of existing natural resources as a way to promote eco-tourism and other economic development opportunities. It should also be noted that some communities, such as Downe Township and Maurice River Township, do not currently have open space plans. Within these two communities, approximately 72 percent and 45 percent of their land area, respectively, is comprised of preserved open space. Because open space preservation is incorporated into all other aspects of planning, a separate open space plan is not needed.

While none of the communities have vast systems of greenways adjacent to the byway, several of the communities already have hiking and biking trails in place within their communities either adjacent to, or in



Figure 22 – View of Open Space Along Hancocks Bridge Fort East Road



Figure 23 – Old Stone School in Greenwich



Figure 24 – Fairfield Presbyterian Church

close proximity to the byway. In 2009, Cumberland County completed a “Rails to Trails Plan” which outlines several key trail systems that could link several key destinations within the county to the rest of the Bayshore region. Additionally, the Salem County Open Space Plan calls out the need for greenways, “blueways” and “brownways” as a means of protecting wildlife, surface waters and agriculture throughout the county. See discussion above regarding current practices for open space preservation.

HISTORIC PRESERVATION

Although there are considerable historic resources throughout the communities along the byway, historic preservation is being carried out inconsistently along the corridor. The Cities of Bridgeton, Salem and Cape May as well as Greenwich Township and the Borough of West Cape May all contain designated historic districts with local design review authority. Stow Creek Township has a designated historic district; however the Township is currently updating its zoning ordinance to reflect more stringent design review guidelines for this area. It should be noted, though, that most of the communities along the byway contain historic sites or districts that are currently listed on the National Register of Historic Places.

ENVIRONMENTAL IMPACT STATEMENTS

Almost all of the municipalities require an assessment of impacts to the environment as part of the general development plans, major subdivisions and major site plan applications, where significant critical areas exist, or if environmental hazards are suspected on the site. Impacts to the following must be assessed:

- Flooding and floodplains;
- Surface and groundwater quality;
- Existing vegetation and wildlife habitats;
- Noise;
- Energy and utilities;
- Cultural resources; and
- Neighborhoods.

Environmental impact statements are not required for minor subdivisions or minor site plan applications; however Planning Board members may request an impact assessment if they feel it is necessary.

SUSTAINABLE JERSEY

New Jersey is the first state to have a comprehensive sustainability program for communities that links certification with strong financial incentives. Sustainable Jersey is a certification program for municipalities in the state that want to “go green”, save money and take steps to sustain their quality of life over the long term. The program identifies concrete actions that municipalities can implement to become “certified” and be considered leaders on the path to being a sustainable community; action categories include land use and transportation, energy, green house gas reduction, waste reduction and recycling and green design. Once certified, the program provides municipalities with access to grants and identifies existing and new funding opportunities for municipalities to make progress toward their sustainable actions. To date, Cape May City, Lower Alloways Creek Township, Middle Township and Lower Township have all been certified by Sustainable Jersey; eight (8) other byway communities are currently registered with Sustainable Jersey and are working towards certification. See www.sustainablejersey.com for more information.

TREE / VEGETATION / WOODLAND PRESERVATION

Many of the communities along the byway recognize the importance of trees and other vegetation as important wildlife habitats, environmental resources, as well as a way of preserving, enhancing community character. Currently, nine (9) byway communities have adopted tree preservation or landscape/vegetation ordinances; the Cities of Millville and Cape May and Middle Township also have Shade Tree Commissions, which regulate the removal and replacement of trees. Cape May, West Cape May and Middle Townships are also each recognized as a ‘Tree City USA’. In some cases, such as in Dennis and Maurice River Townships, the removal and replacement of trees and other vegetation is regulated by the Pinelands Commission.

See the tables included in Appendix 3, Institutional Survey, for a summary of the levels of planning and protection currently taking place within the byway communities.

2.4. Intrinsic Qualities

Intrinsic qualities are an integral component of a CMP, because they reveal what makes the byway special and unique. The National Scenic Byways program describes intrinsic qualities as “features that are considered representative, unique, irreplaceable, or distinctly characteristic of an area.” The primary intrinsic qualities included in



Figure 25 – Woodlands along Turkey Point Road, Downe Township

the byway corridor include natural and historical qualities. Secondary intrinsic qualities include cultural, archaeological, scenic and recreational qualities.

2.4.1. Primary Intrinsic Qualities

Natural Qualities

Natural quality applies to those features of the visual environment that are in a relatively undisturbed state. These features predate the arrival of human populations and may include geological formations, fossils, landforms, water bodies, vegetation and wildlife (FHWA Policy 5.18.95). Throughout its 142 miles (including spurs), the Bayshore Heritage Byway is flanked by salt marsh wetlands, waterways and habitats unique only to the Delaware Bayshore.



Figure 26 – View towards the Delaware River Memorial Bridge
(Courtesy of Cindy Bloom-Cronin)

DELAWARE BAY AND ESTUARY

The Delaware Bay and Estuary (Delaware Bay or Estuary) is an important resource and plays a vital role not only in the local and regional activities of its bordering states of Delaware and New Jersey, but due to its location, is also a key element in national economic and environmental endeavors. The Delaware Bay is a major estuary outlet of the Delaware River, whose fresh waters mix for many miles with the waters of the Atlantic Ocean. Its watershed occupies 6,000 square miles in New Jersey, Pennsylvania, Delaware and Maryland and serves a population of more than 6.7 million. Currently, the Bay supplies drinking water to the fifth largest metropolitan economy in the country, while also supporting the world's largest freshwater port system (approximately 3,000 vessels a year) and is the largest receiving center for crude oil, steel, paper and meat imports.

Besides the Delaware River, Delaware Bay is fed by numerous smaller streams on the Delaware side. Rivers on the New Jersey side include the Salem River, Cohansey River and the Maurice River, several of which hold protected status for the unique salt marsh wetlands along the shores of the Bay. Delaware Bay is a vital ecosystem, creating habitat for more than 130 species of finfish, as well as clams, oysters and crabs. A recent study completed by the University of Delaware's Water Resources Agency (WRA) estimates that the Delaware Bay Estuary directly or indirectly supports close to 500,000 jobs and contributes more than \$10 billion annually to the region's economy.¹ In 1988, the Governors of Delaware, New Jersey and Pennsylvania nominated the Delaware

¹ Economic Value of the Delaware Estuary Watershed. University of Delaware, Institute for Public Administration, Water Resources Agency. June 2011.

Estuary for inclusion in the USEPA's National Estuary Program. That same year, the Estuary was accepted and awarded national significance. The designation covers the lower Delaware River Basin, with 134 miles of the tidal Delaware River from Trenton southward to the mouth of the Delaware Bay, including all tributaries. To comply with the requirements of the program, a multi-state committee published the Comprehensive Conservation and Management Plan (CCMP) for the Delaware Estuary in 1996. Since 2004, the "Delaware Estuary Program: A National Estuary Program" was formed to administer the federal program and address the full complement of actions called for in the CCMP.

The shores of the Bay are largely composed of wetlands, salt marshes and mud flats. Due to the significance of the wetlands and their related tidal habitat, the Delaware Bay Estuary was designated as a Ramsar Site and Wetland of International Significance² in May of 1992 because the wetlands associated with the Estuary provide a critical resting and feeding area for migratory shore and wading birds; Delaware Bay is one of only 22 Ramsar sites in the entire United States. Additionally, because of its prominent location within the American Flyway, the Delaware Bay is one of the four most important shorebird migration sites in the world and it boasts the second-highest concentration of shorebirds in North America. The Bay also provides wintering and migratory habitat to many species of songbirds, waterfowl and raptors. For this reason, Delaware Bay was the first site classified in the Western Hemisphere Shorebird Reserve Network and was dedicated in May 1986 as a site of Hemispheric Importance³ by the World Wildlife Fund and the International Association of Fish and Wildlife Agencies. It is for all of these reasons that the New Jersey shores of the Delaware Bay are eligible for designation as a National Heritage Area by the National Park Service.

Delaware Bay is also home to the largest population of spawning horseshoe crabs in the world. Each spring during the high tides of the new and full moons, hundreds of thousands of horseshoe crabs descend on the Delaware Bay shoreline to spawn; on the Delaware side of the Bay, the highest numbers of spawners have been found from Pickering Beach to Slaughter Beach, while the top New Jersey spawning sites are found from Reeds Beach to South Cape Shores Lab. During spawning, female horseshoe crabs pause every few feet to deposit eggs in holes dug along

2 Sites identified by the Ramsar Convention on Wetlands. Criterion for Wetlands of International Importance can be found at www.ramsar.org.

3 Sites that act as staging, nesting, or breeding grounds for at least 500,000 shorebirds annually, or at least 30 percent of the biogeographic population of any species.

the shoreline, typically laying around 20,000 eggs during each spawning session. See the sections below for a more detailed discussion regarding the connection between shorebird migration and horseshoe crab spawning on the Delaware Bay.

Based on the paragraphs above, it is easy to appreciate and understand the overall beauty, as well as the national and regional significance of the Delaware Bay. Recognizing the uniqueness of the Delaware Bay Estuary, its tributaries and associated tidal marshes, the Nature Conservancy (TNC) designated the Delaware Bayshore of New Jersey and Delaware among the very first Last Great Places on Earth. Launched in 1991, TNC's multinational Last Great Places initiative identified important large-scale ecosystems to focus protection efforts. The New Jersey segment extended from the Cohansey River south, including much of Delaware Bay watershed and the Cape May peninsula. The Last Great Places program used an eco-regional approach to setting priorities, protecting resources through science-based conservation, creating core reserve areas and buffer zones and promoting appropriate human uses. As part of this effort, TNC drafted a Delaware Bayshore Bioserve Strategic Plan.

DELAWARE BAY OYSTERING: PAST AND PRESENT

Oystering has played a large role in shaping the livelihoods of the residents of the Delaware Bayshore. Dating back to the Lenni Lenape tribes, harvesting Eastern Oysters from Delaware Bay was a multi-million dollar industry close to 100 years. In 1876, the railroad came to the Maurice River, making it possible to ship large quantities of oysters causing a boon in the industry. Ten years later, over 80 train cars of oysters were shipped every day from Bivalve, the center of the New Jersey oyster industry. Whole towns grew up around the oyster industry: Port Norris, Bivalve, Shellpile and Maurice River in South Jersey; Bowers Beach, Leipsic and Little Creek in Delaware. At the peak of the oyster fishery, Port Norris could claim more millionaires per square mile than any other town in New Jersey. The prosperity extended throughout the region, even as far as Philadelphia, where some business and ship shareholders were based. At the height of fishery, more than 500 vessels (schooners and other types of boats) and 4,000 people worked in commercial oystering in Cumberland County, not to mention the many others involved in processing, shipping, blacksmithing and other industries dependent on the oyster. Over the last several decades, Delaware Bay oysters have been affected by climate change, habitat loss, fishing and other natural factors. Their numbers have also declined as a

result of the oyster disease MSX in the 1950s, followed in the 1990s by a second disease, Dermo.

Today, the Delaware Bay's oyster population is rebounding despite many years of below-average biological recruitment (the number of young oysters entering the population each year). This turnaround is taking place on oyster beds managed by the States of Delaware and New Jersey through the Delaware Bay Oyster Restoration Project. These existing or historic beds are being planted with clean ocean sea clam and oyster shells that are strategically placed in the Delaware Bay. These shell-planting sites provide surfaces to which oyster larvae can attach in order to grow. Once the larvae are recruited, or attached, they will remain on these beds. The restoration project also includes transplanting oysters from lower in the Bay, where the salinity is higher, to areas further north in the Bay, where they stand a better chance of surviving. These restoration efforts would not have been possible without the support of Congressional appropriations in 2004, 2005 and 2006 totaling \$4.3 million. During three years of implementation, the Delaware Bay Oyster Restoration Project has doubled oyster recruitment in targeted areas of the Bay. If this same progress can be maintained over time, the result will be an economic boost to the many Bayshore communities that have staked their livelihood on the shellfish industry for more than a century.

In 2008, the Delaware Bay Oyster Restoration Project was honored by the President of the United States with a 2008 Coastal America Partnership Award for the recognizes the collaborative, multi-agency effort that was needed to leverage and combine enough resources to successfully restore, preserve and protect Delaware Bay's population of Eastern oysters.

In a related effort, the Bayshore Discovery Project (BDP) works to promote understanding and preservation of the environment, history and culture of the Delaware Bay region. Formed in 1989 as the Delaware Bay Schooner Project, the BDP was established to restore the 1928 Delaware Bay Oyster Schooner, A.J. Meerwald, to its original glory. On Earth Day 1998, the fully restored Meerwald became the State of New Jersey's Official Tall Ship. In 1995 the vessel was added to the National Register of Historic Places. Since its rebirth, the Meerwald has served as a sailing classroom promoting the ecological, cultural and historical heritage of the Delaware Bay. The BDP also provides many shore-based educational and interpretive programs, including nature walks, maritime tours, educational workshops and lectures. The BDP Delaware Bay Museum offers an extensive collection of historic artifacts and photographs



Figure 27 – Oystering at the Bayshore Discovery Project

depicting the Bay's rich maritime and oystering history and natural resources. In addition, the BDP hosts the annual Bay Days festival in June to celebrate the resources of the Delaware Bay.

IMPORTANT RIVERS, STREAMS AND CREEKS

The U.S. Department of the Interior maintains a list of free-flowing rivers that are believed to possess one or more "outstandingly remarkable" resource values. The Nationwide Rivers Inventory (NRI) can be used to help determine eligibility of rivers for National Wild, Scenic and Recreational River designations. Under a 1980 presidential directive, all federal agencies must seek to avoid or mitigate actions that would have an adverse effect on NRI river segments. In the Delaware Bay watershed, 16 river segments totaling 132 miles are listed on the NRI. Of these, 14 segments are eligible for National Wild, Scenic and Recreational River designations based on eight "outstandingly remarkable values," including, scenery, recreation, geology, fish, wildlife, history, cultural and "other" resources.

The 16 Delaware Bay watershed rivers listed on the NRI include:

- Salem River (17 miles)
- Cohansey River (16 miles)
- Maurice River (14 miles)
- Stow Creek (14 miles)
- Dividing Creek (10 miles)
- Oranoaken Creek (9 miles)
- Dennis Creek (8 miles)
- Mad Horse Creek (7 miles)
- Back Creek (6 miles)
- Nantuxent Creek (6 miles)
- West Creek (5 miles)
- Cedar Creek (5 miles)
- Delaware River (4 miles)
- Manumuskin River (4 miles)
- Hope Creek (4 miles)
- Fishing Creek (3 miles)

As the byway traverses Salem, Cumberland and Cape May counties several rivers and streams offer picturesque views and opportunities to experience the birds and other wildlife that reside full-time or seasonally within this unique habitat. The byway provides access to the Delaware Bay and its tributaries including the Salem River, Maurice River and the

Cohansey River. Together, these three rivers play an important role in the region's migratory shorebird habitat, threatened and endangered species preservation, economic development and recreational opportunities. Smaller surface waters, such as Alloway Creek, provide additional wildlife and recreational opportunities.

The Maurice River (pronounced "Morris") is approximately 39 miles long and is the second longest and largest tributary to Delaware Bay. Its watershed includes an extensive southern portion of the coastal forested wetlands known as the Pine Barrens. Its mouth on Delaware Bay is surrounded by extensive salt marshes and has provided an historically important oystering ground. The river is considered especially pristine for the region, forming a critical ecological link between the Pine Barrens and the Delaware Bay systems. It is the location of one of the only stands of wild rice in New Jersey within the Natural Lands Glade Refuge and provides habitat for 53 percent of the animal species in New Jersey designated as endangered, excluding marine mammals. In addition, the area contains the world's largest population of *Aeschynomene virginica*, Sensitive Joint Vetch, an annual herb-like plant listed as threatened by the U.S. Fish and Wildlife Service. In 1993, because of its natural significance, almost 29 miles of the Maurice River and its tributaries was designated as the Maurice National Scenic and Recreational River, as part of the National Wild and Scenic Rivers program.

For more than 20 years, the Maurice River has supported several pairs of breeding Bald Eagles and has hosted New Jersey's most significant wintering Bald Eagle population since the 1970s. Large numbers of Ospreys, Northern Harriers and Barred Owls also breed along the river. The Maurice River's wild rice marshes harbor one of the largest fall populations of Soras in the Atlantic Flyway. Additionally, large concentrations of Purple Martins gather in the salt marsh alongside the river before they begin their migration to Brazil and other parts of South America each year. Raptors also use this site as an important stopover area during fall migration. Wintering waterfowl includes Northern Pintails, Mallards, Green-winged Teals and American Black Ducks. As many as 6,000 Dunlins winter in the Maurice River Corridor. Each spring, the mouth of the river becomes a critical staging area for as many as 15,000 migratory shorebirds and a key staging area for Northern Pintails awaiting their migration north.

The Cohansey River originates in Salem County and meanders for nearly 35 miles through Cumberland County before reaching the Delaware Bay.

The 111-square-mile watershed encompasses one of the largest expanses of quality wetlands in the state. It is home to eight towns and maritime villages, including one of the Bayshore's largest urban centers, Bridgeton and two National Register historic districts. In 1774, the small port village of Greenwich near the mouth of the river was the scene of an incident similar to the more famous Boston Tea Party, in which imported tea was burned as a protest against taxation.



Figure 28 – View towards the Cohansey River in Bridgeton

The Upper Cohansey River is freshwater and bound by important agricultural land including cultivated fields and orchards. Sunset Lake and Mary Elmer Lake are among 20 major impoundments in this drainage basin. The tidal head begins just below Sunset Lake in the largely wooded, 1,000-acre Bridgeton City Park. The Lower Cohansey River corridor is dominated by an immense brackish tidal estuary, bordered by a wildlife-rich mixture of important farmland, woodlands and wetlands.



Figure 29 – View towards the Salem River

The Cohansey River is famous for several important anadromous fish runs and large oyster beds at the mouth of the river, as well as outstanding natural, cultural and recreational resources. Similar to the Maurice River, several breeding pairs of state-endangered Bald Eagles, state-threatened Ospreys and state-special concern Cooper's Hawks occur along the Cohansey River. Wintering birds include Northern Harriers and Bald Eagles. Large numbers of waterfowl, including American Black Ducks, Mallards and approximately 30,000 Snow Geese, also congregate along the river each winter. For these reasons, the Cohansey River Conservation Zone has been included in the New Jersey Wildlife Action Plan (WAP), issued in February 2007 by the New Jersey Department of Environmental Protection (DEP) Endangered and Nongame Species Program; in the Cohansey River Conservation Zone, the WAP identifies 13 state threatened and endangered species and 48 species of special concern or regional priority. The Cohansey River corridor has also been designated as one of New Jersey's 122 Important Bird Areas by New Jersey Audubon.

The Salem River is approximately 30 miles long and is a tributary of the Delaware River. The course and watershed of the Salem River are entirely within Salem County. Rich in Native American history, the Salem River and its corresponding watershed are also rich in wildlife and has become a lively spot year-round for birds, fish, reptiles and amphibians. The area of the river was inhabited by Lenape at the time of European colonization. Fort Elfsborg, a settlement of the New Sweden colony, was constructed along the eastern bank of the river near its mouth in

1642-1643. The fort was later abandoned because of the prevalence of mosquitoes and the construction of Fort Casimir by the New Netherland Dutch across the river. The English later founded the village of Salem in 1675 near the mouth of the river as part of the Fenwick Colony.

Alloway Creek is located in Salem County and begins as a river in Upper Pittsgrove and Pilesgrove Townships and flows west toward the Delaware River above Artificial Island. Five tributary branches form the headwaters of Alloway Creek which flow into Alloway Lake, the largest lake in Salem County. Below the lake, the creek changes from a riverine to a tidal marsh and meadow estuary. The Alloway Creek watershed is 75 square miles, accounting for about 20 percent of Salem County land area and while providing a habitat essential for commercial and sport fishing, hunting and trapping. Alloway Creek provides the cooling water intake system for one of the nation's largest nuclear-powered generating stations, the Salem Nuclear Generating Station.

GLOBALY-SIGNIFICANT BIRDING

The New Jersey Audubon Society (NJA) has designated 122 Important Bird Areas (IBA) throughout the State of New Jersey. IBAs are sites that provide essential habitat to maintain viable populations of native bird species. The program is an offshoot of a worldwide initiative, begun by Birdlife International, to identify and protect outstanding habitat for birds. New Jersey Audubon has designated 22 sites in the Delaware Bay region as well as eight (8) sites in the Delaware Bay watershed of the southern Piedmont Plains region as Important Bird Areas.

As of December 5, 2011, the Delaware Bayshore in Cumberland and Cape May counties has been designated as a Globally-Significant Important Bird Area; currently there are only 449 other globally-significant IBAs in the U.S. The IBA program is a global effort to identify the areas most important to birds and focus conservation efforts to those areas where they will have the greatest effect. To achieve the “Globally Significant” label, NJA and National Audubon submitted years of annual shorebird and waterfowl survey data to a panel of nationally and internationally recognized experts. The panel found that four species were present in numbers that met or exceeded the quota required to trigger the “Globally Significant” designation; the Bayshore is a crucial stopover site for migrating Red Knots and Ruddy Turnstones and provides critical winter habitat for large concentrations of Snow Geese and American Black Ducks.



Figure 30 – Alloway Creek



Figure 31 – The Maurice River



Figure 32 – “Shorebirds Galore”
Interpretive Panel

According to the New Jersey Audubon Society, of the four species named in the Globally Significant announcement, the plight of the Red Knot and Ruddy Turnstone is the best known and lends a bittersweet note to the designation. While recent surveys show significant numbers of birds refueling at the Bayshore during spring migration (12,000 to 16,000 Red Knots and 17,000 to 37,000 Ruddy Turnstones), they are lower than numbers of 95,000 Red Knots and 80,000 Turnstones recorded in the early aerial surveys. A precipitous decline in these populations began in the mid-1980s, when horseshoe crab harvesting rose dramatically for use as bait. The horseshoe crabs’ eggs are essential food that allows these long-distance migrants to make it to their summer arctic nesting grounds to breed. In March 2008, New Jersey Audubon and significant partners secured a ban on the commercial harvest of horseshoe crabs for bait until the Red Knot recovers in sufficient numbers. Currently the Red Knot is a candidate for the Endangered Species List (<http://www.njaudubon.org/LinkClick.aspx?fileticket=IdhcccSnjwA%3d&tabid=270&mid=2426>).

Stretching along approximately 50 miles of coastline, from Fairfield Township in Cumberland County to Cape May Point in Cape May County, the Delaware Bayshore IBA includes approximately 50,000 acres, much of which is protected conservation land and included 13 State Wildlife Management Areas and the Cape May National Wildlife Refuge.

WILDLIFE REFUGES / MANAGEMENT AREAS

The communities along the Bayshore Heritage Byway are home to several critical wildlife refuges/management areas. See Appendix 1, Map 4, for the locations of the extensive areas managed as National Wildlife Refuges or New Jersey Wildlife Management Areas.

Portions of the Bayshore Heritage Byway pass through the Pinelands National Reserve (PNR). This internationally-important ecological region was created by Congress under the National Parks and Recreation Act of 1978 and encompasses approximately 1.1 million acres covering portions of seven counties (Atlantic, Burlington, Camden, Cape May, Cumberland, Gloucester and Ocean) and all or parts of 56 municipalities. Within the PNR, the Pinelands Preservation Area District consists of 290,000 acres of pristine rivers, pygmy forest lands, cedar swamps and inland marshes, as well as the ruins of long-deserted factories and towns. Because NJ 47 (Delsea Drive) forms the southern boundary of the Preservation Area, where new residential, commercial and industrial development is largely prohibited, the byway would provide an important link between the

unique Pinelands ecosystem and the natural, historic and scenic resources of the Delaware Bay.

The PNR occupies 22 percent of New Jersey's land area and is the largest body of open space on the Mid-Atlantic seaboard between Richmond and Boston. The PNR is underlain by the Cohansey aquifer containing 17 trillion gallons of some of the purest water in the land (enough to cover the State of New Jersey with 10 feet of water). Low, dense forests of pine and oak, ribbons of cedar and hardwood swamps bordering drainage courses, pitch pine lowlands and bogs and marshes combine to produce an expansive vegetative mosaic unsurpassed in the Northeast. The Pinelands also contains over 12,000 acres of "pygmy forest," a unique stand of dwarf, but mature, pine and oak trees less than 11 feet tall. 850 species of plants can be found here, including rare plants such as the curly grass fern and broom crowberry.

The existing animal communities within the PNR are shaped by many environmental factors including surrounding vegetation, fire, moisture and water chemistry and many of these unique species are dependent upon the special conditions present in the PNR. Currently there are 39 species of mammals as well as 299 bird, 59 reptile and amphibian and 91 fish species that have been identified as occurring within the PNR; these also include 43 animal species listed as threatened or endangered by the New Jersey Division of Fish and Wildlife. One of those threatened species, the Pine Barrens Treefrog, is considered by many to be a symbol of the New Jersey Pinelands. Because of the unique ecosystem and the vast array of rare plant and animal species found within the PNR, the area was designated a U.S. Biosphere Reserve by UNESCO in 1983 and in 1988 the PNR was recognized as an International Biosphere Reserve. Today, under the Pinelands Comprehensive Management Plan, the region is protected in a manner that maintains its unique ecology while permitting compatible development.

FORESTS

Belleplain State Forest is a 21,320-acre, New Jersey State Forest in northern Cape May County and eastern Cumberland County. It was established in 1928 for recreation, timber production, wildlife management and conservation of water supplies and stands include pine, oak and Atlantic White Cedar. In 1933, the Civilian Conservation Corps (CCC) set up camps within the forest, converted Meisle Cranberry Bog into Lake Nummy and constructed the original forest headquarters, maintenance building, a road system, bridges and dams. The forest

includes recreational facilities for picnicking, boating, camping, hunting and fishing, swimming and over 40 miles of walking trails. On June 7, 2002, the Green Acres Program added 230 acres of privately-owned land to Belleplain State Forest; this addition comprises approximately 200 acres of woodlands – including Atlantic white cedar trees – surrounding the 30-acre Cedar Lake (also known as Hands Mill Pond) on West Creek in Maurice River Township, Cumberland County.

For over 20 years, Belleplain State Forest has supported several species of breeding raptors including state-endangered Bald Eagles, state-threatened Barred Owls and state-special concern Cooper’s Hawks. Belleplain provides exceptional mixed upland and scrub-shrub habitats for breeding regional responsibility species. Exceptional concentrations of Yellow-throated Warblers also breed at this site. The Research Department of New Jersey Audubon Society has identified this site as an important stopover area for songbirds during spring and fall migration.

Bear Swamp Natural Area, located in Cumberland County is located in Downe Township between the Millville Wildlife Management Area and the Glades Wildlife Refuge. The site contains two extensive hardwood swamp forests, Bear Swamp West and Bear Swamp East, which together make up the more than 11,000-acre Bear Swamp Natural Heritage Priority Site. Bear Swamp West is owned and managed by Natural Lands Trust and contains rare, old-growth forest with trees dating back up to 500 years. Bear Swamp East Natural Area is owned and managed by DEP’s Office of Natural Lands Management. Bear Swamp is home to the oldest continuously occupied Bald Eagle nest in the state and likely the largest wintering Bald Eagle roost in New Jersey, as many as 30 individuals roost in the old growth trees and forage in the tidal wetlands. This site also provides breeding habitat for state-endangered Red-shouldered Hawks, state-threatened Barred Owls and state-special concern Cooper’s Hawks. Bear Swamp is one of two sites in southern New Jersey where Pileated Woodpeckers breed. This site is also important for breeding forest interior and forest-dependent birds. The New Jersey Audubon Society has confirmed this site as critical stopover habitat for migrating songbirds during spring and fall migration.

WETLAND RESTORATION SITES

Tidal wetlands are one of the most productive ecosystems on earth. They perform many valuable functions: filtering impurities from storm water runoff, minimizing the damage of storm surges, providing shelter and food for migrating birds and serving as spawning and breeding grounds

for fish and wildlife— in essence, they serve as the base of the food web. In 1994, in response to the New Jersey Pollutant Discharge Elimination System (NJPDDES) and to minimize the effects of the Salem Generating Station on Delaware Estuary biota, the Public Service Enterprise Group (PSEG) established an Estuary Enhancement Program (EEP) and began restoring and preserving portions of the Estuary in both New Jersey and Delaware. Since then, PSEG has restored, enhanced and /or preserved more than 20,000 acres of salt marsh and adjacent uplands to vital, healthy habitat for fish and wildlife; the PSEG EEP is the largest privately-funded enhancement program in the country, or even perhaps the world.

Along the Bayshore Heritage Byway, the restoration sites include the following. These are shown in brown on the Protected Lands Map, Appendix 2, Map 4.

Alloway Creek Watershed Wetland Restoration Site – Located in Elsinboro, this site consists of 3,096 acres of wetlands and upland adjacent to Alloway Creek and the Delaware River; the actual restoration site consists of a little more than 1,600 acres. Restoration efforts here have focused on improving ecological conditions and fish habitats, as well as reducing the non-native, invasive weed Phragmites. To date, more than 800 acres of phragmites-dominated wetland has been replaced with desirable, native vegetation. Observation platforms, a nature trail and a bird viewing blind provide opportunities to see migratory and resident birds, as well as other seasonal wildlife including rough-legged hawks, snow geese, red-winged blackbirds, blue herons, yellow warblers and osprey.

Bayside Tract Preservation Site – Covers approximately 4,384 acres in Greenwich Township, Cumberland County, New Jersey. The Bayside Tract has been placed under a Deed of Conservation Restriction to ensure long-term protection of the area, including the historic resources and agricultural heritage. Greenwich Township and the Cohansey River area were settled in the 1680s and represent one of the first permanent English-speaking settlements along the Delaware River. The early settlers established an agricultural economy of family farms by clearing woodland areas, diking the salt marshes and establishing the use of marl (a finely-textured, calcium carbonate soil) as fertilizer. Remnants of dikes are still found on the Bayside Tract.



Figure 33 – Bayside Tract Preservation Site



Figure 34 – Cohansey River Access at Restoration Site
(Courtesy of Cindy Bloom-Cronin)



Figure 35 – Commercial Township Wetland Restoration Site

During the 1800s, the area's economy expanded to include an important commercial fishery based on the Atlantic sturgeon. The New Jersey Southern Railroad, which extended across Cumberland County and ended at the south fork of Bayside Road, stimulated the establishment of a fishing port, known as Caviar, at this location. Roe from the sturgeon was processed and shipped from the area by rail and water until the sturgeon fishery declined in the early 1900s. Throughout the 20th century, agriculture has remained the predominant land use. In addition, commercial and recreational fishing, especially crabbing, are important to the residents and the local economy. Muskrat trapping is a source of income for a few local residents. To date, preservation efforts have focused on the protection of aquatic habitat by preserving adjacent upland areas from development, protection of the natural and historic communities and cultural resources and providing public access (observation platform).

Cohansey River Watershed Restoration Site – The 1,055-acre Cohansey River Watershed Phragmites-dominated Wetland Restoration Site, located in Fairfield and Hopewell Townships, Cumberland County, New Jersey, encompasses approximately 910 acres of previously impounded coastal marsh, adjacent freshwater wetlands and upland areas. Wetland enhancement and restoration efforts began in 1996 and concluded in 1999. Restoration has transformed more than 400 acres from Phragmites vegetation to desirable plant species and has expanded spawning and nursery habitats for aquatic species. This site offers visitors a range of wildlife viewing opportunities. A well-marked trail with interpretive signs, beginning at the parking lot, leads visitors through field edge, forest and salt marsh habitats where they can learn about the area's flora and fauna. A public boat launch, located at the end of a gravel road approximately 200 yards beyond the parking lot, gives visitors a great view of the river and provides easy access for paddlers. Depending on the season, birds present include Bald Eagles, Great Blue Herons, osprey, American Goldfinch, as well as migrating raptors such as Cooper's and Red-tail hawks and falcons.

Commercial Township Wetland Restoration Site – This site includes approximately 4,000 acres in Port Norris. Portions of this site were diked as early as the 18th Century to exclude tidal flow from the Delaware Bay for salt hay farming. PSEG purchased the property in 1994 and approximately 3,000 acres have been restored to full tidal exchange, primarily to provide habitat for fish, but has the added benefit of providing critical spawning, nursery, foraging and refuge habitat for

all estuarine wildlife. Visible wildlife includes bald eagles, peregrines, sandpipers, egrets and terns as well as blue crabs, fiddler crabs and snails. The site has two miles of walking trails, one leading from the town of Port Norris to Bivalve, two extensive boardwalks winding out over the newly restored marsh, an observation platform (at the Bivalve site) and a car top boat launch at nearby Robbinstown Road.

Maurice River Township Wetland Restoration Site (Thompson’s Beach) – This 1,390-acre site, located in Heislerville, was also previously diked to exclude tidal flow from the Delaware Bay for salt hay farming. This site contains a network of channels and inlets that were created to restore habitat that is important to the reproduction cycles of fish. The viewing platform at Thompson’s Beach offers an impressive vista of the vast expanse of salt marsh that is the Delaware Bayshore. It also provides a great vantage point from which to view foraging shorebirds such as red knot, sanderling, ruddy turnstone and semipalmated sandpiper. Black-bellied Plover, Short-billed Dowitcher, Dunlin and yellowlegs all feed on the mudflats leading out to the beach. The remains of what used to be Thompson’s Beach Road are now essentially impassable. PSEG and members of the community are working to restore access to the beach in the coming years. Osprey, Clapper Rail and Seaside Sparrow nest along Thompson’s Beach Road and Peregrine Falcon have been seen here as well, which makes this an excellent site for birdwatching.

Dennis Township Wetland Restoration Site – This 560-acre site was diked in the 1950’s to exclude tidal flow from the Delaware Bay for salt hay farming. Since PSEG purchased the property in 1994, tidal exchange has been restored to 365 acres through the creation of channels and inlets to support the growth of desirable marsh plants. The restored tidal flow is allowing fish, shellfish and other aquatic life to return. In addition, many other species of animals including birds, shorebirds, turtles, migratory waterfowl and mammals such as muskrat, fox, raccoon and otter use the site. Bring your binoculars and experience the salt march via the nature trail or the floating observation platform and the tidal creek.

Since undertaking the project in 1994, PSEG has received numerous awards and recognition, further acknowledging the importance of the EEP and the restoration efforts on the state, local and national levels. Some of these awards are listed below.

- Coastal America Special Recognition Award – The White House Council on Environmental Quality recognized the EEP for its



Figure 36 – Observation Platform at Thompson’s Beach
(Courtesy of Cindy Bloom-Cronin)

leadership with the Corporate Wetlands Restoration Partnership (CWRP) in New Jersey and the mid-Atlantic region and its initiative to restore aquatic habitats on the Delaware Bayshore (2007).

- New Jersey Audubon Society Corporate Leadership Award – Awarded by the New Jersey Audubon Society in recognition of the EEP’s efforts to safeguard habitat and protect open space through innovative, environmentally responsible vegetation management practices along its transmission rights of way (2006).
- Wildlife Habitat Council Site Certification – Awarded by the Wildlife Habitat Council in recognition of commendable wildlife habitat management and environmental education programs at EEP sites (2005).
- Coastal America 2001 Partnership Award – Presented by the Chair of the White House Council on Environmental Quality to the EEP, U.S. Army Corps of Engineers, U.S. Fish & Wildlife Service, USEPA, National Marine Fisheries Service, DEP and county and private organizations, for collaborative efforts resulting in construction of fish ladders on the Cooper River for restoration and enhancement of river herring migration.
- Excellence in Business Leadership Award – From the National Oceanic and Atmospheric Administration (NOAA) for coastal and ocean resource management and the significant contributions the EEP has achieved in improving and protecting a coastal or ocean environment, while also demonstrating the ability to balance business interests with environmental needs (2001).
- Certificate of Environmental Achievement – Sponsored by Renew America and the National Awards Council for Environmental Sustainability for the EEP’s outstanding work for wildlife and habitat in New Jersey (1999).

SPECIAL HABITATS AND EVENTS

The shores of the Delaware Bay in New Jersey provide vital habitat for many different types of wildlife and aquatic organisms. At various times throughout the year, there are several special events and/or migrations that occur which enhance the overall natural value of the Bayshore Heritage Byway for residents and visitors.

MIGRATORY SHOREBIRDS AND HORSESHOE CRABS: THE CONNECTION

The Red Knot is a migratory shorebird about the size of a mourning dove. A bright salmon face and breast against a spangled black-and-white back give this shorebird an overall pinkish look from a distance. Each spring,

red knots migrate from wintering areas as far south as Tierra del Fuego, at the southern tip of South America, to breeding grounds in the Canadian Arctic – a 20,000 mile round trip. The Red Knot is one of our longest-distance migrants spending almost seven months of the year migrating back and forth between wintering and breeding areas.

The Delaware Bay is the linchpin of the Red Knot’s spring migration because it is the center of the Western Hemisphere’s only population of horseshoe crabs. Horseshoe crab eggs, unlike any other food resource, are quickly metabolized into fat that allows red knots and other shorebirds to double their body weight in a brief period – about two to three weeks. This weight gain is critical for survival because Delaware Bay is the last stop before red knots reach still-frozen arctic breeding grounds, where it takes one to three weeks for insect food to become available. The fat reserves, put on in Delaware Bay, allow red knots to survive and continue courtship, mating and egg laying until food becomes available. Without a sufficient fat reserve, the consequence is loss of reproduction, or worse, mortality.

At the same time as the shorebird migration, the horseshoe crabs of the Delaware Bay begin migrating from the deeper waters of the Bay to the shores to spawn. During the full and new moons of late May and early June millions of horseshoe crabs may appear on the beaches of the Delaware Bay and can be observed spawning during the day and night, but by far the highest numbers are seen at night when they are protected by the darkness. Once on shore, female horseshoe crabs use their pusher legs to form a shallow nest between four and six inches deep between high- and low-tide lines. Here she deposits between five and seven clumps of 2,000 to 4,000 eggs each, or up to 20,000 eggs in a spawning episode; she will repeat this process several times over the spawning cycle laying 90,000 eggs or more in a season. It is estimated that less than ten of these eggs will survive to adulthood.

Although commercial horseshoe crab landings were poorly documented prior to the late 1990s, it is recognized that with the significant expansion of the conch pot fishery in the mid-Atlantic region, the demands for horseshoe crabs as bait further stressed the resource when added to the already existing bait demands for horseshoe crabs, particularly females, for the American eel fisheries. New Jersey was one of the first Atlantic coastal states to implement a state-specific horseshoe crab-permitting and harvest-reporting system in 1993. New Jersey horseshoe crab reported landings increased tremendously from 1993 to 1997, when it



Figure 37 – Horseshoe Crab

(Courtesy of Citizens United to Protect the Maurice River and Its Tributaries)

became necessary to implement limited entry, a ban on mobile gear in harvesting horseshoe crabs and additional area and seasonal closures to reverse the increasing exploitation of the horseshoe crab resource. The implementation of an Atlantic coast-wide fishery management plan by the Atlantic States Marine Fisheries Commission in 1999 was effective in documenting and reducing the horseshoe crab commercial harvest for all states from Maine through Florida over the last decade. While there is evidence of increasing numbers of juvenile horseshoe crabs within recent years, the harvesting pressure on the spawning stock had not only impacted the sexually mature segment of the horseshoe crab population, but reduced the abundance of horseshoe crab eggs available to feed the migratory shorebirds utilizing Delaware Bay beaches during the spring. The Red Knot population, therefore, declined, suffering as the number of horseshoe crabs necessary to supply sufficient eggs to meet the needs of migratory shorebirds diminished.

While the Red Knot is most imperiled, most studied shorebird on the Delaware Bay, there are five other species that rely on crab eggs and whose populations have declined on Delaware Bay by about 65 percent: Ruddy Turnstone (*Arenaria interpres*), Sanderling (*Calidris alba*), Semipalmated Sandpiper (*Calidris pusilla*), Dunlin (*Calidris alpina*) and the Short-Billed Dowitcher (*Limnodromus griseus*).

In 2005, New Jersey and Delaware took significant steps to protect the Red Knot population from further decline. Both states imposed restrictions on horseshoe crab harvest during the spawning season and on public access to Delaware Bay and Atlantic Coast beaches to allow shorebirds to feed undisturbed. Unfortunately, crab harvest continues in Delaware, Maryland, New York and Virginia – with over 600,000 crabs being taken annually. The State of Delaware attempted to institute a moratorium in 2007 and 2008, but this effort failed and harvest in Delaware continues.

The New Jersey Department of Environmental Protection (DEP) continues to lead protection and recovery efforts on Delaware Bay. As the New Jersey moratorium on crab harvest expired in December 2007, DEP proposed a new rule, published in the New Jersey Register on December 3, 2007, to continue closure of the harvest until horseshoe crab and shorebird populations show signs of recovery.

In March 2008, New Jersey Audubon and significant partners secured a ban on the commercial harvest of horseshoe crabs for bait until the

Red Knot recovers in sufficient numbers. Currently the Red Knot is a candidate for the Endangered Species List.

PURPLE MARTIN MIGRATION

The Maurice National Scenic and Recreational River hosts a very unusual event each year during mid-July into early September. An area of Phragmites-dominated wetlands north of the Mauricetown Causeway (County Route 670) and east of the river provide a pre-migratory roosting site for thousands of purple martins. After the young have fledged, purple martins often congregate in distinctive nocturnal roosts. These communal assemblages may reach enormous concentrations and are considered a prelude to the martins' fall migration to South America.

Southern New Jersey has long played an important role for migratory birds during both spring and fall migrations. The Maurice River site is unique because it attracts purple martins from throughout New Jersey and probably adjacent states. An estimated 60,000 martins congregate at this site to feed upon the abundant supply of flying insects associated with the wetland corridor. Studies have shown that a similar roosting site on Lake Erie in Pennsylvania attracts approximately 75,000 martins from 150 to 200 miles away. Dense stands of Phragmites often provide safe places for the birds to roost.

Increasing numbers of birding enthusiasts visit the site in the early morning and evening to view this spectacular occurrence. However, there is no good place to view the bird's activities. The narrow shoulders of CR 670 do not afford a safe place to park a vehicle. A boat ramp at the base of the Causeway bridge in Maurice River Township has sufficient parking, but limited views because of the height of the Phragmites. Citizens United to Protect the Maurice River and its Tributaries has initiated and taken the lead to organize an effort to build a viewing platform at the boat ramp site, providing a safe place for people to observe the martins and enjoy the other natural attributes associated with the river. Representatives from PSEG, Maurice River Township, the New Jersey Division of Fish, Game and Wildlife, the Nature Conservancy, New Jersey Audubon Society, Cumberland County, National Park Service, New Jersey Coastal Heritage Trail are now working cooperatively together on the project.

