

Pine Barrens Byway

Corridor Management Plan

April 2009

Prepared for
The New Jersey Pinelands Commission
and
The Southern Pinelands Natural Heritage Trail Committee



Southern Pinelands Natural Heritage Trail Committee

Bass River Township	Mayor Richard Bethea Tim Lovingham
Corbin City	Mayor Carol Foster
Dennis Township	Jacqueline Justice
Egg Harbor City	Mayor Joseph Kuehner Dick Colby
Estell Manor City	James R. Owen, Sr.
Galloway Township	Eric Schrading
Hamilton Township	Phil Sartorio
Little Egg Harbor Township	Gene Kobryn
Maurice River Township	Linda L. Costello
Mullica Township	Kathy Chasey
City of Port Republic	Mayor Gary Giberson
Tuckerton Borough	Elizabeth Moritz
Upper Township	Mayor Richard Palombo
Washington Township	Dudley Lewis
Weymouth Township	Michael Hogan
Woodbine Borough	Mayor William Pikolycky
Atlantic County	Harry Tillett Shawn Smith
Burlington County	Joyce Goldsmith
Cape May County	Jim Smith Leslie Gimeno Brigitte Sherman
Cumberland County	Sharon Mollick
Ocean County	David J. McKeon Ryan P. Allen

Corridor Management Plan Consultants

Taintor & Associates, Inc.
Newburyport, Massachusetts

Whiteman Consulting, Ltd.
Boulder, Colorado

Paul Daniel Marriott and Associates
Washington, DC

Howard/Stein-Hudson Associates, Inc.
Boston, Massachusetts





CONTENTS

Introduction	1
The Pine Barrens Byway	1
The Byway's Intrinsic Qualities.....	1
The Corridor Management Plan.....	3
Next Steps.....	4
Byway Description, Resources & Conditions.....	5
Intrinsic Qualities	5
The Roadway	15
Local Planning and Policies	21
Outdoor Advertising and Amenities.....	27
A Vision for the Corridor	30
Goals.....	31
Resource Protection & Management	31
Regional Identity	31
Tourism & Economic Development.....	31
Recreation	31
Roadway Design & Management	31
Experiencing the Pinelands.....	32
Existing Visitor Sites	32
Visitor Needs and Expectations	36
Wayfinding.....	38
Promoting Tourism and Economic Development	40
The Tourism Market	40
Scenic Byway Marketing	45
Management Strategies.....	46
Implementation	49
Land Use and Development	49
Corridor Aesthetics	54
Environmental Issues and Impacts.....	58
Traffic Capacity and Safety	61
Visitor information & Services	64
Byway Management	72
Public Process.....	76
Sample Byway Map Marketing Brochure	77



Introduction

A **scenic byway** is a road with defined special qualities which its local communities wish to preserve and promote. Both the New Jersey Department of Transportation and the Federal Highway Administration have programs to recognize and support scenic byways. Preparation of a corridor management plan is a requirement for designation under both the state and national programs.

The Pine Barrens Byway

The Pine Barrens Byway was designated as a New Jersey Scenic Byway in 2005. The 130-mile route extends from Batsto and Tuckerton in the north to Dennisville and Port Elizabeth in the south, passing through five counties and 16 municipalities. Along the route are two National Wildlife Refuges, ten State Wildlife Management Areas, three State Forests, five County parks, several major rivers and numerous smaller streams, as well as a variety of historic and scenic sites.

The four “corners” of the byway are Dennisville in Dennis Township, Cape May County; Port Elizabeth in Maurice River Township, Cumberland County; Nesco and Wescoatville in Mullica Township, Atlantic County; and Tuckerton Borough in Ocean County. These four small settlements are visually quite different from each other, but each is in its own way a characteristic Pinelands community.

The byway has three distinct parts. The northern loop follows both sides of the lower Mullica River from Batsto to the estuary and links communities along US Route 9 from Tuckerton to Oceanville. The southern loop connects the Tuckahoe River, the Maurice River and Dennis Creek, along with Belleplain State Forest and Woodbine Borough. A north-south route between the Mullica River and the Tuckahoe River runs through the heart of Atlantic County, crossing and (for half its length) paralleling, the Great Egg Harbor River.



The byway route is dotted with small farm fields, pastures, and river towns and punctuated by historical ruins. At night the lightly settled byway is a stargazer’s paradise and during the day it provides sights and points of interests for a wide variety of tastes. It is also easily accessible to a huge pool of potential vacationers and day-trippers, surrounded as it is on all sides by New York, Philadelphia, Baltimore/Washington, and the heavily developed Jersey Shore.

