

CHAPTER 2 DESCRIBING THE BYWAY CORRIDOR



2.0 INTRODUCTION

The designation of Delaware's Bayshore Byway began with an application to the Delaware Scenic & Historic Highway Program in 2007. So much has happened since 2007 that it is appropriate to supplement and augment the compelling story of the Bayshore told in that application. The depth and dimension of the story makes clear the significance of the Delaware Bayshore as a state, national and global destination. This chapter also summarizes and updates the Byway Corridor by documenting its intrinsic qualities, identifying changes that have occurred since the nomination, and filling in any gaps to further define the Corridor Characteristics today. Most importantly, it reflects the new association with the Department of Natural Resources and Environmental Control (DNREC)'s Bayshore Initiative as a noteworthy factor and addition to the Byway story, and its significance and potential.

"Route 9 is taking that Sunday drive any day of the week. It's like therapy. Take your time, roll down the windows, turn the radio off and enjoy the ride. Better yet, get on your bicycle."

"Take the Long Way Home"
Steve Renzi
<http://byways.org/stories/74413>

2.1 STATEMENT OF SIGNIFICANCE

Delaware's Bayshore Byway travels through and serves an extensive and contiguous area of conserved coastal marshes and shoreline on the eastern seaboard – **The Delaware Bayshore**. The Byway is located in the lower portion of the Delaware Estuary, a fragile ecosystem that stretches from Trenton, New Jersey, and Morrisville, Pennsylvania, south to Cape May, New Jersey, and Cape Henlopen, Delaware, including all of the Delaware Bay and the tidal reaches of the Delaware River.¹ The Byway corridor travels through a network of rivers and streams that meander to the Delaware River and Bay, state and national wildlife areas, pastoral farmland, picturesque coastal towns, and historic attractions. It is rich with natural and historic resources including:

- Two State Parks ripe with history and natural resources: Fort Delaware State Park and Fort DuPont State Park
- Two city parks offering great views of the Delaware River: Battery Park in New Castle and Battery Park in Delaware City



Figure 2-1: The Delaware Estuary,
Credit: Partnership for the Delaware Estuary

¹ Partnership for the Delaware Estuary, www.delawareestuary.org

- Seven State Wildlife Areas: C&D Canal Wildlife Area, Augustine Wildlife Area, Cedar Swamp Wildlife Area, Blackbird Reserve Wildlife Area, Woodland Beach Wildlife Area, Little Creek Wildlife Area, and Ted Harvey Conservation Area
- Two components of the Delaware Natural Estuarine Research Reserve (DNERR): Blackbird Creek Reserve and St. Jones Reserve.
- One National Wildlife Refuge (NWR): Bombay Hook NWR.
- Nine Historic Districts: New Castle, Delaware City, Fort DuPont, North St. Georges, Ashton, Port Penn, Odessa, Raymond Neck, and Little Creek Hundred.
- Six museums: In New Castle: Old Library, Court House, and Read House and Gardens. In Port Penn: Port Penn Interpretative Center. At Dover Air Base: Air Mobility Command Museum and nearby is the John Dickinson Plantation.

The Bayshore is widely recognized as an area of global ecological significance. Its expansive coastal marshes, sandy shoreline, forest, fields and agricultural lands provide habitat for more than 400 species of birds and other wildlife. Birders and biologists from around the world come to central Delaware's Bayshore to witness the annual spring spectacle of more than **a half million shorebirds** taking a rest stop to dine on the eggs of horseshoe crabs. Delaware Bay has the world's largest population of horseshoe crabs and their eggs, deposited along the high tide line of Delaware beaches, provide food for vast flocks of shorebirds, such as red knots. In addition, the Bayshore has been recognized by the following:

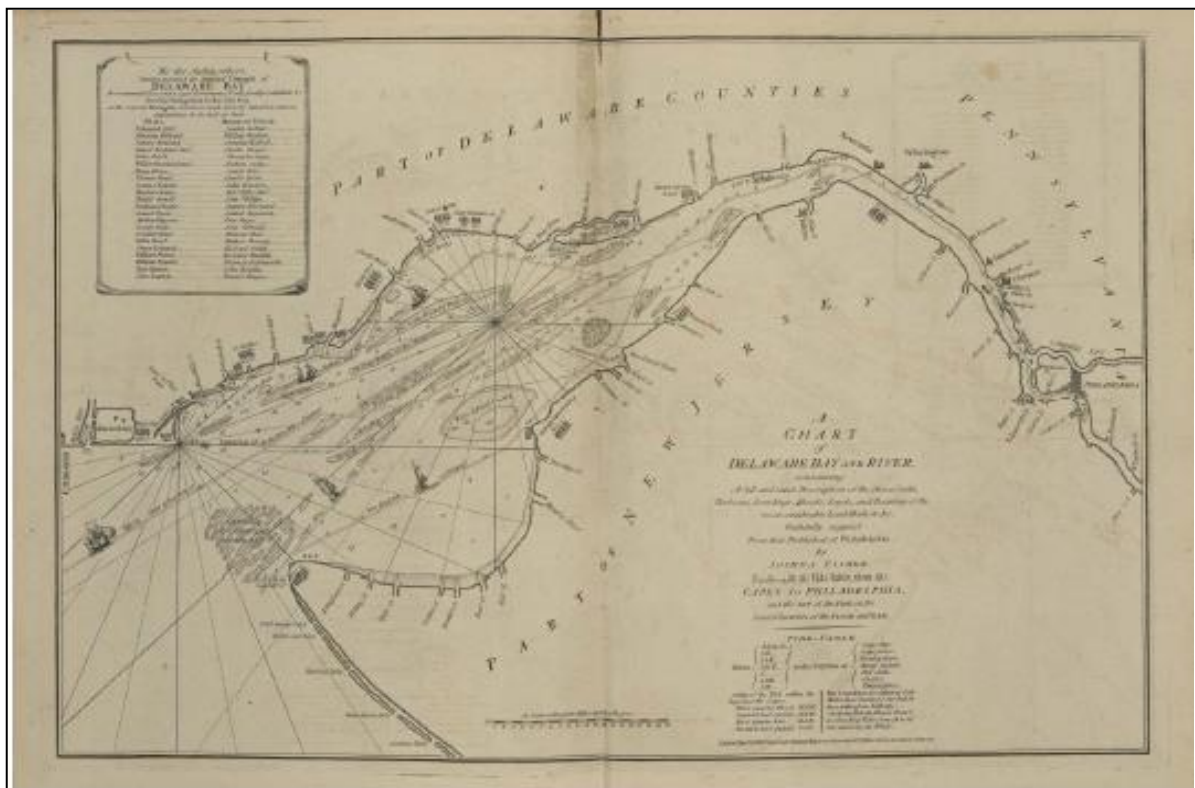
Some studies suggest that nearly 80% of the red knot population stops at Delaware Bay to refuel on horseshoe crab eggs before continuing on their epic journey north. It is no wonder Delaware Bay is recognized as a "Site of Hemispheric Importance to Shorebirds".