MONARCH BUTTERFLY MIGRATION

Millions of Monarch butterflies pass through Cape May each autumn on a migratory journey. Weighing just one-half of a gram, they must successfully navigate a journey of more than 2,000 miles to the forested



Figure 38 – Purple Martin Migration
(Courtesy of Citizens United to Protect the Maurice River and Its Tributaries)



Figure 39 – Butterfly Garden
(Courtesy of Citizens United to Protect the Maurice River and Its Tributaries)

mountains of central Mexico. However, many perish along the way. Once in Mexico, these seemingly fragile butterflies while away the winter, waiting for spring to return to the U.S. and Canada. On some unknown cue in March, they break dormancy and head north, mating along the way. Females lay their eggs on milkweed plants growing in northern Mexico or the extreme southern U.S. Their offspring repopulate much of temperate North America where two or three non-migrating generation occur during the warmer months. Then in autumn, the migration begins again, with Monarchs heading to the same areas where their great-great grandparents spent the previous winter.

CAPE MAY: RAPTOR CAPITAL OF NORTH AMERICA

Greater Cape May is a peninsula, an extension of the New Jersey coastal plain bordered on the west by Delaware Bay and to the east by the Atlantic Ocean. This makes the Greater Cape May area a natural funnel, catching and directing southbound birds to the peninsula's terminus at Cape May Point.

It is a fundamental tenet of the natural world that predators remain less common than their prey. A hopeful observer could spend hours in prime Cooper's Hawk or Merlin territory and never catch a glimpse. Only during migration, when birds of prey are concentrated at key geographic locations are they readily seen. Cape May, New Jersey is without a doubt, the finest vantage point in North America.



Figure 40 – Cape May Designated Hawk Watch Area

Cape May's regular raptors include Accipiters like the Sharp-shinned Hawk, Cooper's Hawk and Northern Goshawk; Buteos like Red-tailed Hawk, Red-shouldered Hawk, Broad-winged Hawk, Rough-legged Hawk and Swainson's Hawk; Falcons like the Peregrine, Merlin and American Kestrel. Also seen regularly are Osprey, Northern Harrier, Bald Eagle, Golden Eagle, as well as Turkey Vulture and Black Vulture (technically storks, but honorary raptors).

Some of these species (like Sharp-shinned Hawk and Red-tailed Hawk) are common, even abundant and their migration period is long. Observers can expect to see these species almost every day. Other species like the Swainson's Hawk and Rough-legged Hawk are locally uncommon, seen only a few times a season, or have a migration period that is very restricted.

OSPREY COLONY PROJECT

Citizens United to Protect the Maurice River and Its Tributaries, Inc.'s (CUPMR) Osprey Colony Project was launched to help re-establish an osprey colony on the Maurice River and its tributaries. The osprey, often referred to as the fish hawk, is a bird of prey/raptor. Today the largest concentrations of osprey are found on the northeast coast of the U.S. But in the 1960's their populations plummeted, which marked the beginning of a national environmental crisis. By the 1970s, osprey were considered an endangered species.

Research showed that their decline was the result of chemical contamination by DDT (dichlor-diphenyl-trichloroethane). In concentrations up to a million times greater than those found in water, it was affecting the female bird's hormonal balance and in turn reproduction. Toxic effects inside the oviduct where the eggshell is formed caused insufficient calcium, resulting in thin eggshells. The incubation of the eggs could not be successfully completed because the weight of the parent's body would crush the eggs. As a result, in the early 1970s there were only about one hundred pairs of osprey left of the thousand that had once nested between New York and Boston. Historically, New Jersey had approximately 500 nests; however, by 1975 only 50 remained.

Intervention by humans has been the hallmark of osprey recovery. Along with a ban on DDT, one of the key ingredients to recovery has been the construction of nesting platforms. New Jersey now has approximately 400 nests. Osprey have gone from an endangered status to a threatened status and naturalists are hopeful of their full recovery. However, osprey are not out of danger yet. On the Delaware Bayshore New Jersey Endangered and Nongame Species Program biologists have documented a failing colony due to DDE, a derivative of DDT. And on the Atlantic Coast during the summers of 1997 and 1998 there were severe nest failures, possibly linked to food supply. Nevertheless, the Maurice River osprey colony has been on a steady increase, indicative of the improved water quality and abundance of prey species in the Maurice River watershed. In 1998 39 chicks were banded and 10 years later, 2008 yielded an astounding 74 chicks; approximately 41 percent of the total chicks banded in New Jersey were from the Maurice River colony.

In 1986, CUPMR's first pilot nest was erected on the Maurice River. Over the past 22 years Citizens United has erected over 57 nests in the Maurice River Watershed. In addition to these nests CUPMR has constructed



Figure 41 – Osprey in Nesting Platform

eight (8) for the NJ Bureau of Emergency Response for the top of oil spill boom pilings, two (2) for the Natural Lands Trust (outside the watershed), nine (9) for NJ Division of Fish, Game and Wildlife, 10 for Community Energy and 25 for PSEG's Estuary Enhancement program. Additionally, the CUPMR design for osprey nesting platforms has been adopted as New Jersey's official design; the distinctive "Y" shape looks more like a crook in a tree than a telephone pole on which osprey are often electrocuted. Since birds imprint to the structures in which they are raised, this shape may entice young pairs to use trees.

Historical Qualities

The Bayshore Heritage Byway will take visitors on a route less traveled through Salem, Cumberland and Cape May Counties providing exposure and access to some of southern New Jersey's most interesting historic sites, communities and cultural landscapes. The byway passes through historic neighborhoods, commercial districts and rural areas that clearly communicate this history and provide passers-by with many opportunities to appreciate this significant cultural heritage. These cultural, historic and archeological amenities also are relevant to and connect nicely with the natural, scenic and recreational resources and opportunities available along the byway. This interaction of all intrinsic qualities contributes substantially to the visitor experience and regional character that is special and unique to the Bayshore.

The Native American, European and African American cultural heritage in the region historically reflect different ways of life and divided stories of settlement and displacement, freedom and bondage, unity and conflict, prosperity and struggle, but all are contained within a similar environmental context. This environmental context has provided the natural resources that have supported many generations of people living in the vicinity. Much of these natural resources remain intact to this day: the fertile farmlands for upland crops; the woodlands for hunting and forestry products; the sandy soils for glassmaking; the waterways for fishing and transport; and the marshes for wetland crops and protection. This cultural and natural heritage is now the domain of the current residents of southern New Jersey who desire to share this rich legacy with the rest of the world through the National Scenic Byways program.

This chapter takes a closer look at the cultural, historic and archeological intrinsic qualities that define the Bayshore Heritage Byway. These intrinsic qualities are present in the byway and represented in the

identified byway themes, which contributes to the overall byway experience. The National Scenic Byways Program identifies historic quality as encompassing “legacies of the past that are distinctly associated with physical elements of the landscape, whether natural or man-made, that are of such historic significance that they educate the viewer and stir an appreciation of the past.”

The Archeological Qualities of the byway are represented in both prehistoric and early historic contexts with a demonstrated significance at the local level. The Cultural Quality described in the later historic context provided herein remain contemporary with the lifestyle, knowledge and traditions of people who currently live in the area. This continuity of documented historic practices with current lifestyle of some of the area’s residents demonstrates a regional level of significance for the Cultural Intrinsic Qualities in this byway. The Historic Quality—as demonstrated in the historic sites, properties and places found throughout the byway and described in this report—is of national importance.

PREHISTORIC CONTEXT

Historians may debate which European-American “discovered” southern New Jersey and the Delaware Bay—did Giovanni da Verrazzano truly miss the entrances to both the Chesapeake Bay and Delaware Bay during his 1524 expedition north along the eastern seaboard? Did another European explorer sail into the Delaware Bay or traverse its shoreline before Henry Hudson’s 1609 claim for the Dutch East India Company nearly one hundred years later? Regardless of the event that marks the start of recorded history in the area, it is an undisputed fact that human history in southern New Jersey extends back many thousands of years. Archeologists and historians typically refer to the periods before the advent of written historical accounts as ‘Prehistory.’

The Paleo-Indian People

Current evidence from the archeological record suggests the first human inhabitants may have arrived in what is now New Jersey as early as 14,000 BP during what archeologists refer to as the Paleo-Indian Cultural Period. The slow retreat of glaciers that were formed during the last ice age and the gradual rise of the world’s oceans initiated climate change over several millennia—the current geological timeframe that is referred to by geologists as the Holocene Epoch. Similar to other regions of North America at the same latitude, Southern New Jersey was beyond the reach of the glacial icepack and was likely traversed by humans before areas to the north.

The environment known by the Paleo-Indian people was substantially different than what the European explorers found upon their arrival to the New World. The Jersey shore at the time was as much as 80 miles further out on the continental shelf. The Delaware Bay in its current position did not exist. What is now submerged beneath the bay and wetlands on its borders was exposed, dry land in a shallow river valley. Small bands of people moved across a much different, drier environment of grassy plains with sporadic coniferous (spruce-pine) forests. Pursuing herds of grazing mammoth, mastodons, giant moose-elk, bison and caribou, people of the time were highly mobile, nomadic hunters and gatherers (Marshall).

Although flora, fauna and coastlines were vastly different, the current geological configuration of the Coastal Plain found in the southern half of New Jersey was in place by the time of the Paleo-Indian. The Coastal Plain in New Jersey is divided by a band of low hills forming two separate watersheds. The Inner Coastal Plain, which terminates on the southern end in Salem County, consists of alluvial and ancient marine sediments comprised of fine sand, clays and loams which tend to be more fertile. The waterways of the inner plain drain westward into the Delaware River. The Outer Coastal Plain is comprised of less fertile, coarse quartzite sand and gravel with its waterways draining southward into the bay and eastward into the Atlantic Ocean. This geological contrast is reflected in the different indigenous natural vegetation and wildlife found in each coastal plain today (Kraft and Mounier).

The Paleo-Indian people left little trace on the landscape and documented archeological sites associated with the Paleo-Indian culture are rare in the United States. A small number of Paleo-Indian archeological components and isolated diagnostic artifact finds have been documented in New Jersey. The earliest radiocarbon dates associated with a Paleo-Indian archeological component in the state is 11,000 BP. Diagnostic projectile points, such as those found in local amateur artifact collections, suggest a possible earlier human presence, but cannot be verified using traditional archeological dating methods. Although the evidence may exist in terrestrial or off-shore archeological sites that have not yet been discovered, the information currently available does not tell a detailed story about the Paleo-Indian people specific to the scenic byway.

The Archaic & Woodland Peoples

The slowly warming climate encouraged growth of the extensive deciduous forests now considered native to eastern North America

which caused the eventual extinction of some animal species and forced other species to migrate north. Other species adapted to the change in environment and even flourished. The Archaic Period (10,000-3,000 BP) is the phrase archeologists use to define human cultural adaptation during this time of environmental transition. Early Archaic hunters may have followed a similar mobile lifestyle as their Paleo-Indian forebears, but the Late Archaic period was a time of more sustained residency at seasonal village sites resulting in a change in tool technology and an increasingly elaborate ritual life. The native diet was now supplemented by both the hunting of smaller-sized herbivorous mammals and the gathering of a much more diverse range of edible plants (Mounier).

More prehistoric archeological sites with Early and/or Late Archaic Period components have been documented in southern New Jersey than in other parts of the state including the three counties associated with the scenic byway. Typically, Archaic Period sites are found in close association with existing waterways and include components from other cultural periods suggesting that use and occupation of some sites extend over thousands of years. Site type ranges from villages to small hunting/fishing camps and processing stations.

The prehistoric tool kit becomes more diverse, artistic expression is evident and more elaborate mortuary practices are apparent at prehistoric archeological sites associated with the Early to Middle Woodland Period (3,000 BP to 1000 AD) reflecting the indigenous population's ongoing adaptation to a more temperate climate. The archeological record reveals information indicating an increasingly sedentary lifestyle with some evidence of local horticulture practices and trade with neighboring groups. Innovations included the development of ceramic vessels for cooking and storage, the bow and arrow and the processing of burials at mortuaries separate from other site types. By the end of the Middle Woodland period, well-established, semi-permanent communities and group territories had developed. On the coastal plain, exploitation of estuarine and marine resources provided additional opportunity with a resulting increase in indigenous populations in these regions (Williams and Thomas).

The Late Woodland Period (1000AD -1600 AD) was the last era before European explorers arrived and represents the culmination of the trends of the preceding periods. These people lived on the shores of the Delaware Bay and its tributaries, settled in permanent villages, traded with groups over long distances and governed themselves with an egalitarian tribal

system. However, evidence suggesting established agricultural practices such as the cultivation of corn, beans and squash as found on inland sites further up the Delaware River valley remains elusive (Mounier).

Sites associated with the Archaic and Woodland Peoples are numerous in the three county area and types include larger villages, small hunting/fishing camps, processing stations, shell middens and mortuary internments. A range of cultural artifacts can be expected at most Native American archeological sites in the region including stone tools and ceramics. Biological remains, both visible to the eye and microscopic, can reveal valuable data about food, flora, fauna and environmental conditions. In the ground, the soil at an archeological site is likely to reveal evidence of Native American architecture, including fire, storage and refuse pits, middens, hearths, house depressions and post molds—these soil stains and disturbances are referred to as features by archeologists.

Most important is the association of the artifacts, biological remains and features in the soil within the context of an archeological site. This information together can reveal a tremendous amount of scientific evidence about who used the site, what happened within the site, how many years the site was used and what season the site was occupied. Also large numbers of prehistoric artifacts have been reported in local private collections, but remain unstudied and need to be catalogued. Though the archeological sites themselves may not be visible to most visitors and residents, two large collections of prehistoric artifacts are on display at the George Woodruff Exhibit at the Bridgeton Public Library and the Cumberland County Prehistorical Museum in Greenwich Township.

HISTORIC CONTEXT

European Exploration and Colonial Expansion

The Delaware Bay is one of several major estuaries along the eastern coastline of the United States that have provided a source of natural abundance for human settlement over the millennia. These water bodies have also create safe harbor for seafarers migrating to the continent such as the first Europeans and Africans that arrived during the 16th and 17th centuries. They also have historically served as gateways to the interior of the continent. The early history of the older places and communities located along the byway are inextricably linked to the Delaware Bay and its tributaries.

Tribal Alliances

The Contact Period (1600 AD to present) is what researchers refer to as the historical era when Native Americans came into direct contact with European explorers, traders and colonists. The indigenous people of the region commonly referred to themselves as part of the larger Lenni-Lenape (the “true people”) tribal alliance or simply ‘The Lenape.’ European colonists came to refer to these people as the “Delawares” because of their proximity to the Delaware River and Delaware Bay. By about 1660, the Lenape of the lower Delaware Valley had adapted to the ways of their European neighbors—a way of life significantly different from traditional Lenape concepts of governance, trade, architecture, land ownership and land use. While the majority of Lenape were pushed out of the region by the expanding European colonies, remnant groups of descendants are still present in the region.

The Pullaook is the name of a subgroup of the Lenni-Lenape tribal alliance that lived in the area that is now southern New Jersey. The first encounter with the Pullaook was likely after 1600 when European colonists began to settle the lands around the Delaware Bay. The Kechemeche is another name identified with indigenous peoples who once lived in the vicinity of Cape May County, New Jersey.

New Spain

Almost all of the eastern seaboard of what is now the United States was part of ‘La Florida,’ the 1513 claim made by Juan Ponce de Leon in the name of the Spanish Crown. Although Ponce de Leon thought he was establishing possession of an island in the Caribbean, it marks the first attempt by European national interests to claim the North American mainland. (It should be noted that England later claimed that John Cabot’s 1497 landing in Newfoundland served a similar purpose.) New Spain was created after the conquest of the Aztec Empire in 1521 and at its greatest extent included all of North America south of Canada. However, defending the Spanish claim against other European imperial forces proved difficult. Although missions for the conversion of indigenous peoples to the Catholic religion were located as far north as the Carolinas and expeditions sponsored by the Spanish Crown reached Delaware Bay during the late 16th century, no evidence of Spanish settlement has been documented or discovered in the Mid-Atlantic region.

New France

In 1523, the Italian explorer and navigator Giovanni da Verrazzano was commissioned by the French king, Francis I and financed by several

wealthy Florentine merchants, to discover a western sea trade route to China. Verrazzano, with his brother Girolamo, a mapmaker and crew set sail in four ships later the same year. Only a single ship with fifty men arrived off the coast of the Carolinas, two having wrecked and one returning to Italy with privateering spoils. The expedition headed north along the coast landing at several locations and eventually anchoring in a narrow stretch of New York Bay, known today as the Verrazano Narrows. Members of the expedition were the first documented Europeans to set foot in what is now New York and New Jersey.

It is likely en route, that the expedition would have observed both the mouths of the Chesapeake and Delaware Bays, but for a reason that is undocumented, they never mentioned this stretch of the North American coastline. Verrazzano laid claim in the name of Francis I, to the eastern seaboard between the Florida Straits and Newfoundland calling it 'Nouveau Francesca' or New France. Although a passage to Asia was not confirmed, the voyage convinced the French king and his subsequent heirs to invest in additional expeditions and attempts at colonization.

French and Italian merchants were among the first to realize that the New World was valuable for its bounty of fish and fur-bearing mammals, commodities that had become increasingly rare in Europe. Although repeated attempts by the French Crown to colonize North America during the 16th century met with failure, fishing and fur trade fleets continuously plied the northern Atlantic coastline and are likely to have reached Delaware Bay. Trading alliances were created with several Native American tribal nations which evolved into military alliances when the French were able to finally establish permanent settlements starting with Quebec City in 1608. However, there is no archival record or archeological evidence that suggests any attempt was made by the French to settle anywhere in the Mid-Atlantic region.

New Netherland

In 1588 the Dutch Republic asserted its independence from Spain which was finally acknowledged by the Spanish Crown in 1609. The newly found freedom sparked a renaissance in the republic which became an island of religious tolerance in a Europe at war over such issues. This provided a desired safe haven for many of Europe's intellectuals, artists and merchants of the period. Also, not to be outdone by English business interests, the Dutch East India Company was chartered in 1602 by Flemish Protestants based in Amsterdam becoming the second multi-national company in the world and the first to issue stock to its investors.

The company was given tremendous authority including the power to establish colonies, negotiate treaties, coin money, imprison and execute convicts and wage war.

The company hired Henry Hudson, an English sea captain and navigator, in 1609 to locate the elusive Northeast Passage to Asia. Hudson had previously attempted to find such a route for the Muscovy Company of England during previous expeditions in 1607 and 1608. Turned away by ice floes during an attempt to take an eastern course north of Russia because, the expedition then headed west beyond Greenland which Hudson had visited during earlier voyages. Landing first at Newfoundland and then Cape Cod, they continued along the North American coastline eventually reaching the Delaware Bay on August 28, 1609. An effort was made by the expedition to sail upriver, but progress was impeded by sandy shoals. It is likely other Europeans preceded his discovery, but the Hudson expedition is credited with being the first to document firsthand, the Delaware Bay referring to it as the ‘South Bay’ in his journal. (Sir Samuel Argall captained a ship owned by the English lord, Baron De La Warr that entered the bay in 1610 and is credited with naming the water body.)

Hudson’s report on his discoveries, including fertile lands suitable for settlement and native peoples eager to engage in trade, created considerable interest in the New World. Using information compiled from various charts made during voyages from 1609 to 1614, the Dutch mapmaker Adriaen Block created a composite map where the name ‘New Netherland’ was used for the first time and the Delaware Bay shoreline was shown in detail. The two capes that flank the inlet to Delaware Bay still hold the names given to them by the Dutch, Cape May in New Jersey, named after the explorer Cornelius Jacobsen Mey and Cape Henlopen in Delaware named after the trader Thijmen Jacobsz Hinlopen.

The Dutch West India Company was founded in 1621 as a private business venture to compete in the North American fur trade, settle the New Netherland colony and ship trade goods between North America, the Caribbean, Brazil and West Africa. The company dominated the slave trade in the 17th century and was likely responsible for bringing some of the first African-Americans to the region. During the 1650s, the New Netherland colony experienced considerable settlement and New Amsterdam (now New York) became a major trading port in the North Atlantic. The Dutch claim to New Netherland also included all of what is now New Jersey.

In the lower Delaware River Valley (called the South River by the Dutch) the Dutch West India Company established Fort Nassau in 1626 near Gloucester, New Jersey and the whaling village of Swanendael (Valley of the Swans) near what is now Lewes, Delaware. The Dutch also constructed Fort Beversrede in 1648 on the Schuylkill River in what is now Philadelphia and Fort Casimir in 1651 in what is now Newcastle, Delaware to defend their territory against Swedish and English interests.

New Sweden

Between the years 1618–1648 most of Europe was involved in the longest continuous military engagement in the history of the continent—The Thirty Years’ War. Continuously changing political alliances along with military losses and victories instantly toppled monarchies and created new superpowers. One of the victors of the protracted conflict was the Kingdom of Sweden. The country emerged as one of the European Great Powers extending their domain over a majority of the Baltic Sea coastline including all of Finland and Estonia and portions of Norway, Russia, Poland and Germany.

One attempt by the Swedish to flex their newfound political muscle was the establishment of the New Sweden Company, formed in 1637 following the business model used by other European powers. Peter Minuit, the former governor of New Netherland, was selected to lead the company’s first expedition to North America with the purpose of creating a colony that would allow Sweden access to the lucrative fur and tobacco trades. Dismissed as governor from the Dutch West India Company’s New Netherland colony, Minuit didn’t hesitate to accept the Swedish commission and share his knowledge of the local terrain and native tribal groups that live there.

The expedition reached Delaware Bay in March 1638. Under the Swedish flag, Minuit was able to negotiate a trading agreement, military alliance and the right to settle with the Susquehannock Indians. Neither the English nor Dutch were able to negotiate such an understanding because of their close alliance with the Iroquois Confederacy, the sworn enemy of the Susquehannocks, greatly affecting their ability to settle the area. The Susquehannock were soon to become New Sweden’s main supplier of furs and eager customers for European manufactured goods.

The colonists built a fortification on the shoreline, located in present-day Wilmington, Delaware, naming the stronghold ‘Fort Christina’, in

honor of Sweden's twelve-year-old queen. The fort has the distinction of representing the first permanent European settlement in the Delaware River Valley. During the next seventeen years, over 600 Swedes and Finns settled in the colony, which extended along both banks of the Delaware River including Finns Point in what is now Pennsville Township in Salem County, New Jersey. The Swedes and Finns were the first Europeans to farm the fertile lands of southern New Jersey, with successful agricultural operations continuing to this day; they are the inspiration for the state's moniker as The Garden State. One such farm was started by Anders Seneca, Jr. whose father was one of the original colonists that arrived with Minuit. Seneca secured the right to settle and farm the land from the Indian sachem, Obisquahassit whose name is still associated with the estate. Seneca's descendants owned the property until the 1980s making it the longest held farm by one family in the state and still live in the vicinity to this day.

With the increasing arrival of Dutch and English interests on the Delaware River, the second Governor of New Sweden, Johan Printz, ordered the construction of Fort New Elfsborg in 1643. Named after Castle Elfsborg in Gothenburg, Sweden, the fortification was built in the marshy river flats off of Elsinboro Point north of the mouth of Mill Creek in what is now Salem County, New Jersey. Designed with the intent to control river access and navigation, the fort was constructed as a tri-corner redoubt with four mounted cannon. If passing ships didn't drop anchor and lower their flags in homage to Swedish interests they were promptly fired upon by the fort's cannon. During its operation more soldiers succumbed to mosquito-borne illness than died in battle thus dubbed 'Myggenborg' ('Mosquito Fort') by its occupants. The fort was vacated in 1651 when Governor Printz consolidated his military resources on the west bank of the Delaware River with the Lenape burning the structure by 1654 (Furlow).

The colony of New Sweden formally came to an end in 1655 when the Dutch Governor of New Netherland, Peter Stuyvesant, arrived on the Delaware River with armed vessels and soldiers overwhelming Swedish defense capabilities. The Swede's third and last governor, Johan Rising, surrendered without a fight with the Dutch allowing the Swedish colonists to retain their land holdings, court and militia on the western side of the river. However, Swedish interests on the east bank of the Delaware River were ceded to the Dutch in 1655.



Figure 42 – Fort Elfsborg Roadside Marker

The English Colonies

During most of the 16th century Spain and Portugal dominated the world's oceans, charting the New World, opening sea trade routes and establishing colonies on four continents. France was not far behind making colonial inroads during the second half of the 16th century. With the defeat of the Spanish Armada in 1588, the Kingdom of England (to become the United Kingdom of Great Britain after political union with the Kingdom of Scotland in 1707) initiated its return to global dominance.

In order to establish a foothold in North America, King James I of England issued two colonial land charters. Based on the historical precedent that John Cabot established England's claim to North America during his 1497 voyage to Newfoundland, one charter was issued in 1606 to the Virginia Company of London and included all land within 100 miles of the coast between Cape Fear (North Carolina) and the Long Island Sound. The other charter was revised in 1620 to the Plymouth Council for New England and was comprised of English religious separatists who had fled to Holland to practice their faith without conflict. Both companies were privately funded proprietary ventures to claim land in the name of the English Crown, establish settlements, conduct trade and make a profit for stockholders. The first successful English settlement was Jamestown established in the Virginia Colony by the Virginia Company of London in 1607. The Plymouth Colony was started in 1620 and has the distinction as the oldest continuously inhabited English settlement in the United States.

From 1652 to 1674, three small Anglo-Dutch Wars were fought over the Mid-Atlantic holdings of the competing companies. In 1664, England challenged Dutch interests and holdings in the New World by blockading the mouth of the Hudson River and access to New Amsterdam with warships. The Dutch West India Company relinquished their possession of New Netherland and New Amsterdam without much fight because of the military superiority of English interests. Possession of the confiscated territory was granted by King Charles II to his brother James, the Duke of York with the colony and city both renamed as New York. The Duke, in turn, granted the land between the Hudson and Delaware Rivers to his two main supporters during the English Civil War—Sir George Carteret and John Berkeley, First Lord Berkeley of Stratton. The Dutch finally relinquished all claim and interest of New Netherland to the English in the Treaty of Westminster in 1674 although Dutch colonists were allowed to maintain possession of their land holdings (Rink).

The two aristocrats appointed Philip Carteret as the first governor for the Province of New Jersey. Land grants were issued as incentives for those interested in settling the colony and who would import slaves as a work force. Through a document drafted by the partners, called the Concession and Agreement, religious freedom was guaranteed throughout the colony. Colonists paid an annual fee for the privilege referred to as a ‘quitrent.’ After considerable difficulty in collecting the quitrents and disagreement with the Province of New York’s governor, Richard Nicholls, Lord Berkeley sold his share of the colony in 1673 to two Quakers, John Fenwick and Edward Byllinge. The liquidation of Berkeley’s holdings forced the division of the colony into two sections, East Jersey and West Jersey with the Quakers purchasing the western tract. Fenwick was part of a contingent of the Society of Friends that immigrated to New Jersey from London, England that same year. His portion of the land grant included what is now Salem and Cumberland Counties.

Although English settlement of the eastern side of the Delaware River started as early as 1641 with a community at Ferken’s Creek, now known as the Salem River, development of the region began in earnest with the Quaker’s purchase of West Jersey. In 1675 Fenwick and his fellow Quakers chose land on the river near the English, Swedish and Finnish settlers who preceded them and founded the town of New Salem, sometimes referred to as Fenwick’s Colony and now the City of Salem, the earliest permanent English settlement and established municipal jurisdiction along the New Jersey Bayshore Heritage Byway.

HISTORIC SITES ALONG THE BYWAY

Visitors to the Bayshore Heritage Byway will experience the full breadth of the region’s rich cultural and architectural history, given the number and variety of important resources found along the byway route (see Appendix 2, Map 5, Historic Qualities). Colonial period log buildings, eighteenth-century patterned-brick houses, nineteenth-century resort architecture and twentieth-century navigation and defense facilities are just a few of the attractions of the byway; many more await.

Salem County

- Holmeland (Benjamin Holme House), 410 Hancocks Bridge-Fort Elfsborg Road, Elsinboro Township – This private residence was the home of Col. Benjamin Holme, an officer in the New Jersey militia. Its earliest section was built c. 1750. The house was raided and burned by British troops during the American Revolution and later



Figure 43 - Holmeland
(Courtesy of Cindy Bloom-Cronin)



Figure 46 - Abel and Mary Nicholson House
 (Courtesy of Cindy Bloom-Cronin)



Figure 44 - Hancock House



Figure 45 – Interpretive Panel with
 Patterned Brick Information
 (Courtesy of Cindy Bloom-Cronin)

rebuilt. It is listed on the National Register of Historic Places and was featured in the Salem County Historical Society’s 2012 Open House in Fenwicks Colony.

- Abel and Mary Nicholson House, Hancocks Bridge-Fort Elfsborg Road, Elsinboro Township – This house, constructed in 1722, is among the most beautiful surviving examples of a Delaware Valley patterned-brick house. These houses were built in southern New Jersey by English Quaker settlers, using local clay to fabricate the bricks. With a nearly intact interior, this well-preserved house is one of the most important examples of its type and is a National Historic Landmark.
- Samuel and Sarah Nicholson House, 83 Amwellbury Road near Featherbed Lane, Elsinboro Township – This is another patterned brick house, built in 1752 and also known as Old Amwellbury Farm. It is one of several such houses built in the Elsinboro vicinity.
- Alloways Creek Friends Meetinghouse (Hancocks Bridge Meetinghouse), 74 Buttonwood Avenue near Main Street, Lower Alloways Creek Township – This brick meetinghouse was built in 1756 by English Quaker settlers and was the third meetinghouse constructed for this particular congregation. Originally a one-story, one-room building, it received a large addition in 1784 which added a second floor and a second meeting room. It retains typical features of period meetinghouses and is listed on the National Register of Historic Places.
- Cuff-DuBois House, 775 Harmersville-Canton Road, Lower Alloways Creek Township – This house began in 1798 as a simple one-story stone farmhouse and was expanded during the nineteenth century with frame additions. It was built by Reuben Cuff, son of a slave and is significant in the history of the local African American community. It is also a rare example of a stone farmhouse in the county.
- Hancock House State Historic Site, Hancocks Bridge, Locust Island Road, Lower Alloways Creek Township – The Hancock House is an elaborate patterned-brick house built in 1734 for Judge William and Sarah Hancock, featuring the owners’ initials, date and a herringbone pattern on its west gable end. It is one of approximately 41 patterned-brick houses built in the vicinity of Hancocks Bridge by Quaker settlers in the 1700s. In 1778, 20-30 Continental troops asleep in the

house were killed by invading British troops. The house was acquired by the State of New Jersey in 1931 for its historic significance and opened as a museum.

- Hancocks Bridge, Salem-Hancocks Road (CR 223) over Alloway Creek, Lower Alloways Creek Township – Appears to be a concrete and steel early-mid 20th century bridge.
- Joseph Bassett, Jr. House, 177 Pointers-Auburn Road, Mannington Township – This house was constructed in the early nineteenth century for Joseph Bassett, Jr., son of a prominent Salem family.
- Marshalltown Historic District, Roosevelt Avenue and Marshalltown Road, Mannington Township – Marshalltown is a small settlement established by free blacks in the 1830s. At its peak, it had 20 houses, two churches, two cemeteries and a school, but it declined after 1950 and now has only a few remaining historic buildings. One church, the cemeteries, the school and one residence survive but the now-threatened remains of the community contain valuable information about nineteenth-century African American life and possess significant archeological potential.
- Salem County Insane Asylum, 900 Woodstown Road, Mannington Township – The Salem County Insane Asylum is an Italianate-style institutional building constructed in 1870, which originally stood alongside a county almshouse constructed c. 1845. The Almshouse was torn down in recent years, but the Insane Asylum was listed on the National Register of Historic Places in 2008.
- Finn's Point National Cemetery, Pennsville Township – Finn's Point National Cemetery is located just outside Fort Mott State Park. Established during the Civil War, the cemetery contains the graves of 2,436 Confederate soldiers, who were interned as prisoners of war at nearby Fort Delaware on Pea Patch Island. Union soldiers who worked at Fort Delaware are buried here as well. Finn's Point National Cemetery and the adjacent Fort Mott are jointly listed as a historic district on the National Register of Historic Places.
- Finn's Point Rear Range Light, Pennsville Township – Finn's Point Rear Range Light is a skeletal cast-iron lighthouse built in 1877 and is significant as an example of nineteenth-century engineering, as well as its key role in Delaware Bay navigation. It is located in Supawna



Figure 47 – Finn's Point Cemetery
(Courtesy of Cindy Bloom-Cronin)



Figure 48 – Finn's Point Rear Range Light
(Courtesy of Cindy Bloom-Cronin)



Figure 49 – Historic Salem City
(Courtesy of Cindy Bloom-Cronin)

Meadows National Wildlife Refuge near Fort Mott. This lighthouse, along with its companion Finn’s Point Front Range Light, was a key navigational point for vessels traveling between the Delaware River and Delaware Bay. The lighthouse became obsolete after the Delaware River channel was dredged in 1950, but it has since been restored and is listed on the National Register of Historic Places.

- Fort Mott State Park, Pennsville Township – Fort Mott was built in 1872-1876 by the U.S. government. It was part of a defense system of three forts built to protect the Delaware River and its ports from enemy ships. A seasonal ferry service shuttles visitors between Fort Mott and the other two forts, Fort Delaware on Pea Patch Island and Fort DuPont in Delaware City, Delaware. Fort Mott and the adjacent Finn’s Point National Cemetery are jointly listed as a historic district on the National Register of Historic Places.
- Broadway Historic District, West Broadway, East Broadway and portions of Johnson, New Market and Yorke Streets, Salem – The Broadway Historic District contains a variety of houses and commercial and public buildings, including examples of Federal and Victorian-era architectural styles, along with some early twentieth century buildings. It is listed on the National Register of Historic Places.
- Hedge-Carpenter-Thompson Historic District, bounded by Hedge, Thompson, S. Third and Oak Streets, Salem – This historic district contains primarily twin and single working-class houses dating from 1848-1940. The neighborhood arose as a result of nineteenth-century industrialization in Salem, providing housing for workers in the many mills and factories nearby. It has been rehabilitated as low-cost housing and is listed on the National Register of Historic Places.
- Market Street Historic District, Market Street from East Broadway to Fenwick Creek, Salem – This district contains buildings dating from the eighteenth and nineteenth centuries, illustrating the history of downtown Salem. Georgian, Federal and eclectic Victorian-period styles are represented. It is listed on the National Register of Historic Places.
- Salem Armory, 14 New Market Street, Salem – The Salem Armory is a Civil War-era brick armory with a Greek Revival front. It is now owned by the State and houses social services agencies.

- Salem Working Class Historic District, Portions of Elm, Olive, Church, Sinnickson, Eakin and Linden Streets, Salem – This historic district contains the simple single and twin dwellings of mill workers and other working-class citizens of nineteenth and early twentieth century Salem.
- Telegraph Building, 185 Grant Street, Salem – The Telegraph Building is a small, nineteenth-century frame building, which was moved to its current site in 1990 and restored by Preservation Salem, Inc.

Cumberland County

- Angie’s Bridgeton Grille, 2 E. Broad Street, Bridgeton – Angie’s Bridgeton Grille is a historic diner. It is a 1939 Silk City Diner with many intact original details and is still in use as a restaurant.
- Bridgeton Historic District, Central Bridgeton (east and west of the Cohansey River), Bridgeton – The City of Bridgeton was established in 1686 and became one of southern New Jersey’s most prosperous towns. Many industries arose in the town following the Civil War, bringing wealth to its residents. The town’s long and important history is visible in the many fine homes and commercial buildings preserved in its historic district, which is the largest historic district in New Jersey with over 2,200 buildings.
- Cumberland County Liberty Bell – The liberty bell was made in Bridgewater, England before 1776. The bell hung in the courthouse and called people together for important news and meetings. It was also used as a warning signal during the War of 1812 and previously served as a fireman’s bell and a school bell for the West Jersey Academy and old Bridgeton High School.
- General Giles House, 143 West Broad Street, Bridgeton – General James Giles, who served with General George Washington during the American Revolution, built this house in 1791. It is an excellent example of a Georgian style residence and is listed on the National Register of Historic Places.
- George Woodruff Museum of Indian Artifacts, Bridgeton Free Public Library, 150 East Commerce Street, Bridgeton – This museum is a collection of 30,000 artifacts of the Leni-Lenape people who were



Figure 50 – Angie's Bridgeton Grille



Figure 51 – Downtown Bridgeton

indigenous to southern New Jersey. Located in the lower level of the Bridgeton Free Public Library, the collection was created by the late George Woodruff and installed at the library in 1976 and also contains pots collected by Howard Radcliffe. Guided tours are available on Saturdays.



Figure 52 – Potter's Tavern Sign

- Nail Mill Museum, 1 Mayor Aitken Drive, Bridgeton City Park, Bridgeton – This museum, open on a seasonal basis, is housed in an 1815 nail factory built for the Cumberland Iron and Nail Company. It houses a variety of exhibits on local history.
- New Sweden Colonial Farmstead Museum and Living History Center, Mayor Aitken Drive, Bridgeton City Park, Bridgeton
- Built in 1987 under the supervision of Swedish craftsmen, the New Sweden Farmstead Museum is a recreation of a pioneer village built by Swedish settlers of the 17th century. The complex of seven log buildings was built in Bridgeton's city park to commemorate the 350th anniversary of the arrival of Swedish colonists at Delaware Bay in 1638. The museum complex is being renovated and plans to reopen in 2013.
- Potter's Tavern, 49-51 Broad Street, Bridgeton – Potter's Tavern is a timber-frame building constructed c. 1740 by English settlers. It was the only tavern in town for some time and as such was a popular meeting place for residents to socialize and discuss news and politics. In 1775, the tavern owner, Matthew Potter, risked being accused of treason when he and other local residents published a newspaper called *The Plain Dealer*, which supported independence for the colonies. Potter's Tavern has been called "Bridgeton's Independence Hall," and was restored to its historic appearance by the City of Bridgeton. The tavern is listed on the National Register of Historic Places.
- Bayshore Discovery Project Bivalve Center, Port Norris, Commercial Township – Founded in 1988, the Bayshore Discovery Project is housed at the Bivalve complex of waterfront wharves and oyster shipping sheds, built in 1904 at the mouth of the Maurice River and now listed on the National Register of Historic Places. Bivalve was once the epicenter of the region's oyster industry. The complex now houses the Delaware Bay Museum, which educates visitors about the Bay's history and maritime culture. The organization also owns and operates the Delaware Bay oyster schooner *A.J. Meerwald*, built in

1928 and now serving as New Jersey’s official Tall Ship. The ship, which travels the coast and hosts educational sails, is also listed on the National Register.

- **Mauricetown Historic District, Mauricetown, Commercial Township** – Mauricetown is a former port town on the Maurice River, which housed a thriving shipyard during the nineteenth and early twentieth centuries. Many preserved historic homes still stand in the town. At the heart of the historic district is the Edward Compton House at 1229 Front St., headquarters of the Mauricetown Historical Society. The Society works to preserve buildings, objects and information important to the history of the Maurice River port towns and Commercial Township. The Compton House property also includes a relocated 1830s Stackhouse and a reconstructed cookhouse. The three buildings are open twice a month for tours.
- **Newport Historic District, Downe Township** – Newport is a small port town established in the eighteenth century. It was the site of at least one Revolutionary War skirmish between colonists and British forces.
- **Union Hall, 2 East Main Street, Dividing Creek, Downe Township** – The Union Hall was built in 1897 by three local lodges and is now owned by the Dividing Creek Historical Society, which opens it for performances and events of various types. It has been determined eligible for the National Register of Historic Places.
- **Old Stone Church, Fairton, Cedarville and Sayre’s Neck Roads, Fairton, Fairfield Township** – This church was built in 1780 by the Fairfield Presbyterian Church, which had been established in 1680. The stone church replaced an older frame building. It was used until 1850 when the congregation transferred to a new building in Fairton. The church property includes a cemetery and is listed on the National Register of Historic Places.
- **Bethel A.M.E. Church, 326 Sheppard’s Mill Road, Springtown, Greenwich Township** – Bethel A.M.E. Church was at the heart of the historic African-American community at Springtown, which was settled after 1786 by freed slaves and their descendants. By the mid-1800s, Springtown had a sizable population of free, land-owning African American residents. This church was built c. 1838-1841, replacing an earlier church that burned down. Bethel A.M.E. was a key stop on the Underground Railroad, hosting fugitives who had



Figure 53 – Newport Streetscape



Figure 54 – Historic Building in Greenwich

crossed the Delaware as they journeyed north to freedom. Harriet Tubman is believed to have visited this station. It is listed on the National Register of Historic Places for its significant role in the abolition movement.



Figure 55 – East Point Lighthouse

- Cumberland County Prehistorical Museum, 1461 Bridgeton Road, Greenwich Township – This museum houses a collection of bones, fossils and Native American artifacts and handicrafts from southern New Jersey. This collection was created by the late Alan Ewing Carman and is operated by the Cumberland County Historical Society.
- Greenwich Historic District, Greenwich Township – Greenwich was founded in 1685 and rapidly became an important port along the Delaware Bay. As one of a few official ports of entry in the New Jersey colony, it was an early hub of international trade and commerce. In 1774, it was the scene of the Last Tea Party, when residents burned a shipment of tea in the town square to protest British taxation just before the Revolutionary War broke out. Greenwich was later eclipsed by larger ports and bypassed by the railroads and remains a quaint small town, home to numerous historic houses and museums in a well-preserved landscape. This historic district is listed on the National Register of Historic Places.
- Greenwich Tea Burning Monument, Ye Greate Street and Market Lane, Greenwich Township – This stone monument was erected in 1909 by the Cumberland County Historical Society to commemorate the patriotic actions of Greenwich residents just prior to the American Revolution. On December 22, 1774, a group of young townsmen seized a cargo of East India tea bound for Philadelphia and burned it in the town square in protest of England’s heavy taxes on tea shipped to the American colonies.
- John DuBois Maritime Museum, 979 Ye Greate Street, Greenwich Township – This small museum, operated by the Cumberland County Historical Society and open by appointment only, features a collection of local maritime artifacts of the nineteenth and early twentieth centuries, including tools, marine engine parts and shipbuilders’ models.
- Nicholas Gibbon House and Swedish Granary, 960 Ye Greate Street, Greenwich Township – This Nicholas Gibbon House was built in



Figure 56 – East Point Lighthouse Interpretive Panels

1730 and is an example of an early patterned-brick house. It was acquired in 1969 by the Cumberland County Historical Society and opened as a house museum. Behind the Gibbon House is a granary built by Swedish settlers c. 1650, which was moved to this site and restored in 1976. It is believed to be the oldest standing Swedish granary in the United States.