The Pine Barrens Byway region has received national and international recognition for its unique natural characteristics. For example, it was designated as the nation’s first national reserve in 1978, named an international biosphere reserve in 1988, contains two National Wild and Scenic Rivers, and is part of the US EPA’s national estuary reserve program.

The Byway's Intrinsic Qualities

Under the National Scenic Byways Program, a scenic byway is a road that has regional or national significance with respect to at least one of six defined “intrinsic qualities”: archaeological, cultural, historic, natural, recreational and scenic. While the Pinelands region includes elements of each of these six qualities, its **natural quality** is most distinctive and therefore primary, with **recreational** and **historic** qualities also important.

The **natural quality** of the Pinelands region is what most clearly sets it apart from other areas and defines the focus of the scenic byway. The region’s ecological significance is



recognized both nationally and internationally through designations including:

- Pinelands National Reserve
- United Nations Biosphere Reserve
- Jacques Cousteau National Estuarine Research Reserve
- Edwin B. Forsythe and Cape May National Wildlife Refuges
- Great Egg Harbor River and Maurice River National Scenic and Recreational Rivers

Natural qualities not only define the Southern Pinelands on their own, but they are also the basis of the region's recreational and historic qualities.



Recreation opportunities along the Pine Barrens Byway are abundant and tied to the natural resources of the area, its rivers, forests, and diverse ecosystems. Hiking, boating, canoeing and kayaking, bicycling, birding, hunting and fishing take place along the byway in state forests and wildlife management areas and county and municipal parks, and along rivers, streams, estuaries and marshes that can be rated as some of the most scenic in the country. Recreational use of the area's natural resources draws a wide audience of participants to the region, enhancing the area's potential for supporting commercial ventures, and increasing the pool

of environmental stewards concerned with protecting those resources and opportunities.



Historic resources are also plentiful throughout the area of the byway. Twelve historic districts and numerous historically or archaeologically significant individual sites and structures showcase the unique human story of settlement of the Pinelands. The Corridor Management Plan groups these diverse resources into five themes:

- Mullica River Corridor
- Great Egg Harbor River Corridor
- Tuckahoe River Corridor
- Coastal Trade and Industry
- Churches and Cemeteries



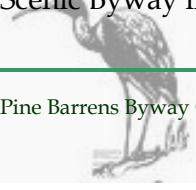
The Corridor Management Plan

The Corridor Management Plan will be used to guide local, regional and state efforts to preserve, protect and enhance the natural, recreational, historical, and scenic qualities of the Pine Barrens Byway; and to enhance the local economy by guiding the traveler through the corridor and improving access to recreational resources and activities.

BACKGROUND

This Corridor Management Plan is the culmination of ten years of study and planning. The initial impetus for scenic byway planning in the southern Pinelands was the Pinelands Rural Economic Development Pilot Program (1999-2000), which examined economic conditions in several Pinelands towns and recommended measures to stimulate environmentally suitable economic growth. The project's recommendations included planning and designation of two scenic byways – one in the Mullica River corridor, and a second along the Delaware Bayshore – to promote tourism based on the natural and recreational assets within these two areas.

Working with an ad hoc committee representing communities in the region, the Pinelands Commission designed a scenic byway route that combined and connected the two separate routes recommended by the Rural Economic Development Pilot Program. Commission staff inventoried natural, historic and scenic resources along the byway, and prepared a nomination for designation as a New Jersey state scenic byway. All 16 municipalities and five counties through which the proposed route passed adopted resolutions supporting its designation. On behalf of the organizing committee, Commission staff submitted the nomination to the State Scenic Byway Committee, which formally designated the route as a New Jersey Scenic Byway in early 2005.



Once the byway received state recognition, the Pinelands Commission began preparing for development of this Corridor Management Plan (CMP), which is both a requirement of the New Jersey Scenic Byways Program and a prerequisite for nomination as a National Scenic Byway. In August 2006 the Pinelands Commission received a National Scenic Byways Grant to fund preparation of the Corridor Management Plan. Additional matching funds for the project were provided by the Pineland Commission and the New Jersey Department of Transportation.

THE CORRIDOR MANAGEMENT PLANNING PROCESS

To ensure local input into the planning process, the Commission organized a Heritage Trail Committee (HTC), consisting of representatives designated by each community and county along the byway route. This Committee held its initial meeting in September 2007.