*Wetlands Institute, Delaware Bay
Horseshoe Crab Census*

- In 1986, Delaware Bay joined the Western Hemisphere Shorebird Reserve Network as a Site of Hemispheric Importance due to the sheer number of shorebirds that use the bay as a migratory stopover – over a half million annually.
- In 1992 the Delaware Bay Estuary was designated as a Wetland of International Significance by the Ramsar Convention on Wetlands because it provides critical resting and feeding areas for migratory shore and wading birds.
- The National Audubon Society, working with criteria and standards provided by BirdLife International, recently recognized the Delaware Coastal Zone as an Important Bird Area of Global Significance – the highest possible designation – for its critical role in the life cycle of multiple imperiled species, including Red Knot, Black Rail, Saltmarsh Sparrow and Piping Plover.

Opportunities for outdoor recreation close to nature abound. The area provides a window into 400 years of coastal community civilization living in harmony with nature, yet it remains just a quiet drive away from the noise and hassles of modern society. Due to the courageous conservation efforts of private citizens and State government during the 1960s and early 70s, the Bayshore was saved from becoming a major supertanker port and industrial center of the east coast when the Coastal Zone Act was established and signed into law in 1971. In 2012, the DNREC launched the “The Delaware Bayshore Initiative” to spur conservation, recreation and eco-tourism in the Bayshore area. This effort has received national recognition and has become part of the U.S. Department of Interior’s “America’s Great Outdoors Initiative”. Delaware’s Bayshore Byway, with over 52 miles of continuous road and with its ten Discovery Zones, provides access to the many natural, historical and recreational features of Delaware’s Bayshore.

New Jersey’s 122-mile Bayshore Heritage Byway and Coastal Heritage Water Trail present potential bi-state programs for Delaware to expand this Byway regionally along the Delaware River and around the Delaware Bay. The Delaware River and Bay Authority on April 17, 2012 endorsed the Byway by supporting a resolution to include the Townbank/Ferry Spur between Seashore Road and to Beach Drive near the Cape May Ferry Terminal. New Jersey’s byway is sponsored by the South Jersey Bayshore Coalition and Association of New Jersey Environmental Commissions.



Historic Chart of the Delaware Bay and River illustrating the influence of this important resource on maritime activities and proximity to Delaware, New Jersey and Pennsylvania

2.2 THE BYWAY STORY AND ITS QUALITIES

“Welcome to Delaware’s quieter and wilder side” is about making a conscious decision of getting off the crowded bustling highway of modern America and letting your senses take in the majesty and power of Mother Nature in the wildlife areas and coastal communities of Delaware’s Bayshore. The Byway is only a few miles away from I-95, one of the nation’s busiest highways, carrying 35% of the nation’s vehicular trips and 565 million long distance trips each year as it travels 1917 miles between Maine and Florida². While the highway is only 23 miles long in Delaware, some 175,000 vehicles per day travel along I-95 in the vicinity of Delaware Route 1, the major regional route access to the Bayshore³. The Byway runs parallel to Delaware State Route 1, which connects Delaware’s two largest cities, Wilmington and Dover, to the world-renowned Atlantic Ocean resort areas of Delaware’s Coastal Sussex County. Although the majority of people speed along these major roadways, some residents and travelers choose to leave the highway and take in the Route 9 experience – **“The road less traveled”**.