- East Point Lighthouse, East Point and Bay Avenue by the Maurice River, Heislerville, Maurice River Township – This brick lighthouse, also known as Maurice River Lighthouse, was built in 1849 to guide ships through the mouth of the Maurice River as they traveled to and from port towns upstream. Today it is the second-oldest lighthouse standing in New Jersey. It was decommissioned in 1941 and suffered a disastrous fire in 1971. It was later restored by the Maurice River Historical Society and opened for public tours. It is listed on the National Register of Historic Places.
- Cape May Historic District, Cape May City and West Cape May Borough – The Cape May Historic District spans the entire city of Cape May and part of West Cape May Borough. It reflects the development of Cape May as a resort town beginning in the mid-nineteenth century and continuing into early twentieth century. Celebrated as the oldest seaside resort in the U.S., it is significant as an unparalleled collection of Victorian-period wood-frame architecture in an array of eclectic styles. The district is listed on the National Register of Historic Places and the portion of the district in Cape May Borough has such great significance that it is recognized as a National Historic Landmark.
- USCGC Hornbeam, Cape May City – U.S. Coast Guard Cutter Hornbeam is one of 39 180-foot cutters built for the Coast Guard from 1942-1944. Documented by the National Park Service in 2002, it is significant for its role in coastal safety and defense.
- Dennisville Historic District, Dennis Township – Dennisville is a small crossroads community along NJ 47 which is listed on the National Register of Historic Places. It is one of eight villages within Dennis Township. The district includes the Dennis Township Museum and History Center at 681 Petersburg Rd., which is housed in the old Dennisville Schoolhouse and focuses on the history of Dennis Township and the surrounding region.



Figure 57 – Cape May in Winter
(Courtesy of Cindy Bloom-Cronin)



Figure 58 – Dennisville Historic Architecture
(Courtesy of Cindy Bloom-Cronin)



Figure 59 – Eldora Nature Preserve

- Eldora Historic District, Dennis Township – This crossroads hamlet, determined eligible for the National Register in 1996, is one of eight villages within Dennis Township.
- Eldora Nature Preserve, Dennis Township – This nature preserve, owned and operated by the Nature Conservancy, includes the restored 1872 farmhouse which from 1965 to 1981 belonged to Dr. C. Brook Worth, a renowned entomologist who donated his farm to the conservancy in 1981. The Eldora farmhouse is now the home of the Delaware Bayshores Center, which educates visitors on the area’s natural history.



Figure 60 – Cape May Lighthouse

- Joseph Falkenburge House, 922 Delsea Drive, Dennis Township – This house, constructed in 1801 and listed on the National Register of Historic Places, is a Flemish-bond brick dwelling with elaborate interior woodwork and plaster moldings.
- Ludlam Houses and Ludlam Schoolhouse, Dennis Township – Several houses associated with the Ludlam family are located along NJ 47/Delsea Dr. in Dennis Township. They include the Christopher Ludlam House (1776) at 699 Delsea Dr., Thomas Ludlam, Jr. House (1790) at 707 Delsea Dr., James J. Ludlam House at 913 Delsea Dr. and the Henry Ludlam House (c. 1740s) at 1336 Delsea Dr.. The Thomas Ludlam House and the Henry Ludlam House are both listed on the National Register of Historic Places. In addition, the one-room Ludlam Schoolhouse is located at the corner of Delsea Dr. and Myrtle Ave.
- South Dennis Historic District, Dennis Township – This area is one of eight villages within Dennis Township, illustrating historic settlement patterns within the region.



Figure 61 – Cape May Point State Park World War II Bunker

- William S. Townsend House, 96 Delsea Drive, Dennis Township – This house was built in 1811 and is listed on the National Register of Historic Places. The property includes the house and several outbuildings and is significant as an example of vernacular Neoclassical architecture.
- Cape May Point State Park, Lower Township – Cape May Point State Park contains two important resources illustrating the history of government and military use of the point. The majestic Cape May Lighthouse was built by the Coast Guard in 1859 and is over 150

feet tall, making it one of three “tall towers” along the New Jersey coast. Restored and opened to the public in the 1980s, it is listed on the National Register of Historic Places. Built in 1942 as part of the Harbor Defense Project and now on the National Register of Historic Places, Battery 223, also known as Battery 26, is a concrete bunker on the beach south of the lighthouse. Originally 900 feet inland and covered by sod and earth to resemble a hill, it is now exposed on the beachfront and open for exploring. The park also has an environmental center with interpretive exhibits on the area’s history and natural resources.

- Historic Cold Spring Village, Lower Township – Historic Cold Spring Village is a living history museum focused on regional buildings and interpreting the lifeways of area residents from 1789 to 1840. The museum is home to a complex of 26 restored historic buildings, many of which were relocated from their original sites in the area to the village for preservation and interpretation. The building collection includes the Cape May Point Jail, the Rio Grande Railroad Station and the National Register-listed Cold Spring Grange Hall and Octagonal Poultry House, plus many others.
- Cold Spring Historic District, 734-909 Seashore Road, Lower Township – This historic district, which is separate from Historic Cold Spring Village, contains a number of buildings that were part of the settlement of Cold Spring Village, including Cold Spring Presbyterian Church.
- Cold Spring Presbyterian Church, 780 Seashore Road, Lower Township – Cold Spring Presbyterian Church is a brick Greek Revival church, built in 1823 and listed on the National Register of Historic Places. Its cemetery contains graves from as early as 1742.
- Fire Control Tower 23, Sunset Boulevard, Lower Township – Located on Sunset Blvd. near Cape May Point State Park, Fire Control Tower 23 was part of the Harbor Defense Project. The 1942 concrete lookout tower is New Jersey’s last surviving example of its type and was recently restored and listed on the National Register of Historic Places.
- Jonathan Pyne House, 609 Sea Grove Avenue, Lower Township – The Jonathan Pyne House was built in 1690, making it one of the oldest



Figure 62 – Coxe Hall Cottage in Cold Spring Village

(Courtesy of Historic Cold Spring Village)



Figure 63 – Spicer Learning House in Cold Spring Village

(Courtesy of Historic Cold Spring Village)



Figure 64 – Fishing Creek School

houses in the state. It is listed on the National Register of Historic Places.

- Naval Air Station Wildwood/Cape May Airport, 500 Forrestal Road, Lower Township – Located a short distance from the byway, the Cape May Airport is home to both an active airport and an aviation history museum. Established in 1943 as Naval Air Station Wildwood to train dive-bomber squadrons, the airport complex retains historic Hangar #1, listed on the National Register of Historic Places. The Naval Air Station Wildwood Aviation Museum features ongoing exhibits and educational programs while working on the restoration of Hangar #1.
- Goshen Historic District, N. Delsea Drive near Goshen Landing Road, Middle Township – Goshen is a small rural crossroads village with two churches, a school, a former store and many preserved nineteenth-century frame houses and represents a common historic settlement pattern in the region.
- Goshen Public School, Delsea Drive, Middle Township – The Goshen Public School is a two-story Italianate vernacular frame school with one classroom on each floor. Built in 1872, it was used as a school until 1961. The property was later sold to a local fire district and was used for community events, but later fell into disuse. Restoration work was recently initiated.
- Milestone, south side of Sunset Boulevard, West Cape May Borough – This resource is a surviving milestone from the Cape Island Turnpike, constructed from 1848 to 1851 and is an important part of the area’s transportation history.
- West Cape May Historic District, West Cape May Borough – The West Cape May Historic District is located along portions of Broadway, Myrtle Avenue and Grant Street. It consists of nineteenth-century and early twentieth century houses and other buildings. It is eligible for the National Register of Historic Places.
- Whildin-Miller House, 416 South Broadway, West Cape May Borough – This house, built in 1860, is an excellent example of Italianate architecture. It is listed on the National Register of Historic Places.

- George Hildreth House, 731 Seashore Road, Lower Township – Built in 1850, the George Hildreth House is among the oldest buildings in the village of Cold Spring. It is listed on the National Register of Historic Places.
- Cape May Airport – Naval Air Station Wildwood, 500 Forrestal Road, Lower Township – Located a short distance from the byway, the Cape May Airport is home to both an active airport and an aviation history museum. Established in 1943 as Naval Air Station Wildwood to train dive-bomber squadrons, the airport complex retains historic Hangar #1, listed on the National Register of Historic Places. The Naval Air Station Wildwood Aviation Museum features ongoing exhibits and educational programs while working on the restoration of Hangar #1.
- 2710 Bayshore Road, Lower Township – This property is an example of a vernacular frame farmhouse, constructed c. 1850.
- Fishing Creek School, 2102 Bayshore Road, Lower Township – Built in 1888, the Fishing Creek Schoolhouse is the only surviving one-room schoolhouse in Lower Township and still stands on its original site. It served as a school until 1926 and subsequently as a summer cottage. In 1980, it was listed on the National Register of Historic Places. It is now owned by the State Green Acres Program and leased to Lower Township.
- Judge Nathaniel Foster House, 1649 Bayshore Road, Lower Township – Built c. 1728, this fine brick home is among the oldest houses in Lower Township and is listed on the National Register of Historic Places.

2.4.2. Supporting Intrinsic Qualities

Cultural

The Cultural Quality of the New Jersey Bayshore Heritage Byway is inherently connected to the resources and attributes identified in Historical Qualities on page 44. The adaptation by prehistoric peoples to the natural environment that emerged from the last Ice Age to the natural landscape from the occupation by Native Americans for millennia to the four-hundred year European farming legacy that serves as the foundation for the prehistory and history of the area.

Like most of eastern North America, the eastern shore of the Delaware Bay has been occupied by Native American occupation spanning over 10,000 years. The evolution of Native American peoples through the Paleoindian, Archaic and Woodland periods traces their cultural and social responses to changing environmental conditions within the region. In the centuries before European colonization, the Native Americans along the Delaware Bay exploited the bounty of this estuary, established permanent year-round settlements and engaged in complex social rituals. Native groups formed tribal alliances engaging in trade over long distances. Rivalries also emerged creating conflict between tribal groups and the termination of Native American cultures in the Delaware Bay area.

The Swedish West India Company established a colony on the Delaware River in 1638, naming it New Sweden. A small, short-lived colonial settlement, New Sweden contained at its height only some 600 Swedish and Finnish settlers (Finland was then part of Sweden). It was lost to the Dutch in New Netherland in 1655. Nevertheless, the descendants of the original colonists maintained spoken Swedish until the late 18th century. Modern day reminders of the history of New Sweden are reflected in the byway area. The historian H. A. Barton has suggested that the greatest significance of New Sweden was the strong and long-lasting interest in America that the colony generated in Sweden. America was seen as the standard-bearer of liberalism and personal freedom and became an ideal for liberal Swedes. Their admiration for America was combined with the notion of a past Swedish Golden Age with ancient Nordic ideals. Supposedly corrupted by foreign influences, the timeless “Swedish values” would be recovered by Swedes in the New World. This remained a fundamental theme of Swedish and later Swedish-American, discussion of America, though the recommended “timeless” values changed over time. In the 17th and 18th centuries, Swedes who called for greater religious freedom would often refer to America as the supreme symbol of it.

Archaeological

The National Scenic Byways program defines the Archeological Intrinsic Quality as follows:

Archaeological Quality involves those characteristics of the scenic byways corridor that are physical evidence of historic or prehistoric human life or activity that are visible and capable of being inventoried and interpreted. The scenic byway corridor’s archeological interest, as

identified through ruins, artifacts, structural remains and other physical evidence have scientific significance that educate the viewer and stir an appreciation for the past.

The New Jersey Historic Preservation Office maintains a statewide inventory of archeological sites and provides guidance for the proper documentation of these resources. This statewide inventory was examined in order to prepare this section of the corridor management plan. There are many archeological resources that have been documented in the three-county area including sites in close proximity to the Bayshore Heritage Byway route. (Please note that it is a routine matter of public policy at the state and federal levels not to publish detailed information about the locations of archeological resources in publicly distributed documents such as scenic byway corridor management plans.)

Several of the documented archeological resources in the vicinity of the byway, along with their associated landscapes and artifacts, meet the definition of the Archeological Intrinsic Quality stated above although above-ground structural remains such as ancient ruins and prehistoric earthworks are not prevalent in southern New Jersey. It is, however, important to acknowledge that the tangible evidence for most of the cultural history of the area (Prehistory through the Contact Period) is represented only by what is found in the archeological record. For this reason, a summary of the cultural context for prehistoric archeological resources is provided on page 50 of this plan.

The diversity of artifact types, styles and configurations found at prehistoric archeological sites continue to evolve during the Early to Middle Woodland Period (3,000 BP to 1000 AD) reflecting the indigenous population's ongoing adaptation to a more temperate climate. The archeological record reveals information indicating an increasingly sedentary lifestyle with some evidence of local horticulture practices and trade with neighboring groups. Innovations included the development of ceramic vessels for cooking and storage, the bow and arrow and ceremonial burials at mortuaries separate from other sites. By the end of the Middle Woodland period, well-established, semi-permanent communities and group territories had developed. On the coastal plain, exploitation of estuarine and marine resources provided additional opportunity with a resulting increase in indigenous populations in these regions. (Williams and Thomas).



Figure 65 – Fort Elfsborg-Hancocks Bridge Road



Figure 66 – Chestnut Road

Archeologists have repeatedly stated that substantial research remains to better understand the prehistoric peoples of southern New Jersey.

Prehistoric archeological sites are finite, nonrenewable resources. Several sites have been documented in the three-county area, others are likely still to be discovered, while many have been lost over the years to southern New Jersey's changing landscape. The sites that remain continue to hold valuable information that add to our collective scientific knowledge and provide an awareness of those who came before us. Although the documented archeological sites and the prehistoric artifact collections on display do not represent regional or national significance for the Archeological Intrinsic Quality, they do substantially contribute to the byway's unique cultural heritage.

Scenic

Over the course of its 142 miles, the Bayshore Heritage Byway takes visitors through landscapes with scenic qualities few turnpike travelers expect to see. The route traverses open farm fields and wetlands, crosses tidal streams and their tributaries, ducks in and out of historic villages and extends out to the Bayshore. These landscapes have shaped the history of this region and defined its culture, past and present. For the byway traveler they help tell the stories of the region all the while creating a varied, high quality visual experience unique to the Bayshore.



Figure 67 -Wetlands in the Mannington Meadows Area

Recognizing the importance of the visual experience and proper management to maintain that experience, the New Jersey Scenic Byways Program requires byway organizations to conduct a visual survey. The survey, described in detail in Section 2.3.1, assesses the composition of natural and man-made features in the landscape based on their unity, intactness and vividness. Areas that rate high in these three aspects offer a high quality visual experience and best exemplify the scenic qualities of the Bayshore Heritage Byway. Those character areas with the most scenic qualities are described below.

Mannington Meadows

Dominated by an agricultural landscape, Mannington Meadows includes field boundaries defined by wooded hedgerows that form the backdrop in the distance and farm houses—some of historical significance—spaced far apart. The agricultural landscape is interrupted by Salem River tributaries and associated wetlands that offer vast views of marsh habitat and periodic wildlife sightings.

Historic Salem

In contrast to Mannington Meadows, views in Historic Salem are long only as travelers look down the road before them. Along the roadside views are limited to the sidewalk and adjacent building fronts. This stretch along the byway is composed almost exclusively of man-made features, but its historical buildings, brick sidewalks and tree-lined streets offer an appealing view of a historic townscape.

Closed Canopy along Fort Elfsborg-Hancocks Bridge Road

A short stretch of woodland along Fort Elfsborg-Hancocks Bridge Road provides yet another type of visual experience along the byway. Here the scenic quality comes from mature trees up against the roadside with long limbs reaching across the road to create a closed canopy. The result is a tunnel-like view of the roadway with playful patterns on the asphalt created by dappled sunlight shining through the trees.

Chestnut Road

Chestnut Road offers a delightful visual experience heightened by a variety of landscapes and forms. Views alternate between closed-canopied woodlands and open, “big-sky” vistas across rolling farmlands. Davis Mill Pond at the southern end of the character area creates a picturesque scene of tranquil water and wooded shores.

Greenwich

The village of Greenwich boasts numerous Colonial and Victorian homes, churches, schools and municipal buildings. Individually each is a historical treasure; together, however, they create a special visual experience – that of a highly intact historical village. The eighteenth and nineteenth century architecture interspersed with trees of the same age offer a scenic quality seldom found in the twenty-first century.

Bayside/Caviar Spur

The Bayside/Caviar spur captures the essence of the Bayshore Heritage Byway scenic quality. An outbound trip on the spur begins with an array of gourd-like Purple Martin houses followed by a tidal mudflat only a few yards away. The expansive mudflat vista quickly contracts as the route takes visitors on a narrow road flanked on either side with dense vegetation. This narrow field of vision opens up again upon reaching the Bayside Tract and a view spanning the Delaware Bay rewards those who reach the end.



Figure 68 – Village of Greenwich

Bridgeton/Shepards Mill Roads

Bridgeton and Shepards Mill Roads offer alternating views of wide open farm fields and narrow passages through short stretches of woodland. The last mile of Shepards Mill Road is lined with orchards, completely a quintessential South Jersey agricultural landscape.



Figure 69 – Bayside Caviar Spur

Fortescue

At the end of the Fortescue Spur, the Fortescue Wildlife Management Area and Glades Wildlife Refuge provide exceptional views that, like the Bayside/Caviar Spur, capture the essence of the Bayshore Heritage Byway. Vast marshlands give way to panoramic views of the Delaware Bay as osprey and shorebirds dance in the sky above.



Figure 70 – Fortescue WMA and Wildlife Refuge

Dividing Creek Watershed and Village

Dividing Creek and its tributaries form a web of waterways and wetlands extending inland from the Bay. The byway weaves through this web offering expansive views of wetlands backed by woodlands to the north. And tucked amidst the marshes is the village of Dividing Creek with quaint Victorian houses and tree-lined streets.



Figure 71 – Dividing Creek Watershed

Discovery Project Spur

The Discovery Project in Bivalve is home to the A.J. Meerwald Schooner, New Jersey's Tall Ship. The restored shipping sheds and docks provide a historical scenic quality, evoking images of an era when Bivalve was the center of a lively oyster industry. From these docks visitors can look out at the mouth of the Maurice River. Although several industrial structures are located at the end of the spur, the river views are picturesque, particularly when the schooner sets sail, the wind behind its white sails as it heads out to the Bay.

Mauricetown

Mauricetown is another scenic townscape along the byway. Highland Street is lined with charming historic homes and a riverfront park at the end of the road affords views up and down the Maurice River. The causeway over the bridge provides an even better vantage point from which to view the Maurice River—a designated National Wild and Scenic River—and its wetlands as well as a picturesque view of the town, complete with white church steeple.

East Point Lighthouse

The road out to the East Point Lighthouse offers scenic views in the form of expansive wetlands as well as wooded canopies enveloping the

roadway. The highlight, however, is the view of the Delaware Bay and East Point Lighthouse at the end of the spur.

Glade Road

Glade Road takes visitors through a vast open wetland bordered by woodland on three sides with an open view out to the Bay on the fourth. The wetland grasses wave in the breeze, bright green in the spring and a golden hue in the fall. A deep blue creek passes through the wetland and under the byway. It is pure peace and tranquility.

West Cape May

West Cape May is the southernmost town along the byway, bustling with tourists and boasting numerous shops, cafes, restaurants and bed & breakfasts. The scenic quality here is derived from the lively townscape. Buildings are colorful and the Victorian architecture is intrinsic to this historic shore resort town.

Cape May Point State Park and Sunset Beach

This segment takes visitors through a lovely residential area, but the highlight occurs at the two forks that make up the southern terminus of the byway: Cape May Point State Park and Sunset Beach. Both offer expansive bay views and deep purple and pink sunsets worthy of a postcard.

In addition to the scenic views taken in from the byway, some of the most scenic views in the corridor are experienced at sites just off the byway including:

Riverview Park – located north of Fort Mott on NJ 49, Riverview Park offers an impressive view of the Delaware River and Delaware Memorial Bridge, a graceful twin suspension bridge a “Nationally and Exceptionally Significant Feature of the Federal Interstate Highway System”

Turkey Point/Egg Island WMA – an observation platform and elevated footbridge at the parking lot allow visitors to look out over acres and acres of wetland. A series of marked trails that wind through the wildlife management area allow nature lovers to enjoy the views up close.

Commercial Township Wetland Restoration Site – part of the PSE&G Estuary Enhancement Program, this site is a restored salt hay marsh.



Figure 72 – View to Mauricetown



Figure 73 – Glade Road

Elevated boardwalks at the end of High Street and Strawberry Avenue offer an endless view of the marsh.

Thompson’s Beach Road (Maurice River Township Wetland Restoration Site) – like the Commercial Township Site, Thompson’s Beach is a salt hay marsh restored through the PSE&G program. An observation platform at the parking area offers an impressive vista of the marsh extending out to the Delaware Bay.

Dennis Township Wetland Restoration Site – a floating platform accessible from Stipsons Island Road enables visitors to view Dennis Creek as it winds through wetland restored through the PSE&G Estuary Enhancement Program.

Cape May County bay access points – although the byway route through Middle and Lower Townships is lined with a mixture of residential and commercial properties, the Shorebird Alley and Lower Township segments of the byway provide access to numerous bay viewing points in Cape May County. From the end of the jetty at Reed’s Beach, visitors can see the length of the coastline from East Point to North Cape May. At the end of Kimbles Beach Road, Kimbles Beach offers panoramic views of the Delaware Bay, as do Cooks Beach and Norbury’s Landing at the end of Millman Boulevard. In Lower Township Shore views are breathtaking from any point along Shore and Beach Drives and south of the Cape May Canal, Higbee Beach offers an observation platform for an elevated view.



Figure 74 – A Kayak Tour through Wetlands

(Courtesy of Citizens United to Protect the Maurice River and Its Tributaries)

Recreational

The Bayshore Heritage Byway corridor offers numerous recreational opportunities, especially for the water- and nature-lover. The corridor is a birdwatcher’s paradise as the extensive wetlands, woodlands, streams and shoreline provide habitat to numerous bird species and other wildlife. Most of these habitats are protected resources in federal and state wildlife management areas or local wildlife refuges and parks, so they are publicly accessible. The features and operational information of these sites and facilities are located on the recreational opportunities map, Appendix 2, Map 6 and summarized in Appendix 4, Recreational and Natural Sites Canoeing and Kayaking.

The Delaware Bay estuary offers numerous opportunities for paddling along tributaries and through wetlands. Visitors can explore the southernmost portion of the Supawna Meadows National Wildlife Refuge

on a water trail off the Salem River. In addition, Shaw’s Mill Pond in the Millville Wildlife Management Area and East Creek Pond and Lake Nummy in Belleplain Forest provide opportunities for paddling on open water or ducking in and out of the numerous shoreline coves and inlets.

Several local outfits offer boat rentals and the sidebar lists public boat ramps for putting in, including a brand new boat ramp and parking area in Mannington Meadows just south of Hawkins Bridge, the byway’s northern terminus.

WALKING AND HIKING

If kayaking and canoeing are not suitable, there are plenty of opportunities to explore the wildlife on land. Most of the wildlife management areas have boardwalks and trails, some with interpretive signage and panels, such as in Supawna Meadows, Egg Island WMA and the Nature Conservancy at Cumberland/Cape May County line.

BOATING

Given the proximity to the Delaware Bay, it is not surprising that several marinas are right on the byway and many more are close by. Table 2 lists publicly accessible boat ramps in the area.

If unable to captain their own vessels, visitors can have a more historical maritime experience aboard the A.J. Meerwald Schooner, an oyster schooner first launched in 1928 and added to the National Register of Historic Places in 1995. Visitors can charter the boat for a private excursion or take part in one of the many educational programs that occur on the boat.

BICYCLING

While much of the recreational activity along the byway is related to wildlife watching and the natural habitats intrinsic to the area, bicycling offers an opportunity to view the larger landscape from the road ... and at a slightly faster pace. Current mapped bicycle routes and projects along the Bayshore Heritage Highway include:

- Cumberland-Salem Revolution – an NJDOT-mapped loop route beginning/ending at Fort Mott State Park to Bridgeton, historic Greenwich and along the shores of Delaware Bay to Elsinboro.
- Bayshore Byways – an NJDOT-mapped loop route, beginning and ending in Millville that runs along the shores of the Maurice River to East Point Lighthouse and the Bayshore Discovery Project.



Figure 75 – Trail Approaching the Bayshore Discovery Project



Figure 76 – Trail Along Money Island Road



Figure 77 – Fortescue Marina

- The Cape May Shoreline Ride – an NJDOT-mapped loop route to/from the Cape May Lighthouse, that provides access to destinations on the Delaware Bayshore as well as the Atlantic Ocean;
- Cold Spring Bike Path – located in Lower Township, this path runs along the former West Jersey and Seashore Company railbed for almost three miles;
- Sunset Boulevard – a popular bike route in Cape May that attracts many bicyclists during the summer months

Except for the Cold Spring Bike Path, all of these bike paths are currently located on county- and state-maintained roadways. Due to the low traffic volumes and presence of wide, striped shoulders on most of the roadways that comprise it, the byway is a very suitable destination for bicyclists of all experience levels. A comprehensive evaluation of bicycle conditions along the byway is included in Section 3.3.2, Highway Safety and Roadway Character Issues under Bicycle Safety and Accommodations.

TABLE 2 – BOAT RAMPS ALONG THE BYWAY

Boat Ramps (from NJ Boat Ramps www.njboatramps.com)	Boat Ramps (from NJ Boat Ramps www.njboatramps.com)
<p>Beaver Dam Creek Sherman's Boat Basin / Princeton Ave, Brick</p> <ul style="list-style-type: none"> • Phone: 732-295-0103 • Concrete Ramp • Fee per Launch <p>Maurice River Berry's Driftwood Marina, Maurice River Road, Matt's Landing</p> <ul style="list-style-type: none"> • Phone: 609-785-2293 • Concrete Ramp • Fee per Launch <p>Anchor Marina, Matt's Landing Road, Matt's Landing</p> <ul style="list-style-type: none"> • Phone: 609-785-9899 • Concrete Ramp • Fee per Launch <p>Andy's Marina, Matt's Landing</p> <ul style="list-style-type: none"> • Phone: 609-785-0101 • Concrete Ramp • Fee per Launch <p>Millville Municipal Ramp, Fowser Road, Millville</p> <ul style="list-style-type: none"> • Phone: 609-825-7269 • Concrete Ramp • Seasonal Permit <p>Port Norris Marina, Ogden Road, Port Norris</p> <ul style="list-style-type: none"> • Phone: 609-785-1205 • Concrete Ramp • Fee per Launch • Rest rooms <p>Longreach Marina, Shell Road, Port Norris</p> <ul style="list-style-type: none"> • Phone: 609-785-1818 • Concrete Ramp • Fee per Launch • Rest rooms <p>Dividing Creek Dividing Creek Boat Rentals, Dividing Creek</p> <ul style="list-style-type: none"> • Phone: 609-785-2828 • Shell and Wood Ramp • Fee per Launch <p>Dividing Creek Boat Rentals, Dividing Creek</p> <ul style="list-style-type: none"> • Phone: 609-785-2828 • Shell and Wood Ramp • Fee per Launch <p>Delaware Bay Higbee's Main Street, Fortescue</p> <ul style="list-style-type: none"> • Phone: 609-447-4157 • Lift • Fee per Lift <p>Double 'A' Marina, Public Road, Fortescue</p> <ul style="list-style-type: none"> • Phone: 609-447-3014 • Fee per Launch <p>Gandy's Beach Marina, Gandy's Beach, Newport</p> <ul style="list-style-type: none"> • Phone: 609-447-3002 • Concrete Ramp • Fee per Launch 	<p>Delaware Bay (continued...) Bob's Bayview Marina, Oak Ave, Villa</p> <ul style="list-style-type: none"> • Phone: 732-886-3676 • Railway • 20-foot and Under <p>Cohansey River Greenwich Boat Works, Pier Road, Greenwich</p> <ul style="list-style-type: none"> • Phone: 609-451-7777 • Concrete Ramp • Fee per Launch <p>Salem River Penns Salem Marina, Highway 49, Salem</p> <ul style="list-style-type: none"> • Phone: 609-935-2628 • Concrete Ramp • Rest rooms

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3. Visiting the Byway



Figure 78 – Bayway Marina

3.1. Finding and Following the Byway

3.1.1. Byway Information

The following websites maintain useful information to enable visitors to conveniently find local and regional events sites and attractions, recreational opportunities, restaurants, hotels, maps and other resources.

LOCAL, REGIONAL AND STATE WEBSITES

Increasingly, travelers are looking for information about their destination online. Consequently, websites featuring the byway and byway-related sites are critical to raising awareness and attracting visitors to the

Bayshore. Developing a stronger online presence for the byway is a priority and is addressed in greater detail in Strategy 3.6. on page 137.

- New Jersey State Scenic Byways Program: <http://www.nj.gov/transportation/community/scenic/Bayshore.shtm>
- South Jersey Bayshore Coalition: <http://sjbayshore.org/Heritage.htm>
- New Jersey Division of Travel and Tourism: <http://www.visitnj.org/>
- Cape May County Department of Tourism: <http://www.thejerseycape.com/>
- Cumberland County Tourism and Recreation: <http://www.co.cumberland.nj.us/content/171/9367.aspx>
- Salem County Office of Tourism: <http://www.visitsalemcountynj.com/>
- South Jersey Tourism: <http://www.visitsouthjersey.com>
- New Jersey Audubon's Birding and Wildlife Trails: <http://www.njwildlifetrails.org/>
- New Jersey Coastal Heritage Trail*: <http://www.nps.gov/neje/index.htm>

* Federal funding for the New Jersey Coastal Heritage Trail has expired. Although the web site remains accessible, it is not being updated. This corridor management plan addresses the future relationship of the byway to the Coastal Heritage Trail in Chapter 4, Strategy 3.7.

VISITOR CENTERS

Once visitors reach South Jersey, visitor facilities and services are available to guide them further during their travels.

Salem County

Salem County Visitors Center

In the heart of Historic Salem, the Salem County Visitors Center is an excellent source for information about the county. Staff is available to answer questions and a variety of brochures and maps are available for more detailed information about particular sites and attractions.



Figure 79 - Salem County Visitor Center at Johnson Hall in Salem
Courtesy of Salem County Chamber of Commerce

Location: 1 Market Street, Salem, NJ 08079
Phone: (856) 935-9242
Website: www.visitsalemcountynj.com/
Hours: Friday, Saturday and Sunday, 10:00 am – 5:00 p.m.

Delsea Region Welcome Center

The Delsea Region Welcome Center is located in Fort Mott State Park and features exhibits on the maritime history of the region. In addition, on weekends only, beginning with the last weekend in April through mid-June, Wednesday through Sunday from mid-June through Labor Day and again on weekends only from Labor Day through the last weekend in September, visitors can travel back in time on the Delaware River and Bay Authority's three forts ferry crossing. This ferry service connects Delaware City, Delaware, Fort Delaware on Pea Patch Island and Fort Mott. Available facilities include guided interpretive walks along the sea wall during the busy summer season, rest rooms, AV theatre featuring Coastal Heritage Trail orientation video and picnic grounds.

Location: Fort Mott State Park, 454 Fort Mott Road Pennsville, NJ 08070
 Phone: (856) 935-3218
 Website: www.state.nj.us/dep/parksandforests/parks/fortmott.html
 Hours: Year-round, hours vary, call for holiday closures

Cumberland County

Cumberland County Tourist Information Center

The Bridgeton Tourist Information Center is located in the heart of Bridgeton, two blocks from the Cohansey River. The Center provides numerous brochures and maps for local and regional sites and attractions. Rest rooms are open to the public and parking is free on-site.

Location: 50 East Broad Street, Bridgeton, NJ 08302
 Phone: (856) 455-1500

Cape May County

Cape May Region Welcome Center

The Cape May Region Welcome Center is a full-service center operated by the New Jersey Division of Travel and Tourism. It is fully accessible and includes the Cape May County Chamber of Commerce with information about area lodging and points of interest. Available facilities include rest rooms, travel information, restaurants, full-service fuel and service station, special exhibits about the region, informational brochures and AV alcove with Coastal Heritage Trail orientation video.



Figure 80 – Cumberland County Welcome Center

Location: Ocean View Service Area of the Garden State Parkway at milepost 18.3.
Phone: (609) 624-0918
Website: www.visitnj.com
Hours: Daily, 9:00 a.m. – 5:00 p.m., closed Thanksgiving, Christmas, and New Year’s Day

Cape May Welcome Center

Volunteers from the Mid-Atlantic Center for the Arts (MAC) and the Chamber of Commerce are available to familiarize visitors with Cape May and the local goings on. The Welcome Center is within walking distance to the Washington Street Mall, as well as many restaurants and accommodations in the area. Available facilities include maps and other printed materials, rest rooms (at the Washington Street Mall Comfort Station) and 30 minute parking on-site.

Location: 609 Lafayette Street, Cape May, NJ 08204
Phone: (609) 884-5508 or (609) 884-9562
Web site: <http://www.capemay.com/visitors-center.html>

3.1.2. Getting to the Byway

Extending from the New Jersey Turnpike in the west to the Garden State Parkway in the east, the Bayshore Heritage Byway is readily accessible. Map 7 in Appendix 2 shows the main points of access for visitors coming to the byway.

DRIVING

From Wilmington, DE and points south

Follow I-95 N into Delaware. Stay to the right, merging onto I-295 N/Delaware Turnpike. Follow signs for the Delaware Memorial Bridge/New Jersey/New York. Once across the bridge, stay to the left and follow US-40 E. Take the US-40/Atlantic City exit. Turn right onto CR 540/Hawks Bridge Road. The byway begins at milepost 1.53.

From Philadelphia, PA and points west

Take I-76 across the Delaware River and into New Jersey. Take exit 1A on the left and merge onto I-295 S in the direction of the Delaware Memorial Bridge. Travel 25 miles and take exit 2B toward US-40 E. Merge onto CR 551 N/Hawks Bridge Road. Follow Hawks Bridge Road over the NJ Turnpike where it becomes CR 540. The byway begins at milepost 1.53.

From New York, NY and points north to byway's northern terminus

Head south on the Garden State Parkway. Take exit 129 for I-95/NJ Turnpike/US-9 toward the Delaware Memorial Bridge/NJ-440/I-287/Woodbridge/Perth Amboy. Keep left at the fork and follow signs for I-95/NJ Turnpike. Merge onto the NJ Turnpike and follow for approximately 90 miles. Take the NJ-140 exit toward Deepwater/County Road 540/Penns Grove. Turn left onto Hawks Bridge Road. The byway begins at milepost 1.53.

From New York, NY and points north to the byway's southern terminus:

Head south on the Garden State Parkway for approximately 125 miles. Take exit 17 toward Sea Isle Boulevard. Keep left at the fork and follow signs for Ocean View/Woodbine. Turn left onto Sea Isle Boulevard and then the first left onto US-9/Shore Road. After 2.4 miles, turn right onto NJ-83 W. This will take you to NJ 47, at which point you can turn right to head north on the byway or turn left to head south on the byway.

AIRPORTS

Several airports serve the byway region. Philadelphia International Airport is only 30 minutes/25 miles from the byway. From the airport visitors take I-95 south to exit 4 toward US-322 E/Commodore Barry Bridge/New Jersey. After crossing the Delaware River on the Commodore Barry Bridge (US-322), take the ramp onto I-295 S. Take exit 2B toward US-40 E. Merge onto CR 551 N/Hawks Bridge Road. Follow Hawks Bridge Road over the NJ Turnpike where it becomes CR 540. The byway begins at milepost 1.53.

Baltimore/Washington International Thurgood Marshall Airport is about 1.5 hours (82 miles) from the byway's northern terminus. From the airport, visitors take MD-295 N/Baltimore-Washington Parkway W toward I-695 N/Baltimore. Taking the exit for the Harbor Tunnel Thruway/I-895 N, merge onto I-895 N. After 10 miles, merge onto I-95 N and follow the directions about from points south.

Newark International Airport also serves the area and is approximately two hours from the byway by car or 105 miles to Mannington at the northern end of the byway and 132 miles to Dennisville toward the southern end. From the airport visitors follow signs for I-95/US-1 S/Elizabeth/US-9 S and merge onto US-1 S/US-9 S. Take the exit toward I-95/Dowd Avenue/North Avenue/Elizabeth Seaport/NJ Turnpike and

then merge onto NJ-81 S. Keeping right at the fork, follow signs for I-95 and after approximately 1.1 miles, merge onto I-95 S. Visitors heading to Salem County should stay on I-95 to the NJ Turnpike and then follow the directions from points north to the byway's northern terminus. Visitors looking to begin their byway experience in Cape May should get off I-95 after 10 miles, taking exit 11 for US-9 toward Woodbridge. Follow signs for the Garden State Parkway S and merge onto the Parkway. Once on the Parkway, follow the directions above for points north to the byway's southern terminus.

Atlantic City Airport lies approximately 60 miles from the byway's northern terminus. From the airport, take the Atlantic City Expressway heading west and take the exit toward NJ 50 South. Turn right, continuing onto Cape May Avenue/Harding Highway. After about 19 miles, take the ramp for US 40 (NJ 47/Delsea Drive) and turn right onto US 40. Stay on US 40 West and turn slight left onto Wiley Road. Turn left onto Hawks Bridge Road to begin traveling south on the byway.

Amtrak

The byway is well-positioned on the Amtrak route from New York (and points north) to Washington, DC (and points south). The nearest train station is 14.5 miles from the byway's northern terminus in Wilmington, DE.

Ferry

The Cape May-Lewes Ferry travels across the Delaware Bay, transporting passengers between Lewes, Delaware and Cape May, New Jersey, near the byway's southern terminus. The trip distance is 17 miles long and take 85 minutes.



Figure 81 – Boating through Turkey Point

(Courtesy of Cindy Bloom-Cronin)

3.1.3 Wayfinding and Signage

Currently the byway is not marked. A separate wayfinding and signage plan was developed by NJDOT for all of the byways across the state (See Appendix 6, Wayfinding and Signage Study).

3.2. Existing Visitor Facilities and Sites

A snapshot of existing visitor sites and facilities (as of April 2012) is included in Appendix 4 and displayed on Appendix 2, Map 9.

3.3. Existing Roadway Conditions

3.3.1. Road Classification

The Bayshore Heritage Byway consists of a number of different roadway links and includes portions of state highways, several county routes and some local roads. Overlaid on this jurisdictional classification system is a roadway functional classification system. This functional classification system for roadways is used for transportation planning purposes across the country and is overseen at the state level by DOTs. Its application to the study area for the byway can be seen on Appendix 5, Map 1.

Functional classification describes a roadway's purpose. These classifications include expressways, arterials, collectors and local roads. As one moves downward through the hierarchy of roadway classifications from expressway to local road, the expected traffic volumes and speeds decrease and the level of access from adjacent properties to the roadway increases.

Expressways are limited access highways intended to move large volumes of traffic at relatively high rates of speed over substantial distance. Arterials have some similarities to expressways in that they move large volumes of traffic and, although they do allow property access, mobility is more important. Arterials may be used for some local trips but are primarily used for longer trips. Some of the differences between principal and minor arterials include that principal arterials may be longer roads, have higher traffic volumes, a lesser focus on property access and may have median control or turning lanes. Collectors are smaller roads that are intended to balance property access with mobility. These roads are intended to be used to access the higher order roadways and often to reach destinations within a community. Distinctions between major and minor collectors include that major collectors are longer and carry more traffic. Local roads are intended to provide direct access to properties and be used for short trips to destinations or to enter the higher order roadways for longer trips.

Functional classification is a planning tool used for reasons ranging from determining setback regulations, right-of-way preservation, access management regulations, road design standards, intersection separation distance and scenic road designations. In some cases, the functional classification of a roadway will change based on its relationship to the surrounding land uses.

Most of the length of the byway is presently designated Minor Arterial or one of the Collector categories. In Cape May County, NJ 47 (Delsea Drive) and CR 603 (Bayshore Road) are minor arterials, while CR 613 (Breakwater Road), Seashore Road and Sunset Boulevard are collectors. In Cumberland County, NJ 47 and CR 553 are minor arterials, whereas CR 650 and CR 639 are collectors. In Salem County, the byway is mostly a Major Collector.

There are 5 places where parts of the byway are presently designated Principal Arterial. The first is where US Route 9 (Sandman Blvd. and Lincoln Blvd.) reaches west to the Cape May–Lewes Ferry terminal. A second is at the northern end of the Cape May County portion of the byway, where NJ Route 83 joins with NJ 47 at Dennisville (the Principal Arterial designation then departs the byway where NJ 347 splits with NJ 47). The third location is where NJ 49 briefly is part of the byway in downtown Bridgeton and the fourth is where NJ 49 again is part of the byway, this time in Salem City and for a mile or so west as part of the Ft. Mott spur. A fifth occasion is the intersection of NJ 49, W. Sapawna Road and Harrisonville Lighthouse Road that is part of the Ft. Mott spur.

Exceptions to the general Minor Arterial and Collector designations (and to the Principal Arterial designation just mentioned) occur when the byway has minor diversions from through routes onto small roads along its main line and where it diverts completely onto spurs. So, for example, the diversion onto Cumberland County 664 near Dividing Creek puts the byway on a road designating in the Functional Classification as Local. The spur from Greenwich out to the bay similarly is on a Local road. The significance of the functional classification for the byway is twofold. First, the classification underscores the mixed nature of the byway routing. It takes users onto a variety of roadways, some high in the functional classification hierarchy, some low in that hierarchy, with most lying in between these. Second, it raises the prospect of potentially re-designating the functional classification of certain links, in anticipation of changes in the role to be played by those links in the context of an active Bayshore Heritage Byway.

3.3.2. Highway safety and roadway character issues

VEHICULAR CONDITIONS

The diverse nature of the roadways that collectively make up the Bayshore Heritage Byway has already been outlined in the description of

roadway functional classification. This diversity is also reflected in other characteristics of Byway roads, such as posted speed limits and physical features such as shoulder width and, when present, median width (See Appendix 5, Map 2, Roadway Characteristics).

Posted speed limits are typically 45 or 50 miles per hour along the byway, with lower speed limits in villages and the cities of Bridgeton and Salem. Speed limits are also lower on the byway in the populous areas of Lower Township, Cape May County and in Cape May Point Borough and West Cape May Borough. Similarly, when the byway has minor diversions from through routes onto small roads along its main line, speed limits are lower.

As a practical matter, speed limits should closely relate to shoulder widths in the context of a scenic byway, since users may include cyclists and pedestrians and some proportion of motorists may be sightseeing or looking to pull out of the travel lane to confirm directions or check guide information. There are safety implications with the variety of users anticipated on the byway. Where roadway speed limits are higher, such as 45 or 50 miles per hour, shoulder widths should be more generous to provide the required flexibility for users. Where speeds are lower, such as 35 miles per hour or less, a narrower shoulder may suffice.

At present, shoulder widths vary considerably along the byway. The majority of it has shoulders 5 to 9 feet in width and these correspond well with the 45 or 50 miles per hour sections in Cumberland and Cape May Counties. More problematic may be the significant length of Byway in Salem County (Salem 623, 658, Hancocks Bridge Road, 624) that have 45 or 50 miles per hour speed limits but shoulders that are only 1 to 4 feet in width.

Where the byway has minor diversions from through routes onto small roads along its main line and where it diverts completely onto spurs shoulders are frequently only 1 to 4 feet in width. These sections of road, however, have lower speed limits.