The Commission also established a scope of work for the Corridor Management Plan, and selected a team of consultants to assist in preparing the plan. The formal planning process began in December 2007 and was completed in April 2009. During this 16-month period the consultants met a total of 12 times with the HTC or its subcommittee, the Corridor Management Plan Committee (CMC).

WEBSITE

At the start of the planning process, the CMC created a website (www.njpinelandstrail.com) to facilitate information-sharing with the committee members, other constituents, and the public. Throughout the planning process, the website was updated regularly. This site was also designed to serve as a foundation

for a future permanent website for the byway.

STAKEHOLDER DISCUSSION MEETINGS

In January 2009, the consultant team facilitated a series of meetings in four locations along the byway (Batsto Village, Tuckerton Seaport Museum, Edwin B. Forsythe National Wildlife Refuge Headquarters in Oceanville, and the Atlantic County Library in Mays Landing) to discuss tourism, recreation and visitor activities with local stakeholders. Stakeholder groups invited to participate included public and non-profit land managers, recreation businesses and visitor service providers, historic preservation groups, environmental organizations, chambers of commerce, tourism councils, and economic development groups. Each meeting focused on a particular aspect of the byway's management with participants discussing visitor needs as well as strategies to help promote, interpret and protect the byway and its resources.

PUBLIC MEETINGS

In March 2009, the CMP was presented at two public meetings in Woodbine Borough and Egg Harbor City. Meetings were scheduled to allow for municipal, county, and stakeholder input. At these meetings, the consultant and CMC members outlined the inventory and recommendations made by the CMP. The public input was incorporated into the final CMP.

Next Steps

With the completion of the CMP, an application to designate the Trail as a National Scenic Byway will be submitted to the U.S. Secretary of Transportation for federal designation. National designations occur every three years or so, and it is likely that the next round of National Scenic Byway designations will occur in 2011 or 2012.

As a state-designated byway, the route is currently eligible to receive National Scenic Byway grants and provides access to a variety of promotional and marketing opportunities, including development of visitor centers, wayside exhibits, and self-guided tours.

Once designated as a national byway, the byway will also be featured in the U.S. Department of the Interior's byway website (<http://www.byways.org>) and in other state and national tourism materials and maps.

There is also the potential to extend the byway north to include more of the Pinelands Natural Reserve, including the heart of the Preservation Area. A preliminary northern route has been designed connecting Green Bank north through Chatsworth to Whitesbog, and then east and south back to Tuckerton. Any potential extension will require further analysis and consultation with the affected communities.



Byway Description, Resources & Conditions

Intrinsic Qualities¹

The Pinelands is one of the most extensively studied regions in the nation. With the existence of the Pinelands National Reserve, the Pinelands Commission, and the Pinelands Comprehensive Management Plan, this area has in place one of the most sophisticated regional land management programs in the country. In this context, the identification of the "intrinsic qualities" of the Pine Barrens Byway is not intended to add detail to the inventory work already performed in the region. Rather, this section of the Corridor Management Plan integrates existing data and information in a way that will allow the byway to build its program in a sound, sophisticated manner that meshes with the other good work being done in the Pinelands on a day to day basis.

This chapter has three clear objectives, consistent with the project's directive and the requirements of the National Scenic Byways Program:

- First, it identifies the regionally and nationally significant intrinsic qualities upon which the Federal Highway Administration might grant America's Byways® (National Scenic Byway) status for this route.
- Second, it provides an inventory of resources sufficient to allow byway managers to generally know what-is-where in order to guide decision-making.
- Third, it provides the reader with a sufficient understanding of the region's intrinsic qualities so as to build a firm

¹ The byway's intrinsic qualities are more extensively documented in "Intrinsic Qualities Assessment" exhibit.

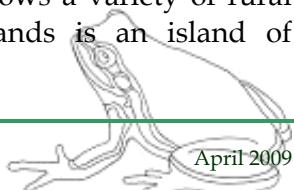
foundation on the ways in which natural systems, residents and visitors can benefit from byway designation.

PRIMARY QUALITY: NATURAL

The primary intrinsic quality of the Pine Barrens Byway is its natural quality. The New Jersey Pinelands is a rare natural and cultural environment; it is one of just a few healthy pine barrens systems remaining and is the largest pine barrens complex in the world. The ecological significance of the New Jersey Pinelands is recognized both nationally and internationally through designations including Pinelands National Reserve, World Biosphere Reserve, Jacques Cousteau National Estuarine Research Reserve, and National Wild and Scenic Rivers. Natural qualities not only define the Southern Pinelands independently of the other intrinsic qualities; they are also the underpinnings of the route's secondary and tertiary qualities.