The area once was the cradle of colonial Delaware; settlements in New Castle, Port Penn, Little Creek and St. Jones Neck date back to the 1600s. The abundance of natural resources from the bay and wetlands, the rich coastal farmlands and a network of waterways as the transportation system supported both Native Americans and early settlers. Through the 1800s, life was truly about living in harmony with the cycles of Mother Nature. The villages of Woodland Beach, Pickering Beach and Kitts Hummock front the Bay. The villages of Leipsic and Little Creek are directly tied to the Bay. All have accessibility to the wildlife resources that could be hunted, fished, or trapped. With the advent of more modern transportation systems, first the railroads and then the automobile, the importance of the water network and the natural resources declined, and industrialization for the most part occurred inland away from the marsh and wetlands. The Bayshore area was dominated by large farms that passed from generation to generation and by hunting, and commercial and recreational fishing. While the major industrialization occurred north of the Route 9 Bayshore region in Wilmington and Philadelphia, pollution from these late 19th and 20th century industries spread down the Delaware River and Bay killing off aquatic life of the Bayshore and sending the prosperous fishing industry into rapid decline. As population centers migrated to industrial areas, the Bayshore communities went to sleep.

The Byway, as we know it today, exists because of the conservation and preservation efforts of concerned citizens and government leaders. Catalyzed by the federal government initiatives of creating National Wildlife Refuges in the early 20th century, state government leaders, local grass-roots activists and environmentalists gave birth to the Delaware conservation movement, which contributed to the rural and shoreline character of the Route 9 Byway region that we know today. The Bombay Hook National Wildlife Refuge was created in 1934 by the Migratory Bird Conservation Act. Concerned citizens and business owners have worked diligently to preserve the historic small towns of New Castle, Delaware City and Odessa. Other Byway communities of Port Penn, Little Creek, Leipsic as well as

² I-95 Corridor Coalition, <http://www.i95coalition.org/i95/Home/I95CorridorFacts/tabid/173/Default.aspx>

³ DeIDOT, 2012 Traffic count data.

Woodland Beach, Pickering Beach and Kitts Hummock through generations continue maritime and agricultural pursuits. Today, these small community enclaves offer the pleasures of wildlife viewing, beachfront activities and respite from bustling daily lives.

An environmental drama unfolded in the 1960's and 1970's when then Governor Russell Peterson and others quietly moved to preserve the environmental quality and beauty of Delaware's unique coastline. Envisioned by industrialists and the federal government as the primary supertanker port and industrial center in the East⁴, the Route 9 coastal landscape could have been dominated by oil refineries, power plants and industries lining its shores. It was the proposed construction of a second oil refinery in 1961 that drew opposition and began the battle to protect the environment for future generations of Delawareans. Ted Harvey and other environmentalists organized Delawareans for Orderly Development in opposition to another oil refinery. This led to the creation of other environmental organizations dedicated to the protection of wildlife and the preservation of natural resources.

Responsibility for protecting Delaware's natural resources rests with the State according to the Delaware Constitution, which was adopted in 1897. The establishment of a State Planning Office and DNREC along with the Coastal Zone Act adopted in 1971 and the Wetland Act adopted in 1973 led the way toward addressing, managing, and regulating environmental issues and resources throughout the State. In 1978, the Delaware Nature Society listed 101 areas in "*Delaware's Outstanding Natural Areas and Their Preservation*"⁵, including portions within the Delaware's Bayshore Byway corridor. Delaware Wild Lands, Inc., founded in 1961 by the late Edmund H. (Ted) Harvey, is a private, non-profit organization dedicated to the conservation and preservation of natural areas through the acquisition and management of strategic parcels of land many of which are within the Bayshore region. Other organizations are actively involved in protecting the resources along the Byway and within the Bayshore. The Nature Conservancy and Delmarva Ornithological Society helped to protect Yardley Dale at Thousand Acre Marsh, and The Conservation Fund helped to protect Mispillion Harbor, just north of Slaughter Beach.

Without these initiatives, there would be no "*road less traveled*" nor would the Byway or the Bayshore Initiative be a reality. Wildlife, marshland, and a Delaware River and Bay with diverse aquatic life would be gone forever, and so would a burgeoning local tourism industry. Today, the landscape along Delaware's Bayshore Byway is evidence of the changes in public policy that actively protected this local and globally significant environment and mitigated the transformation of this natural landscape into another industrial setting. This legacy of conservation and preservation provides residents and travelers an opportunity to actively observe Mother Nature up close, enjoy the abundant marshes and water resources in a wide variety of recreational pursuits, and learn about the rich history of the early settlers of this country living by the cycles of nature and from the riches of the land and water.

⁴ Man and Nature in Delaware: An Environmental History of Delaware, 2008, William H. Williams

⁵ Fleming, Lorraine M., 1978

The Byway story is also a collection of place-based stories organized into “Discovery Zones” that focus on:

- Experiences from nature derived from the ecology and landscape of the Delaware River and Delaware Bay (Natural Qualities)
- Living history for insights into the relationship of the people to the Delaware River and Bay and its coastal landscape over 400 years (Historic and Cultural Qualities); and
- Heroic efforts to protect and conserve the coastal environment for future generations. (Scenic Qualities)

Role of the Estuary and Natural Habitat

The Delaware Estuary in the Bayshore region encompasses the Delaware River and its tributaries, Delaware Bay, and the tidal marshes and wetlands. It is an economic engine for the region providing some 500,000 direct and indirect jobs generating more the \$10 billion dollars in annual wages. Nearly 2% of the United States population relies on the Delaware Estuary for their drinking water, with 750 million gallons of drinking water supplied each day directly from the Delaware Estuary and its nearby tributary watersheds. In addition to wages, activities associated with the Delaware Estuary including recreation, water quality and supply, hunting, fishing, forest, agriculture, and parks generate an estimated \$10 billion annually in economic value for the region.⁶ As long as this region was inhabited, humans have relied upon the Delaware Bayshore natural resources for sustenance. Whether for food, commerce or recreation, the estuary has provided in abundance. From the early Dutch settlements in the 1600's, to mariners navigating its waters, to the 19th century fishing towns and towns that once served as resorts and escapes for residents of Dover, Wilmington and other communities, the ecology of the larger Delaware Estuary is a unique natural resource. Even more importantly today, conservation efforts continue to assure that the natural habitat of the Bayshore is retained for generations. Nature, eco and heritage-based tourism is a

Discovery Zone Concept

Discovery Zone place-based stories reflect local heritage, cultures, and landscapes, and the opportunity for eco-tourism that sustains or enhances the geographical character of a place—its environment, culture, aesthetics, heritage and the wellbeing of residents.