There is only one significant part of the byway with a median, US Route 9 (Lincoln Boulevard), from Cape May 603 (Bayshore Road) toward the Cape May–Lewes Ferry terminal.

PEDESTRIAN ACCOMMODATIONS

Limited portions of the byway have sidewalks. Much more substantial mileage of the byway has bike lanes, either officially designated or de facto by virtue of wide, paved shoulders (See Appendix 5, Map 3, Pedestrian and Bicycle Facilities).

Sidewalks are features that correspond to a limited number of built-up locations along the byway. These would include the following areas:

- Cities of Bridgeton and Salem;
- CR 603 (Bayshore Road) in the Villas, Fishing Creek and Miami Beach portions of Lower Township;
- CR 626 (Broadway) in West Cape May Borough;
- CR 553 (Main Street) in Port Norris;
- CR 553 (Main Street) in Dividing Creek;
- CR 656 in Newport;
- CR 553 (Main Street) in Cedarville;
- CR 623 (Main Street) in Canton.

The limited extent of sidewalks reflects, only in part, the rural landscape through which the byway passes through much of its length. It is a common assumption that demand for facilities for walking would be relatively low in a rural setting with low intensity of development and few generators of pedestrian activity such as schools, parks, other community institutions and recreational facilities and concentrations of shopping. However, in numerous village settings and in the largely built-up area in the southern portion of Cape May County the character of relatively dense residential, commercial and mixed-use land use and substantial road traffic would seem to represent a strong case for sidewalks, although, in most of these settings, sidewalks are either totally lacking or occur only sporadically.

BICYCLE SAFETY AND ACCOMMODATIONS

The extent of bike lanes along the byway contrasts with that of sidewalks. The longest continuous extent of paved shoulders on the byway runs from Delmont, near the Cumberland-Cape May County line, to Green Creek, at the start of the Cape May County 603 (Bayshore Road) loop, along NJ 47 (Delsea Drive), which is a distance of about 20 miles. A portion of NJ 47 in Cumberland County (beginning at the West Creek Bridge to the intersection of Glade Road, CR 616) is designated as an official bicycle lane by NJDOT, a distance of about 2.1 miles. Next in total length is from Port Norris to Fairton, close to Bridgeton, a distance of about 15

miles along Cumberland 553. Another long Byway section with paved shoulders is from Greenwich to Church Road/Silver Lake Road on Salem 623, north of Canton, a distance of about 9 miles. Other, shorter, sections of the byway with paved shoulders include the Cumberland 670 and 616 extent in Mauricetown and Dorchester and Cape May 606 (Sunset Boulevard), 629 (Light House Avenue) and 626 (Seashore Road).

The installation of bike lanes suitable for designation by NJDOT along the byway would seem to be a logical step in providing support for multiple modes of transportation on this scenic, tourist and visitor-oriented route. In order to provide for additional bike lanes, however, shoulders with sufficient width need to be installed along many of the miles of Byway that lack them.

The following paragraphs summarize a visual observation and evaluation of bicycle safety conditions along the Bayshore Heritage Byway. Prior to the advancement of recommendations or treatments, further study may need to be undertaken in consultation with each county and the New Jersey Department of Transportation's (NJDOT) traffic engineer. The document: "Bicycle Compatible Roadways and Bikeways Planning and Design Guidelines" should also be consulted.

Salem County

Based on bicycle accident data compiled by the Tri-State Transportation Campaign (TSTC), 35 bicyclists were involved in accidents in Salem County between 2008 and 2010. As a result, TTC rated New Jersey (NJ) 49 (five bicyclists in accidents) and NJ 45 (three bicyclists in accidents) as the two most dangerous roads in Salem County for bicyclists during this time.

Salem County contains a number of scenic roads that run through rural country settings; these roads present ideal opportunities for bicycle routes and trails and also provide a way to connect byway attractions and points of interest. Byway visitors could park at either Fort Mott State Park or the Hawk's Bridge Road public boat launch and experience the following using a combination of county and state roads:

- Fort Mott State Park via CR 632;
- Supawna Meadows National Wildlife Refuge via CR 632;
- Finn's Point National Cemetery and Finn's Point Rear Range Lighthouse via CR 632;

- Rolling agricultural lands and scenic views of the Salem River along CR 540; and
- Historic Downtown Salem via NJ 49 or NJ 45.

More ambitious riders could continue along the byway towards Cumberland County, while others could park in one of the many public parking lots in downtown Salem and continue along the byway via county routes. Other sites/points of interest on this leg of the byway include:

- Abbott's Meadow Wildlife Management Area via CR 624;
- Alloway Creek Watershed Wetland Restoration Site via CR 624 and Money Island Road;
- Hancocks Bridge and Hancock House via Hancocks Bridge Road;
- Mad Horse Creek Fish and Wildlife Management Area via Alloway Creek Neck Road and Frog Ocean Road; and
- Maskells Millpond Fish and Wildlife Management Area via CR 623 and Maskells Mill Road (CR 658).

Based on field review conducted in July 2011, it appears that most corridor roadways are currently in good repair and do not present immediate hazards to bicycles. Overall, roadways within Salem County are narrow, however; wide, striped shoulders are present on at least one side of main byway roads⁴ including:

- NJ 49 (to Penns Neck Bridge);
- CR 540 (to NJ 45);
- NJ 45 (from CR 540 to Salem City Line)
- CR 625 (Salem-Fort Elfsborg Road);
- CR 658 (Cuff Road – for a short distance between Alloway Creek Neck Road and Maskells Mill Road); and
- CR 623 (Main Street – Canton Road, after crossing Church Road to Long Bridge Road).

In Downtown Salem, no striped shoulders or marked bike paths are present along CR 49 (West Broadway) or NJ 45 (Market Street). Additionally, since on-street parking is allowed within Downtown Salem, cars are moving slower making on-street bicycle conditions more favorable. It should be noted that the railroad crossing near the intersection of NJ 49 and Griffiths Road on the outskirts of Salem could

⁴ It should be noted, however, that while shoulders are present on both sides of the above roadways, cyclists must travel in the same direction as vehicles per NJ Statutes 39:4-14.1 Rights, duties of bicycle riders on roadways, exemptions.

present a hazard to bicycles since it is skewed diagonally across the roadway.

The intersection of Locust Island Road and Alloway Creek Neck Road (CR 658) may also be hazardous for bicycles. While this is a signalized intersection, shoulders are not present on any leg or on/off ramp of this “T” intersection. There is a small, concrete island present at this intersection; while it currently contains a traffic signal pole, there is not sufficient room to provide protection from traffic for multiple bicycles and their riders. Lane striping for both vehicles and bicycles at this location may be necessary in the future.

Although roadways throughout the county are narrow and not all of them have striped shoulders, many within the Bayshore corridor are favorable for bicyclists because of low traffic volumes. With that said, traffic calming measures could be installed as a way of enhancing awareness, legitimacy and safety of bicycle traffic on narrow, rural roads.

Cumberland County

Based on bicycle accident data compiled by the TSTC, 146 bicyclists were involved in accidents in Cumberland County between 2008 and 2010. As a result, TSTC rated NJ 47 Delsea Drive (20 bicyclists in accidents) as one of the most dangerous roads in Cumberland County for bicyclists during this time. Relative to the Bayshore Heritage Byway, the majority of the bicycle accidents on NJ 47 occurred in and around Millville.

Similar to Salem County, Cumberland County also contains rural roadways that run through a variety of country and historic settings. The low traffic volumes on most of the county roadways make them attractive to bicyclists and offer ways of connecting byway resources by accommodating additional modes of transportation. In Cumberland County, byway visitors could park at the public boat launch located within the Stow Creek State Park, at the end of Stow Creek Road. From there, bicyclists could experience the following points of interest:

- Gum Tree Corner via CR 623;
- Greenwich Historic District via CR 623 (Yea Great Street);
- Bayside Tract (wetland restoration) via CR 642 and Bayside Road;
- Views of the Cohansey River and vast agricultural lands along CR 650; and
- City of Bridgeton via CR 650 and NJ 49.

Continuing across the Cohansey River via Grove Street and CR 609, bicyclists can take advantage of riding adjacent to the River the entire route into Fairton. Once in Fairton (parking could be available on weekends at the Fairfield Township Primary School), visitors have many options including riding west along CR 601 along the Cohansey River or towards the east along CR 698 to Millville City. Cyclists could also head south via CR 553 to Newport and Fortescue in Downe Township. Key points of interest along these routes include:

- Dix Fish and Wildlife Management Area via CR 601;
- Green Swamp Area, Cohansey River Watershed Restoration Site via CR 601;
- Millville City and Menantico Ponds Fish and Wildlife Management Area via CR 698
- NJ 49;
- Cedar Lake via CR 553;
- Nantuxent Cove Fish and Wildlife Management Area via CR 553 and Goshen Road;
- Fortescue Fish and Wildlife Management Area via CR 637 (Fortescue Road);
- Fortescue Glades Wildlife Preserve via CR 637 and CR 734;
- Bear Swamp via CR 553; and
- Egg Island Wildlife Management Area via CR 664 and Turkey Point Road.

Port Norris is also a great starting point for bicyclists. Riders could park at the Bayshore Discovery Project and continue on to Mauricetown and eventually Cape May County. Key points of interest in and around this segment of the byway include:

- Bayshore Discovery Project, Bivalve and Shellpile via CR 631, Miller Road and Memorial Avenue;
- Mauricetown Historic District via CR 649 and Highland Street;
- Belleplain State Forest via CR 670 and NJ 47;
- Heislerville Wildlife Management Area via CR 616;
- East Point Lighthouse via East Point Road;
- Thompson's Beach/Maurice River Township Wetland Restoration Site via CR 616 and Thompson's Beach Road.

Based on field review conducted in July 2011, it appears that most corridor roadways are currently in good repair and do not present

immediate hazards to bicycles. Overall, roadways within Cumberland County are narrow, however; wide, striped shoulders are present on at least one side of main byway roads (see Note 4, page 90) including:

- CR 623 on the approach to and through the Greenwich Historic District to CR 607;
- CR 609 (Bridgeton-Fairton Road) south of Grove Street/South Street to Main Street (CR 553/698);
- CR 553/698 through Cedarville to CR 656;
- CR 553 through Downe Township, Newport, Port Norris to CR 664 Turkey Point Road;
- CR 553 through Dividing Creek and Port Norris to Cobb Avenue;
- CR 649 North Avenue in Port Norris to Highland Street in Haleyville/Mauricetown; and
- NJ 47 from CR 670 to the intersection with CR 616 in Delmont (Cape May County). This is a designated bicycle route (with signs) within the County.

Most roadways have posted passing zones and are striped with dashed yellow lines, which allow vehicles to pass each other from both sides of the road. Passing speeds, as well as striping, may be prohibitive to bicycles.

Roadways such as East Point Road, Turkey Point Road and Thompson’s Beach Road are all very narrow; based on field visits, these roadways are not wide enough to accommodate two passing vehicles. If bicycle traffic were to increase on these roadways, “Share the Road” signage or additional pull-off or passing spaces may need to be created to so that vehicle-bicycle conflicts can be reduced and to provide an increased comfort level for less-experienced cyclists getting to and from byway attractions located on these roads.

In downtown Bridgeton, no shoulders or marked bike paths are present. The roads within the downtown area do contain very wide sidewalks and the on-street parking can naturally calm/slow traffic, which makes for better bicycling conditions. Leaving Bridgeton, South Avenue appears to be very narrow and a little more congested as compared to other corridor roadways.

“Share the Road” signs have been posted incrementally along CR 616 (Main Street to River Road; and from Menhaden Road to the East Point

Lighthouse in Maurice River). Similar signs are needed elsewhere in the corridor to raise motorist awareness of bicycle travelers.

Cape May County

Based on bicycle accident data compiled by the TSTC, between 2001 and 2010, 840 bicyclists were involved in accidents in Cape May County, with one crash resulting in a fatality. Based on crash rates, TSTC has designated Cape May County as the most dangerous county in Southern New Jersey for bicyclists. In Cape May County, 270 bicyclists were involved in accidents between 2008 and 2010. TSTC's analysis of statewide crash records revealed that Cape May County 621/Pacific Avenue/New Jersey Avenue (38 bicyclists in accidents), Cape May County 619/West Avenue (30 bicyclists in accidents) and NJ 47 (20 bicyclists in accidents) were the three most dangerous roads for bicyclists in Cape May County during this period. Relative to the Bayshore Heritage Byway, the majority of the accidents on NJ 47 occurred outside the corridor, in the Wildwood vicinity.



Figure 82 – Bicyclists on Sunset Boulevard
(Courtesy of Cindy Bloom-Cronin)

Overall, Cape May County roadways are wider and more heavily traveled than the other facilities within the corridor. This is especially true for the approaches to the more urban areas of the county such as Cape May Courthouse, Villas, West Cape May, Cape May Point and the City of Cape May. Cyclists interested in byway attractions in Cape May County could park their cars in the small parking area at the Eldora Nature Preserve, located a short distance off NJ 47. The Nature Preserve marks a good starting point for beginner, as well as more experienced, cyclists. On this leg, key points of interest include:

- Eldora Nature Preserve via NJ 47;
- Dennis Creek Fish and Wildlife Management Area via NJ 47 and Stipson's Island Road;
- Historic Dennisville via NJ 47;
- Reed's Beach via NJ 47 and Reeds Beach Road;
- Cook's Beach via NJ 47 and Cook's Beach Road;
- Cape May National Wildlife Refuge via Kimble's Beach Road;
- Historic Cape May Courthouse via CR 658 (West Hand Avenue); and
- Beaver Swamp Fish and Wildlife Management Area via CR 657 (Courthouse-South Dennis Road).

Another option would be to park a car in at the Fishing Creek Wildlife Preserve/Cape May County Park South on CR 603 (Bayshore Road). Key points of interest along this leg of the byway include:

- Fishing Creek Wildlife Preserve/Cape May County Park South via Bayshore Road;
- Fishing Creek Schoolhouse via Bayshore Road;
- Villas Wildlife Preserve via Bayshore Road and Shawmont Avenue; and
- Naval Air Station Wildwood and the Vietnam Memorial via CR 613 and Forrestal Road.

Another way to see the southern half of the byway would be to bike from Cold Spring Village on Seashore Road to Cape May Point. Cyclists could park at Cold Spring Village and ride along the Cold Spring Village Bike Path or Seashore Road to see the following key points of interest:

- Historic Cold Spring Village and First Presbyterian Church via Seashore Road;
- Higbee Beach Wildlife Management Area via NJ 162 and New England Road;
- Cape May Migratory Bird Refuge via Sunset Boulevard;
- World War II Lookout Tower Museum and Memorial via Sunset Boulevard; and
- Sunset Beach via Sunset Boulevard.

As noted above, Cape May County roadways experience more vehicle traffic, especially in more densely populated tourist centers. Based on field review conducted in July 2011, it appears that most corridor roadways are currently in good repair and do not present immediate hazards to bicycles. Overall, byway roadways within Cape May County are wide with wide, striped shoulders present on at least one side of main byway roads (see Note 4, page 90) including:

- NJ 47 (Delsea Drive) the entire length of Cape May County within the corridor;
- Reeds Beach Road;
- CR 658 (West Hand Avenue) between NJ 47 and U.S. Route 9;
- CR 657 (Courthouse South Dennis Road) between Cape May Courthouse and NJ
- CR 603 (Bayshore Road);
- CR 613;
- Seashore Road (CR 626/NJ 162); and
- CR 606 (Sunset Boulevard).

Most roadways have posted passing zones and are striped with dashed yellow lines, which allow vehicles to pass each other from both sides of the road. Passing speeds as well as striping may be prohibitive to bicycles. The posted speed limits on main byway roadways range between 40 and 50 miles per hour (mph); with higher speeds and more vehicles/congestion the potential for vehicle-bicycle accidents increase. Although wide shoulders are present on some of these same roadways, bicyclists and motorists alike could benefit from posted “Share the Road” or other signs, as well as painted, on-road bicycle stencils on roadways/shoulders (when present).

Another issue is the loss of the shoulder on CR 626 (Broadway), just north of the intersection with Landis Avenue. This is primarily a residential area, with narrow streets; therefore, cars will be traveling slower. However, without shoulders or a designated bicycle lane, cyclists may not feel comfortable riding amongst traffic. Posted “Share the Road” signs, striped bicycle lanes, or painted, on-road bicycle stencils would help to increase motorist awareness and reduce the potential for vehicle-bicyclist conflicts.

3.3.3. Traffic Volumes

Traffic volumes vary widely along the byway, a phenomenon that should not come as a surprise, since the nature of the route is that of a series of different roads linked together for the purposes of fashioning a logical sequence for a visitor or sightseer of the Bayshore area. This sequence, however, would not likely correspond to a logical through route for commuters or conventional regional travelers. Since the byway designation has just occurred and the numbers of sightseers or visitors is still moderate, current traffic volumes reflect where commuters or conventional regional travelers are driving.

Except for right in and around Bridgeton and Salem City, the highest traffic volumes on the byway generally occur in Cape May County (See Appendix 5, Map 4, Traffic Volumes). The aforementioned cities have significant population, but the hinterlands of Salem and Cumberland County do not. In contrast, populations in Middle and Lower Townships, as well as in Cape May City, West Cape May Borough and Cape May Point Borough, are relatively concentrated. In addition to being part of the byway, NJ 47 provides continuity and a logical route for a number of commuters or conventional regional travelers.

NJ 47 (Delsea Drive) has an AADT (Annual Average Daily Traffic) of over 15,000 at its southern end and over 11,000 at Dennisville. US Route 9 (Seashore Road) has an AADT of about 11,500 near the bridge over the Cape May Canal and Bayshore Road AADTs range from 5,800 at its northern end to 6,700 toward its southern terminus.

Much of the traffic westbound on NJ 47 from Dennisville appears to veer off onto NJ 347, headed toward Millville and the regional limited-access highway, NJ 55. Volumes left on NJ 47 toward Delmont appear to be substantially lower and numbers of vehicles headed along the byway route to Leesburg and Dorchester even less. CR 670, heading to the Mauricetown Causeway, however, has an AADT in the 6,500 to 7,100 range—a relatively high number.

Heading southwest from Mauricetown to Port Norris and then northwest on County 553, AADTs are relatively low (700 range) and do not pick up until northwest of Cedarville (AADT = 2,700). Coming into Bridgeton on South Avenue, however, AADTs grow to the 6,000 level. The transition to Greenwich from Bridgeton brings AADTs down to the 700 level and they remain around that volume on the byway along Cumberland 639 and 623 and Salem 624.

Traffic volumes are high in the middle of Salem City (AADTs of 9,000 to 10,000) and they remain high on NJ 49 heading toward Pennsville (AADT of 12,000) and somewhat lower on Salem 540 (AADT of 5,400) toward the northern end of the byway.

3.3.4. Accidents

Crash data for three years, 2009 through 2011, are shown as dots on Appendix 5, Map 5. Shown this way, this data can appear somewhat startling but, if looked at more carefully, the incidence of crashes is closely related to traffic volumes and congestion and, taken as a whole, the byway has fewer crashes than many other routes in the three counties.

The incidence of crashes mimics, to a large extent, the traffic volumes reviewed previously. As Bridgeton, Salem City and the southerly end of Cape May County have the highest traffic volumes, therefore, these areas exhibit the highest incidence of crashes. The crash data show a large cluster of crashes in downtown Bridgeton, but, given the physical context and the fact that there are several roads coming together in a tight space, this occurrence should not be surprising. There is a much lighter version of the same clustering in downtown Salem.

In general, there are more crashes along NJ 47 (Delsea Drive) and Bayshore Road in Cape May County than any place along the route in Cumberland and Salem Counties, except the two city locations previously mentioned. This is clearly related to high volumes along these two routes in Cape May County.

Injuries to pedestrians are associated with the Bridgeton and Salem City settings, with two incidents occurring in (or very near to) each of those two places and on the byway route. An injury to a pedestrian also occurred on Fishing Creek Road just east of where Bayshore Road branches off to the south in Lower Township, Cape May County.

There were no pedestrian fatalities on the byway in the period in question. There is somewhat of a concentration of motorist fatalities—although not a cluster—on Cape May CR 626 (Seashore Road), between the Lower Township-Middle Township line and the Cape May Canal, where there were three motorist fatalities. Other locations where single motorist fatalities occurred include NJ 47 (Delsea Drive) at Bucks Avenue (Middle Township); Cumberland 637 (Fortescue Road), just south of CR 643 (Newport Neck Road); and Salem 540 (Hawks Bridge Road), just north of Pointers Auburn Road.

3.3.5. Planned Roadway Projects

Transportation projects in the 2008-2012 Transportation Improvement Program (TIP) for the South Jersey Transportation Planning Organization (SJTPO) are shown on Appendix 5, Map 6, Planned and Programmed Projects. According to SJTPO, which covers Atlantic, Cape May, Cumberland and Salem Counties, the TIP is a list of projects and programs scheduled to be implemented over a period of at least four years. Transportation projects must be included in the TIP to receive most types of federal funding. The TIP provides a mechanism for locally-elected officials and agency staff to review the region's capital programming. It represents a consensus among MPO members and other major transportation interests in the region as to what improvements should have priority for available funds.

Projects in the TIP include a resurfacing of Hancocks Bridge Road from Hancocks Bridge to Salem 624 (and beyond straight north on Hancocks Bridge Road toward Salem City); a replacement of the NJ 49 Cohansey River Bridge in Bridgeton; an extension of Cape May 613 (Breakwater

Road) from Seashore Road to US Route 9 (Shore Road); and intersection changes at Seashore Road/Tabernacle Road, Tabernacle Road/US Route 9 (Shore Road) and Bennett Crossing/ US Route 9 (Shore Road).

A full listing of 2008-2012 TIP point projects and linear projects is shown on [Table 1, Appendix 5](#).

3.3.6. Signage

Information regarding existing and proposed signage and wayfinding is included in Appendix 6.

3.4. Existing Land Use and Development

3.4.1. Salem County

Salem County includes the municipalities of Elsinboro Township, Lower Alloways Township, Mannington Township, Pennsville Township, Salem City.

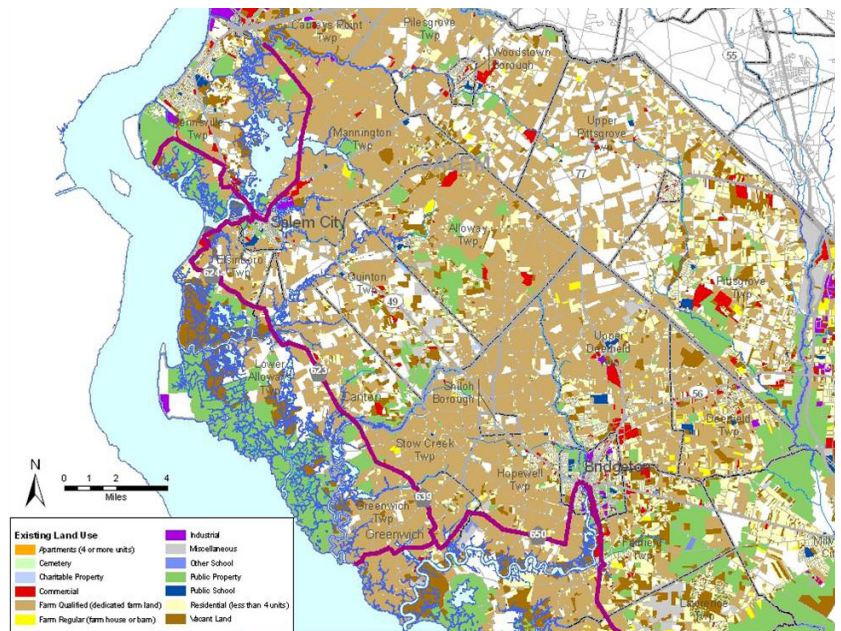


Figure 83 – Existing Land Use in Salem County

EXISTING LAND USE

The Bayshore Heritage Byway corridor runs through areas that are

predominantly agricultural, open space/recreational, vacant and surface water. The only significant exception to this general pattern is Salem City and its environs. Salem is a small, historic community with a mixed use core focused on Broadway and Main Street, residential neighborhoods south and east of the core and low density commercial, industrial (such as Mannington Floors) and institutional (such as Memorial Hospital) uses on the roads leading in and out of the city. Both examples cited are located in Mannington Township.

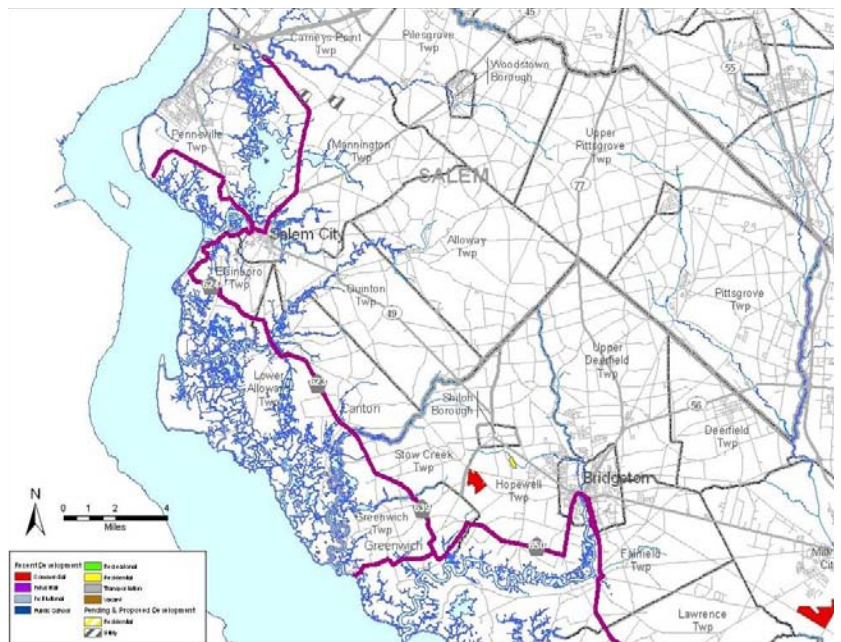


Figure 84 – Proposed Development in Salem County

The other part of the county with a significant concentration of urban development is the Penns Beach and other Delaware River-fronting portions of Pennsville Township near (but not on) the northern

end of the byway. These are older, predominantly low-to-moderate-density residential communities whose growth occurred primarily between 1900 and 1970.

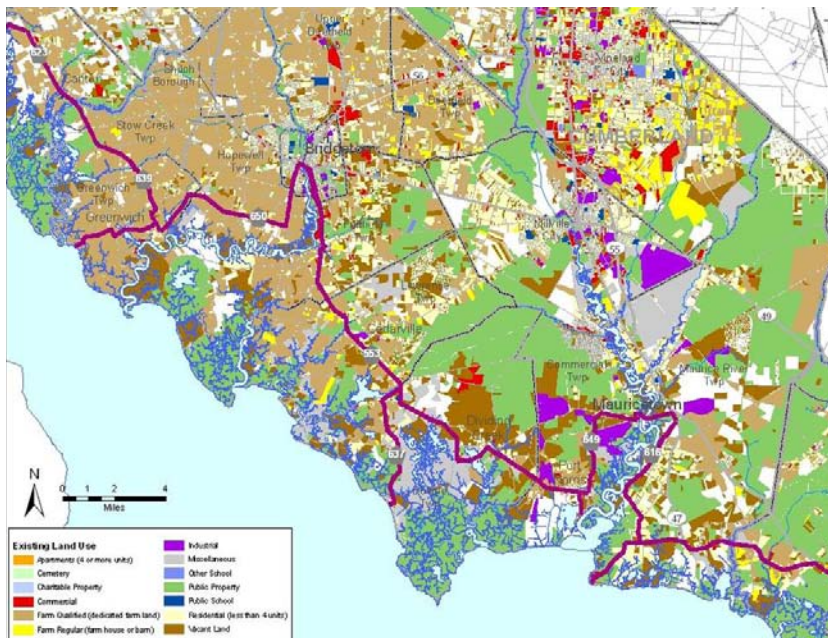
Low-intensity residential use follows certain Byway links in the form of individual single-family detached dwellings and associated driveways alongside the roadway, such as on Salem 625, 658 and 623, with minor concentrations in Hancocks Bridge, Harmersville and Canton. This pattern of development is common in Lower Alloways Creek Township.

RECENT LAND DEVELOPMENT

Recent development activity has been sparse. In the absence of private sector activity, two public-sector actions by the State DEP are noteworthy: A boat launch and parking lot on the Salem River and Salem 661 west of Salem City in Elsinboro Township in 2006 and a similar facility opened in 2011 on the Salem River and Route 540.

Pending and Proposed Development

Known pending and proposed development is also sparse. Two solar panel facility site plans have been submitted in Mannington Township, one on a 117-acre parcel on CR 540 just west of Salem 646 (Pointers Auburn Road) and the other a 129-acre parcel nearby at the northeast corner of Salem 646 (Pointers Auburn Road) and Salem 631 (Haines Neck Road).



Designated Growth Areas

Salem County’s Open Space and Farmland Preservation Plan (December 2006 and August 2008) designates most of the county in the vicinity of the byway for preservation. Two areas where development is to be concentrated are Salem City and the settled part of Pennsville Township, referenced above.

3.4.2. Cumberland County

Cumberland County includes the municipalities of Bridgeton City, Commercial Township, Downe Township, Fairfield Township, Greenwich Township, Hopewell

Figure 85 – Existing Land Use in Cumberland County

Township, Lawrence Township, Maurice River Township, and Stow Creek Township.

EXISTING LAND USE

The Bayshore Heritage Byway corridor runs through areas that are predominantly agricultural, open space/recreational, vacant and surface water. Exceptions include the County Seat, the City of Bridgeton, a municipality of about 25,000 people and the generous number of small historic villages spaced along the byway. Agricultural use is significant between the Salem County line and Bridgeton, including peach orchards, corn fields and sod farms. South of Bridgeton the agricultural use is sustained between Fairton and Cedarville, but then gives way to forestland and marshland to the Cape May County line.

The villages of the corridor include Greenwich, Fairton, Cedarville, Newport, Fortescue, Dividing Creek, Port Norris, Haleyville, Mauricetown, Dorchester, Leesburg, Heislerville and Delmont. Just off the corridor are villages such as Port Elizabeth and Bricksboro. Most villages are small, but some, such as Port Norris, are about a mile long and half-mile wide and have around 1,400 people. The Dorchester-Leesburg agglomeration is even larger geographically. Land uses in these villages are predominantly single family, detached residential.

Bridgeton is a historic place, with a tight arrangement of properties and buildings in its center, a retail core and residential neighborhoods on both sides of the Cohansey River. There are retail and service commercial uses along major roadways such as NJ 49. Bridgeton City Park encompasses 1,500 acres and contains 3 lakes and a zoo.

Just off the byway corridor toward the southern end of the county is a large State Prison complex that includes Bayside State Prison and Southern State Correctional Facility.

RECENT LAND DEVELOPMENT

Outside of small developments in Bridgeton, recent activity has been modest. Perhaps the largest land development in the county has been New Jersey Motorsports Park, a nearly

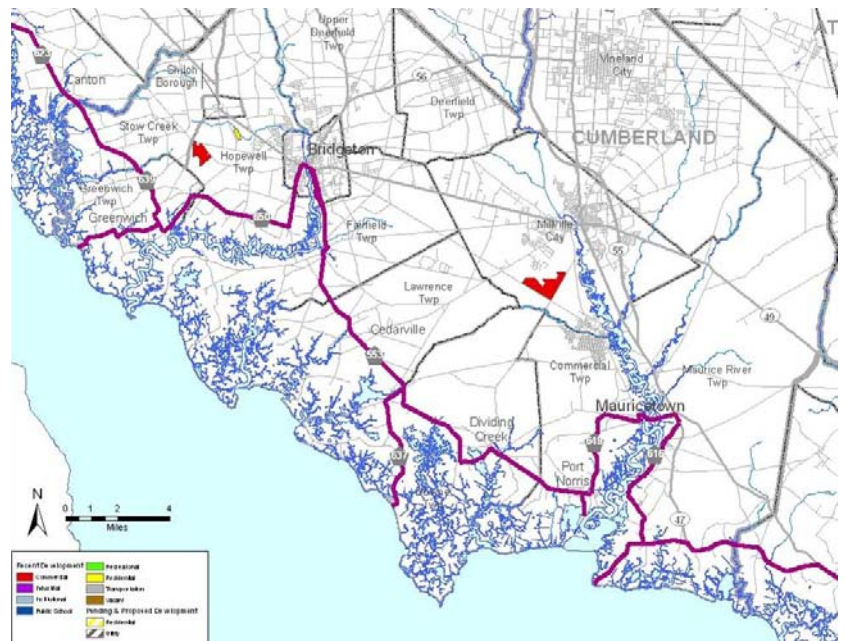


Figure 86 – Proposed Development in Cumberland County

500-acre, 2-track car racing facility, but this is on the Millville Municipal Airport site, more than 6 miles from the Heritage Byway.

Thirty single family detached dwellings were constructed in a land development on and off Cumberland County 695 (Randolph Road), 3 miles northwest of Bridgeton. Nearby, on Cumberland County 618 (Bowentown Road), Overdevest Nurseries has expanded their nursery operation to 230 acres.

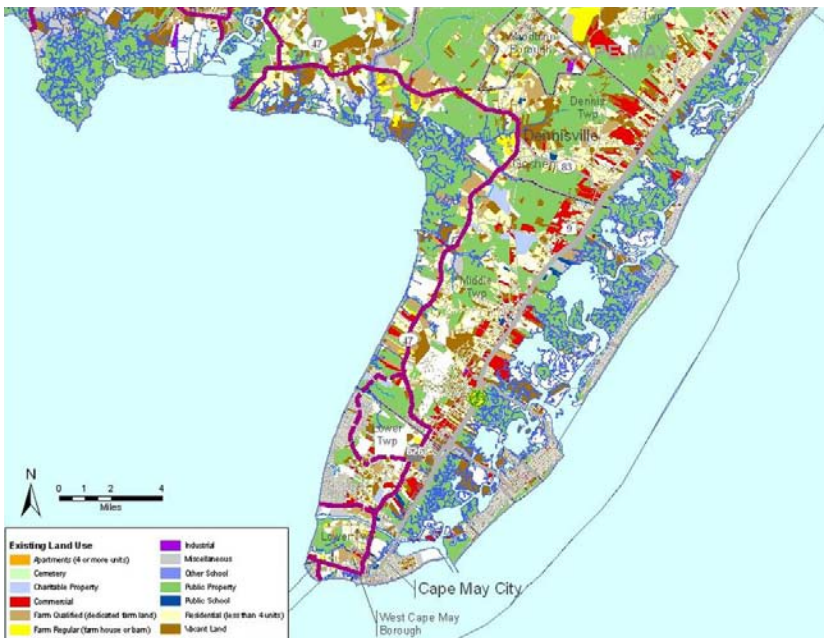
DESIGNATED GROWTH AREAS

The Cumberland County Cross-Acceptance Report for the New Jersey State Development and Redevelopment Plan (February 2005) acknowledges Bridgeton as a Regional Center (along with Vineland/Millville) and several villages as Designated Centers. These include Cedarville, Port Norris, Mauriceville-Haleyville, Dorchester-Leesburg, Heislerville, Delmont, Mauriceville Station and Port Elizabeth-Bricksboro. Laurel Lake, positioned between Millville and Mauriceville-Haleyville, is also acknowledged as a Designated Center.

3.4.3. Cape May County

Cape May County includes the municipalities of Cape May City, Cape May Point Borough, Dennis Township, Lower Township, Middle Township and West Cape May Borough.

EXISTING LAND USE



The Bayshore Heritage Byway corridor runs through highly variable areas of land use, from the predominantly open space/recreational and farmland in Dennis Township, by the Cumberland County line, to the largely built-up municipalities of Cape May City, Cape May Point Borough and West Cape May Borough at the southern terminus of the route. Along the route lie the generally suburban Lower Township and the mixed suburban and open space/recreational land use characteristics of Middle Township. Overall, much of the southerly two-thirds of the county fits within the general category of low-to-moderate density coastal-area, beach-oriented residential and associated commercial land use.

Figure 87 – Existing Land Use in Cape May County

The historic settlements of Cape May City, Cape May Point Borough and West Cape May Borough are tightly-organized residential areas, with commercial uses prominent only in Cape May City. The Cape Island Creek and Pond Creek natural areas frame a suburban residential area west of Cape May County Highway 626 (Seashore Road) south of the Cape May Canal. North of the canal are the relatively-dense, suburban-style residential areas built out between 1950 and 1980 along the bay coastline (North Cape May, Town Bank, Villas, Fishing Creek, Miami Beach, Del Haven), the more sprawling residential and commercial land uses along the US Route 9 (Shore Road) corridor, particularly in the Rio Grande and Cape May Court House portions of Middle Township and the Cape May County Airport and Cape May County Park South in between.

In Middle Township bay coastline residential use declines and the residential/commercial mix is more closely associated with acreage to the west and east of NJ 47 (South and North Delsea Drive), as well as along east-west connecting roads such as Cape May County 612 (Dias Creek Road), Cape May County 658 (W. Hand Avenue) and Cape May County 646 (Goshen Swainton Road). South Dennis and Dennisville are two small residential concentrations in Dennis Township.

RECENT LAND DEVELOPMENT

In contrast to Salem and Cumberland Counties, recent development activity in Cape May County has been fairly extensive. While there has been a mix of uses, construction activity has consisted of predominantly single family detached residences in subdivisions, typically 15 to 25 units. Some subdivisions are larger, in the 60 – 70 unit range. Closer to the more-densely settled areas, lot sizes tend to be relatively small; these are larger in the northwest part of the county and close to the Cape May Canal in the southern part of the county.

Beyond single family detached units, development in the residential sector has been sparse. Loylton of Cape May has built a senior housing/assisted living/nursing home facility on US Route 9 (S. Main St.) in the Cape May Court House section of Middle Township. A total of 68 units arranged in rows of four have been built so far on the Middle Township side of the township line southwest of the intersection of NJ 47 (S. Delsea Drive) and S. Railroad Avenue, although the parcel has not yet been filled out.

In the non-residential sector, many of the developments have been self-storage facilities. A few larger retail uses have been built, such as the shopping center near the intersection of US Route 9 and Cape May County 657 (Court House South Dennis Road) and the Grande Center and WalMart shopping centers in the Rio Grande portion of Middle Township.

A small number of industrial, recreational, institutional and agriculture-related (such as a tree nursery) developments have occurred. The Maud H. Abrams Elementary School was built on Cape May County 648 (Town Bank Road) at Cape May County 644 (Shunpike Road). A new building for public use at the Cape May-Lewes Ferry Terminal was also constructed.

PENDING AND PROPOSED DEVELOPMENT

Known pending and proposed development is limited. A 22-unit single-family detached residential development on Shawmont Avenue, next to the Cox Hall Creek Wildlife Management Area off of Cape May County 603 (Bayshore Road), is in the course of being approved by

Lower Township. The Township is aware of a private sector land development interest in constructing a solar panel facility south of the airport.

DESIGNATED GROWTH AREAS

The Cape May County Comprehensive Plan (2005) directs development generally to Cape May City; Cape May Point Borough; West Cape May Borough; the North Cape May, Town Bank, Villas, Fishing Creek, Miami Beach, Del Haven, Rio Grande, Green Creek, Whitesboro-Burleigh, Mayville, Cape May Court House and Goshen portions of Lower and Middle Townships; and the South Dennis and Dennisville portions of Dennis Township.

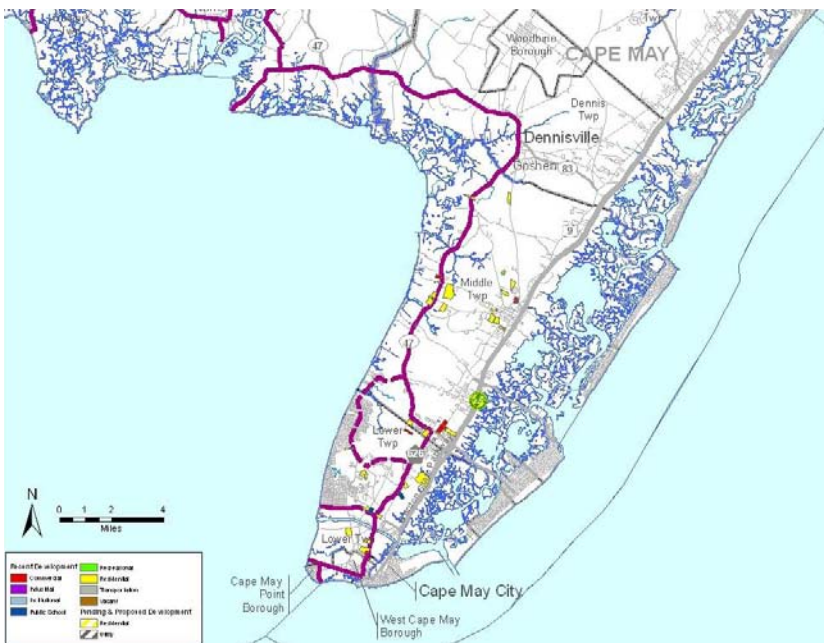


Figure 88 – Proposed Development in Cape May County

4. Management



Figure 89 – Egg Island Wildlife Management Area

This chapter describes the recommended strategies for managing the Bayshore region as a heritage and nature based tourism destination. The Bayshore region is rich in globally significant resources but has very little in the way of visitor infrastructure to promote the region for nature and heritage-based tourism based on those resources.

As discussed in Chapter 2, the Bayshore Heritage region is widely recognized for its natural and cultural resource significance, globally and nationally. The Bayshore region is known for:

- Its significance as a globally Important Birding Area (IBA);
- Access and opportunities to witness globally significant migration patterns that take place only here
- Access to the largest private Estuary Enhancement Program in USA (managed by PSEG);



Figure 90 – Horseshoe crabs crawl up on the beaches of Delaware Bay to breed during high tide in May. Considered one of the natural wonders of the eastern seaboard, this seasonal event attracts people to the Delaware Bay region from around the world.

- The Maurice River and its tributaries, which are designated as a National Scenic and Recreational River; and for the thirteen additional tributary segments within the watershed that are eligible for National Wild, Scenic and Recreational River designations based on eight “outstandingly remarkable values,” including, scenery, recreation, geology, fish, wildlife, history, cultural and “other;” and
- Its cultural and historic landscapes that were determined by the National Park Service to be eligible for designation as a National Heritage Area as documented in “Reconnaissance Study: New Jersey Shore of Delaware Bay” (2001).

Yet despite such tremendous recognition, few people outside of the Bayshore region are aware of its significance. The Coastal Heritage Trail, originally authorized by Congress in 1988 and managed by the National Park Service, helped to increase awareness and interpret its resources through one of the first coordinated interpretive installations of its kind. The funding for this program was not reauthorized by Congress and the National Park Service has closed its trail office and no longer assigns staff to support the trail.