Estuaries are transitional areas where salt water from the sea mixes with fresh water making them one of the most productive habitats serving as spawning nurseries and feeding grounds for fish, birds and other wildlife.

⁶ Kauffman et al., 2011. Economic Value of the Delaware Estuary Watershed. University of Delaware – Water Resources Agency Institute for Public Administration School of Public Policy and Administration).

focus and are important to the River and Bay communities where economic benefit can be drawn from sustaining the resources and character of the Delaware Estuary.



Still remaining is this range tower.



Thousands of horseshoe crabs were abundant near Bowers Beach (Hammond, Roydon. 1380-006_#723_King crabs near Bowers_1928. Glass plate photograph. Center for Historic Architecture and Design, University of Delaware.)

protect the natural environment of the coastal areas and safeguard their use primarily for recreation and tourism.

This ecologically significant Delaware Coastal Zone was also designated as a globally “Important Bird Area” by the National Audubon Society because of its critical role in the life cycle of multiple imperiled species, including Red Knot, Black Rail, Saltmarsh Sparrow and Piping Plover. The entire Byway lies within the Atlantic Flyway for migratory birds. The spring season brings hundreds of thousands of shorebirds to the Bayshore’s sandy beaches and coastal marshes to rest and refuel for the remainder of their

The lower portion of the Delaware Estuary⁷ is the area directly associated with the Route 9 Byway corridor and contributes to what characterizes much of the byway landscape. The marsh lands are wide along the coast and with the extensive mixing of salt and fresh water, rich marine life is found along the coast and the Byway. In past years, seafaring commerce was guided safely to and from ports and in storms from the lighthouses and range towers. Because of the estuary’s importance to commerce, wartime defenses were established to protect the country from attack. The role of the estuary provides a critical understanding of the environment and its role in the Bayshore history.

Recognizing its importance to Delaware, the Delaware Coastal Zone Act was designed to protect Delaware’s coastal area from destructive impacts of heavy industrialization and offshore bulk product transfer facilities. It was also intended to

Pea Patch Island

“Pea Patch Island is home to the largest wading bird colony on the Atlantic Coast of the United States. The Delaware River, wetlands, and uplands that radiate 15 kilometers out from the center of the island support the foraging habits of these birds. The birds nest on the Island from March to September and depend on the Region’s natural resources to sustain themselves and their offspring during this time.”

*The Pea Patch Island Heronry
Region Special Area Management
Plan*

⁷ See Delaware Estuary Map, Figure 2-1

migratory flight north. The “fall” migratory season brings shorebirds back again as early as July with peak numbers and diversity occurring into September. Waterfowl are also plentiful during fall migration from September to November. Many kinds of waterfowl winter along the Bayshore in great numbers – especially snow geese – through February and March when northward spring migration begins again for waterfowl. Innovative uses of weather radar recently demonstrated the importance of Bayshore forest



Today’s agricultural landscape along Delaware’s Bayshore Byway

and shrub habitats as resting and feeding areas for songbirds during spring and fall migration.⁸

These and other natural qualities are the foundation for and at the heart of Delaware’s Bayshore Byway and the Delaware Bayshore Initiative. This Byway corridor is distinctive because of its natural, scenic and historic characteristics that both define the Bayshore and the people who depend on it for their livelihood and pleasure. Fisheries were the lifeline for the maritime industry in Port Penn, Little Creek, Leipsic and Woodland Beach. Notably also is Delaware’s spring spawning of the horseshoe crab along the shoreline of the Bayshore as a breeding epicenter. Oysters, once one

of the biggest fisheries in the Delaware Bay until the mid-20th century, are today being restored through shell-planting management efforts.

Seasonal Cycles

The ebb and flow of the water is synonymous with the calendar seasonal cycles that guided the lives of the people who lived along its shores and made a living off the land and the water. From this estuary, sprang fishing and oystering towns, ports, industrial centers and wildlife refuges. Throughout the late 1800s and early 1900s, oysters were the livelihood of Baymen.⁹ Today, the state wildlife areas, state parks, natural estuarine research reserves and reserves, national wildlife refuge, private conservation lands, the working agricultural landscape and farmland preserves reflect how important the landscape is to the people who settled here. They continue to value the land for its



Maritime activities on the Delaware Bay and River dominated Delaware’s shoreline providing a livelihood for many. (Hammond, Roydon. 1380-006_#1926_Boats. Glass plate photograph. Center for Historic Architecture and Design, University of Delaware.)

⁸ La Puma, D., D. Mizrahi, J. Buler, and V. Elia. 2012. Determining high-use bird stopover areas in the Mid Atlantic Coastal Plain using National Weather Service Doppler radar. Report to the Delaware Division of Fish and Wildlife, DNREC. 44pp.

⁹ (University of Delaware Sea Grant College Program, 1988)

natural resources and location on the Delaware River and Delaware Bay and derive their livelihood from it.

Genealogies in New Castle, DE and Salem, NJ show how family relations linked these two coastal communities. Floating villages could also be found up and down the River. There are stories of how these floating villages were so dense, it was difficult to travel up and down the river and some old timers joke that you could walk across the river by hopping from boat to boat.

A Shifting Landscape

Change is part of the story of this unique landscape, past, present and future. Examining the Byway landscape offers a view into human activities that have molded the communities and environmental characteristics of the byway corridor.

The engineering of dikes and canals in the 16th century protected the City of New Castle and other areas while the control of water established land for agriculture. The Chesapeake and Delaware Canal (C&D Canal) is a 14-mile long, 450-foot wide and 40-foot deep ship canal that connects the waters of the Delaware River with those of the Chesapeake Bay and the Port of Baltimore. It is owned and operated by the U.S. Army Corps of Engineers. The construction of the C& D Canal began in 1804, was halted for two years and was open for business in 1829. The C&D Canal today is the only major commercial canal built in the early 1800s that is still in use.¹⁰ The clearing of forested lands for agriculture provided food and a living for many. In the past, corn, squash, beans and tobacco were grown. Today's crops include wheat, corn and other grains, potatoes, and soybeans.

The ever-evolving maritime activities capitalized on the seawater and resources of the estuary environment. Fishing for shad, perch, weakfish, striped bass, oysters, blue crabs and other finfish and shellfish are recreationally and commercially important today. Although some fisheries have declined to the point where harvest is no longer permitted (e.g., sturgeon), but ongoing conservation efforts continue to improve the health of the estuary environment in hopes of replenishing all fisheries.

The long narrow shape of the Delaware Bay explains why this Byway corridor has the most complete network of Coastal Defense resources in the country beginning with the War of 1812 and the Civil War, and through World War I and II. Each new generation of military defense moved farther downstream:

- American Revolution Defenses – Fort Mifflin, PA (1777)
- Civil War Defenses - Fort Delaware, DE (1859) and Fort Mott, NJ (1896), Fort DuPont (1898) Civil War through World War II
- World War I – Fort Saulsbury (1918) located in Delaware
- World War II – Fort Miles (1941) located in Delaware

¹⁰ Scott M. Kozel, Pennways, Roads to the Future, http://www.pennways.com/CD_Canal.html

The Delaware Estuary watershed and its natural resources face new challenges from global climate change and more immediate flooding and erosion from sea-level rise. Sea-level rise threatens a number of the natural wildlife areas, farms and towns, and will change management efforts to protect vital ecosystems, wildlife habitats, and popular hunting, fishing and birding areas.

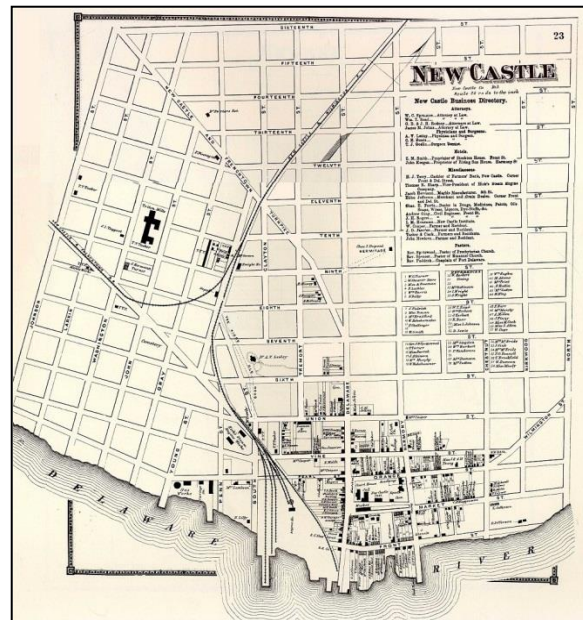
2.3 CORRIDOR CHARACTERISTICS

Since the 2007 nomination, the Byway story and its significance have grown. The many conserved natural areas and historic sites are playing a much larger role, especially since the launch of the State Bayshore Initiative and the national America’s Great Outdoors Initiative in 2012. Originally the Byway concept primarily focused on the road and the attractions immediately adjacent to the road. The enhanced concept now treats the byway as a corridor with the road as the spine and key attractions as Discovery Zones. In alignment with this change, the focus on water throughout the region provides a rich opportunity for traveler experiences. Additionally, the understanding and awareness of the threats of global climate change and specifically sea-level rise and its impact on Delaware and the Delaware Bayshore have advanced tremendously. Flooding and beach erosion are major issues to both the residents and State government in many areas of the Byway region. Incorporating these issues into the management process of the Byway will be a critical component of the future success of the project.

The Byway corridor is characterized by the:

- Integrated system of state and local parks, state wildlife areas, natural estuarine research reserves, national refuge, a network of rivers and streams that meander through them, and bucolic farmland;
- Historic coastal communities and historic attractions; and
- Three inland towns – Middletown, Smyrna and Dover that provide traveler services and other attractions.

Natural areas are significant resources along the Byway offering the traveler exceptional recreational and educational opportunities while providing for conservation of the Delaware Estuary’s natural resources and its wildlife habitats.