The National Scenic Byway Program had offered opportunities to establish further recognition and awareness through its designation and grant programs, but that too was not reauthorized as part of Congress’s Transportation Reauthorization bill entitled “Moving Ahead for Progress in the 21st Century Act” (MAP-21) and signed by President Obama on July 6, 2012. The status of scenic byway programs in New Jersey and elsewhere have become tentative at best and dependent upon State budgeting and finding resources and priorities at the State level.

The bottom line is that reviving the Coastal Heritage Trail or gaining designation as a National Scenic Byway and applying for additional National Scenic Byway Program funds are not a viable way of achieving the goals of this plan.

Instead, a whole new set of strategies are needed to increase awareness and provide the needed visitor infrastructure. The new set of strategies need to be organized as a community-based and cooperative venture among both public agencies and non-governmental organizations. This chapter outlines the set of strategies that are needed to conserve and enhance the region for heritage and nature-based tourism. Chapter 5 outlines the organizational structure that is needed to implement those strategies.



Figure 91 – Hancock House and its patterned brick is just a sample of the rich cultural heritage that led the National Park Service to find that the Bayshore region from Salem to Cape May is eligible for consideration as a National Heritage Area.

The South Jersey Bayshore Coalition and its nineteen partners have worked hard to achieve its mission of preserving the cultural heritage and environmental integrity of the South Jersey Bayshore through the building of State and local awareness and appreciation of the South Jersey Bayshore region. These actions have led to the high levels of protection that the region enjoys today.

The following strategies are aimed at establishing (or re-establishing) a primary touring route through the Bayshore region as a means of both increasing awareness of its significance and enhancing appropriate and compatible economic opportunities through heritage and nature-based tourism.

The strategies are organized around five goals for the touring route:

- Goal 1: Conserve and Preserve the Byway’s Intrinsic Qualities
- Goal 2: Enhance the Experience of Visiting the Byway
- Goal 3: Expand Heritage and Nature-based Economic Development Opportunities
- Goal 4: Uncover the Stories Depicting the Bayshore’s Rich Natural Heritage and Community Life
- Goal 5: Increase the Range and Safety of Travel Choices and Opportunities



Figure 92 -Key features of the Bayshore Heritage Byway

Goal 1: Conserve and Preserve the Byway's Intrinsic Qualities

Develop and implement a community-based and collaborative approach to conservation and preservation that focuses on the Bayshore region in a manner that respects the rights and responsibilities of private property owners while ensuring that the byway corridor's character defining features will be preserved and maintained.

Strategies for conserving and preserving the byway's intrinsic qualities are organized around incorporating the byway itself into the ongoing conservation and preservation activities of the South Jersey Bayshore Coalition and its nineteen partners. The conservation and preservation interests and priorities of the South Jersey Bayshore Coalition are the same as those that are needed for the management of the byway as a heritage travel route.

Strategy 1.1. Increase Awareness of the Corridor and Its Significance by Establishing the Bayshore Heritage Byway as the Primary Touring Route Through the Bayshore Region.



Figure 93 - Coastal Heritage Trail point of interest signs

There is a strong need to coordinate the multiple touring routes within the region (such as for birding, coastal heritage, bicycling, wine tasting, art studios and military history). Linking these routes together and associating them with the Bayshore Heritage Byway will provide a single point of contact for management, enhancement projects and visitor information. More than just efficiency, it will increase the awareness of each of these distinct but related audiences to each other and to the Bayshore region's global and national significance.

Although the National Park Service has withdrawn from its management, the Coastal Heritage Trail still maintains a presence in the region and is worthy of trying to retain the best parts of the trail (especially the investment in interpretation). The following actions are recommended:

- Position the implementation of the byway Corridor Management Plan (CMP) as the replacement for the Coastal Heritage Trail.
- Replace all Coastal Heritage Trail route marker signs with Bayshore Heritage Byway signs.

- Retain, upgrade and add to the Coastal Heritage interpretive installations corridor-wide and link the Bayshore Heritage Byway with the Coastal Heritage Trail through a visual identity program.

The Bayshore Heritage Byway CMP should be adopted by local governments into their respective municipal and county master plans by reference. The byway should be a planning consideration in local government sponsored projects and initiatives. This can be done by simply referencing the CMP, but still requires a formal action by each of the entities included with the defined byway corridor (see 2.2. Corridor Definition on page 11). The following actions can be taken to further implement this step:

- Provide model language to each municipal government to use as a starting point when referencing the CMP in their respective municipal and county master plans (see “Example of a resolution adopting a CMP by reference: on page 109, right).
- Provide a short and scripted (10-15 minute) presentation on the benefits of managing the Bayshore Heritage Byway as the primary heritage touring route through the Bayshore region (to attract and retain those travelers with an interest in the Bayshore’s rich natural and cultural heritage).
- Identify Corridor Management Committee (CMC) members in each jurisdiction to serve as the liaison in each municipality to work on referencing the CMP into the Municipal Master Plan and to make presentations at hearings and be available to answer questions.

The current public information materials about the Bayshore region are widely disparate and lack a coherent graphic and visual identity. The South Jersey Bayshore Coalition brochure and web page (Figure 94 on page 110) provides a good organizational structure from which the Bayshore Heritage Byway can launch as the means of achieving the fifth goal of the Coalition Partners: to promote economic revitalization that is compatible.

The byway itself can provide additional rationale for achieving conservation and preservation goals – in that visitors to the region come because of the area’s globally significant birding and wildlife habitat and its nationally significant cultural heritage. Without the two elements, the Bayshore would be just like anyplace else on the New Jersey shore.

Example of a resolution adopting a CMP by reference:

NOTICE OF PUBLIC HEARING

Inclusion of the Religious Freedom Byway Corridor Management Plan in the County Comprehensive Plan

NOTICE IS HEREBY GIVEN that the St. Mary’s County Board of County Commissioners will conduct a public hearing in the main meeting room of the Chesapeake Building, located at 41770 Baldrige Street, Leonardtown, Maryland, on Tuesday, August 19, 2008, beginning at 11:30 a.m., for the purpose of receiving public testimony and to consider amendments to the Comprehensive Plan: “Quality of Life in St. Mary’s County—a Strategy for the 21st Century,” adopted under authority of Article 66B of the Annotated Code of Maryland. Amendments to be considered are as follows:

Amend page 105 of the Comprehensive Plan to incorporate by reference the Religious Freedom Byway Corridor Management Plan prepared by Lardner / Klein Landscape Architects, P.C. and dated March 2008 and modified by Planning Commission Resolution No. 08-11.

Copies of the Corridor Management Plan are available to the public at each public library within the county and at the Public Information Office located at 23115 Leonard Hall Drive, Leonardtown, Maryland.

Source: Religious Freedom Byway, Charles County and St. Mary’s County, Maryland

Implementation Steps

- Link the byway planning and implementation efforts to the next generation of the Coastal Heritage Trail.
- Reference the byway corridor management plan in each municipality's comprehensive and open space plans to demonstrate the significant public benefit and establish a conservation purpose for the scenic, natural and historic qualities of the open space lands and historic resources associated with the byway.
- Develop public information materials (both web-based and brochures)

that increase the public and agency understanding of the definition of the byway corridor to include more than just the route itself – to include the lands and waters that you can see from the route and the places to visit along the route that are related to its themes as well as any regionally significant resources or features that cross or are associated with the byway.

Strategy 1.2. Establish Conservation and Preservation Values and Priorities.

Chapter 2 of the Plan documents the significance of the Bayshore region and describes the role that the byway plays in providing access to the resources that contribute to the significance. The following

are recommended strategies for prioritizing conservation and preservation efforts to maintain the significance.

The State of New Jersey redefined their Priority Preservation Investment Area in 2012 as “an area where land preservation, agriculture development and retention, historic preservation, environmental protection and stewardship is preferred and where investment to support land preservation, agricultural development and retention, historic preservation, environmental protection and stewardship is encouraged. Large scale state investment that may lead to additional development should not be prioritized in these areas. Lands that meet one or more of the criteria identified in Appendix A will meet this definition (unless requested to be removed by local government) along with areas identified by Regional Entities through an application approved by the

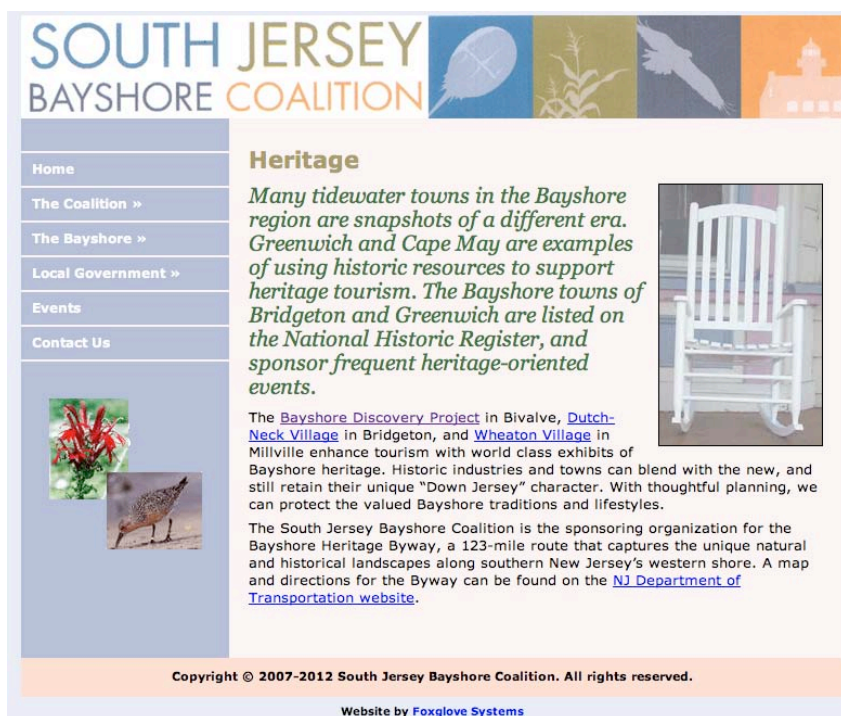


Figure 94 -The South Jersey Bayshore Coalition (SJBC) web site helps to raise awareness of the significance of the Bayshore region. The SJBC web site is the logical origin for all web-based information about the Bayshore Heritage Byway

Commission” (<http://nj.gov/state/planning/docs/priority-investment-criteria.pdf>). Specific criteria referenced include:

- Land permanently protected through public investment or density transfer / clustering
- Land targeted for preservation within the State Comprehensive Outdoor Recreation Plan and/or County Open Space Master Plans
- County Designated Agricultural Development Areas
- Green Acres Approved “Planning Incentive Grant” Area

Adopting the CMP as part of the County Open Space Plan is critical to establish consistency with this criteria. Another top priority is to adopt a common conservation and preservation database for the Bayshore region and to ensure that the byway is included in that database.

The following actions will facilitate collaboration for future conservation and preservation actions along the Bayshore Heritage Byway:

- Update the existing database (<http://www.crssa.rutgers.edu/projects/bayshore/>) currently housed at Rutgers Center for Remote Sensing and Spatial Analysis (CRSSA) to include updated land use, transportation, cultural resources and other byways specific data to the existing inventory (or alternatively find another agency or organization for storing and managing GIS databases for the region (by region this could include the three counties of the South Jersey Bayshore Coalition, the four counties of the SJTPO, or possibly the multi-state Delaware Bay and Estuary).
- Develop a strategy for providing access to the database for use in modeling future trends in land use and for modelling vulnerabilities of the resources to degradation.
- Use the database to assist communities in developing future master plan updates, pursuit of funding for open space protection and for preservation planning. In addition, use the database for developing nature and heritage-based tourism web-based and mobile applications, providing information about access to the natural and cultural resources of the region.

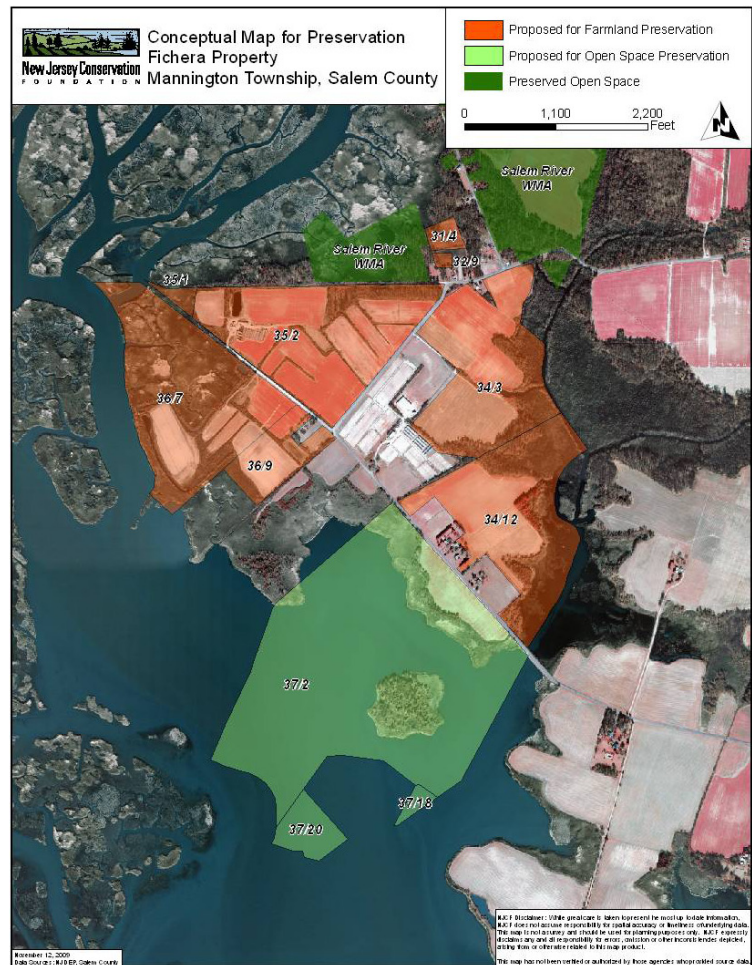
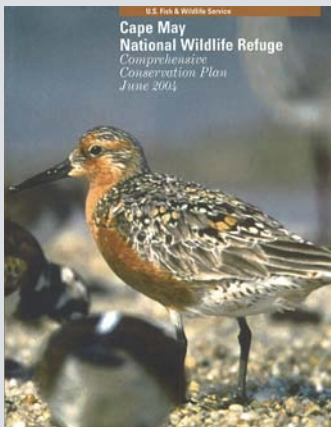


Figure 95 - Conservation Priorities for Mannington Meadows are also priorities for the Bayshore Heritage Byway



Conservation Priorities Criteria from Cape May National Wildlife Refuge CCP

- Known sites of threatened or endangered species and communities
- Areas important to the ecological health of lands already owned (to ensure intact ecosystem process)
- Protect the quality and quantity of water for wetlands, provide habitat corridors between existing conservation lands or protect sufficient contiguous acreage to support viable wildlife populations
- Areas important for priority wildlife species (e.g. critical stopover habitat for migrating birds)
- Areas identified as priority sites for protection by other conservation organizations
- Areas still viable for conservation protection (i.e. not already developed)

Source: Cape May Wildlife Refuge Comprehensive Conservation Plan (CCP)

- Working with other State agency and non-governmental organizations, update and/or consolidate existing user friendly brochures and web pages that provide information on how to conserve the natural and cultural qualities of the Bayshore region through the use of private conservation easements and through existing and available State programs.
- Prepare a model grant application to use when pursuing funds for open space conservation and for historic preservation to include:
 - a common context statement about the significance of the Bayshore region;
 - provide access to web-based maps showing lands of conservation interest; and
 - provide access to web-based resources showing sites of preservation interest.

Implementation Steps

- Document the conservation and preservation opportunities of the lands and waters associated with the byway corridor including:
 - Significance of coastal habitats – the Delaware Bay and its tributaries globally significant migration patterns unique to the Delaware Bay and Estuary; and
 - Cultural and historic landscapes of the Delsea Region (of Salem and Cumberland counties and western Cape May County) and its eligibility for designation as a National Heritage Area by the National Park Service as documented in “Reconnaissance Study: New Jersey Shore of Delaware Bay” (2001).
- Establish and maintain a list of conservation priorities for the byway updated on a regular basis including the following categories:
 - Conservation of lands, wetlands and waters that contribute to the experience of traveling along the byway (lands that can be seen from the byway – see Appendix 2, Map 2);
 - Conservation of areas that contribute to the experience of traveling along the byway that are most vulnerable to change;
 - Conservation of lands, wetlands and waters that are consistent with municipal and county open space plans that contribute to the appreciation of the globally and regionally significant natural resources found along the byway;
 - Conservation of lands, wetlands and waters that help educate the public about the primary themes associated with the byway; and
 - Large patches of adjacent upland forests that are adjacent to the byway travel route not only define the outer limits of the byway

corridor but also play an important contribution to the overall quality of this globally significant Important Birding Area (IBA).

- Establish and maintain a list of priorities for historic preservation associated with the byway corridor including rural historic and cultural landscapes. Priorities include:
 - Technical assistance for the development and implementation of preservation plans for publicly accessible sites and structures (existing Coastal Heritage Trail sites);
 - Emergency preservation funding for sites whose historic qualities are threatened by environmental factors;
 - Preservation of the setting associated with sites and structures that help educate the public about byway themes; and
 - Establishment of historic districts including hamlet communities developed during the settlement stage of this area; rural communities and areas with significant maritime heritage.

Strategy 1.3.

Link the Byway's Conservation and Preservation Values and Priorities with Your Partner's Values and Priorities.

One of the strengths of the Bayshore region is the breadth and range of the partners whose conservation priorities are aligned in support the Delaware Bay and Estuary. Over the last thirty years there have been multiple plans and conservation efforts associated with protecting the resources of the Delaware Bay and Estuary on both sides and in three states – New Jersey, Delaware and Pennsylvania. Multiple agencies have been involved at regional, state and federal levels – all with resulting conservation interests and priorities that are similar to the needs for the Bayshore Heritage Byway. The byway does not need to establish its own set of conservation actions. Instead, the byway provides additional support and rationale for the conservation of natural resources and the preservation of cultural sites and heritage resources found region-wide.

Implementation Steps

- Identify sites and develop criteria for aligning priorities with those of the New Jersey Wildlife Action Plan and Comprehensive Conservation Plans (CCP) for National Wildlife Refuges.
- Collaborate on a regional basis to pursue Green Acres Program funding. Local governments and nonprofits can use Green Acres funding for land preservation projects related to the byway (and for park and recreation development projects to support public use of the byway, although nonprofit park and recreation projects are limited).

Focus Areas of New Jersey's Green Acres Program

1) The Green Acres Program acquires (or receives donations of) land and easement interests in land for the Department of Environmental Protection from willing sellers. Lands acquired by the program become part of the system of state parks, forests, natural areas and wildlife management areas.

2) Green Acres finances the acquisition of open space and recreational development projects for municipal and county governments through low interest loans. Green Acres also provides matching grants to nonprofit organizations to acquire land for public recreation and conservation purposes. Green Acres Planning Incentive Program provides grant and loan funding to local governments (municipalities and counties) that have enacted an open space tax and have adopted an open space and recreation plan.

3) The Bureau of Legal Services and Stewardship monitors compliance with the Green Acres rules by inspecting parkland sites to ensure that they are well maintained and are open and accessible for public recreation and conservation purposes.

4) The Bureau of Planning & Information Management provides open space and recreation planning guidance and technical assistance for municipal, county, nonprofit and state open space acquisition and recreation development efforts. The Bureau also administers the federal Land and Water Conservation Fund monies for the preservation of open space and development of recreation facilities. The Bureau prepares the State's Open Space and Recreation Plan that guides the expenditure of federal and state funds for land preservation and recreation projects.

In addition, the Green Acres Program administers the following related programs:

- Office of Natural Resource Restoration
- Green Acres Survey Section
- New Jersey Trails System

Coastal and Watershed Programs for the Delaware Bay and Estuary

Delaware Bay Estuary Project

- an office of the U.S. Fish and Wildlife Service (Service) whose mission is to “work with partners to identify, restore and protect regionally important habitat in the Delaware River drainage basin and the Delmarva Peninsula area”.

North American Wetlands Conservation Act - to provide funding assistance to promote conservation of wetlands and associated habitats for migratory birds and other wildlife. Preference is given to projects that have grantee or partners that have never participated in a NAWCA supported program

Cooperative Conservation Initiative - to restore natural resources and establish or expand wildlife habitat

Private Stewardship Grants - provides grants or other assistance on a competitive basis to individuals and groups engaged in private conservation efforts that benefits species listed or proposed as endangered or threatened under the Endangered Species Act, candidate species, or other at-risk species on private lands within the United States.

National Wild and Scenic Rivers - help protect selected free-flowing rivers that have outstanding natural, cultural, and recreational values. Congress envisioned the National Wild and Scenic Rivers System as a cooperative effort relying on the actions of private industries and groups, and on all levels of government. The Act provides communities, where rivers flow across non-federal lands, with a river protection method that is sensitive to local needs and concerns (See page 28).

Success in gaining funds and support from the Green Acres Program could be enhanced by emphasizing three specific Green Acres Project Areas that are also priorities for the Bayshore Heritage Byway (see <http://www.nj.gov/dep/greenacres/currentstate.html#delbay>);

- Cape May Peninsula – “Green Acres will continue its program of expanding Cape May Point State Park, Higbee Beach Wildlife Management Area and other important wildlife areas to protect wildlife and provide public access on the Cape.”
- Delaware Bay Greenway – focuses on the protection of the major river corridors that drain into the Delaware Bay; and
- Historic Resources – “By protecting and linking sites of historic significance and by preserving swaths of adjoining buffer lands, the history and even the historic landscapes of New Jersey can be preserved.”
- Local government open space and recreation plans should be amended to include the byway by referencing the completed and approved corridor management plan and incorporate priority conservation and preservation areas for the byway into the conservation and preservation priorities for each local government.
- Work with the State Agricultural Development Committee and county farmland preservation plans and programs to encourage preservation of agricultural lands.
- Identify sites and develop criteria for establishing preservation priorities that are consistent with the New Jersey State Historic Preservation Plan and the New Jersey Heritage Tourism Plan including the priorities of historic preservation-related programs and agencies in New Jersey whose responsibility is to identify sites in need of protection and preserve them. Offices include:
 - New Jersey Historic Preservation Office;
 - Preservation New Jersey;
 - New Jersey Historic Trust;
 - New Jersey Historical Commission;
 - Green Acres Program; and
 - Main Street New Jersey.

Strategy 1.4.

Leverage Values Into Actions – Collaborate Among Your Partners to Increase Priority Among Other Regional and National Efforts.

Collaborating with conservation and preservation partners is one way to increase the competitiveness of funding applications. Linking

conservation and preservation goals with economic development in the form of heritage and nature-based tourism is another way to broaden the appeal of a conservation or preservation funding request.

The Delaware Bay and Estuary is the subject of a wide range of conservation related programs from federal and State agencies that can help to address mutual conservation goals and interests. Some selected examples of specific grant programs that have benefited the Bayshore region include:

- National Coastal Wetlands Conservation Grant Program – Provides matching grants to states and territories for coastal wetland conservation projects for acquiring land or conservation easements, restoration, enhancement, or management of coastal wetland ecosystems. Projects must provide for long-term conservation of coastal wetlands. (Cape May Wetlands Project \$1,200,000 Federal, \$1,000,000 state – DEP and the Division of Fish and Wildlife).
- Environmental Quality Incentives Program, Conservation Innovation Grants (CIG) – Stimulates the development and adoption of innovative conservation approaches and technologies, while leveraging Federal investments in environmental enhancement and protection in conjunction with agricultural production.

Listing projects as part of the Conservation Exchange will help to link Bayshore Heritage Byway projects with a constantly updated and searchable web site that provides information on conservation projects throughout New Jersey that are in need of funding. According to the Conservation Exchange web site, the exchange works similar to a blog, by aggregating conservation projects and organizing them into categories and tags. Conservation projects include a broad range of initiatives throughout New Jersey including land preservation, ecological restoration, climate change projects and other capital projects such as community gardens, construction of nature centers and trail creation.

Four nearby conservation projects are currently listed on the exchange:

- Sinnickson Tract. Supawna Meadows
- Preservation of Salem Country Club
- Expansion of Glades Wildlife Refuge
- Ponderlodge



CONSERVE WILDLIFE
FOUNDATION OF NEW JERSEY



Figure 96 – In February 2006, New Jersey's Green Acres Program purchased the "Ponderlodge", a 253-acre golf course located only 4.3 miles from the tip of the Cape May Peninsula. A broad array of conservation groups have been involved in assisting DEP with its management and expansion and the site, now called Coxe Hall Creek Wildlife Management Area, was one of the key reasons that the byway route was adjusted as part of the CMP

There are several organizations that are working throughout the Delaware Bay and Estuary to promote regional conservation efforts. The Corridor Advisory Group includes members with involvement in these efforts. The Bayshore Heritage Byway needs to be identified in each of these efforts and linked with similar heritage touring routes in Delaware.

Partnership for the Delaware Estuary

The Partnership for the Delaware Estuary is a nonprofit organization established in 1996 whose mission is to lead collaborative and creative efforts to protect and enhance the Delaware Estuary and its tributaries for current and future generations. The Delaware Estuary is one of 28 Congressionally-designated National Estuary Programs throughout the coastal United States. The program works to improve the environmental health of the nation's estuaries. According to its web page, Partnership staff work with partners in three states to increase awareness, understanding and scientific knowledge about the Delaware Estuary.

Implementation Steps

- Take advantage of coastal and watershed resource programs.
- Utilize New Jersey's Conservation Exchange.
- Work with watershed based partners to link together conservation and preservation efforts and priorities.



Figure 97 – Monitoring utility installations is an important issue for the Bayshore Heritage Byway. Solar installation at Lawrenceville School near Route 206 in central NJ illustrates the scale of some recent installations.

(Photo courtesy of lawrenceville.patch.com)

Strategy 1.5. Monitor Change to Protect Values.

Although there has not been much land use change over the past five years, there are several areas where the resources associated with the Bayshore are highly vulnerable and that should be monitored on a regular basis. These actions include:

- Large-scale solar and wind turbine power generation facilities
- High voltage power transmission lines – especially any expansion of high voltage transmission lines coming from the PSEG facility in Salem County and the transmission of power generated from large-scale solar farms and wind turbine installations
- Modifications to roads and bridges by NJDOT, County and Municipal government in response to changes to employment centers, climate change, or due to safety concerns

Implementation Steps

Meet annually with County and Municipal boards and commissions and professional planning, preservation and engineering staff to discuss the “State of the Bayshore Heritage Byway” and gather information about upcoming plans, projects and programs that may impact the byway and how best the byway sponsor might provide input regarding upcoming projects and programs.

Goal 2: Establish the Byway as a Destination by Developing a Strong Identity Through Consistent Signage; Visitor Facilities; a Unified, Context-sensitive Aesthetic; and Community Support of Byway Management and Maintenance.

New Jersey’s Delaware Bayshore offers scenic views, miles of wetlands and a rich culture based on historic settlements along the Delaware Bay and its tributaries, all of which are a source of pride among residences and an attraction to visitors. However, in order to achieve and maintain the desired level of visitation as well as to improve the quality of life for byway communities, additional facilities and improvements to existing facilities are needed. This section presents an overall goal and five strategies for enhancing the byway experience, over time while minimizing the impact of intrusions along the route.

A physical inventory was conducted as part of the corridor management planning process (see Appendix 3). The survey identified the locations of the primary physical elements that comprise the roadside views and character of the byway.

A visual survey was also conducted that identified areas with high visual quality and areas that no longer retained the character defining features associated with the Bayshore region. A resulting map was produced that identified the specific visual intrusions in need of enhancement (see Appendix 2, Map 8).

Corridor Management Committee (CMC) members nominated additional enhancement opportunity areas to complete the inventory and each of these sites are listed below as part of the strategies for enhancing the byway’s visitor experience.

Three types of enhancements for consideration along the byway are listed: corridor-wide, community-based and site-specific.



Figure 98 – The Lincoln Highway's (Pennsylvania) outdoor museum is an example of a corridor-wide enhancement. (See page 142 for details).

Photograph courtesy of Lincoln Highway Heritage Corridor

Corridor-wide Enhancement Opportunities

Corridor-wide opportunities are geared towards developing a unified and consistent physical presence along the byway. Corridor-wide enhancement opportunities address the continuity of the driving experience while traveling along the byway route.

Community-based Enhancement Opportunities

Community-based opportunities address the need to provide more of a welcoming appearance as a means of encouraging visitors to stop and spend more time in a community.

Site-Specific Enhancement Opportunities

Site-specific opportunities focus on enhancing existing destinations or creating new destinations.

Priorities for enhancement efforts should first focus on site-specific locations that provide activities to see or do. Secondary focus should be on areas that contribute to the overall travel experience (see Phasing on page 181).

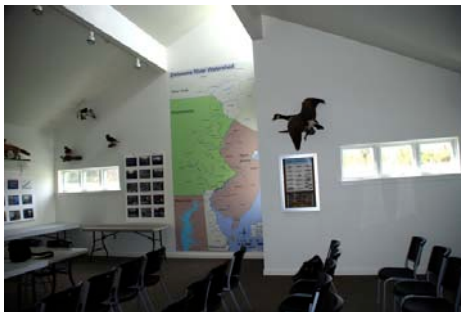


Figure 99 – Lower Mount Bethel Township's Welcome Center is an example of a community-based enhancement project along the Delaware River Valley Scenic Byway in Pennsylvania.. It was built as a model for sustainability for nearby residents as well as to welcome visitors

Strategy 2.1.

Help Visitors Find and Follow the Byway (Corridor-wide)

The byway is the travel route that provides the best and most proximate access to the Delaware Bay and Estuary. However, without any route marking or identification, it is difficult to find and follow the travel route. It is also difficult to find some of the places to visit and learn about the natural and cultural heritage of the Bayshore region

The number of directional signs to both publicly and privately operated sites and attractions is overwhelming. A critical need for a successful byway management program is to reduce the sign clutter. The best way to reduce the sign clutter is to install a wayfinding system that consolidates signs by associating sites and attractions with geographic destinations. Instead of having three signs to three destinations, the wayfinding system should have one sign to three destinations. Visitors find their way to a geographic place, such as "Sunset Boulevard" where they may be several

sites (Cape May Bird Observatory, World War II Lookout, Sunset Beach) that all use Sunset Boulevard for access.

As part of the overall NJDOT state scenic byway signage program NJDOT has provided design standards for a family of signs that will constitute a complete wayfinding system along the byway. In addition to the directional signage for the main route and spurs noted above, the manual provides guidance for directional signage to visitor attractions as well as interpretative signage templates.

A consistent signage system for finding and following the byway and finding sites and attractions will play a critical role in establishing an identity for the byway and ensuring byway travelers have a stress-free and safer trip. Coordinated signage across jurisdictions – using common materials, colors, logos, etc. – will create a consistent, recognizable look to the byway. Uniform route markers will provide direction as visitors travel the byway route. A coordinated system of wayfinding for sites and attractions will direct visitors to destinations related to the byway themes. This coordinated aesthetic will provide immediate confirmation to visitors that they are in the Bayshore Heritage Byway corridor. In addition,



B - Destination Guide Signs for Color-Coded Community Wayfinding System



Figure 100 – Examples of community wayfinding sign from the Manual of Uniform Traffic Control Devices (2009 ed.)

the consistent signage will provide clarity and reduce confusion as visitors navigate their way along the route or to byway-related sites and attractions. Visitors will be able to more easily identify byway signage among the many other signs that line the roadside.

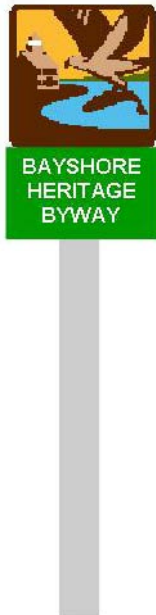


Figure 101 – FHWA approved NJDOT byway route marker sign using Bayshore Heritage Byway logo (NOTE: sign color palette may be adjusted to accommodate FHWA required green sign plate)

The New Jersey Scenic Byways Program requires that all byways be signed to guide travelers along the designated route. To assist byway sponsors in their efforts to develop a signage system, NJDOT has developed the *Guidelines for the Development of Scenic Byways Signage*. The purpose of the guidelines is “to achieve uniformity in presenting the byways while allowing for a diversity of expression”. To that end, the guide presents a series of logos – one for each state scenic byway – that uses the same dimensions, color palette and graphic style.

In addition, the guide establishes parameters for sign development to ensure that each byway applies a consistent approach. Sign plans for the byway have been prepared by a consultant and reviewed by NJDOT. The consultant is in the process of reviewing the proposed sign plan with jurisdictions that have authority for the affected roadway segments. NJDOT will be fabricating all of the signs. NJDOT will be installing the signs on state right-of-way, but will need the localities to install them on a locality’s right-of-way, as NJDOT does not have the authority to do so. The signage plans includes recommendations for placement and guidelines for their installation.

The sign plans under review cover the byway’s former route, prior to the amendment made as part of this Corridor Management Plan process. Middle and Lower Township and Cape May County will need to update the signage plan for the revised route alignment and submit these revisions to the NJDOT Scenic Byway Coordinator.

Endorsement for installation and maintenance of the signs will be needed for each municipality and county with authority over a specific road segment. Each municipal government may want to consider establishing a Memorandum of Agreement with their county transportation department as a means of consolidating the administrative needs for the route marking sign system.

The heritage tourism goal and Strategy 3.2. on page 131, discuss the use of geographic clusters as a means of organizing trip planning, itineraries and investments in visitor infrastructure, including an emphasis on bringing visitors to existing communities for orientation (Salem City, Bridgeton,

Port Norris/Mauricetown and Cape May). Making use of existing full service visitor attractions (staffed and open 300 days per year) is also recommended for visitor orientation.

Visitor information kiosks are recommended where there is no direct access to a visitor center when traveling on an approach road to the Appendix 2, Map 7) identifies the locations of approach roads to the byway and primary and secondary gateway locations where those roads meet the byway. At each of the primary gateways, a visitor information kiosk similar to Figure 102 on page 121, should be installed on nearby public land or willing business partners. At the secondary gateways, wayfinding signs directing visitors to the nearest visitor center or kiosk should be installed.

Although information kiosks will not occur along the byway route with the same frequency as route markers or even site wayfinding signs, consistency will also be important among kiosks. A consistent appearance enables travelers to recognize the kiosks immediately as a source of information pertaining to the Bayshore Heritage Byway. Kiosks should be located at each terminus of the byway as well as at critical junctions or access points to the byway corridor. Kiosk locations should occur where they would benefit the visitor's orientation and understanding of the byway themes. Kiosks should be situated in parking lots or as part of a pull-off/wayside exhibit, so that visitors can safely stop, get out of their cars and collect the information offered. (See Strategy 4.4. on page 144 for discussion of the use of mobile and web-based technology). Potential locations include:

Byway Terminus Visitor Information

- USFWS farmhouse site and structure just south of Walmart on NJ 49 at west end of byway
- Incorporate exhibit/kiosk at Cape May – Lewes Ferry terminal visitor center at east end of byway

Critical junctions and Community Visitor Information

- Incorporate exhibit/kiosk at existing visitor center in Salem
- Incorporating exhibit/kiosk at existing visitor center in Bridgeton
- Develop exterior visitor information kiosks in Port Norris and Mauricetown (a site has been identified by Maurice River Township on the Maurice River side of the Mauricetown Causeway)
- Incorporate exhibit/kiosk at Cape May County and Cape May City visitor centers



Figure 102 – Example of visitor information kiosk in Cape May. Kiosks should represent the architecture of the community but could have a common design element that reflects the entire Bayshore region. Where kiosks can be secured and opened on a daily basis, web-based technology can be utilized

Village (or site) Visitor Information Kiosk and Interpretation facilities

- Locate in each of the smaller villages and towns with nearby visitor attractions or at a major full service visitor site.
- Kiosks or exhibits should include a minimum of two panels: one providing information about what is nearby and the other providing information about community history.

Salem County

- Hawks Bridge parking area and boat ramp – Also serves as an east end gateway for travel coming in on Route 540.
- Fort Mott – Local visitor information kiosk at existing visitor center and or an exterior site such as at rest rooms.
- Elsinboro Point – Local visitor information kiosk at PSEG access site.
- Canton – Local visitor information kiosk at location to be determined.
- Hancocks Bridge – Upgrade existing kiosk with byway related information.

Cumberland County

- Fairfield – Local visitor information kiosk at north side of bridge (tributary of Cohansey River).
- Greenwich – Local visitor information kiosk (site to be determined, one of existing museums).
- Cedarville – Local visitor information kiosk (site to be determined).
- Newport – Local visitor information kiosk (site to be determined, possibly Jenkins Seafood).
- Dividing Creek – Local visitor information kiosk (site to be determined).
- Port Norris – Local visitor information kiosk (site to be determined).

Cape May

- Dennisville – Local visitor information kiosk (site to be determined).
- Goshen – Local visitor information kiosk at location to be determined (provide information about Bayshore beach access).
- Cape May Bird Observatory – Local visitor information kiosk; full service Audubon site.
- Sunset Beach – Local visitor information kiosk at beach.
- Historic Cold Spring Village – Local visitor information kiosk; full service historic site.
- Naval Air Station Wildwood Aviation Museum – Local visitor information kiosk; full service museum.

Mobile and web-based applications are helpful tools to use to find and follow the byway. However, research undertaken by the Maryland Scenic Byway Program indicated that nearly half of the visitors to byways still prefer some kind of paper map and/or some other physical and tangible evidence that they are on the right route (see Strategy 3.6. on page 137, for recommendations regarding mobile- and web-based applications).

Implementation Steps

- Implement the route marking system outlined in the NJDOT Guidelines for the Development of Scenic Byway Signage or similar MUTCD-approved route marking system.
- Revise sign plan for amended route in Cape May County (Lower and Middle Townships) and the spur the Cape May – Lewes Ferry.
- Install route marking signs for agencies with jurisdiction of roadway (to be coordinated through each county transportation department).
- Design and implement a wayfinding signage program (consistent with MUTCD) for byway-related sites that builds upon the Coastal Heritage Trail and utilizes the geographic and thematic clusters as a means of organizing the signage system and to avoid duplication.
- Install information kiosks with similar visual and graphic identity at points of entry to the byway corridor.
- Design and implement a mobile application that is compatible with, and builds upon, other state and federal agency efforts along similar lines (see Goals 3 and 4).

Strategy 2.2. Make the Roadside Appearance More Attractive and Welcoming Throughout the Corridor

Scenic vistas are abundant along the byway, however, many have been compromised by litter, inadequate property maintenance and invasive plant species. A clean and attractive roadside makes for a more positive travel experience and makes visitors feel more comfortable in an unfamiliar place. In addition, it indicates that byway towns and villages are proud of their communities and want to present them at their best.

The following specific locations along the byway have been identified for roadside appearance enhancements.



Figure 103 – Example of abandoned property in need of rehabilitation: remove asphalt and plant to grass until property is redeveloped

Salem County

- NJ 45, Mannington Township – This commercial/industrial stretch of NJ 45 north of Salem City is in need of clean up and beautification. Litter pick up and plantings in front of businesses, parking lots and vacant parcels would improve the immediate appearance and signal to passers-by that the area is being cared for.
- Front Street, Port of Salem – This area is dominated by warehouses and ship yards, line with chain-linked fence. While this area should be appreciated for what it is – a working port – a tidier appearance would encourage visitors to learn more about it and the maritime culture associated with the Salem River. Plantings along the roadside would soften the appearance of the fencing and garbage clean-up would indicate the area is being maintained.

Cumberland County

- Grove Street, Bridgeton – This area is primarily residential, though not very well maintained. Several homes show signs of neglect and along the Cohansey River, the view is blocked by invasive species. This stretch of the byway is in need of a neighborhood clean up and invasive plant removal effort.
- CR 649, Port Norris – Several commercial/industrial businesses along with poorly maintained residences line CR 649 leaving Port Norris, southbound would benefit from a local clean up effort to remove garbage, abandoned vehicles, etc. and install plantings to freshen up the roadside appearance.

Cape May

- Bayshore Drive – the amended route, while providing the best access to historic sites and attractions associated with the Delaware Bay in Lower and Middle Townships, is in need of roadside enhancements including litter pickup, as well as an overall streetscape enhancement (street trees, drainage, sidewalks, coordination of signage and graphics, architectural design guidelines).
- NJ 47, Cape May County – Land use along NJ 47 in Cape May County ranges from residential to commercial to institutional to industrial to preserved wetland and historical village. Several commercial/industrial properties have parking areas, storage back lots or other less attractive areas that would benefit from roadside plantings to screen these areas.

Implementation Steps

- Work with County and municipal governments and local volunteer groups to maintain 100% coverage of the byway for “adopt-a-highway” programs or similar.
- Design and implement a program for “adopt a spot” to encourage new roadside landscape plantings, especially at community and village gateway areas.

Strategy 2.3.

Assist Communities in Their Efforts to Develop New and Enhance Existing Visitor Facilities and Link Those Facilities to the Byway Through Interpretation and Visual Identity (Community-based Enhancements).

Despite the abundance of natural and historical resources within the byway corridor, visitors must travel long distances between visitor facilities and other amenities. Attractions that will get visitors out of their cars tend to be concentrated in the byway’s major towns. These include information centers, rest rooms, restaurants/accommodations, shops and pedestrian-friendly streetscapes, as well as mapped pedestrian and bicycle trails. Such facilities also encourage visitors to stay longer. Longer visits ultimately translate into a greater economic benefit to the byway communities.

The following community-based projects in towns and villages along the byway have been identified for enhancements.

Salem County

- Continue to develop a network of pedestrian and bicycle trails associated with the Bayshore Heritage Byway (with emphasis on Salem River and Mannington Meadows connections to the City of Salem and linkages to Fort Mott and Supawna Meadows).
- Master plan implementation for Main Street Salem.

Cumberland County

- Increase access and connectivity to Maurice and Cohansey Rivers by cleaning up and redeveloping former industrial sites.
- Village gateways (e.g. Canton, Cedarville, Greenwich, Dividing Creek, Mauricetown, Maurice River Township villages).
- Continue to develop county-wide network of pedestrian/bicycle trails (with emphasis of river corridor connections of the Sturgeon Trail and Maurice River Trail and loop connections via the Bridgeton-



Figure 104 – Providing pedestrian and bicycle connectivity to the East Point Lighthouse (as well as interpretive exhibits and enhanced river and bay access) along the Maurice River is a high priority for Maurice River Township

Moving Ahead for Progress in the 21st Century (MAP-21)

Excerpt from legislation describing eligible funding categories (FY 2013)

“(29) TRANSPORTATION ALTERNATIVES.—The term ‘transportation alternatives’ means any of the following activities when carried out as part of any program or project authorized or funded under this title, or as an independent program or project related to surface transportation:

(A) Construction, planning and design of on-road and off-road trail facilities for pedestrians, bicyclists and other nonmotorized forms of transportation, including sidewalks, bicycle infrastructure, pedestrian and bicycle signals, traffic calming techniques, lighting and other safety-related infrastructure and transportation projects to achieve compliance with the Americans with Disabilities Act of 1990 (42 U.S.C. 12101 et seq.).

(B) Construction, planning and design of infrastructure-related projects and systems that will provide safe routes for non-drivers, including children, older adults and individuals with disabilities to access daily needs.

(C) Conversion and use of abandoned railroad corridors for trails for pedestrians, bicyclists, or other nonmotorized transportation users.

(D) Construction of turnouts, overlooks and viewing areas.

(E) Community improvement activities, including—
(i) inventory, control, or removal of outdoor advertising;
(ii) historic preservation and rehabilitation of historic transportation facilities;
(iii) vegetation management practices in transportation rights-of-way to improve roadway safety, prevent against invasive species and provide erosion control; and
(iv) archaeological activities relating to impacts from implementation of a transportation project eligible under this title.

(F) Any environmental mitigation activity, including pollution prevention and pollution abatement activities and mitigation to—
(i) address stormwater management, control and water pollution prevention or abatement related to highway construction or due to highway runoff, including activities described in sections 133(b)(11), 328(a) and 329; or
(ii) reduce vehicle-caused wildlife mortality or to restore and maintain connectivity among terrestrial or aquatic habitats.”...

Millville-Mauricetown Loop identified in the Cumberland County Rails to Trails Feasibility Study, 2010). Specific segments identified as priorities include:

- Bike paths along the shoulders of CR 553
- Off-road bike trail between Port Norris and East Point Lighthouse
- Completion of Maurice River Township bike trail
- Completion of bike paths and trail projects from Union Lake along the Maurice River

Cape May

- Continue to develop county-wide network of pedestrian/bicycle trails (increase connectivity of rail trail parallel to byway and use of existing byway for bicycles (see <http://www.state.nj.us/transportation/commuter/bike/pdf/capemay.pdf> for Cape May Shoreline Ride brochure published by NJDOT)
- Formalize Shorebird Alley with a series of Delaware Bay interpretive waysides and birding observation areas
- Improve roadway conditions and designate bicycle lanes, particularly along Sunset Boulevard

Implementation Steps

- Visitor centers and kiosks – Develop and implement a program to enhance existing visitor centers, provide new visitor information kiosks for those locations identified in Strategy 2.1. Visitor centers located in community gateways should incorporate exhibits regarding the significance of the Bayshore region. Smaller kiosks should incorporate information about what to see and do along the byway in that particular area of the byway.
- Restrooms – Develop and implement a program with local businesses to encourage the use of rest rooms as an opportunity for business development. Examine potential funding sources from DEP as a means of water quality management.
- Restaurants/accommodations – Develop and implement a program for hospitality training (see page 137).
- Interpreted pedestrian and bicycle trails – Using the river corridors as the primary organizing element and priority for development, work with localities to design and implement multi-use or on-road bicycle and pedestrian pathways connecting community gateways with Bayshore destinations (Salem City to Fort Mott along the Salem River, Bridgeton to Greenwich along the Cohansey River, Mauricetown to East Point Lighthouse along the Maurice River and

a pathway connecting Greater Cape May destinations, perhaps using the Canal and shorelines).

- Develop and implement a village streetscape enhancement program and pursue funding collaboratively to include community entrances, traffic calming as needed, tree planting, sign coordination, walkways / sidewalks and drainage.
- For rural villages, develop appropriately scaled enhancement efforts that are consistent with the desire to preserve the rural village character (e.g. no concrete curbs and sidewalks, maintain narrow scale of road/village, keep informality of roadway character, etc.).

Strategy 2.4.

Assist Organizations in Their Efforts to Develop New Visitor Attractions or Enhance Existing Attractions and Link Those Sites to the Byway Themes Through Interpretation and Visitor Services (Site-specific Enhancement Opportunities)

Site-specific projects can be implemented through partnerships from a variety of sources. The most likely means of project implementation along the Bayshore, however, is through the Municipal Public Access Plans (MPAP). DEP's Division of Coastal and Land Use Planning has already begun the process of inventorying public access points but will be working with municipalities to identify additional sites and determine what facilities are necessary to accommodate the public. Through these plans, byway jurisdictions will be able to call attention to and develop plans for sites that they would like to enhance with visitor facilities, boat ramps, interpretation, etc. Although the rule determining whether or not and how these plans are tied to shoreline protection and Green Acres Program funding is under review, it is clear that including desired enhancement projects in the MPAP will be critical to getting DEP support and funding. Lower Township has already prepared its MPAP and other Cape May municipalities are in the process. All byway jurisdictions with water access should develop an MPAP.

The following sites along the byway have been identified for enhancements.

Salem County

- Turnout and viewing area with interpretation in Mannington Meadows to formalize birding spots;
- Additional interpretive exhibits at Hawks Bridge as part of the recently constructed parking area and boat ramp;

Enhancing Commercial Corridors Over Time

The City of Lexington, Virginia and adjoining Rockbridge County initiated corridor plans for each of their community entrance corridors in 1996. More than a decade later businesses, having worked together with the City to reduce the height of and coordinate the look of all the signs in the corridor, now enjoy the dramatic makeover illustrated in the before and after views shown below.





Figure 105 – Access to the Maple Avenue impoundments is a high priority for enhancements to the Bayshore Heritage Byway

- Rehabilitation in Fort Mott State Park (especially interpretive panels).

Cumberland County

- Turnout and viewing area with interpretation on Bayside/Caviar spur,
- Interpretation, viewing platform, parking and river access at Maurice River bridge,
- Turnout and viewing area with interpretation Maurice River access just south of Leesburg,
- Turnout and viewing area with interpretation and visitor facilities at East Point Lighthouse and beaches,
- Turnout and viewing area with interpretation for wetland area on Glade Road,
- Restoration of the Little Stone School in Greenwich,
- Turnout and viewing area with interpretation at Fortescue Beach or State Marina,
- Turnout, water access, and viewing areas at the Maple Avenue Impoundments.

Cape May County

- Reconstruction of 1876 Life-Saving Station No. 40 at Sunset Beach.
- Sunset viewing (fishing) pier on Beach Drive at end of ferry spur.
- Turnout and viewing area with interpretation (history, natural resources, wildlife), comfort station and covered observation deck at Cook's Beach.
- Kayak launch, public beach and designated parking area at Reed's Beach.
- Turnout and viewing areas with beach access and related facilities at Norbury's Landing, and
- Annexation of property adjacent to Ponder Lodge.

Implementation Steps

- Work with existing Coastal Heritage Trail sites to update interpretive materials, incorporate Bayshore Heritage Byway themes and develop preservation plans (see Strategy 1.1. on page 108).
- Develop and implement a small museum and visitor attraction consortium to pursue funding and design services for management of collections, exhibit design and installation, coordinated programming and event management as a means of increasing visitation and managing the site for more visitors.
- Develop and implement shoreline access plans as a means of increasing opportunities for bird watching or natural area

interpretation and sustainable approaches to providing better access to the Delaware Bay and its beaches (see Strategy 3.4. on page 134).

- Prepare an application for the FY-2013 under the new “Transportation Alternatives” category which includes Turnout and viewing areas as an eligible category, among others (page 132).

Strategy 2.5.

Guide Future Changes in Land Use as a Means of Gradually Improving Community Appearance Over Time Focusing Primarily Upon Maintaining Historic and Natural Context of Wildlife Areas and Villages and Encouraging More Attractive and Vibrant Cities and Towns

So much of the beauty along the Bayshore can be attributed to the lack of sprawl and modern development patterns that plague many communities. Instead, long stretches of agricultural land or wetlands are interspersed with compact towns and villages. However, increased development pressure and the need for alternative energy sources threaten the Bayshore and byway landscape.

While existing transmission lines are likely to remain where they are, future transmission lines, cell towers, wind farms and photovoltaic facilities should be constructed in ways that minimally impact the byway viewshed and its communities. The biggest threat currently is photovoltaic farms in Salem County. In 2011 the Salem County Improvement Authority initiated a solar photo voltaic project to be completed in 2012 involving roof or ground-mounted solar panels at the County Correctional Facility, Vocational School, Agriculture Building, Emergency Service Building and the county’s new Five Star Plaza offices in Salem City. Ground-mounted solar panels can take up significant space and create a significant intrusion in the landscape; however, photo voltaic facilities can also be integrated into existing architecture in a much less obtrusive manner.

Similarly, cell phone towers frequently rise conspicuously higher than the surrounding landscape and nearby structures. They, too, can be made less obvious with height restrictions and proper siting.

The physical survey, Appendix 2, identifies the locations of various visual intrusions along the byway. The institutional survey, Appendix 3, identifies land use policies in place and highlights areas in which additional guidance is needed. Each municipality along the byway should amend their ordinances to restrict potential intrusions and guide future



Figure 106 – Example of cell tower disguises as a water tower



Figure 107 – Example of more appropriate use of camouflage to reduce visual contrast of a cellular communication tower

Visual Impact Methodology

The visual impact of cell towers, high voltage transmission lines, large scale solar installations and wind turbines can be minimized if a few reasonable steps are taken in the planning stages to minimize visual impact:

Require developers seeking permits to identify alternative locations, alternative heights and /or alternative transmission routes. Require service providers to consider shared facilities (saving installation costs, time and potential legal fees) and to demonstrate why new construction is needed.

For each alternative, describe the visual characteristics of the project (e.g., the height of the tower and clearance required for vegetation).

Determine, for each alternative, the extent of the geographic area from which the proposed facility can be seen using digital elevation models and viewshed analysis software.

Use balloon tests to demonstrate the location of towers. Balloons should be flown at the height of the proposed tower and photographs taken from the most visually sensitive locations.

For areas where there is a high degree of concern for the potential visual impacts, such as a panoramic view, use digital editing to superimpose a photograph of a similar type of tower onto the photograph of the balloon taken from the scenic viewpoint, using the balloon for a scale reference.

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

A problem with the “tree” camouflage approach used in certain locations, is that the silhouette of the “tree” is often out of scale with the surrounding vegetation. Camouflage can work if the height of the tower can be lowered to the point where the tower (and “tree”) is in scale with its surrounding tree line.

land use and develop guidelines to protect the byway viewshed from unsightly communication towers, power lines and the like.

Implementation Steps:

- Installations for transmission lines, cell towers, large scale solar and wind “farms” to encourage siting in appropriate places and using more context sensitive approaches regarding the scale and contrast of proposed facilities.
- Identify and develop model ordinances for adoption by municipalities, of transmission lines, cell towers, large scale solar and wind farms.
- Develop simple and easy to understand guidelines for siting rural residential and minor subdivisions that accommodate the needs for homes while building in a more context sensitive manner.
- Collaborate on a regional basis to bring in subject matter experts on community revitalization of main streets and for transforming and integrating aging commercial corridors into the city and town fabric, especially those along the byway at the edges of cities and towns.
- Consider the development of historic district overlays as a means of guiding future changes within historically significant villages, towns and cities (see http://www.nj.gov/dep/hpo/3preserve/mlul_7_07.pdf).

Goal 3: Expand Heritage and Nature-based Economic Development Opportunities

Make use of the byway and New Jersey’s business development resources to help the region build its capacity to attract and retain those travelers with an interest in the Bayshore’s rich natural and cultural heritage.

Develop marketable programs and activities, along with expanded business opportunities to increase the comfort level of visitors – such as good food, nice places to stay, a more welcoming community appearance – and to keep visitors returning time and time again.

Strategy 3.1.

Use the Byway to Extend the Stay of Existing Visitors by Marketing Activities Aimed at Birders, Bicyclists, Boaters (Non-motorized), Beachcombers and Maritime Heritage Destination Travelers.

The Bayshore Heritage Byway represents an important opportunity to widen the range of activities that appeal to heritage tourism travelers and extend the stay of existing visitors. Both actions will generate

more economic impact from overnight stays, meal sales and related expenditures.

The development of compelling stories to grab visitors' attention in places that they are already frequenting (the "target area") will encourage visitors to stay longer and learn more. One technique is to develop itineraries that tie together thematically-related sites. One example is a military themed tour, linking the military history sites: NAS Wildwood, the Concrete Ship, World War II Tower, etc. (See Defending the Delaware Bay on page 135 and the general discussion on interpretation on page 141).

Implementation Steps

- Link the byway planning and marketing activities to existing Cultural Heritage Commissions and their strategic plans in all three counties as well as to the goals of the New Jersey Heritage Tourism Plan.
- Continue to increase awareness of the significance of the Bayshore region through programming and coordinated events by establishing a region-wide calendar of events and Bayshore Heritage Byway web page.
- Expand existing programming and incorporate lectures, educational sessions, food and arts and crafts events, guided touring, etc. as a means of increasing the length of visitor stays. Link bicycle touring with arts and history in Salem County, link birding and bicycling with nature-based educational sessions and guided touring in Cumberland County and encourage beach visitors to try the quiet side of Cape May.

Strategy 3.2.

Identify Clusters of Resources as a Means of Establishing Destinations That Are Linked together by Pedestrian Paths and/or Bicycle Paths and Trails.

Given the length and broad geographic reach of the byway, the travel experience needs to be organized into smaller geographic areas. A visitor should be able to sample what the region has to offer in a short time frame, but the experience should be strong enough to encourage an extended stay or a repeat visit.

After extensive input from CMC members, the CMP recommends that the byway be organized into distinct geographic areas (destination clusters) emphasizing the major rivers as the organizing element. The river corridors link the gateway communities with the Bayshore (the



Figure 108 – Birding events such as the Purple Martin migration are a strong draw for the Bayshore region



Salem River with Salem, the Cohansy River with Bridgeton, the Maurice River with Port Norris and Mauricetown and the Cape May Canal with Cape May). The smaller tributary creeks provide the structure for the more remote birding and wildlife areas in between the rivers – extensive preserved and managed wetland areas with good birding opportunities.

The analysis of sites contained in Table 3, page 151 identifies the sites, their related themes and the level of services available within each cluster. These clusters can then serve to organize project implementation on a more manageable scale.

Each river-oriented cluster should include:

- One full-service visitor attraction that interprets each of the four primary interpretive themes for the byway (see Goal 4: Uncover the Stories Depicting the Bayshore’s Rich Natural Heritage and Community Life on page 141, for more details)
- Interpreted water landing and access point or points that link up with the byway (preferably one in the gateway community and one at or near the full service destination).

Figure 109 – Destination clusters map showing key features along the Bayshore Heritage Byway

- Safe and enjoyable separated multi-use pathways connecting the gateway community with the full service destination.
- Bus access that either links up to a bicycle or canoe/kayak rental site or allows for bicycle racks to be incorporated on the bus.

To implement the cluster concept, one of the clusters must be developed as a demonstration project. The Maurice River corridor is a logical choice as a demonstration project given the confluence of existing and planned projects and programs, an evolving pathway system, the existing management framework provided by its designation as a National Scenic and Recreational River, the significant interpretive resources and growing visitation at the Bayshore Discovery Project and the strong interpretive opportunity and potential destination site for the East Point Light House – one of the most striking vistas along the byway.

In addition to coordinating interpretation and itineraries within a cluster, there is a need to coordinate interpretation and itineraries between clusters. Visitors will first get introduced to the sites, attractions and interpretive themes at the visitor center in each of the major communities. Visitors with a few hours to spend can learn a bit more by taking a walking tour to nearby sites, or by traveling by car, boat, or bicycle to a full service destination and back along the river corridor. For those wanting a more in-depth experience, they can explore the adjoining watersheds – for bird watching, water trails, historic sites and more.

The best way to make a concept like this work is to coordinate among nearby sites. The Bayshore region stories can be told from one site to the next such as you might find in a museum. The challenge in this case is the site is a 142-mile long museum with eleven different, but coordinated exhibits.

Implementation Steps

- Confirm the clusters and sites identified in the CMP on Appendix 2, Map 8.
- Using the CMP resource inventory, touring concepts and interpretive framework (see page 141), conduct small group meetings with sponsors of existing sites within each cluster (starting with the Maurice River Cluster as a demonstration) to identify potential itineraries, common themes, common dates for events and activities, visitor services and potential priorities for expanding the range of visitor opportunities. Itineraries should begin at one of the four gateway communities (Salem, Bridgeton, Port Norris/Mauricetown or Millville and Cape May) and end at destinations along the Bayshore.



Figure 110 – The Maurice River serves as a “destination cluster” that connects both the East Point Lighthouse and the Bayshore Discovery Project with nearby Mauricetown and Port Norris and then north toward Millville.

Defending the Delaware Bay

Whether it was defending the Delaware River at Fort Mott during the 19th and 20th centuries or training active dive-bomber squadrons during World War II at Naval Air Station Wildwood, visitors can gain an appreciation and understand the role that the Delaware Bay played in the defense of our country.

Start the tour at Fort Mott where the fortifications as they exist today were built in 1896 in anticipation of the Spanish-American War. A Self-Guided Tour and an interpretive map guide visitors through the various emplacements and magazines lining the 750-foot long parapet conveying the feeling of what it was like in its day.

Next read the account of the Battle of Dallas Ferry, recorded as the only Revolutionary War battle in Cumberland County, NJ, where blood was shed. According to the Maurice River Recollections Project (<http://www.cumauriceriver.org/reaches/pg/narratives.cfm?sku=43>), local historian Herbert Vanaman describes two accounts of the Battle of Dallas Ferry that point to the battle occurring on the Maurice River between Menhaden on the east and the Port Norris meadows on the west.

Take a brief side trip off the byway to Millville's Army Air Field Museum, known "America's First Defense Airport", dedicated in 1941 that served as a gunnery school for fighter pilots.

Finally, continue along the Bayshore Heritage Byway to Naval Air Station Wildwood where active dive-bomber squadrons were also trained during World War II. Today, the restored Hangar #1 serves as an Aviation Museum where visitors can explore aviation, New Jersey, military and WW II history with many fun and interactive exhibits.

Strategy 3.3.

Work in a Coordinated Manner to Develop and Expand Itineraries That Extend the Range of Activities for the Targeted Audience.

Each site along the Bayshore Heritage Byway should maintain at least an introductory exhibit, display, or installation that places that exhibit within its interpretive context as described under Goal 4, starting on page 148. By coordinating one site with the next, visitors will be drawn from site to site, extending their understanding of the natural resources and cultural heritage of the Bayshore region. A richer package of interest areas may also lead to visitor stay extension.

Implementation Steps

- Combine and coordinate the cluster plans on an annual basis and maintain a common calendar on a seasonal basis that is utilized by all Bayshore communities and clusters emphasizing the ephemeral side of birding and other wildlife migration patterns, arts and crafts events, bicycling events, food events and community-based celebrations (similar to <http://www.cumauriceriver.org/pages/calendar.html>, but developed as a common Bayshore region calendar for the entire byway).
- Based on the cluster meeting results, continue to meet on an annual basis to design and expand upon itineraries using the geographic clusters shown on Appendix 2, Map 8 and associate the itineraries with major events such as the purple martin bird migration, or other birding festivals and/or cultural events.
- Market the itineraries and associated events as packages through regional advance advertising, familiarization tour with nature-based tour operators, web sites, etc. (in accordance with Strategy 3.7).

Strategy 3.4.

Coordinate Beach Access Planning and Implementation as a Means of Increasing the Capacity for Addressing Visitor Needs in a Sustainable Way – Including Parking (Bicycle and Automobile), Rest Rooms, Walking Paths to the Beach, Interpretation and Shoreline Management – Using the Clusters as an Organizing Approach.

Coordinated beach access is important for visitors. Providing access to the natural and cultural resources that help tell the stories of the Bayshore region is a critical element to increasing the length of stays and expanding the range of visitors.

The DEP is working with 255 municipalities to complete public access plans, but the agency has not gotten to the Bayshore region. DEP is eager to connect with representatives from byway townships and boroughs and the byway planning effort is a good way to coordinate with DEP to get these public access plans underway. DEP has a list of statewide access points, but there are many more that are known at the local level and have not been identified by the State. The types of enhancement projects discussed under Goal 2 are exactly the type of projects that should be linked to the access plans.

Lower Township has completed their beach access plan. As of Spring 2012, the revised rule regulating the public access plans has not been finalized. An earlier regulations was removed with the intent that the rule currently under formulations be its replacement.

An important consideration as a part of the public access planning effort are legal issues regarding access. It is important to make sure that visitors are not directed to access points on private property. One of the significant benefits of encouraging and working with Bayshore region communities to complete access plans would be to direct the byway visitor towards legal shore access points.

Implementation Steps

- Schedule a common workshop with DEP to coordinate beach access plans and link those beach access plans to the byway.
- Incorporate approved beach access points into visitor itineraries as they are developed.
- Develop a Delaware Bay beach access visitor guide that provides factual information about the Bayshore region, birding and wildlife opportunities, bicycling opportunities and maritime heritage (the guide should be timeless and not include events, business information, or other information that is time sensitive or that may change).
- The printed guide should include web references to visitor service guides as per strategy 3.5 below.

Strategy 3.5

Use Towns and Full-service Sites as a Home Base for Itineraries, Especially Towns That Have Visitor Support Services Such as Accommodations, Restaurants, Restrooms, Parking, Etc.

Defending the Delaware Bay



Figure 111 – Fort Mott



Figure 112 – Port Norris



Figure 113 – Millville Army Airfield Museum



Figure 114 – Museum at Naval Air Station Wildwood



Figure 116 –Middle Township is preparing a beach access plan that considers how to provide appropriate access to places like Reed/s Beach



Figure 115 – Salem City serves as a full service destination with a visitor center, restaurants, and extensive opportunities for interpretation

Ideally, each heritage cluster should have a full service site from which visitors can launch their excursions or use as a rest stop. If the goal is to increase economic activity in Bayshore communities, then the towns themselves need to play a critical role in providing the full range of visitor services. For orientation and interpretation, this would logically start at existing visitor centers in Salem, Bridgeton, Port Norris/ Mauricetown and in Cape May (see Strategy 2.1. on page 118).

Where there are gaps in visitor services, some kind of technical or business assistance should be sought to provide incentives and tips for businesses that are supportive of providing services as a way to increase business activity. Small businesses often see visitors wanting to use restrooms as detracting from their business. However, restaurants, hotels, convenience stores and other hospitality-oriented businesses typically benefit from increased sales when making facilities open and available to the public.

Hospitality training is one important way to expand visitor services in existing communities. The byway sponsors should work with the NJ Small Business Development Center, PSEG and other sponsors that benefit from small business development to offer hospitality training seminars targeting the gateway communities to the byway.

Long-term, opportunities exist for getting small business development loans or grants to upgrade rest room and other hospitality services in existing businesses as a way to expand the range of services in existing byway communities.

Implementation Steps

- Complete an annual inventory of visitor services to include locations with addresses, planned hours of operation, web page links, etc. that will go in to a seasonal visitor guide for the Bayshore region – coordinate with other published visitor guides.
- Work with Destination Marketing Organizations (DMOs) in three counties (note issue of Salem County’s association with the Delaware River DMO addressed in Strategy 3.6) to publish a Bayshore Annual Visitor Guide and web – and mobile application based seasonal guide.
- Use signage strategies to direct visitors to welcome centers in each of byway gateway communities (Strategy 4.5. on page 149) as a means of directing visitors to nearby community services and providing them with up to date travel and visitor information about the byway.

- Develop a program and sponsor hospitality training seminars for hospitality businesses in existing byway communities through the NJSBDC or through County Chamber of Commerce sponsorship. Hospitality training should include assistance in providing information about the Bayshore region’s natural and cultural heritage for front-line employees.

Strategy 3.6.

Position Marketing Tools (Web-based and Print) and Event Planning and Programming to Match Visitor Service Improvements as a Means of Managing Levels of Visitation to the Carrying Capacity of the Resources

The Bayshore Heritage Byway needs to implement just a few measures to begin marketing the route for heritage touring. The measures include route marking; some kind of expanded focused itineraries with interpretation; and a web presence. Route marking (see page 118) is moving forward as part of the New Jersey Scenic Byway Program sign project. Interpretation is available at existing Coastal Heritage Trail sites (although it could use refreshing) so creating itineraries using these existing sites could be accomplished fairly quickly using a mobile application.

Currently the byway has limited online resources. A natural place to promote the byway would be on the New Jersey Destination Marketing Organization (DMO) web site – although the byway spans two DMOs – South Jersey (Cumberland and Cape May) and Delaware River (Salem).

Given the dynamic nature of the area, its resources and its sites, conditions and information are changing constantly. Therefore, a mobile technology based solution is necessary for providing up to date information about visiting the byway – its services, related programs and events and easy access to interpretive information to help visitors understand the many layers of Bayshore region nature and culture.

Print materials, however, will remain a vital tool in promoting the byway. They should be used to present an overview of the byway (factual information about its natural and cultural features). More specific and time sensitive information, including the hours of operation of sites and attractions, weather conditions, beach closures due to sensitive seasonal and migration patterns, etc. should be reserved for web-based materials. Most important, is the need to present concise and comprehensive



Figure 117 – The Oyster Cracker Cafe serves local, fresh food at Bayshore Discovery Project

information among all the media – print, web and mobile – to achieve the broadest reach and to promote a unified brand for the Bayshore region.

As the byway facilities expand, so too can their information base. For example, the Bayshore Discovery Project recently opened new exhibits along with the Oyster Cracker Café, open on selected days. There is also a calendar related to the various programs, sailing schools and other events sponsored at the site. Coupling a mobile application with the web site could help visitors know when the restaurant is open, who is playing at the next Second Friday event, and more.

Implementation Steps

- Place the Bayshore Heritage Byway into the context of existing marketing efforts in South Jersey. The plan recommends that the Bayshore Heritage Byway be managed as the primary touring route for New Jersey’s Delaware Bay and Estuary and that it be linked by the Cape May-Lewes Ferry to comparable touring routes along the Atlantic seaboard, the Delaware Bay and the Chesapeake Bay.
- Establish an MOU or other informal agreements with any existing

travel and tourism organizations that is currently marketing sites on the byway (the State of New Jersey Tourism Office, Southern Shore and South Jersey DMO’s, nearby Wildwoods and Atlantic City and the New Jersey Birding and Wildlife web sites) to coordinate linkages and visitor information back and forth among web sites. Include information about how visitor attractions along the byway are portrayed and how visitor information about events and programming is linked together, using the common visitor package as per Strategies 3.4 and 3.5. Update the information on an annual basis – see page 167 on implementation for organizational recommendations.

- Apply for a tourism grant to establish a Bayshore Heritage



Figure 118 – South Jersey forevergreen web site where you can choose your adventure

Byway web site based on the results of the discussions with regional DMOs and sponsoring organizations.

- Consider using the format of the New Jersey Forever Green web sites (<http://www.forevergreennj.com/>) and discuss with the Southern Shore DMO the potential for expanding the reach of the forever green web site to include Cumberland and the quiet side of Cape May County.
- Through the annual cluster planning approach identified above and an annual assessment of visitation goals, determine enhancement, facility and programming priorities for expanding visitor experiences.

Strategy 3.7.

Gain More Recognition for the Route, Building Upon the Coastal Heritage Trail. Consider the Potential for National Heritage Area Designation or other Recognition Programs.

The National Scenic Byway Program received no funding for running the program or providing grants as part of the recently enacted MAP-21 legislation signed by President Obama on July 6, 2012. Although the program remains authorized (it was not repealed) it is not clear whether the program will offer any new nomination periods. Therefore, it makes sense for the byway to consider other designations or involvement in other recognition programs. Specifically, consideration for designation as a National Heritage Area, an interest of the region for some time, should be pursued. A study completed in 2001 has found the Bayshore to be eligible for National Heritage Area designation. The Crossroads of the American Revolution National Heritage Area was designated by Congress in 2006 and is the only New Jersey National Heritage Area. There are several other National Heritage Areas in the Mid-Atlantic Region including the City of Baltimore National Heritage Area and the Journey Through Hallowed Ground (Virginia, Maryland, Pennsylvania and West Virginia).

National Heritage Area (NHA) designation typically follows a two-step process: completion of a feasibility study and introduction of authorizing legislation. According to the National Park Service (NPS) a feasibility study assesses “whether (1) the landscape has an assemblage of natural, cultural, historic and scenic resources that, when linked together, tell a nationally important story; (2) an organization exists that has the financial and organizational capacity to coordinate heritage area activities; and (3) support for NHA designation exists within the region.” The NPS study conducted in 2001 already found that the region has the



Figure 119 – Sunny Slope Orchards offers fresh fruit right from the farm

significant resources and a nationally significant story. Developing and demonstrating the organizational capacity and public support are still needed. (See Chapter 5 for a discussion of items 2 and 3).

Implementation Steps

- Using the Bayshore Heritage Byway CMP planning and approval process, determine the level of public support for designation of the Bayshore region as a National Heritage Area and/or a National Scenic Byway.
- Seek further recognition for the byway travel route from travel organizations such as Rand McNally and AAA. Coordinate with US Fish and Wildlife Services scenic byway program to determine whether or not a designation for the Bayshore Heritage Byway could be recognized through that agency.

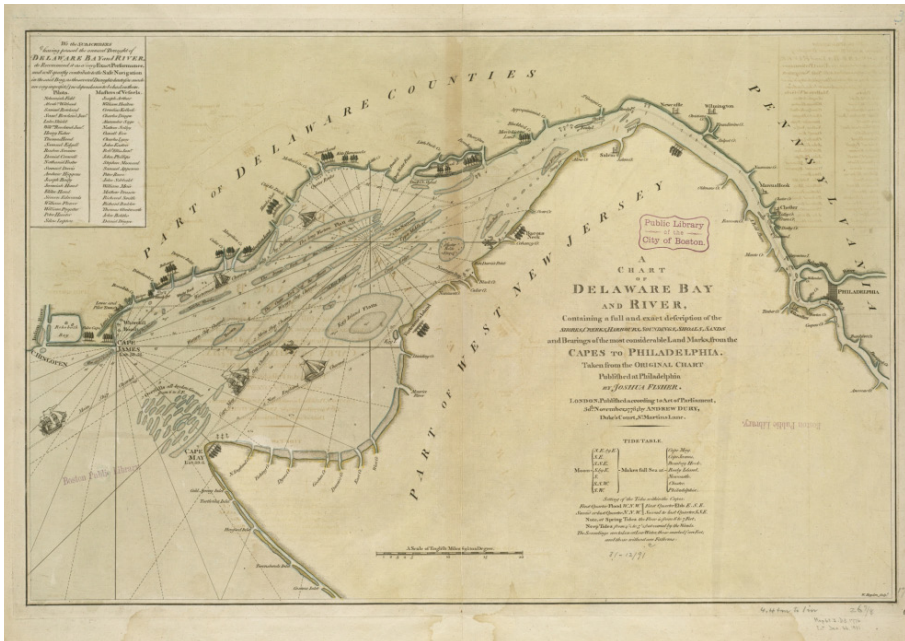


Figure 120 – Fishers map of the Delaware Bay, 1776

- Pursue opportunities establishing an eBird Trail Tracker which is a real-time, online system to gather information and track sightings of birds. The Forsythe NWR is part of this system and efforts should be made to establish one for the Cape May and Supawna Meadows NWRs.
- Nominate regional itinerary for Rand McNally’s “Best of the Road” web site and AAA mid-Atlantic itineraries.
- Based on the eligibility established in the 2001 reconnaissance study, determine with NPS assistance what additional, if any, feasibility study components are needed. Based on a completed feasibility study (initiated locally) seek Congressional support and potentially Congressional Designation as a National Heritage Area.
- For National Heritage Area designation, use the CMP for the byway as a starting point for expanding and developing a heritage area management plan using the guidance provided by http://www.nps.gov/heritage_areas/REP/Notebook.pdf.

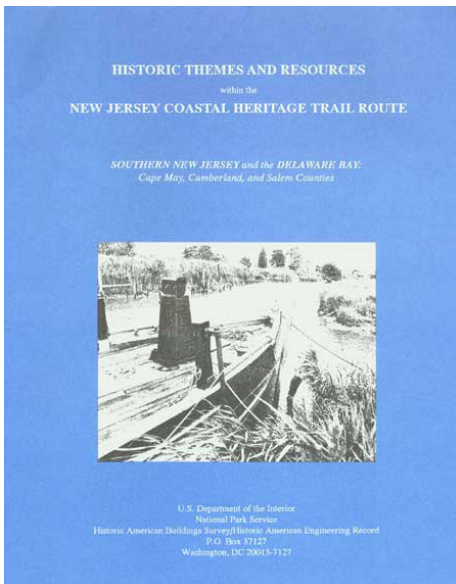


Figure 121 – National Park Service thematic study of the Delsea region provided the basis for interpretive installations on the Coastal Heritage Trail

Goal 4: Uncover the Stories Depicting the Bayshore's Rich Natural Heritage and Community Life

Establish a new interpretive program for the Bayshore Heritage Byway that builds upon the interpretive resources of the Coastal Heritage Trail (originally developed by the National Park Service). Create a program that ties together the stories associated with the Bayshore's natural heritage and historical places in order to establish a seamless, coherent, enjoyable and educational travel experience, building on the infrastructure in place from the Coastal Heritage Trail.

Freeman Tilden, who devoted his career developing interpretive programs for the National Park Service wrote the book, *Interpreting Our Heritage*, in 1957. The book is still cited as the basis for interpretation in training programs today. Mr. Tilden suggested that good interpretation results in a transformation for the visitor. Visitors should come away from an experience visiting an historic site or a natural area, thinking, feeling and acting differently from when they entered. Good interpretation can also help to achieve both heritage tourism goals and preservation goals by increasing knowledge and understanding, but also, through a transformational experience, to change behavior as well – of both residents and visitors.

The experience of traveling along a byway or heritage touring route is, typically, a linear one. The route moves from place to place as well as provides many layers or stories, ready to be peeled back. There are plenty of opportunities for a transformational experience along the Bayshore.

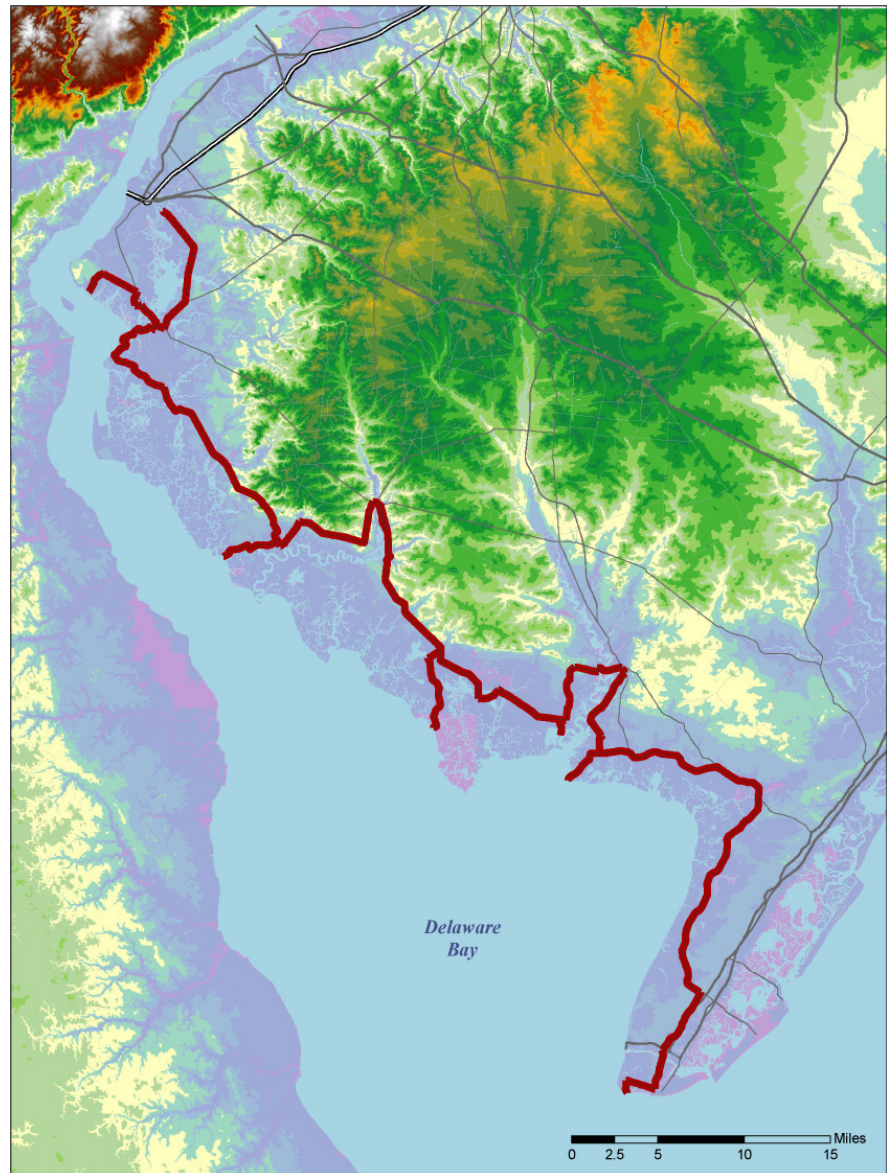


Figure 122 – The Bayshore Heritage Byway provides the best access to the natural and cultural features of the Bayshore region.



Figure 123 – Bayshore Discovery Project serves as an anchor for travelers and residents alike wanting to learn more about the Delaware Bay and experience all it has to offer



Figure 124 –1876 Life-Saving Station is being reconstructed along the Delaware Bay at Sunset Beach

A model for the Bayshore Heritage Byway, the Coastal Heritage Trail, as originally conceived in the 1980s, was one of the first heritage touring routes to coordinate interpretation throughout the length of an entire route. In effect, this approach creates an outdoor museum comprised of individual but related sites. Visitors move from one site to the next in the same way as you would walk through an exhibit at a museum. The National Park Service provided the exhibits to the partners at sites along the Coastal Heritage Trail. Partners agreed to install and maintain the interpretive waysides. At the time, in the late 1980s, this was the largest such program in the entire National Park System. The Bayshore can build upon this solid infrastructure.

The National Park Service used five themes to relate sites to each other throughout the Coastal Heritage Trail: Maritime History, Coastal Habitats, Wildlife Migration, Relaxation & Inspiration and Historic Settlements. According to *The National Park Service Strategic Plan for the Coastal Heritage Trail*, written in 2011 prior the termination of funding for the program, “the first three of these themes are in operation. Planning is incomplete for the remaining two themes. There are nearly sixty locations or facilities associated with the Trail as “Sites,” “Points of Interest,” “Welcome Centers,” and “Local Information Centers.” Two of the proposed five welcome centers have been fully developed.

The best way to adapt the original interpretive themes from the Coastal Heritage Trail to the Bayshore Heritage Byway is to distill the themes down to four basic topics (Coastal Heritage Themes are in parenthesis), keeping the message as simple as possible and letting the stories themselves elaborate upon the themes:

- Maritime Culture and Industry (Maritime History)
- Abundance (Historic Settlements, Agriculture, Aquaculture)
- Leisure (Relaxation and Inspiration)
- Nature (Coastal Habitats and Wildlife Migration)

Strategy 4.1. Establish the Bayshore Heritage Byway as an Outdoor Museum Along Its Entire Length

Like any traditional indoor museum, the Bayshore Heritage Byway needs an exhibit plan that evaluates the existing interpretive installations. It also must develop a new plan for how to tell the stories associated with the Bayshore region’s natural history and cultural heritage.

The Coastal Heritage Trail developed an implementation manual to assist its partners in installing and maintaining the wayside exhibits. However, times and technology have changed, therefore, and a new manual is needed.

The Bayshore Heritage Byway Interpretive Plan should detail a specific plan that builds upon the thematic ideas contained in this CMP. The plan should:

- Elaborate upon the themes, audiences and messages to be conveyed.
- Confirm the conditions of existing interpretive sites and attractions, including an inventory of existing interpretive materials (exhibits, guides, web-based or mobile applications).
- Identify available resources (sites, stories, materials and people) and evaluate where there are gaps in the messages or opportunities to broaden the audience through the creation of new exhibits or media.
- Develop an exhibit plan which identifies the specific messages, media, locations, platforms and graphic identity or style to convey those messages.

Implementation Steps

- Adopt the recommended interpretive framework (themes and topics) as part of the CMP.
- Establish an interpretive committee comprised of representatives of each of the sites and attractions along the byway corridor. Determine how much of the framework is already interpreted and how much needs to be adapted or newly presented.
- Based on the analysis, apply for funding to develop an interpretive plan to coordinate specific recommendations for each site, for new sites and to determine the media and tools that are appropriate to communicate the desired interpretive messages.

Strategy 4.2.

Adapt and Update the Coastal Heritage Trail Themes to the Bayshore region and Expand Those Themes to Identify Potential Interpretive Topics and Tie Into the Themes Established in the Document *The Contours of New Jersey History: An Essay on Context* Prepared for the New Jersey Heritage Tourism Master Plan

Using the Coastal Heritage Trail sites as a starting point, new interpretive waysides and/or web-based or mobile applications can be developed to expand and complete the system.

Lincoln Highway Heritage Corridor's Outdoor Museum

The Lincoln Highway is an outdoor museum in and of itself. The Lincoln Highway Heritage Corridor went a bit further and enhanced the museum experience beyond just the interpretive panels. The museum uses the communities themselves as well as specific sites to tell the region's stories. This is done through site markers, wall plaques, interpretive waysides (some with audio component) and murals located along the historic road.

The Roadside Museum project was funded, in part, by Transportation Enhancement funding, by the PA Department of Conservation and Natural Resources, PA Council for the Arts and Heritage Works in Westsylvania. The Roadside Museum webpage was funded by the PA Department of Community and Economic Development.



Implementation Steps

- Building upon the strategies identified in 4.1, examine the existing interpretive system already in place along the Coastal Heritage Trail and determine which interpretive panels can be replaced and updated with existing screen prints.
- Determine how best to link the Coastal Heritage Trail interpretation to the new byway interpretive framework (e.g. through brochures, logos, QR codes, etc.).

Strategy 4.3.

Link the Storylines and Themes to the Destination Clusters That Give Each Subregion Its Own Unique Identity.

Table 3 describes the current sites along the byway within each destination cluster, the level of service available at those sites and the theme that is best told at that site. The table identifies at least one place to get good information (a gateway) and one place to get a good education about the area in question (a full service destination) for each geographic cluster.

Implementation Steps

- Using the Points of Interest Table contained in the CMP as a starting point, http://www.lardnerklein.com/BHB/BHB_PtsOfInterest031312.pdf, and the itinerary planning process outlined in Strategies 3.4 and 3.5, determine the missing gaps in the interpretive presentation and establish priorities as part of the interpretive plan in Strategy 4.1.
- Build upon the interpretive focus of each of the clusters based on the analysis of existing sites contained in the CMP, giving priority to interpretive programming development for the focus areas, one in each cluster.
- Provide interpretive overview panels or exhibits in each visitor center with the emphasis on the clusters' interpretive focus and provide information on the locations of sites where more can be learned about the focus area topics.

Strategy 4.4.