Historic City of New Castle Map circa 1868

Similarly, historic sites enrich the visitor’s experience can be found along the Byway including, among others:

- First State National Monument, which includes the New Castle National Landmark Historic District and National Historic Landmark anchored by the Green, the Sherriff's House and the Court House;
- Delaware City National Register Historic District that includes over 680 acres and 204 buildings;
- Fort DuPont National Historic District;
- Fort Delaware State Park on Pea Patch Island;
- Port Penn Historic District and the Interpretative Center operated by DNREC;
- Ashton Historic National Register District and Aston House at Yardley Dale Tract of Augustine Wildlife Area;
- Liston Front Range Lighthouse;
- Odessa Historic District (a National Register of Historic District) and the Historic Houses of Odessa;
- Vogel House in Cedar Swamp Wildlife Area;
- Historic farm houses and agricultural districts including the Huguenot House and Little Creek



Panorama view at Reedy Point and the byway landscape including the C&D Canal and the Delaware River.

Hundred Rural Historic District; and

- John Dickinson Plantation operated by the Division of Historical and Cultural Affairs of the Delaware Department of State.

Taking a journey along the byway today is an experience in serenity and is often chosen as the “road less traveled” because of its rural character, coastal landscape and scenic beauty. Whether a traveler is in a car or boat, on a bicycle or on foot, the beauty of the natural landscape of marshes, creeks, and agricultural fields dominant the view. The only exception is the vastness of an industrial landscape between New Castle and Delaware City, and a few intermittent views of residential subdivisions. The best water views are from the many bridges that cross over the creeks, rivers and marshes with the most spectacular being the panorama view from the Reedy Point Bridge over the C&D Canal just south of Delaware City.

The northern end of the byway is characterized by the beauty of historic towns of the City of New Castle and Delaware City, both of which are best experienced on foot or by cycling. Boat access offers an alternative way to experience these Bayshore towns. Eighteenth century architecture offers an entrée to the people who settled here and the events that transformed them. On March 25, 2013; President Obama established the First State National Monument including sites that encompass nationally significant sites, which contributed to the settlement of the Delaware region by the Swedes, Finns, Dutch and English, and the role that Delaware played in the establishment of the Nation.¹¹ This designation recognizes the City of New Castle’s downtown historic district listed on the National Register of Historic Places and a National Historic Landmark takes you back in time in a scenic setting. From Battery Park in New Castle, panorama views of the Delaware Memorial Bridge, Delaware River and New Jersey coastline provide travelers a place to enjoy the magic of the waterfront.

Delaware City, another scenic riverfront community listed on the National Register of Historic Places, has significant views of the Chesapeake and Delaware Canal and Delaware River. A stroll down through this well-preserved 19th century bay town offers the traveler a glimpse back into an earlier era in a scenic setting. It is the gateway to Fort Delaware State Park where one can board the Delaware City-Salem Ferry to Pea Patch Island and its rookery, one of the largest nesting colonies of herons and egrets on the



View of the Chesapeake and Delaware Canal in historic Delaware City

¹¹ Office of the Press Secretary; The White House, A Proclamation,

east coast. The Riverfront Promenade also provides scenic views of the Delaware River, the island and the numerous birds flying between the nesting area on the island and the feeding areas on the mainland.

As one travels south along the Byway, the working agricultural landscape is a significant feature of the corridor's scenic beauty and pastoral character. Farmland is dispersed among the expansive natural landscape of waterways and marshes in the northern segments of the Byway whereas more traditional views of continuous farm fields dominate the southern part of the Byway. Many of these farms exist today because of the continued stewardship of farmers who have tilled and worked the lands for generations and state conservation practices through the Delaware Department of Agriculture preservation and planning programs that supports the Agricultural Lands Preservation Foundation.

In harmony with this agrarian landscape are the communities of Port Penn, Leipsic and Little Creek. Leipsic still retains maritime activities, while all reflect the livelihoods of farming families, watermen and an earlier connection to the marsh culture. The culture of the Delaware coastal marsh is unique and reflects how people used the natural environment to create a living, muskrat trapping being one the most prominent. The bay front community of Woodland Beach, once a thriving resort town, is today a quiet enclave of residential development with bayfront access along with Pickering Beach, a significant horseshoe crab spawning area, and Kitts Hummock.



Muskrat trapping

Because the land is relatively flat, the most scenic views over a broader landscape are found on the numerous bridges along the byway corridor. A few existing observation towers provide opportunities to view the scenic Bayshore landscape at Taylor's Gut in the Woodland Beach Wildlife Area and at Bombay Hook NWR (Raymond Pool, Sheariness Pool and Bear Swamp Pool). There is also a popular observation tower at Little Creek Wildlife Area. The boardwalk between the St. Jones Reserve and Ted Harvey Wildlife Management Area offers spectacular views of the marsh landscape. Scenic views of the River and Bay are afforded within the City of New Castle, Delaware City, and Port Penn, as well as, from the many boat ramps, fishing piers and marinas along the Byway. Many of the Byway towns and hamlets offer spectacularly sweeping scenic views of the marsh and the Bay. Traveling on the Delaware-Salem Ferry from Delaware City provides for viewing the scenery of Delaware's Bayshore landscape. The Scenic Viewshed Maps, Figures 2-2A and 2-2B on pages illustrate the location and photographs showing representative images of the Byway scenic views.