Use the Appropriate Interpretive Methods and Tools to Communicate and Link the Sites Together to Create a Coherent, Educational and Enjoyable Experience Throughout the Byway.

TABLE 3: EXISTING SITES AND ATTRACTIONS

Destination Cluster Description	Service	Topics	Site or Attraction
Lower Delaware River (Fort Mott)			
<ul style="list-style-type: none"> • 4 of 4 Interpretive topics represented • Interpretive orientation center – Ft Mott SP • 1 Full-service site available – Ft Mott SP • Trails in Supawna Meadows, Bicycling on low volume roads 	L	M	Delaware Memorial Bridge
	L	A	Church Landing Farmhouse Museum
	L	L	Riverview Beach Park
	P	L	Kelly's Point
	P	M	Finn's Point National Cemetery
	F	M	Fort Mott State Park
	P	M	Finn's Point Rear Range Light
	P	N	Supawna Meadows
Salem River (Salem)			
	P	N	Mannington Meadows
	L	A	Salem County Historical Society
	P	A	City of Salem National Register Historic Districts
	P	A	Salem Oak and Friends Burial Ground
	P	L	Sinnickon's Landing Boat Launch
	P	N	Elsinboro Point
Alloway Creek-Stow Creek			
	P	N	Alloway Creek Restoration Site
	P	N	Abbott Meadow WMA
	P	N	Maskill Mill WMA
	L	A	Hancock House
	L	A	Lower Alloway Creek Hist. Museum
	P	N	Stow Creek Viewing Area
	P	N	Stow Creek State Park
	P	N	Mad Horse Creek WMA
	P	N	Bayside Tract
	P	A	Bayside and Caviar
Cohansey River (Bridgeton)			
	P	A	Bethel African Methodist Episcopal Church
	P	A	Greenwich Historic District
	P	A	Greenwich Tea Burning Monument
	L	A	Cumberland County Pre-historical Museum
	L	A	George Woodruff Indian Museum
	L	L	Hall of Fame All Sports Museum
	P	A	City of Bridgeton
	N	N	Dix WMA
	N	N	Cohansey River Restoration Site
Cedar Creek – Dividing Creek			
	P	L	Cedar Lake
	P	N	Nantuxent WMA
	P	L	Newport Landing
	P	N	Money Island Road
	L	M/L	Fortescue State Marina and Beaches
	P	N	Turkey Point Nature Drive (Egg Is. WMA)
	P	N	Glades Wildlife Preserve

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Destination Cluster Description	Service	Topics	Site or Attraction
	P	N	Maple Avenue Impoundments
Maurice River (Millville)			
	F	N	Millville (Gateway Community)
	P	N	Harold Peek Preserve
	P	N	Menantico Ponds WMA
	P	N	Commercial Twp Wetland Restoration Site
	F	F	Bayshore Discovery Project
	P	N	Heislerville WMA/Matt's Landing
	P	A	Mauricetown
	P	A	Maurice River Bridge
	P	N	Millville (Bevans) WMA
	L	M	East Point Lighthouse
Shorebird Alley			
	P	N	Dennis Twsp Wetland Restoration
	P	N	Dennis Creek WMA/Jake's Landing
	F	N	Cape May Bird Observatory
	P	N	Beaver Swamp WMA
	P	N	Lizard Trail Swamp Preserve
	P	N	Reed's Beach
	P	N	Cook's Beach
	P	N	Kimble's Beach
	P	N	Norbury's Landing
Greater Cape May			
	P	N	Fishing Creek Wildlife Preserve
	P	N	Villas WMA/Ponder Lodge
	P	A	Fishing Creek School (future "L")
	F		Forgotten Warriors Vietnam Museum
	F	M	Naval Air Station Wildwood
	P	L	David C. Douglass Memorial Rotary Park
	F	M	Cape May-Lewes Ferry
	L	l	Sunset Beach
	L	M	World War II Lookout Tower
	P	N	Cape May Bird Observatory, Northwood
	P	M	St. Agnes Catholic Church
	P	M	St. Peter's Episcopal Church
	F	M	Cape May Point Lighthouse & State Park
	P	N	Cape May Migratory Bird Refuge
	P	N	The Rea Farm, "The Beanery"
	F	L	Cape May National Register Historic Districts
	P	A	Historic Cold Spring Presbyterian Church
	F	A	Historic Cold Spring Village
PLANNED SITES AND ATTRACTIONS			
	L?	M	Dorchester Ship Yard (Maurice Riv. Twsp.)
	L?	A	High Street (Leesburg)
	L?	N	Olive Street (Natural Lands Trust property)
	F?	L	1876 Life Saving Station (Sunset Beach)

Given the advancements in web-based and mobile technologies and the harshness of the coastal environment within which outdoor waysides would have to be installed, the plan recommends using as much of mobile and web-based technology as possible to communicate and link sites together and to meet the needs of the next generation of users.

Site identification signs can contain QR codes (Quick Response Codes), or similar technology, that when scanned with a camera on a mobile device, can be linked to web-based interpretive materials. This will allow visitors to dig deeper into subjects when visiting a place.

The following media are recommended:

- Web-based platform for the creation and sharing of trips and itineraries for the Bayshore region. A good example of the type of platform recommended was produced by the Alliance for the Cumberlands in Tennessee (see <http://www.edgetrekker.com>). Users of the website should be able to sort through the database of sites and attractions by theme, get information about each site that is of interest, create an itinerary that is a logical way to use the byway to find the sites (with directions and travel times) and save that itinerary for later use or sharing. The itinerary might bring with it interpretive information about the theme and site, and nearby sites worth visiting for further exploration. This platform can then be accessed anywhere, such as at home, hotels, visitor centers, or on web-enabled mobile devices while traveling. The Alliance for the Cumberlands set up a web-based platform and established it, prior to moving on to mobile applications.
- When the web-based platform is established, consider porting that to a mobile application that is specifically written for mobile devices.

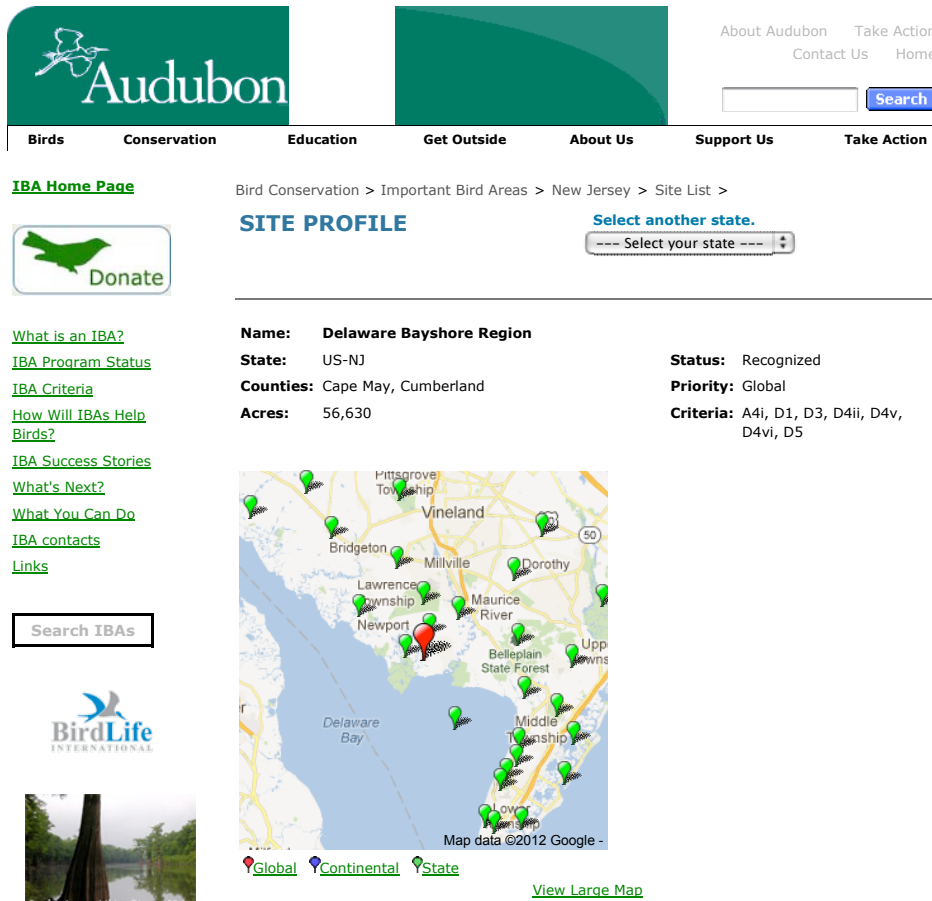


Figure 125 –Bayshore region is identified on a drop down menu for National Audubon’s Important Birding Area web site



Figure 126 –Hidden mural at rear of Newport’s Jenkins Seafood help tell the folk history of the area



Figure 127 –Cape May's Victorian architecture is highlighted in the Christmas Candlelight House Tour



Figure 128 – Flag ceremony at Sunset Beach always draws a crowd

- Despite all the excitement and capability about web and mobile-based technologies and the “what’s near here right now” capability of the mobile application, there still needs to be something to see and do when you get to a particular place or site. In some cases the view, the landscape and the water is enough, or the experience of bird watching, bicycling, beach combing or searching for that special antique is enough. But for most historic sites and some natural areas with complex natural heritage that isn’t always easily visible, some kind of physical interpretation is in order. For these sites and places, both traditional and non-traditional methods of interpretation are recommended.
 - In the towns, murals and other forms of public art can be used to engage visitors in the stories of the town. The murals, if developed in multiple locations can help to weave together a rich storyline for any of the thematic ideas represented along the byway, places that are no longer there.
 - At sites, the architecture of the exhibits and kiosks themselves can help to tell the story – more than just installing a sign in the middle of a view, whole landscapes can be used to tell stories by placing the visitor in a microcosm of that landscape and helping a visitor to learn about the pieces that make up that landscape or to better understand why a building that was there, is no longer there.
 - Elevating viewers above the expansive horizontal plane of the Delaware Bay and Estuary is another means of expanding the perspective of the visitor and to tell a broader and more expansive story about how a landscape has changed over time.
 - People are often the best purveyors of the stories that represent the natural or cultural heritage of an area. Guided and experiential tours and educational opportunities are already available in multiple places throughout the region and should be linked into the interpretive framework for the byway.

Implementation Steps

- Based on the results of the interpretive planning phase, develop appropriate web-based and mobile application tools to tell the story of each cluster area.
- Seek funding for interpretive exhibits and programming based on the interpretive planning and itineraries.
- Develop a guideline for implementing a common visual and graphic identity so that individual sites and attractions can update their interpretation at their own pace.

- Coordinate with the publishing of annual visitor guides, the incorporating of interpretive messaging. Link those messages to sites to provide more information (see http://www.forevergreennj.com/C/Outside_Thinkers/28/U/John_McPhee/297.aspx as an example).

Strategy 4.5.

Use Programming and Events to Draw Visitors from Site to Site and Place to Place by Promoting Lecture Series, Music, Arts and Crafts, Food and Other Related Folklife and Heritage Activities. Associate Those Activities with the Bayshore Heritage Byway.

The Mid-Atlantic Center for the Arts & Humanities (MAC), a nonprofit organization, promotes the restoration, interpretation and cultural enrichment of greater Cape May for its residents and visitors. MAC was founded in response to threats to Cape May's significant Victorian architecture. MAC was able to save a threatened building and through its events and programming, was able help revitalize Cape May.

The MAC model is a good one for the whole Bayshore region. There have been tremendous efforts by many organizations to preserve and conserve the natural and cultural resources of the area. That interest and success is now moving towards the expansion of heritage and nature-based tourism opportunities, increasing awareness of the significance of the resource while generating appropriate and compatible economic activity.

MAC sponsored several events and programs early on in its efforts to preserve Cape May's Victorian architectural character and these are still held today: a Victorian Fair, a 10-day Victorian Week and Christmas Candlelight House Tours. These events provided another way to expand the audience, drawing visitors under one premise – a candle light tour for example – and then using that event to also teach the beauty and appeal of Cape May's Victorian architectural heritage.

Many of the events already taking place along the byway can be further supported through a robust interpretive program. Many of the wildlife and birding migration events are already great learning opportunities. That same opportunity is available to interpret Maritime culture found in musical and artistic traditions. These events and programs should be inventoried and efforts made to find ways to support those activities through active interpretation and through the intertwining of events.



Figure 129 – Sunsets draw beachgoers from the Atlantic shore to the Bayshore at Sunset Beach



Figure 130 – The byway has a wide range of users all competing for the same amount of space

Implementation Steps

- Use the overall interpretive planning in Strategy 4.1, coupled with the annual assessments in Strategies 3.4 and 3.5 to develop a prioritized list for programming along the byway.
- Seek funding through a regional consortium such as the Mid-Atlantic Arts Foundation to bring musicians, artists, craftsman, storytellers and more for a series of coordinated events associated with the byway communities (this could be associated with other byway regions especially the Delaware River or associated with common festivals from other regions – bird migration events for example).
- Work with county cultural heritage commissions and organizations to implement programming such as artist studio tours, historic house and garden tours, seasonal tours and food events, etc. and link the events to the interpretive framework to help increase awareness of the cultural and natural significance of the Bayshore region.

Goal 5: Increase the Range and Safety of Travel Choices and Opportunities

Enhance the quality and safety of the byway-related travel experience for all modes of transportation by expanding the range of travel opportunities for pedestrians and bicyclists as well as those who use public transportation and by utilizing context sensitive approaches to address future roadway safety and capacity projects.

Increasing safety and the range of travel choices to the byway will require a multi-faceted approach to transportation planning and traffic engineering. More than just cars, a byway should also serve alternative modes of transportation and travelers, including bicycle, pedestrian and bus. With maritime related themes and the expansive system of rivers, creeks, wetlands, bay and estuary, water travel is another important mode for byway visitors.

No matter how people visit and travel along the byway, those with an interest in nature and culture often travel at a slower rate of speed, are just as interested in the experience of getting there as in being there and are unfamiliar with the route they are traveling and likely to be more distracted while driving. Motorcyclists and bicyclists are known to seek out and enjoy the experience of traveling along a byway.

Responsibilities for managing the travel route fall to three different levels: state roads (NJDOT) county roads (Salem, Cumberland and Cape May counties) and township roads. As noted in Chapter 3, there are not many planned and programmed projects that are likely to alter the existing system of roads and bridges that serve existing byway communities and their visitors. Most of the changes to the roadway system are related to 3R work (Resurfacing, Restoration, Rehabilitation) and bridge work.

The following strategies are recommended to achieve the transportation goal.

Strategy 5.1.

Adopt a Process and Approach for Doing Transportation Work Along the Bayshore Heritage Byway That Increases Awareness and Sensitivity to the Intrinsic Qualities of the Byway and Is Consistent with the New Jersey Roadway Design Manual, the Smart Transportation Guidebook and with the NJDOT Complete Streets Policy.

When county or municipal governments or the NJDOT prepare to work along the scenic byway, they need to consider the byway travel experience when making safety or capacity changes to the roadway. This is especially important in historic districts like Greenwich, in rural areas, or at the edges of towns.

Increasing awareness of the byway can be achieved by asking transportation departments to adopt a process and approach for transportation work along the Bayshore Heritage Byway. The approach should increase awareness and sensitivity to the intrinsic qualities of the byway and should be consistent with the New Jersey Roadway Design Manual, the Smart Transportation Guidebook, and the NJDOT Complete Streets policy.

The general approach for addressing safety and capacity issues along the byway should include:

- Understand the overall significance of the roadway as a scenic byway - Chapter 2 outlines the significance of this route for both its globally important birding areas and migration patterns and as a nationally significant cultural landscapes eligible for designation as a National Heritage Area.

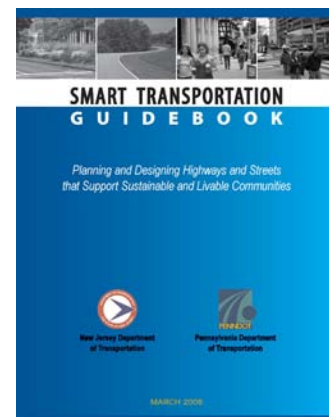


Figure 131 – NJDOT's Smart Transportation Guidebook and Complete Streets programs offer byway communities a wide range of tools to accommodate all users in a context sensitive approach

- Understand the positive quality of a traveler’s experience along the byway - Some common questions that should be addressed with the help of this CMP are:
 - Who are the other users of the road and what are their expectations, such as a bicyclist out for a leisurely recreational experience, or a bicycle club looking for a demanding excursion (see page 131)?
 - For a byway traveler, are there potential conflicts between the desired experiences of a visitor whose goal is to appreciate the scenery or relaxation (see page 86), and the commuter who wants to get from point A to point B as quickly as possible?
 - Is this the only way to get from one point to another, or are there choices (see 3.1.2. Getting to the Byway on page 82)?
 - Is the travel experience itself one where the driver feels safe with adequate mobility, or is it congested with unpredictable turning movements (see Vehicular conditions on page 86)?
- Understand the character-defining features of the project area - The character defining features can be better understood by reviewing the CMP (especially Chapter 2, Byway Qualities and Appendix 3, the visual and physical inventories.

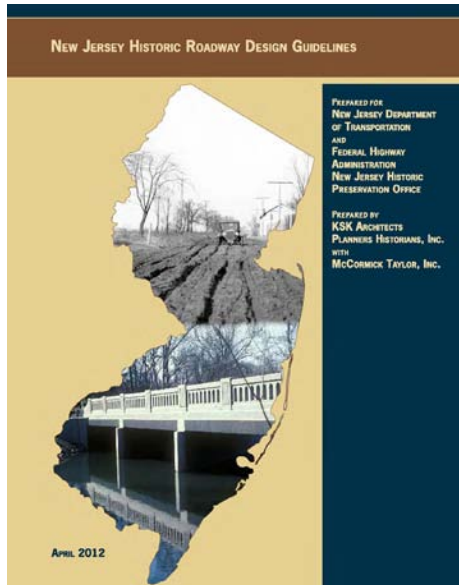


Figure 132 – NJDOT recently released a design guideline for historic roadways offering an excellent tool for maintaining the character defining features of historic roads

- Determine what treatments are appropriate given the character-defining features - A general approach to selecting appropriate treatments can be adapted from the U.S. Secretary of the Interior’s Standards for Treatment of Historic Sites. This framework could be applied to the Bayshore Heritage Byway, for example, as follows:

- PRESERVE** applies to portions of the roadway or immediately adjacent right-of-way that are nationally significant resources – this would apply to only a few places along the byway, such as along old landing roads associated with some of the spurs.
- MAINTAIN** applies to the majority of the byway where the goals are to retain the character defining features of the byway, while addressing safety and capacity issues.
- ENHANCE** applies to sections of the route where the character defining features are no longer present or where interpretive opportunities exist along the byway.

There are a number of state and federal resources available to assist in applying the process and approach described above:

- NJDOT adopted a Complete Streets in December 2009. The policy requires that future roadway improvement projects include safe accommodations for all users, including bicyclists, pedestrians, transit riders and the mobility-impaired (<http://www.state.nj.us/transportation/eng/completestreets/pdf/completestreetspolicy.pdf>).
- NJDOT prepared an historic roadway guideline document that includes good advice and examples that are applicable to the Bayshore Heritage Byway.
- NJDOT has extensive experience on projects involving context sensitive solutions and design throughout the state and has received extensive recognition for their approach to projects like Route 29 in Trenton and others (see <http://www.state.nj.us/transportation/eng/CSD>).
- AASHTO and FHWA have both published several guidance documents on process, engineering guidance and best practices for context sensitive solutions (http://environment.transportation.org/environmental_issues/context_sens_sol/docs_reports.aspx).
- For lower volume roads, such as most of the Township roads, AASHTO published *Geometric Design of Very Low Volume Local Roads*, which can be utilized to provide the rationale for applying appropriately scaled design values as a means of reducing impact and the footprint of roadway projects. More awareness of this guidance document is needed, as it applies to the NJDOT Local Aid office regarding state and federally funded projects on local roads.

Implementation Steps

- Increase the awareness of the Bayshore Heritage Byway among NJDOT, County and Municipal transportation planning and engineering staff through the corridor management planning and implementation process and by forming a transportation committee to meet annually to review upcoming planned and programmed projects along the byway.
- Develop a system at all levels to flag projects that are planned and programmed along the byway at the funding and programming level so that efforts can be made early in the process to incorporate context sensitive approaches and processes.
- Encourage the adoption of complete streets policies at the Municipal and County level building upon the New Jersey complete streets policy (see link above).

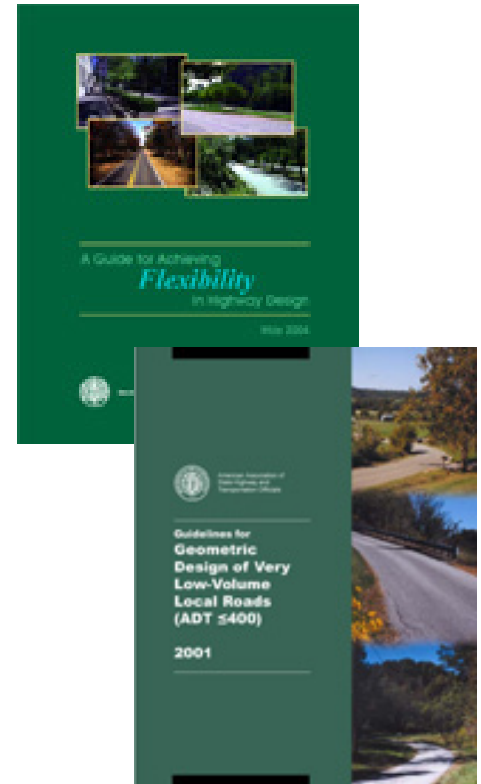
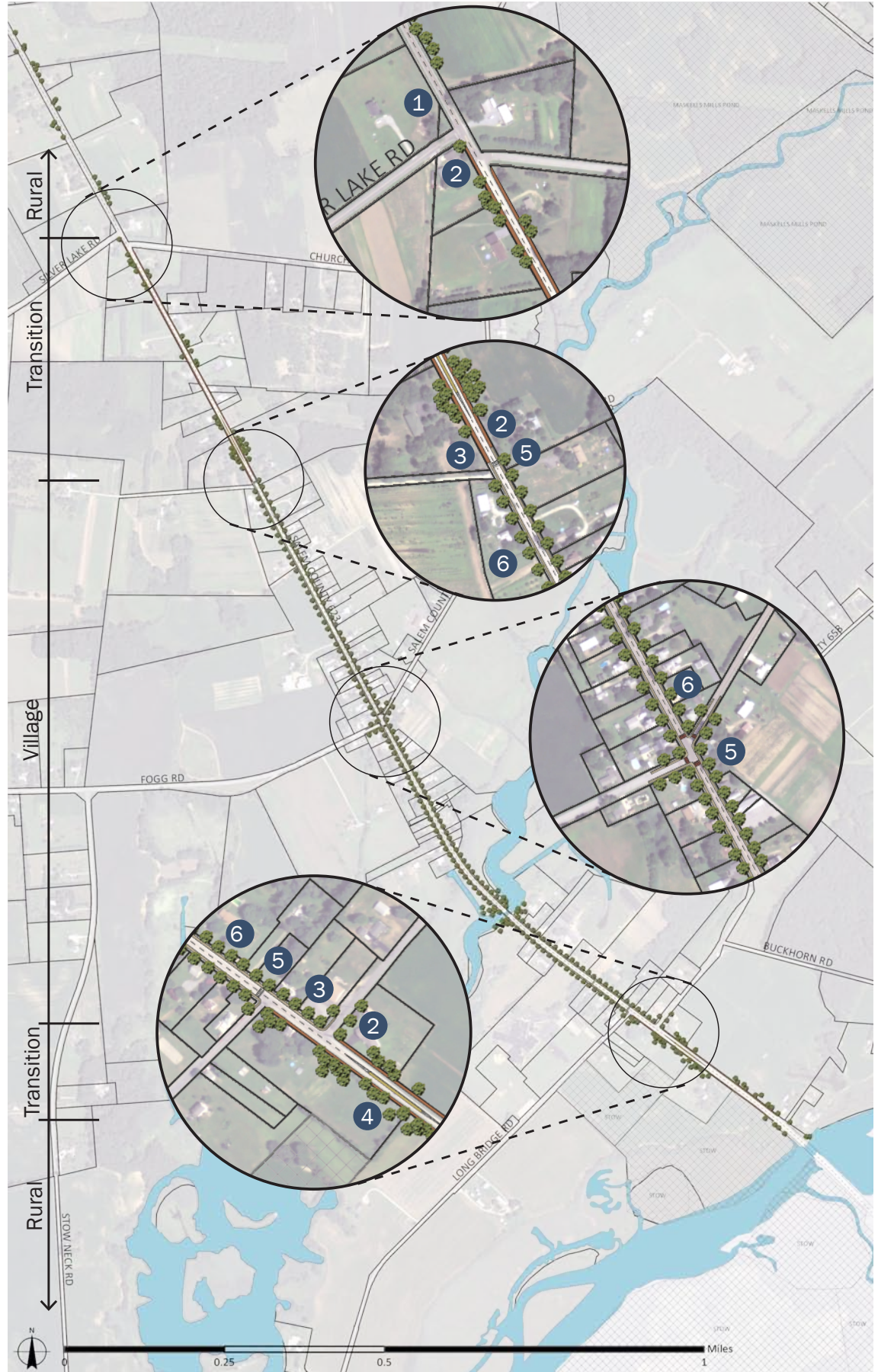


Figure 133 – AASHTO's *Guideline for Achieving Flexibility in Highway Design* and *Guidelines for Geometric Design of Very Low Volume Roads* are helpful tools for balancing the needs of all roadway users in a context sensitive manner















	Less aggressive approach	More aggressive approach
Warning	<p>1 </p> <p>Transverse markings</p>	<p></p> <p>Flush curb</p>
Roadside Treatment	<p>2 </p> <p>Landscape clusters</p>	<p></p> <p>Tinted shoulder</p>
Roadside Treatment	<p>3 </p> <p>Entry sign</p>	<p></p> <p>Gateway</p>
Horizontal alignment shift	<p>4 </p> <p>Splitter island with bike lane</p>	<p></p> <p>Splitter island with narrowed travel lanes</p>
Pedestrian and Intersections	<p>5 </p> <p>Textured intersection</p>	<p></p> <p>Crosswalk</p>
Pedestrian and Intersections	<p>6 </p> <p>Brick pathway</p>	<p></p> <p>Brick sidewalk with curb and gutter</p>

Figure 134 – A range of approaches are possible for helping byway communities to reduce vehicle operating speeds approaching town

Strategy 5.2. Encourage the Use of Appropriately–Scaled and Selected Speed Reduction Measures as a Means of Increasing Safety for All Users of the Byway in the Transition Areas Approaching Each of the Cities, Towns and Communities.

Most of the highway safety related issues have to do with traffic conditions at the edges of cities and towns—whether it is congestion, speeding, unpredictable turning movements, or some combination.

There are no magic solutions that can be applied to every byway community in the same way. Instead, applying the context sensitive solutions process and approach described in Strategy 5.1 to speed reduction and safety related projects along the byway can help to increase the safety of the travel experience while at the same time maintain the character defining features.

The safety concern associated with high travel speeds occurs primarily in the transition areas between the open rural highway and small villages. Traditional traffic calming solutions (sometimes referred to as “humps and bumps”) to achieve speed reduction are typically not appropriate in rural areas from an engineering and preservation point of view. Instead, a number of tools can be considered to change the perception of drivers as they approach the town (narrowing the width of travel lanes, transitioning the details from open section to curb, gutter and sidewalk and increasing the amount of “visual friction” drivers see and feel as they approach the town).

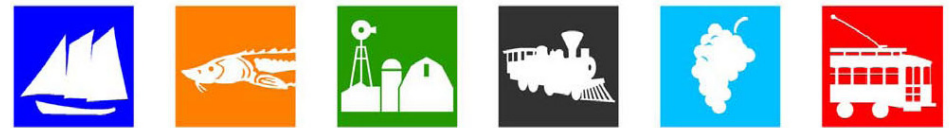
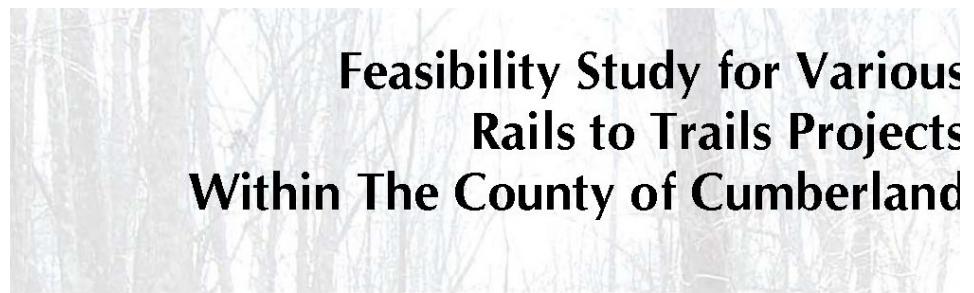
The plan recommends that municipalities consider a range of these tools when confronting a speed reduction issue in their town. As an example of how the approach might be applied, Figure 131 (page 162–163), illustrates a series of traffic calming measures using the community of Canton to demonstrate the approach. According to the Township of Lower Alloways Creek, Canton includes a Village (V) zone, surrounded by the Agricultural-Residential (AR) zone. The speed limit in Canton varies, from 25 MPH near a school zone, to 45 MPH outside the Village zone. Based on several criteria, traffic calming measures that could be considered in a situation like this might range from less aggressive to more aggressive measures for:

- Warning – Transverse markings or flush curb;

- Roadside treatment – Landscape clusters, tinted shoulder, entry sign, or gateway;
- Horizontal alignment shift – Splitter island with bike lane or splitter island with narrowed travel lanes; and
- Pedestrian and intersections – Textured intersection, crosswalk, brick pathway, or brick sidewalk with curb and gutter.

Implementation Steps

- Using the CMP as a starting point, develop a proactive list of locations where traffic calming and pedestrian safety measures are needed to reinforce the heritage tourism and interpretive goals of the byway program.
- Develop and adopt guidelines for traffic calming and pedestrian safety measures specifically for the rural and historic communities along the byway that are sensitive to the rural and historic context.
- Seek transportation enhancement funding for the design and implementation of priority traffic calming measures.



Strategy 5.3. Prioritize Bicycle Improvements (for the Widest Range of Bicycle Users) and Pedestrian Improvements in the Gateways and River Corridors That Link the Byway Communities of Salem, Bridgeton, Millville, Port Norris, Mauricetown and Cape May with the Nearest Full Service Interpretive Sites Along the Delaware Bay Shoreline.

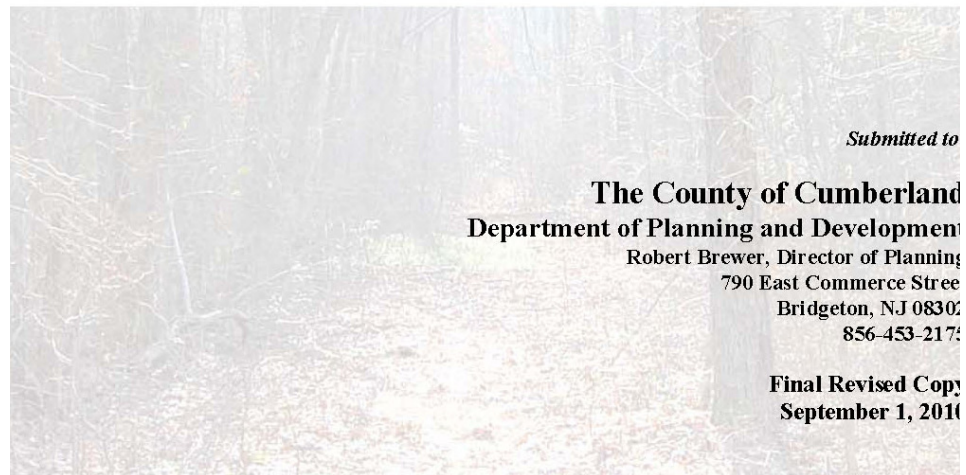


Figure 135 –Cumberland County’s Rail Trail Feasibility Study identified two routes that are directly related to the byway and should be pursued as a top priority for the byway’s development

Encouraging more visitors to travel by bicycle or walk among nearby sites, especially in the river corridors between the gateway communities, is an important way to encourage visitors to spend more time and learn about the special qualities found along the byway.

Existing facilities for bicycling and walking are described in Chapter 3 and are presented graphically in Appendix 5: Highway Safety Analysis Maps and Tables. For the most part the byway itself is suitable for on-road bicycle use with the exception of a few areas that do not have

adequate shoulder width or where traffic volumes are such that the width of the shoulders are not adequate.

(See also Bike Compatible Roadways and Bikeways Planning and Design Guidelines at <http://www.state.nj.us/transportation/publicat/pdf/BikeComp/introfac.pdf>)

Consistent with the overall destination cluster concept, the primary recommendation of the CMP is to emphasize connectivity for bicycles in the river corridors to accommodate family types of users, while developing routes and itineraries on low volume roads for more experienced users in rural clusters between the river corridors. Multi-use separated pathways for pedestrians and bicycles should be established in each of the river corridors and in Cape May.

The Cumberland County Rail Trail Feasibility Study identified the Maurice River Trail as the most immediately feasible trail to pursue for the county is also very consistent with

the destination cluster concept for the byway. Focusing on the Maurice River corridor cluster would be the best way to immediately demonstrate the benefits of the heritage tourism concept.

The southern portion of the Bridgeton-Milville-Mauricetown loop ride, a mapped ride by NJDOT, also incorporates some of the byway as part of



Figure 136 – The areas identified in red circles above are places where on-road gaps need to be filled to make the byway 100% suitable for on-road use by bicycles

the route (see <http://www.state.nj.us/transportation/commuter/bike/pdf/bayshorebyways.pdf>).

Implementation Steps

- Using the results of the proposed cluster and itinerary detailed planning process as a guide (see page 134), as well as county and state level bicycle and pedestrian planning, identify gaps and linkages needed to establish a network of safe and attractive pedestrian and bicycle networks along the primary river corridors.
- Seek recreational trail funding, as well as transportation enhancement funding for the prioritized links.
- Work with bicycle clubs and other user groups to establish maintenance and monitoring programs for the rural routes suitable for bicycle use.

Strategy 5.4

Establish a Consistent Design Treatment for Each Bridge Type Along the Corridor Using Guardrails That Preserve the Views Toward the Water or Wetlands and Provides Safe Pedestrian Access, Where Practical, as a Means of Increasing Awareness and Recognition of the Importance of Waterways and Wetlands, Water Quality, and Qualities of the Bayshore Experience in General.

Raising the visitor’s awareness of the waterways and wetlands, by calling attention to them at crossings, helps to bring attention to their value and significance. The byway plan strongly recommends focusing on changing the design treatments along all the byway bridges to retain the characteristics of the historic bridges and parapet walls, allowing for visibility to the water below.

People are generally attracted to water and many stop at existing bridges to fish or enjoy the views. Recent upgrades to major bridges by NJDOT and others successfully maintain that access (see Figure 137 on page 159). NJDOT’s landscape group, as the subject matter experts, also looks at each bridge, especially those that are historic, for aesthetics.

Figure 138 an historic sign once displayed at all the river and creek crossings—is evidence that this was once a priority in the state, and it should remain a priority, especially for the byway. Some of these signs, still remain in rural areas and along very low volume roads. A new approach to maintaining the character-defining features of these parapet walls would be appropriate on a scenic byway, and especially for the



Figure 137 – A bridge with adequate space for bicycles and pedestrians



Figure 138 NJDOT recreated this sign for some of their recent bridge projects.

Bridge Rail Guide 2005 - New Jersey Concrete Barrier

Texas Type T411 Aesthetic Rail

Height:
32"

Cost per linear foot:
\$75

Test level:
TL-2

Utilized in:
Texas

Contact:
Mark Blosscock
Texas DOT Bridge Division
RA118
125 E. 11th Street
Austin, TX 78701-2483
(512) 416-2178



Bridge Rail Guide 2005 - Steel Tube Bridge Rail, Attached to Curb

Wyoming 2-Tube Steel Railing

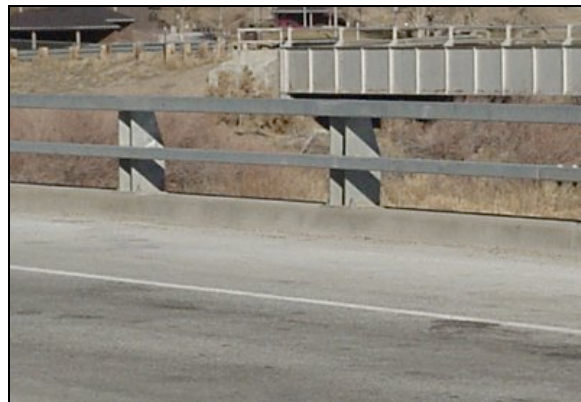
Height:
32"

Cost per linear foot:
\$55

Test level:
TL-4

Utilized in:
Wyoming

Contact:
Lee Potter, P.E.
Federal Highway Admin, Wyoming
Division
2617 E. Lincolnway, Suite D
Cheyenne, WY 82001
(307) 772-2004 ext 146



Bayshore Heritage Byway, as its significance is so closely tied to water and wetlands and the habitats they create. It is possible to replicate an historic bridge using techniques developed for an aesthetic rail used in Texas. The FHWA Bridge Rail Guide is an excellent resource that provides information on cost, test level and design characteristics. Bridge rails and parapets must be designed to the appropriate test level depending upon the traffic, roadway classification, and types of vehicles that use the roadway; however, the guideline provides suitable recommendations for each of the various test levels used along the byway.

In several instances, NJDOT has had to use a “punched-out parapet” for those bridges on roads that are classified with test levels higher than the TL4. The “punch out” can be recessed by 1” (maximum) to avoid vehicles “snagging” on

Figure 139 –FHWA Bridge Rail Guide provides information about two preferred rail types depending upon test levels

the wall if they are hit. Bridges with lower volumes of traffic and/or less traffic, such as many of the bridges on County or Township roads can typically utilize the Texas Type T411 Aesthetic Rail.



Figure 140 –Steel-backed wood guardrails are ideal for marine environments where corrosion is a problem

Guardrails

Other details should be considered along the byway including the use of steel-backed timber guardrails. Figure 136 shows an example of its use on a highway in the lower eastern shore of Maryland (near Whitehaven Ferry). It is a practically alternative, especially in a marine environment where corrosion of the metal rails is a real concern. However, the initial cost of the steel-backed wood guardrails are much higher limiting their potential use. NJDOT has utilized powder coated W-Beam guard rails to reduce contrast in scenic and historic settings, such as found along the Bayshore Heritage Byway.

Low Volume Rural Roads

Along rural and low volume roads, it should be possible to maintain character-defining features by utilizing the guidance provided by *AASHTO Guidelines for Geometric Design of Very Low-Volume Local Roads, 1st Edition*.

The guidelines address unique design issues highway designers and engineers face when determining appropriate, cost-effective, geometric design policies for very low-volume local roads. This approach covers both new and existing construction projects. Because geometric design guidance for very low-volume local roads differs from the policies applied to high-volume roads, these guidelines may be used in lieu of *A Policy on Geometric Design of Highways and Streets*, also known as “The Green Book.” Design values are presented in both metric and U.S. customary units.

Drainage and Water Quality

The byway’s proximity to the Delaware Bay also presents another opportunity to demonstrate best practices for managing roadway related surface runoff. Non-point source runoff is now the major cause of water pollution. Non-point source pollution enters a water body from diffuse origins in the watershed and does not result from discernible, confined or discrete convergences such as a pipe or ditch. It is possible, however, to increase the amount of non-point source pollution that is treated along the roadside before it joins other surface waters and is carried to the Delaware Bay and Estuary.

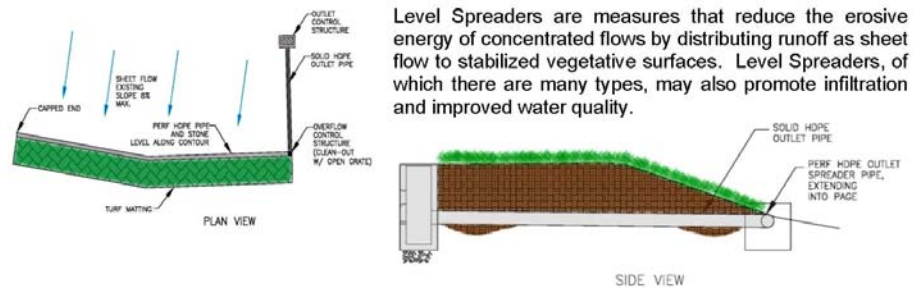
While it is important for surface water to be removed from the driving surface and shoulders as quickly as possible, it is neither necessary nor desirable to deposit the water directly into the natural watercourse at a high rate of speed, even with dissipaters used at the outfall. Instead, efforts should be made to allocate more space so that surface runoff can either infiltrate into groundwater (using infiltration ditches, for example), or be retained and treated in a passive retention system using constructed wetlands to later released at the pre-development rate.



Figure 141 –Curb requirements may be waived by the appropriate municipal approving agency, and shoulders and/or drainage swales used when it can be shown that: shoulders are required by CAFRA; soil and/or topography make the use of shoulders and/or drainage swales preferable; and/or the community desires to preserve its rural character by using shoulders and/or drainage swales instead of curbs

New Jersey Stormwater Best Management Practices Manual.

BMP 6.8.1: Level Spreader



Level Spreaders are measures that reduce the erosive energy of concentrated flows by distributing runoff as sheet flow to stabilized vegetative surfaces. Level Spreaders, of which there are many types, may also promote infiltration and improved water quality.

Figure 142 –Best management practices such as a level spreader may be one tool to use to reduce the need for curbing along rural roadways (courtesy of Pennsylvania DCR)



Figure 143 –Tree-lines sections of the byway will require more careful management to maintain both character and safety



Figure 144 –High-voltage transmission lines cross and parallel the byway in Salem County where a new amendment could be used to enhance planting along the edges of these corridors

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

Where curb and gutter systems have been introduced in rural areas, especially in isolated locations, consideration should be given to retrofitting and potentially removing the curb and gutter system. Curb and gutters increase the rate of runoff and, without adequate treatment at the outfall, carry non-point source pollutants. In addition, curb and gutter systems are inconsistent with the rural character of most of the byway. Curb and gutter should be located only within towns in rural communities, and not at the edges. This also helps to reinforce the differences between in town speed limits (the curb and gutter section) and rural sections out of town (open swales).

Vegetation Management

Roadside vegetation is another concern. Many residents and visitors alike value the tree-lined portions of the route. Yet an equal concern is the potential for falling trees within the road right-of-way. Each of the three levels of government with responsibility for maintaining roadside vegetation have different procedures in place for addressing tree maintenance requirements. Each jurisdiction—whether state, county, or municipal—takes responsibility for clearing vegetation within the right-of-way that has encroached on the clear zone adjacent to the road, and for intersecting sight distances and overhead branches that might interfere with taller vehicles.