In addition to the waterfront towns and beaches, along the entire byway, waterways reach out from the Byway to the Delaware River and Delaware Bay. The DNREC Division of Parks and Recreation developed the Coastal Heritage Greenway in 1992 that identified three waterways highlighting Delaware's coastal treasures:

- Red Lion Creek
- Dragon Run
- Silver Run

Several other important waterways that contribute to the natural and scenic qualities of this byway are:

- Augustine Creek
- Drawyer Creek
- Appoquinimink River
- Blackbird Creek
- Smyrna River
- Leipsic River
- Duck Creek
- Simons River
- Little River
- St. Jones River



Leipsic River

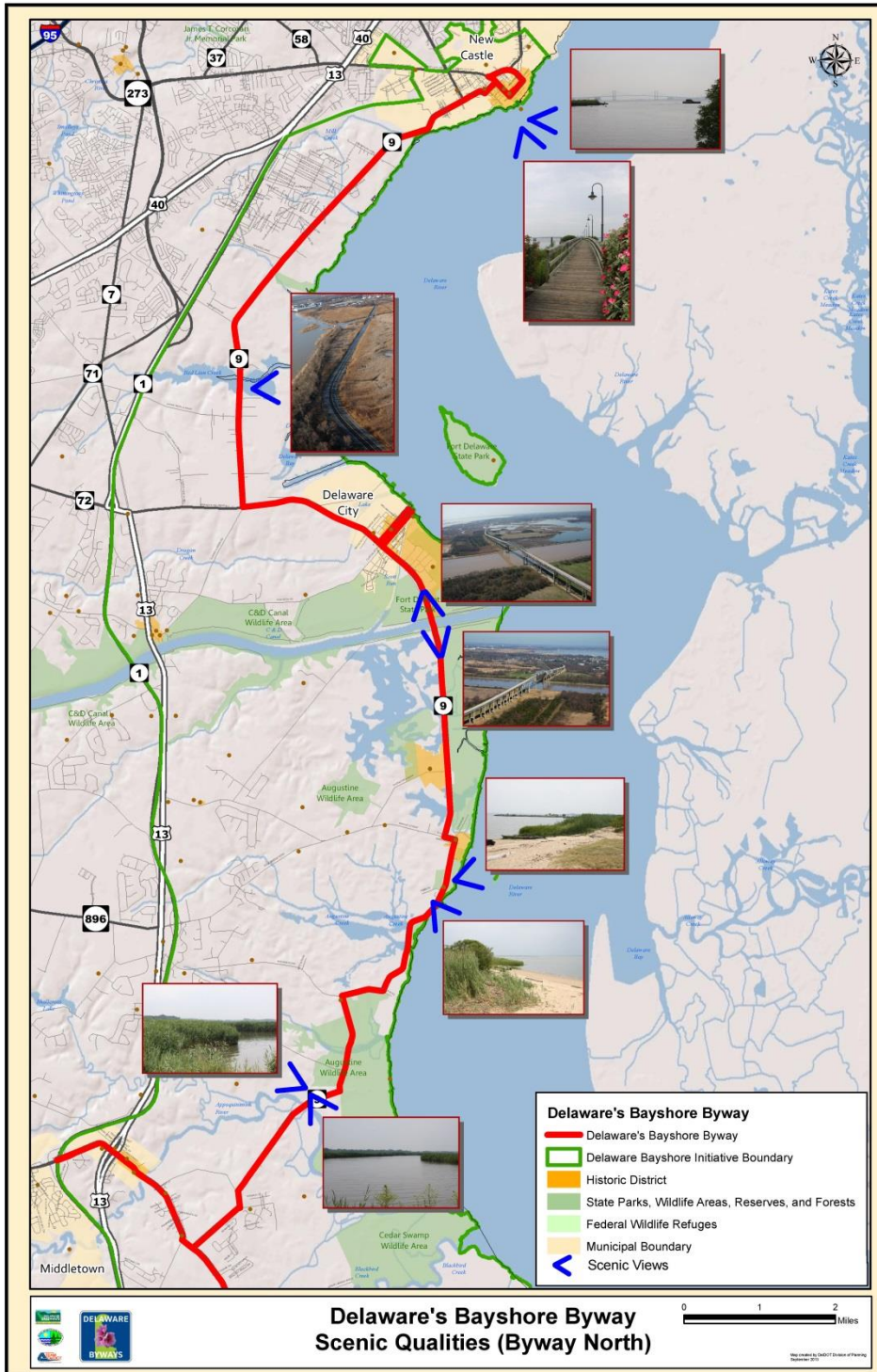


Figure 2-2A: Scenic Qualities Map, Northern Section

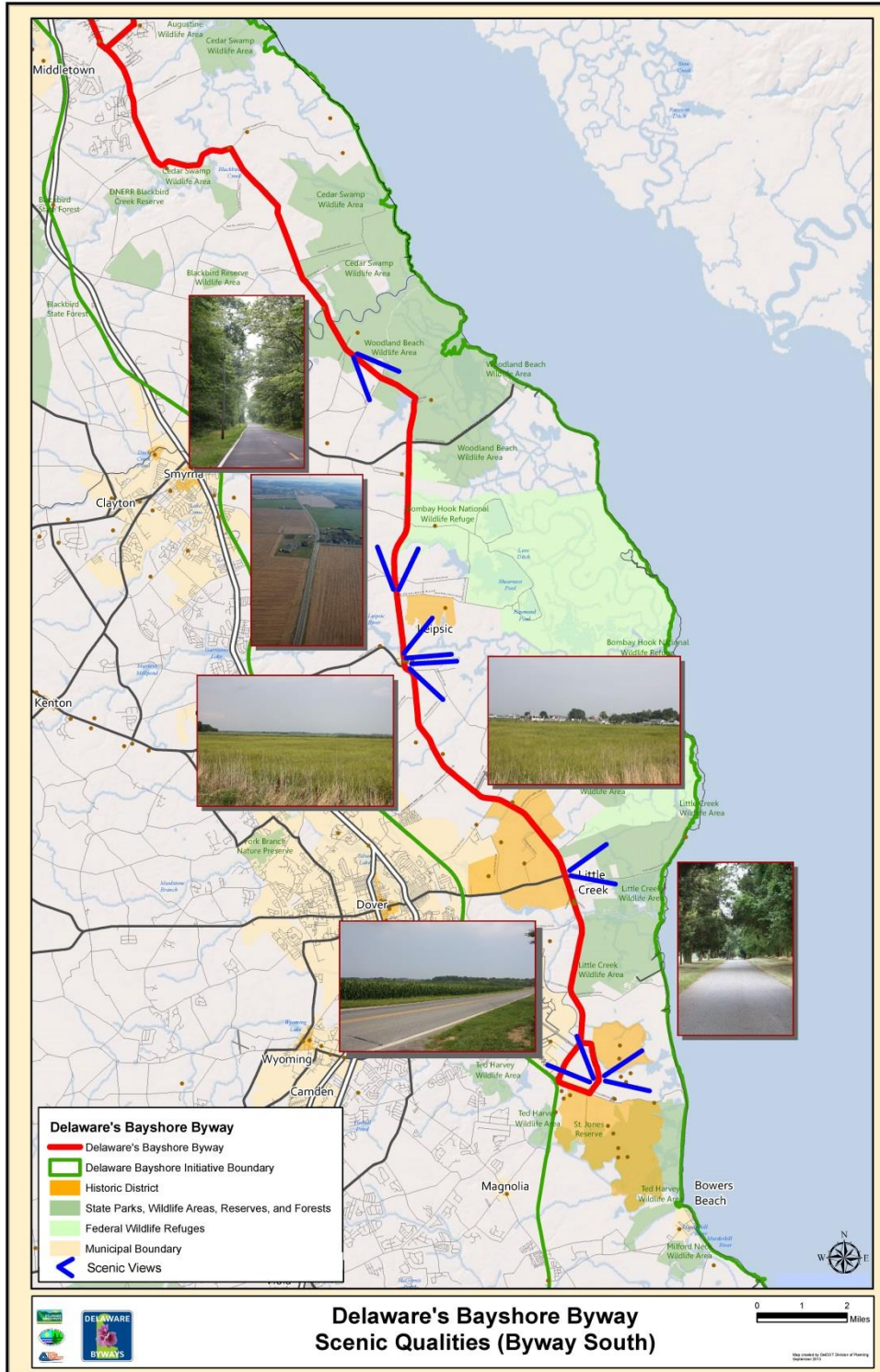


Figure 2-2B: Scenic Qualities Map, Southern Section

Delaware Estuary and Coastal Plain

The Delaware Estuary, one of Delaware's three major watershed basins, claims the largest portion of the First State. The Delaware Estuary watershed actually extends far into New Jersey and Pennsylvania as well, stretching 134 miles from the Trenton Falls to the mouth of the Delaware Bay between Cape May, NJ and Cape Henlopen State Park near Lewes, DE. Today, the estuary is classified into distinct regions – the tidal river, the brackish upper estuary, the lower estuary and the mouth of Delaware Bay (University of Delaware Sea Grant College Program, 1988).

Approximately eight million people live within the Delaware Estuary's watershed; many depend on it for food and drinking water. Numerous species of plants and animals, such as oysters, blue crabs, horseshoe crabs, diamondback terrapins, loggerhead sea turtles, a variety of waterfowl and shorebirds thrive on the Estuary's highly productive ecosystem. The Delaware Estuary is also home to the world's largest horseshoe crab population. Red