Requirements for maintaining clear zones for intersecting sight distances and clear areas based on roadway geometry are found in the NJDOT Roadside Design Manual, including the following references:

- Section 4 - Basic Geometric Design Elements, Table 4-1 for stopping sight distances;
- Section 6 - At grade intersections, Figures 6A and 6B;
- Section 8 - On page 8-7 under “trees” as fixed objects, and Table 8.2.

Typically the NJDOT Roadway Design Manual guides engineering design for state highways. Roads funded through the State Aid Program

must adhere to the appropriate American Association of State Highway and Transportation Officials (AASHTO) design standards.

Utility Transmission and Distribution Lines

Utility companies also maintain the right-of-way for overhead transmission and distribution lines and some underground utilities where root encroachment may be a concern. Vegetation management for overhead electrical transmission and distribution lines is governed by Vegetation Management Rule, 14:5-8 of the New Jersey Board of Public Utilities which can be found at <http://www.njslom.org/July%2017%20Ch%2014-5%20Tree%20Trimming%20Rule.pdf>

Adopted Amendments to the Electric Service Rules - Vegetation Management Standards for Transmission Line Maintenance, N.J.A.C. 14:5-9.2 and 9.6 sets forth amended rules that electric public utilities shall follow in managing vegetation in proximity to an energized conductor in order to ensure public safety and the efficient and reliable supply of electric power.

According to the Vegetation Management Rule (VMR) an “electric public utility shall perform vegetation management on vegetation that is close enough to pose a threat to its energized conductors at least once every four years.” Pruning, however, often will create a less jarring visual impact by taking away fewer large branches to shape tree growth habits away from the wires.

Under the adopted amendments, the EDC can now allow a tree that grows higher than 15 feet to remain in the border zone (area not directly under the wires, but within the right-of-way) if the tree meets integrated vegetation management (IVM) standards for compatibility with the power lines. This ruling allows for a greater diversity of tree species to be planted within the right-of-way of overhead electric lines.

Technical standards are incorporated into the Vegetation Management Rule (see www.njslom.org/July%2017%20Ch%2014-5%20Tree%20Trimming%20Rule.pdf). Use of these standards should be carefully monitored.

Maintenance agreements with utility companies help ensure that there are clear procedures in place to check the health of all roadside trees on a regular basis, and to take the recommended actions that come from such an inventory.



New Jersey Audubon organized a two-phase habitat restoration project on 110 acres of brackish marsh on private property in Elsinboro Township. According to NJ Audubon, funding and on-the-ground help were provided by the U.S. Fish and Wildlife Service's Coastal Program and Partners for Fish and Wildlife Program, and the USDA Farm Service Agency's Conservation Reserve Enhancement Program (CREP) who provided further funding and technical assistance for improving water quality by taking some of the wetland buffer out of crops and planting it in native vegetation. The William Penn Foundation provided essential financial support.

(Photo courtesy of NJ Audubon)

Invasive Species

A critical issue facing the byway is the management of invasive species along the route, especially some of the brackish marshes that have been taken over with invasive *Phragmites australis*, a very common, tall invasive grass. The *Phragmites* converts diverse native brackish marsh habitat into a monoculture of dense, non-native vegetation that negatively impacts the quality of wildlife habitat.

For those areas that are located along the byway, the new MAP-21 legislation, although diminished in scope, maintains vegetation management as an eligible category, and this source of funds should be considered for FY 2013 for any area associated with the byway or a visitor site that is threatened by non-native invasive species.

Implementation Steps

- Reproduce and install the historic bridge sign (detail developed by NJDOT) as a means of raising awareness of the waterways and wetlands as travelers cross, helping to bring attention to their value and significance.
- Coordinate with beach and water access plans to identify locations where water access or fishing access is appropriate near bridges, and develop and implement design treatments to manage those access points.
- Develop and adopt appropriate and acceptable aesthetic parapet wall treatments that meet the necessary test level and other design parameters while also providing visual access to the river, creeks and wetlands below (see FHWA Bridge Rail Guideline).
- Develop a guideline document for roadway related details and features including the most important issues for the byway: bridges, guardrails, drainage and vegetation management. The guideline document should address the differences among State, County, and Township maintained roads.

Strategy 5.5.

Work Cooperatively with NJDOT, County and Municipal Owners of the Designated Scenic Roads to Implement the State Signage Plan for Scenic Byways as a Means of Recognizing the Safety Benefits of Increasing Awareness for All Drivers That Are Traveling on the Byway.

As discussed in Appendix 6, NJDOT is in the final stages of approval for its signage guidelines. This document provides design guidelines for a family of signs that will constitute a complete wayfinding system along

the byway. The system includes directional signage for the main route and spurs and directional signage to visitor attractions as well as interpretative signage templates.

Community entrance signs are another prevalent signage type along the byway and play an important role in raising driver awareness when entering a pedestrian oriented, slower speed travel route.

Implementation Steps

- NJDOT will install signs along state highways in accordance with the approved signage manual (final draft and approval pending) as funded by the National Scenic Byway Program grant.
- NJDOT will be establishing MOUs with the County and Municipal governments to allow them (or a contractor) to install signs on both County and Municipal roads (signs provided and installed by NJDOT in accordance with the signed MOU).

Strategy 5.6.

Use a Wide Range of Tools, Including Directional Signage, to Help Visitors Find Sites and Attractions Along the Byway and Visitor Centers in Gateway Communities, as well as to Facilitate the Use of Web-based and Mobile Applications as a Means of Providing Targeted Information to Help Visitors Plan Their Route.

Given the importance of finding and following the route as part of other strategies (awareness, byway enhancement, heritage tourism and interpretation), tools for route marking and wayfinding are found starting on page 108.

Implementation Steps

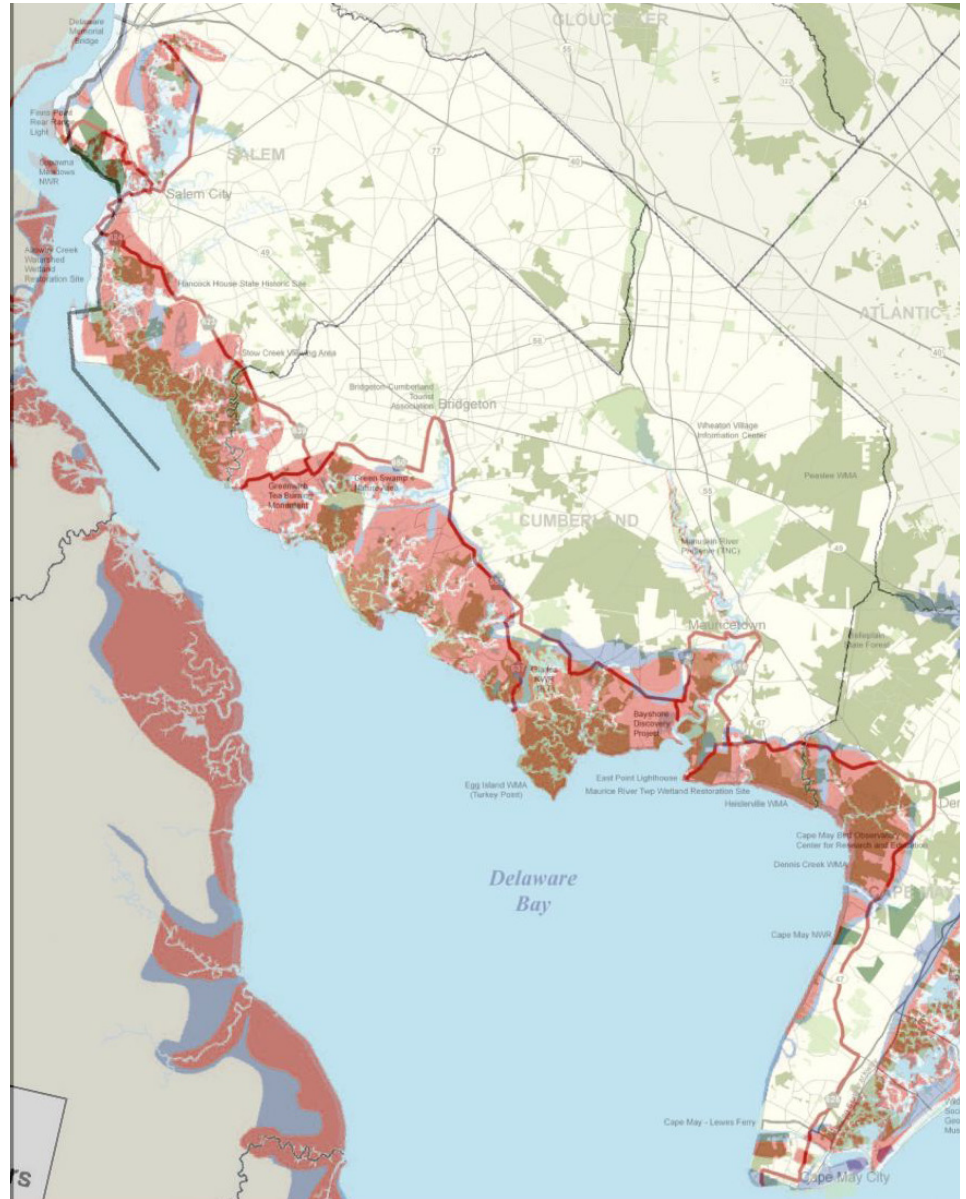
- Using the site inventory and proposed detailed cluster planning process as a starting point, identify the sites and attractions that are eligible for attraction signage (e.g. full service sites open 300 days per year and offer programming).
- Consolidate attraction signage along the byway to reduce the overall number of duplicative signs, and remove signs that point to locations that are no longer open or no longer exist.
- Develop and implement a byway specific attraction signage and mobile application program to continue to monitor and update attraction area signage and technological changes.

Sea Level Rise Mapping

The map at right is from JG Titus and C. Richman, 2000, "Maps of Lands Vulnerable to Seal Level Rise: Modeled Elevations Along the US Atlantic and Gulf Coasts" "Climate Research Elevations are based on computer models, not actual surveys. Coastal protection efforts may prevent some low-lying areas from being flooded as sea level rises. The 1.5-meter contour depicted is currently about 1.3-meters above mean sea level, and is typically 90 cm above mean high tide. Parts of the area depicted in red will be above mean sea level for at least 100 years and probably 200 years. The 3.5-meter contour illustrates the area that might be flooded over a period of several centuries.

A NOTE ABOUT SEA LEVEL RISE AND TRAVELER SAFETY

Sea level rise is making it more challenging to provide adequate flood warning systems. Delaware has installed flashers at the last decision point that are linked to flood levels. This is important for a byway, where visitors are not familiar with the flood patterns and risks and should be installed along the byway in flood prone locations.



5. Implementation



Figure 145 – Breathtaking views at Sunset Beach
(Courtesy of Norris Clark)

Chapter 5 describes the recommended organizational structure and a phased approach to implementing the recommended byway management strategies.

The long-term stewardship of the Byway requires a lasting commitment to the projects and programs outlined in the plan. The South Jersey Bayshore Coalition has demonstrated a strong commitment through its efforts in gaining the state scenic byway designation for the travel route and potentially additional recognition through designation as a National Heritage Area.

Given the changes enacted as part of MAP-21, the federal transportation reauthorization bill, including the elimination of scenic byway program funds and the reduction in transportation enhancement funding programs (now “transportation alternatives”), it will most likely be necessary for the management responsibilities to be shared more broadly than they currently have been for the development of the CMP.

Management Issues

In addition to the consideration of the status of the National Scenic Byway Program, the following issues are of critical concern to evaluating alternatives for the future management of the byway:

- The length of the travel route may make face-to-face meetings difficult;
- The length of the travel route may make it difficult for the public to comprehend;
- The sheer number of partners, local government jurisdictions (counties and municipalities), state and federal agencies, non-governmental organizations and other stakeholders makes it difficult to achieve consensus, and to develop unifying actions and agree upon funding initiatives;
- Achieving fair representation among many partners, yet a manageable organizational structure, is critical to the success of the organization;
- “Shared power,” “control” and “accountability” issues among levels of government, and among government and non-governmental partners must also be equitable;
- One of the critical factors in gaining designation as a National Heritage Area is that the organizational structure must be in place to manage the potential Heritage Area (and similarly the byway route);
- Given the rural nature of the area, the preferred organizational structure will make it easier for existing organizations to participate while at the same time satisfying the management needs for the Bayshore Heritage Byway;
- If an existing organization is identified that can manage the byway, the vision of the byway must also be part of the vision of the organization managing the byway;
- The organization, ideally, must be able to serve as the fiscal agent for the byway, or have an ongoing relationship with a partner organization that can serve as the fiscal agent; and

- The byway organization needs to be able to demonstrate how best to leverage the byway related activities to achieve related regional and community goals.

General Considerations

The following general considerations must also be factored in to selecting the preferred management approach and organization for the Byway.

- Phasing - Consideration will need to be given to phasing in appropriate levels of management.
- Funding - Funding for a specific position to serve as a “byway manager” is very difficult to obtain at this time, and all organizations are suffering from funding shortages; therefore, the administrative costs will have to be borne through small foundation grants and by incorporating “project management” costs directly into all grant applications.
- Geography - There is a wide range of geographic coverage to existing regional organizations. The South Jersey Bayshore Coalition is the only organization that covers exactly the three counties. Examples of other regional organizations include:
 - The South Jersey Transportation Planning Organization (SJTPO), the Metropolitan Planning Organization (MPO) for the region, serves the three counties, but also serves Atlantic County;
 - New Jersey’s Southern Shore Destination Marketing Organization (DMO) covers Cape May and Cumberland Counties;
 - The South Jersey DMO includes Burlington, Camden, Gloucester and Salem Counties;
 - The Cape Atlantic Conservation District (“for more than 65 years the District has been dedicated to the conservation of natural resources in Atlantic and Cape May Counties”);
 - The Cumberland-Salem Conservation District was merged back together again in 2005; and
 - The Community Foundation of South Jersey (CFSJ) is a public charity community foundation that serves the three counties plus Atlantic, Burlington, Camden, Gloucester, and Ocean Counties.

Existing and Potential Partners

The byway planning and designation effort has been supported by a wide array of governmental and non-governmental partners working together

in support of the state byway designation and in the development of the corridor management plan. Continued involvement of the partners is crucial to the successful implementation of the corridor management plan to achieve its conservation, preservation, heritage tourism, and visitor experience related goals.

South Jersey Bayshore Coalition

The South Jersey Bayshore Coalition is the sponsoring organization for the byways designation and planning effort. The member organizations include:

- American Littoral Society
- Association of NJ Environmental Commissions
- Bayshore Discovery Project
- Citizens United to Protect the Maurice River and Its Tributaries, Inc.
- Cohansey Area River Preservation
- Conserve Wildlife Foundation of NJ
- Delaware Riverkeeper Network
- Environment New Jersey
- Natural Lands Trust
- NJ Audubon Society
- NJ Conservation Foundation
- NJ Environmental Federation
- NJ Sierra Club
- Partnership for the Delaware Estuary
- Pinelands Preservation Alliance
- Plan Smart NJ (formerly Regional Planning Partnership)
- Preservation Salem County
- Salem County Watershed Task Force
- South Jersey Land and Water Trust

And the following supporting organizations:

- National Park Service
- The Nature Conservancy

Agency Involvement and Support

Throughout the development of the plan, the following agencies have either participated in the development of the plan, provided information and data, or have programs that can help to implement the plan in the future:

- NJ Department of Transportation
- NJ Department of Environmental Protection
 - Historic Preservation
 - Fish and Wildlife
 - Parks and Forestry
 - Green Acres
 - Coastal and Land Use Planning
- New Jersey Department of Agriculture
- New Jersey Department of State
 - Travel and Tourism
 - Cultural Trust
 - Historical Commission
 - State Council on the Arts
 - State Museum
 - Division of Programs
 - Business Action Center (NJ's 5 year Strategic Plan developed by this group)
- Garden State Preservation Trust
- New Jersey Economic Development Authority (Small Business Services)
- New Jersey Environmental Infrastructure Trust (Open Space Acquisition)
- New Jersey Global Warming
- New Jersey Historic Trust (preservation and heritage tourism)
- Delaware River and Bay Authority
- Delaware River Basin Commission
- US Fish and Wildlife Service

Additional Supporters and Potential Partners

In addition to the members of the South Jersey Bayshore Coalition, support for the planning effort has also been provided by the following non-governmental organizations:

- Friends of Supawna Meadows
- Mid Atlantic Center for the Arts and Humanities, Cape May
- Chamber of Commerce (Cape May, Cumberland, Salem)
- Heritage and nature-based tourism businesses
- Non-profit organizations, sites and attractions (e.g. Historic Cold Spring Village, Bayshore Discovery Project, etc.)
- Township and County Historic Preservation Societies
- PSEG (both its land managers and community foundation)

Example:

Alliance for the Cumberlands

The Alliance for the Cumberlands is a partnership of public and private organizations unified in their commitment to protect the Cumberland Mountains and Plateau Region of Kentucky, Tennessee, Georgia, Alabama, West Virginia and Virginia. Their membership represents a broad cross section of environmental organizations, heritage tourism interests, business organizations, and local, state and regional governmental bodies.

Current projects include the EDGE-TREKKER web based trip planning site and involvement in three scenic byways in the region, supporting the creation of a documentary film on the Cumberland Plateau. The following describes their mission, values, and goals (<http://cumberlands.org/>)

Our vision for the future of the Cumberlands

A network of interdependent communities whose concerted actions reflect their commitment to protect and conserve the unique and inherent natural, historic and cultural resources of this region, because they understand and acknowledge that those resources are the foundation upon which they will build and maintain a diverse, prosperous, and sustainable economy.

Our Values and Principles:

The Alliance for the Cumberlands...

- Values the natural, historic and cultural environments, quality of life, and the economic vitality of the Cumberlands.
- Welcomes and seeks out all individuals and organizations willing to work toward our mission, vision, and goals.
- Seeks to engage all demographics and relevant, cooperative interests, find common ground for appropriate actions, and work toward solutions utilizing diverse partnerships and non-confrontational approaches.
- Engages in projects that are broadly endorsed by our membership and driven by the participation of our member organizations.
- Strives to maximize our effectiveness and leverage resources through strategic partnerships and projects.
- Implements projects designed to accomplish tangible conservation of the natural, historic and cultural

Management Options

The Corridor Management Committee at their July 2012 meeting discussed and evaluated the following options for management that provide distinctly different approaches to managing the byway. All provide a structure for the continued involvement of the partners and stakeholders in the implementation of the plan.

OPTION ONE – SOUTH JERSEY BAYSHORE COALITION (COORDINATED BY ANJEC)

Under Option One—the current approach—the South Jersey Bayshore Coalition would continue to serve as the lead organization in support of the Byway. ANJEC has supported the SJBC with staff time and other support. SJBC and its partners could form committees and begin the process of implementing the plan, seeking grant funding and support for high priority projects. SJBC/ANJEC would most likely need to include a portion of each project budget to manage that project when funded, including support for staff time to administer grants.

SJBC would host and organize two startup meetings: the first meeting would be to organize the committees and develop committee priorities and assignment of responsibilities. The second meeting would be to report back to the group as a whole and to coordinate grant applications and set priorities among all the committees. Each year after that, a winter meeting would be needed to plan the upcoming year’s agenda, priorities, and coordinate calendars; and then a late summer/early fall meeting to follow up and coordinate the work of the committees.

An executive committee could be formed with the chair of each of the committees whose responsibilities would include the Administration of the Byway Management Programs. The executive committee would need to meet more frequently – perhaps monthly to stay focused on managing the byway. The executive committee should include at least one person from each destination cluster area to ensure geographic representation.

Advantages

- No new legislation or procedures are required.
- It has been working well and everyone knows “the rules,” although there are not many.
- It signals strong reliance on counties (and municipalities) for implementation of community based programs and projects.

- The CMC can remain fluid while interest and participation are gauged and developed.

Disadvantages

- This option continues to rely upon the good will of ANJEC for staffing and support. This approach would need to identify and implement a way to finance the administration of the byway projects and programs as a first priority.
- The role of public employees at county tourism and planning offices, as well as state and federal agencies (NDEP, NJDOT, USFWS) would need to be defined clearly through alternative memorandum of agreements to work together on specific issues (the signing program, partially funded through FHWA, could be a good first opportunity to test this out).
- Where funded projects do not exist, the ability of public agency employees to participate is severely constrained by limits on time spent on open-ended programs without specific funding allocations.
- Lack of a specific not-for profit management entity may be a disadvantage when applying for National Heritage Area designation.

OPTION 2 – NON-PROFIT ORGANIZATION AS MANAGEMENT ENTITY

Formation of a management entity specifically for the Bayshore Heritage Byway (incorporating as a 501 (c) (3) organization for tax purposes) is a tried and true process of organizing. The board is self nominating, and can vary in size from approximately 9 to 45 members. Larger boards are often organized so that there is an executive committee that makes decisions between meetings. Bylaws address the host of such issues as groups to be represented by board members, officers, committees, meetings, etc.

A nonprofit organizational board might include “ex-officio” members that represent the state agency and support groups and participate in committee work in support of their management interests along the byway (e.g. USFWS, NJDEP and NJDOT all have extensive management responsibilities for land and roads). A good breakdown might include:

- Three members represent historic preservation and interpretation interests;
- Three members represent land stewardship interests;
- Four members represent business and tourism interests; and
- Four members represent public agencies, if appropriate.

(continued from previous page)

resources of the region through voluntary approaches, such as economic incentives and encouraging new and expanding markets such as experiential tourism.

The Role of the Alliance for the Cumberlandlands is to:

- *Inform and encourage the communities of the Cumberlandlands to understand and effectively address the challenges they face in protecting and conserving their natural, historic and cultural resources while simultaneously pursuing their economic goals.*
- *Serve as a communication bridge among the members of the Alliance and between the members and other community constituents by fostering non-traditional partnerships and networking opportunities.*
- *Provide leadership and encourage the use of relevant information and resources to local and state decision makers at effective times, to ensure tangible outcomes for natural resource conservation, historic and cultural resource preservation, and sustainable economic development in the Cumberlandlands.*
- *Be a clearinghouse of information and resources for the members of the Alliance for the Cumberlandlands about relevant issues facing the Cumberland Plateau region.*

Strategic Goals of the Alliance:

- 1) Promote and participate in regional projects that support eco-heritage tourism.
- 2) Encourage support and lead local communities in their efforts to successfully address changes in the region to their natural, cultural, historic, and economic resources.
- 3) Promote awareness of the Alliance and our efforts to protect and enhance the natural, cultural, historic, and economic resources of the Cumberland Plateau.
- 4) Utilize the diverse strengths of Alliance members and our strategic partners to achieve the goals of the Alliance for the Cumberlandlands.
- 5) Build membership by conducting outreach to interested and/or strategic partners; couple this with the comprehensive marketing/public relations plan (see page 130)

Example: Journey Through Hallowed Ground Partnership

Mission Statement (from www.hallowedground.org)

The Journey Through Hallowed Ground Partnership is a nonprofit organization dedicated to raising national and local awareness of the unparalleled history in the region, which generally follows the Old Carolina Road (Rt. 15/231) from Gettysburg, through Maryland, to Monticello in Albemarle County, VA. From its communities, farms, businesses and heritage sites, we'll celebrate and preserve this vital fabric of America which stands today in the historic, scenic and natural beauty of this region. The Journey Through Hallowed Ground® is dedicated to encouraging both Americans and world visitors to appreciate, respect, and experience this cultural landscape that makes it uniquely American.

How do we achieve this mission?
(from www.hallowedground.org)

- Building a strong network of local, regional and national partners to develop a common vision for the conservation and enhancement of the scenic, historic, recreational, cultural, and natural characteristics of the region.
- Developing an education outreach program to reach every student and teacher within the region as well as across the nation.
- Creating a heritage tourism program that will provide economic development opportunities, through regional branding and cooperative marketing, in communities throughout the corridor.
- Working in partnership with local, state and national leaders and residents to create and support

Because one individual might fulfill several of these qualifications, a varying number can serve “at large” to round the number up; this will allow flexibility in nominations and the ability to seek individuals with other qualifications needed at the time of any given nomination.

Bylaws language should state that members on the board must “adequately” represent municipalities and be distributed “fairly evenly” between the three counties (using the destination clusters, for example).

Advantages

- Nonprofit organizations, while operating in the public eye, are more flexible in operation.
- Tax-deductible contributions are a distinct value to the donor and recipient.
- Nonprofit organizations can typically receive grant funding from most categories, although some may need to be qualified to accept federal pass through from New Jersey agencies.

Disadvantages

- Where does the funding come from? Will the organization be dependent on public largesse for most of the budget (sales of products and services might be feasible as part of business plan for this organization)?
- Many current individuals participating in the planning for the byway are already involved with multiple nonprofits and organizations (many hats, little time).
- A nonprofit needs a champion, a natural leader that takes charge and serves as an executive director for extended periods of time. When that champion retires or moves on, there is a distinct vacuum that often takes many years to fill.
- Developing a charter and bylaws may require outside expertise.
- NJDOT has requested that a fiscal agent be capable of meeting federal requirements for administering grants. In most cases this means at least a municipal government agency.

OPTION 3 – HYBRID APPROACH

Under this alternative the South Jersey Bayshore Coalition would continue to serve as the lead entity for managing the byway and operate in a similar manner as Option 1. However, under this option, a private, regional grant-making foundation would be created for the sole purpose of accepting and distributing private financing for specific programs

and projects to benefit the Bayshore Region. The regional foundation would be a membership organization comprised of related individuals or organizations that share a common goal: to strengthen philanthropy in the Bayshore region. Regional association members could include private or independent foundations, community foundations and corporate foundations and giving programs.

The mission of the regional foundation would be consistent with vision and goals of the corridor management plan and/or the mission and goals of the South Jersey Bayshore Coalition. The foundation would be created with a separate and independent board of directors and bylaws, and once funds have been established, it would set up a grant-making program for Bayshore region communities.

A variant on this approach could be the establishment of a business membership association to work in tandem with the overall management entity (or perhaps as the management entity) including all of the representatives from various heritage tourism businesses with an interest in the marketing and promotion of the byway as a means of increasing economic activity. This association could take on some of the management aspects of the byway (such as web page, product development, and some of the enhancement functions especially beautification and litter pickup)

Advantages

- This approach may attract some civic-minded benefactors that have been interested in giving back to their community in the Bayshore region but do not have the knowledge or ability to manage a community foundation.
- Tax-deductible contributions are a distinct value to the donor and recipient.
- The charitable arm could also serve to receive other donations of land and property or interests in land and property, museum quality objects and artifacts, and could serve to aggregate smaller donations into more effective funding streams.

Disadvantages

- It would need to be determined whether there is enough private money in this part of New Jersey to establish a sustainable giving program.
- This option would require participation on the board of financial professionals capable of overseeing the management of various funds.

(continued from previous page)

a National Scenic Byway, and a National Heritage Area, to sustain and strengthen our economy, heritage and quality of life in this region.

- Creating open cooperation with property owners, heritage sites, citizens, businesses, real estate leaders and public officials to help communities grow and prosper while preserving America's historic, natural and scenic heritage.
- Promote the creation and maintenance of transportation systems that employ context sensitive design and protect efficient, safe and enjoyable travel through the corridor.

About the JTHG

JTHG has a staff of ten (2012) that includes a president and vice president, and directors of education, marketing, the national scenic byway, and strategic partnerships. Cate Wyatt is a dynamic leader and has been very good at bringing in very strong board members and advisors. They have an annual meeting, along with standing committees that meet once or twice a year. Staff carries out the rest of the work. They bring agencies such as NPS and Virginia Department of Historic Resources into the leadership boards and advisory councils.

The JTHG was initially started with private money, but was supplemented by funds earmarked by Congress (now much more difficult to do, if not impossible) to prepare a corridor management plan for the byway. The Journey's Executive Director, Cate Wyatt, indicated that she raises about \$1,500/day to keep the organization going and self sustaining. It is an entrepreneurial model.

Example:

Community Foundation of Frederick County (Maryland)

According to its web page, the Foundation's serves as a "catalyst to create a positive and lasting impact." The foundation serves to connect donors wanting to achieve certain philanthropic goals, with worthy charitable causes. The Community Foundation manages over \$50 million dollars in assets held in over 600 different funds. The Foundation awards the proceeds from these funds as grants to area non-profit organizations (or also as scholarships) to help achieve otherwise unmet community-based goals, with an emphasis on funding activities that lead to long-term solutions in Frederick County. As a community foundation they work with donors to guide their charitable contributions towards either existing funds that are compatible with a donor's goals and visions, or even creating new funds.

As a community-based foundation, funds are established around the interests of donors. Examples of the types of funds that have been established include community enhancement funds and special interest funds for historic preservation, historic sites, performing arts, visual arts, parks, and educational initiatives, etc. Specific funds for projects and places are also managed by the foundation for their donors.

The application of this type of model to a byway, greenway, trail, museum, or historic site is particularly appropriate as public financing in community enhancements becomes more difficult to come by. Community foundations are also managed on a regional scale which could be done for the Bayshore region.

- This option may create a burden to the foundation when offered property or artifacts that cannot be turned in to liquid assets.
- An independent board would need to be created with members that are widely trusted in the community in order to attract participants.

Note that Cape May, Cumberland and Salem Counties are part of the coverage area for the Community Foundation of South Jersey and it may be possible to structure specific community funds to preserve, enhance and promote Bayshore Heritage (see Sidebar on pages 134 - 135). Using an existing regional foundation may reduce startup costs and result in greater efficiencies in management costs.

Recommended Management Approach

Based on input provided by the CMC and an assessment of the advantages and disadvantages of each option, the recommended approach is a version of the hybrid approach, Option 3. Under this scenario:

- The South Jersey Bayshore Coalition would continue to serve as the byway sponsoring organization for the establishment period of the byway.
- Active participants in the Corridor Management Committee would continue in their role as an advisory group.
- As part of the establishment phase of the byway, the Corridor Management Committee would be organized into subcommittees by creating two corridor wide subcommittees and three geographic subcommittees.
- The corridor wide subcommittees would be organized to facilitate the needed corridor-wide initiatives for financing the byway (by creating a regional charitable foundation) and promoting and enhancing the byway and its related travel experience (through a regional heritage tourism association).
- Each of the three counties would form geographically based subcommittees to facilitate the community-based and site specific enhancement projects and activities recommended in the corridor management plan.

Byway Management Needs

Byway management needs (from Chapter 4. Management on page 105) are organized into five structured committees as noted on the following descriptions.

Byway Administration and Finance (representation from each of the jurisdictions)

This committee will serve as the leading voice for the implementation of the corridor management plan and be responsible for the following:

- Coordinate the actions of individual partners and participating government and agency partners;
- Submit grant applications to federal, state and non-governmental funding agents;
- Accept, administer and disburse federal and state funds;
- Raise funds in the private sector in a manner that does not compete with existing partners fund raising activities (individuals, businesses, foundations);
- Speak out on behalf of the byway as part of development and environmental reviews;
- Take the lead in seeking designation as a National Heritage Area and/or other recognition programs;
- Reach out to individuals, businesses, nonprofit organizations and other stakeholders for continued involvement in the implementation of the plan;
- Conduct an annual meeting of byway partners and stakeholders;
- Coordinate the activities of four committees with agendas as follows; and
- Work with conservation and preservation organizations to incorporate the Bayshore Heritage Byway as part of their ongoing priorities.

Byway Stewardship and Enhancement Committees

Three county-based subcommittees will be responsible for the following:

- Work with state, county and municipal governments (transportation departments) to support and implement the signage plan for the byway (route marking) and developing detailed wayfinding plans for the byway (signs provided by NJDOT);
- Work with municipalities to adopt CMP as part of master plans, especially Open Space and/or Comprehensive Plans, for the purposes of applying for Green Acres funding;
- Develop subarea plans for each destination cluster and identify leaders in those clusters;
- Develop and produce educational programs for landowners on stewardship practices beneficial to the byway, including model guidelines/best practices for conservation, preservation, and sustainable development;

- Assist byway-related historic sites in seeking funding for and developing preservation plans, establishing local historic districts, and nominating historic sites and districts to the New Jersey or National Registers of Historic Places;
- Work with county and municipal governments and non-governmental organizations to gain 100% coverage of the byway route through “Adopt-a-Highway Programs” and facilitate community tree planting and landscape improvements;
- Work with county and municipal governments and non-governmental organizations to submit coordinated grants for byway facilities projects (including potential grants through the MAP-21 “Transportation Alternatives categories);
- Provide “circuit rider” technical support for community-based land use, preservation, and design guidance tools and techniques focusing on entrance corridors and the context of historic sites and districts;
- Work with local and state government to advocate for context sensitive solutions and approaches to transportation projects, and to encourage the use of common roadway design details (emphasizing maintaining views from bridges out to the waters and wetlands) and
- Monitor and comment upon the six-year transportation improvement plans, local development proposals, utility projects and programs, solar installations and other potential changes that may alter the Byway visitor experience.

Heritage Tourism Committee

This region-wide committee would include heritage tourism partners and be responsible for the following:

- Work with state, county and municipal tourism organizations to establish a Bayshore Heritage Byway web page and mobile application that includes information about visiting the Bayshore region, visitor ready sites and itineraries, a common Bayshore region event calendar that includes bird and wildlife watching events as well as cultural heritage programming;
- Provide a point of contact for tourism and visitor information for the three county Bayshore region (telephone, email, and social media);
- Consider the feasibility of and establish (if feasible) a Bayshore Region Heritage Tourism Association to facilitate the involvement of supportive businesses, chambers of commerce, tourism professionals, and economic development organizations;
- Work with travel and tourism partners to maintain brand and image when communicating about the Bayshore region, including web-based and mobile applications;

- Facilitate and lead more detailed heritage tourism and beach access planning at the geographic cluster level;
- Produce, market and maintain itineraries, special events and promotions, and travel packages including passport programs;
- Monitor and maintain up to date market research about visitors to the Bayshore region, their visitation and spending habits;
- Develop plans for an outdoor museum that incorporates and updates Coastal Heritage Trail interpretive materials and implement in phases by geographic cluster (Strategies 4.1 through 4.3);
- Develop printed and mobile- web-based guides to the outdoor museum (and the Bayshore region’s natural history and cultural heritage);
- Produce, maintain and coordinate educational activities and programs (curriculum, teacher training, programming at all levels and for all seasons) using the outdoor museum as the organizing structure for events and programming; and
- Seek funding for, program and produce traveling events and exhibits for the region celebrating Bayshore region natural history and cultural heritage.

Financing Byway Conservation and Enhancement

Funding and financing byway management activities is one of the bigger challenges facing communities with an interest in heritage tourism. While it is possible for communities that have an interest in using their natural and cultural resources to promote sustainable tourism to get by with only conducting a marketing campaign, it may not be sustained for very long. Instead, emphasis needs to be placed on encouraging visitors to come back on a regular basis by making strategic investments in visitor facilities, programming and preservation of the resources that attract those visitors to begin with.

POSITIONING THE BYWAY

As public sources of funding continue to shrink, more collaboration is needed to gain the benefits of the heritage- and nature-based tourism strategies outlined within this plan. Heritage and nature-based tourism require a strong commitment to producing a quality travel experience. What makes heritage or nature-based tourism different is its commitment to education, interpretation, and authenticity. Success with heritage and nature based tourism requires that visitors spread the word and that they become repeat visitors in different seasons and in different places within the region. The net economic benefit of heritage tourism results from

attracting visitors that stay longer and spend more money (especially in locally owned and operated businesses) and attracting visitors with a relatively light footprint (see Strategy 3.1. on page 130). The best way to achieve this type of success is to make a commitment to a quality visitor experience, a commitment to measuring progress, and a commitment to adjusting the organization's direction based on the results of that measurement.

BUDGETING FOR CORE OPERATIONS

Setting a goal for the size and scope of a management organization is an important first step in defining the actions necessary to achieve success.

The example of the Journey Through Hallowed Ground (see page 174) provides an example of a successful organization established in 2006 that has already achieved a similar set of goals that the Bayshore Heritage Byway has now and within a five to seven year period. The Journey Through Hallowed Ground Partnership now has annual revenues in the range of 1.5 million.

According to Federal Form 990, the JTHG Partnership received nearly \$1.2 million of that income from contributions, \$0.2 million from government grants, and the remainder from investment income and events. On the operating side, the Partnership expended approximately \$750,000 per year on program services in support of its mission, and approximately \$150,000 on administrative costs and marketing.

A second example is from the Delaware and Lehigh Canal Corridor, Inc. which had total revenues of approximately \$1,700,000 in 2010 almost entirely from government grants, according to its Federal Form 990. According to their annual report, the National Park Service provided (\$551,000) in 2010. Approximately \$14,000 came from contributions. On the expense side, \$250,000 was for administrative costs and fundraising, while the remainder went for programs.

The Journey Through Hallowed Ground Partnership, a National Heritage Area, did not receive any funds from the National Park Service in 2010 as one of the later heritage areas and they are still working with NPS on gaining an approved management plan (they have a heritage area feasibility study and a byway management plan which they are using as a heritage area management plan, but require additional elements to complete the requirements for a qualified National Heritage Area management plan.

Using these two examples, a fully functioning management organization can be operated within the range of \$150,000 to \$250,000 in support of a full range of programs for education, interpretation, community enhancement, heritage tourism, marketing and other related services ranging from \$750,000 dollars to \$1,700,000 - both approximately at a rate of 15% administration and overhead in relation to the amount of programs and services that it funds.

Phasing

The management framework can be developed in phases starting with an initial start-up phase which would lead towards the preferred management framework. Areas with the greatest opportunity for collaboration among the three counties and nineteen municipal governments are for financing/administration and for heritage tourism marketing, programming and promotion. Each County would continue to serve as a clearing house for proposed conservation and enhancement activities at the local level. With these areas of potential cooperation identified, the following is the recommended management and phasing of major elements needed to establishing and managing the Bayshore region as a heritage tourism destination.

START-UP PHASE: ESTABLISHING THE BAYSHORE HERITAGE BYWAY AS A DESTINATION

The initial phase includes all the actions that are necessary to prepare the route for visitors and begin to market and promote the route as a destination as follows:

- Route signing - currently the route cannot be easily followed with its many turns. NJDOT has secured a grant to pay for route marking signs and install them on state roads. NJDOT is in the process of establishing MOUs with each County to install the NJDOT provided signs on non-state roads (see Strategy 2.1. on page 118);
- Web presence - the byway needs to have a specific site which provides information about how to find and follow the route and what to see and do along the way (see Strategy 3.6. on page 137);
- As part of the web-presence, provide information that allows visitors to select sites by interest areas (for example via a pull-down menu);
- As part of the web presence there should be a single source that lists all of the Bayshore region events (such as bird-watching events, cultural events programming, etc.). This can build upon the existing calendar already found on the CUPMRT web site;

- As part of the web presence, introduce a few itineraries (bird watching, bicycling, and military history, for example, see Strategy 3.3. on page 134);
- Develop short-, mid- and long-term visitor experience plans for each destination cluster and develop funding applications to meet the needs for the top priority sites and attractions (see Strategy 3.2. on page 131);
- Reference the approved corridor management plan in each of the County's Open Space Master Plans to facilitate Green Acres funding applications (see Strategy 1.3. on page 113); and
- Establish a 501 (c) 3 charitable foundation capable of accepting, managing and disbursing funds (consider establishing this as a regional foundation, similar to a community foundation).

DEVELOPMENT PHASE: INCREASE THE NUMBER AND QUALITY OF SITES AND ATTRACTIONS ALONG THE ROUTE

The development phase includes all of the necessary actions required to establish a high quality heritage- and nature-based tourism experience so that visitors will stay longer, have more fun, and learn more about the Bayshore region. The development phase includes the following top priority actions:

- Develop plan for a set of coordinate exhibits associated with the Bayshore's small museums, historic sites, public parks and conservation lands to establish the Bayshore region as an outdoor museum of Southern New Jersey's natural and cultural heritage (see Strategy 4.1. on page 142);
- Using the exhibit plan identified above, prepare a package of design and bidding documents for a system of turnouts, viewpoints, viewing areas, and other "waysides" that are construction ready for submission as a FY 2013 application for the new "Transportation Alternatives" program authorized as part of the Surface Transportation Program of the US DOT (see page 126);
- Working with NJDEP's local assistance office, complete water access plans for each municipality and seek funding to implement sustainable water access provisions in those plans as a means of improving access to the Bayshore region's shorelines and bird watching areas (see Strategy 3.3. on page 134);
- Working with NJDEP's Green Acres Program and the Recreational Trails program, seek funding through each County to secure public access and a completed greenway corridor along the three primary river corridors and the Canal and construct multi-use trails connecting the major communities along each river (and Canal) with the Delaware Bay for pedestrian and bicycle access (see Strategy 5.3. on page 157); and

- Working with each locality, develop new or expand existing visitor centers and visitor information kiosks to provide coordinated visitor information at each gateway point for the Bayshore Region (see Strategy 3.5 on page 135).

SUSTAINING PHASE

A sustainable byway is one that has all the measures in place to maintain a high quality visitor experience, that is safe and enjoyable to travel by a variety of modes, and is fresh and interesting to visitors. The following actions are recommended to be undertaken over time to sustain the byway experience over time:

- Establish a common data base and clearinghouse for information about guiding land use change throughout the corridor and develop a range of functional tools for preserving vulnerable historic sites and natural areas in advance of planned and programmed projects and activities;
- Work with state and federal agencies to address the implications of sea level rise on visitors and develop plans to adapt the byway to anticipated future conditions;
- Establish a set of model design guidelines for adoption by state and local governments to assist in guiding future projects and programs along the byway (both within the right-of-way and beyond the right-of-way) so that they maintain the character defining features of the route; and
- Develop a small-community and/or small business grant program to provide funds for enhancing community appearance and visitor attractions.

Financing

There are a number of potential funding programs from state, federal and non-governmental organizations that could be utilized to begin the process of implementing the CMP. Appendix 7 provides an overall table that summarizes each recommended strategy, potential partners, potential funding sources and recommended phasing.

However, given the current and anticipated reductions in funding for governmental programs, there is a clear need for the establishment of a regionally based charitable foundation that focuses on the Bayshore Region - conservation of its resources, preservation and interpretation of its unique heritage, and in enhancing its communities. A good example of such a community-based foundation is in Frederick, Maryland (see Community Foundation of Frederick County (Maryland) on page 176).

The idea was suggested at the second public meeting as a means of providing an opportunity for many of the families that have lived and worked in the Bayshore region for many years to give back directly to their communities. The Community Foundation model allows for the establishment of a range of funds that can be specified for designated uses within the overall mission of the foundation. It may also be worthwhile to seek out an existing community foundation, such as the Community Foundation of South Jersey (<http://communityfoundationsj.org/PublicPages/Home.aspx>) to manage the financial side of the foundation and work with them to direct the use of the funds towards the conservation, preservation and community-based enhancement of the Bayshore region.

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