knot and 15 other species of migratory shorebirds, including Ruddy turnstone, Sanderling, Semipalmated sandpiper, Black-bellied plover and Short-billed dowitcher, are found here in significant numbers during spring migration. Other migratory birds of conservation concern, including American black duck and black rail, nest in the marshes of the estuary. One of the largest colonies of nesting herons and egrets on the East Coast is found in the Delaware Estuary on Pea Patch Island near Delaware City.

The shoreline of the Delaware Estuary is a continuum of key habitats – sandy shoreline, freshwater, brackish and saltwater tidal wetlands, upland fields and forests. The estuary is a vital ecosystem that is not only home to the largest population of spawning **horseshoe crabs** in the world, but also the second-largest concentration of migrating **shorebirds** anywhere in the Western Hemisphere. Meanwhile, its waters serve as important habitat for **finfish** and **shellfish** fisheries.¹²



Snow Geese in field along the byway



Horseshoe crabs on the shore of the Delaware Bay

¹² www.ecodelaware.com



This Byway is also an area where there are some of the oldest settlements in the state along with a diversity of great examples of 18th and 19th century architecture. Humans living within the Delaware Estuary date back 12,000 – 13,000 years. Two archaeological sites in Thousand Acre Marsh indicate Native American occupations during the late Archaic and Woodland periods. Before the arrival of the Europeans, the Lenape were people of the woods and water. The Dutch, Swedes and English began to settle in the area during the 17th century. The Delaware River and Bay and tributaries reaching inland served as a transportation route helping to develop the commercial agriculture and fishing industries, booming trading of goods, and tourism within the Byway corridor.