Today, at over 1.1 million acres, the New Jersey Pinelands is the largest collection of open space resources between Boston and Washington. It is, in effect, a national park for the Atlantic seaboard although the land is owned through a mixture of public and private entities and allows a variety of rural land uses. The Pinelands is an island of



BYWAY DESCRIPTION, RESOURCES, CONDITIONS

natural and rural land within an ocean of urbanization along the East Coast of the United States.

Indicators of Significance

Congress established the **Pinelands National Reserve**, the country's first national reserve, under the National Parks and Recreation Act of 1978. Under this designation, the National Park Service was given authorization to guide special ecosystem planning. At the state level, the Pinelands Protection Act of 1979 provided for implementation of the federal bill. A Pinelands Commission was established which created a Comprehensive Management Plan (CMP) to balance protection and development interests; the plan was adopted in 1980 and approved in 1981. The Comprehensive Management Plan established a 337,000-acre core Preservation Area to be maintained in its natural state through strict regulation of development, and a Protection Area in which various categories of land use were mapped based on existing natural features and projected need (forest, agriculture, regional growth, rural development, Pinelands towns and villages, military and federal institutions).

The Pinelands Commission, a regional planning and regulatory agency, was created and given special planning abilities to protect the region's environment and character while encouraging healthy local communities. In 1983, the United Nations Environmental Science and Cultural Organization (UNESCO) named the region a **United States Biosphere Reserve**. In 1988 it was recognized as an **International Biosphere Reserve**.

Portions of two **National Wildlife Refuges** abut the scenic byway route. The Edwin B. Forsythe National Wildlife Refuge consists of more than 46,000 acres of coastal habitats and receives almost 200,000 visitors each year. The refuge's location in one of the Atlantic

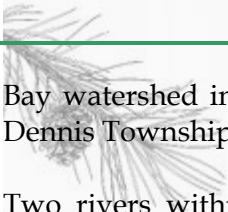
Flyway's most active flight paths makes it an important link in the vast network of national wildlife refuges administered nationwide by the U.S. Fish and Wildlife Service.

Cape May National Wildlife Refuge, established in January of 1989, is one of the newest refuges in the National Wildlife Refuge System. The refuge provides critical habitat for migratory birds and other wildlife. It supports 317 bird species, 42 mammal species, 55 reptile and amphibian species and numerous fish, shellfish, and other invertebrates. The refuge has upland and lowland forests, fields, barrier beach, salt marsh and salt meadows cut through by meandering tidal creeks and ponds.

The **Jacques Cousteau National Estuarine Research Reserve** overlaps portions of the scenic byway's northern loop. The National Estuarine Research Reserves System is a network of 27 areas representing different biogeographic regions of the United States that are protected for long-term research, water-quality monitoring, education and coastal stewardship. The Jacques Cousteau Reserve encompasses 114,000 acres of tidal freshwater, brackish and salt marshes and pine-oak upland buffer zones within the Mullica River-Great Bay ecosystem, and is described as "one of the least disturbed estuaries in the densely populated urban corridor of the northeastern United States."

The United States Environmental Protection Agency's **National Estuary Program** was established by Congress in 1987 to improve the quality of "estuaries of national importance" by developing and implementing plans for attaining or maintaining water quality. There are currently 28 NEPs in the country, including two that are crossed by the Pine Barrens Byway - the Barnegat Bay watershed in Little Egg Harbor Township and Tuckerton Borough, and the Delaware

BYWAY DESCRIPTION, RESOURCES, CONDITIONS

 Bay watershed in Maurice River, Upper and Dennis Townships and Woodbine Borough.

Two rivers within the Pine Barrens Byway corridor – the Maurice River and the Great Egg Harbor River – are designated **National Wild and Scenic Rivers**. To qualify for designation as a National Wild and Scenic River a river or river segment must be in a free flowing condition and must be deemed to have one or more “outstanding remarkable” scenic, recreational, geologic, fish and wildlife, historic, cultural or other similar values.

All waters in the Pinelands have been designated by the U.S. Environmental Protection Agency as **Outstanding Natural Resource Waters** that are to be protected from any change in water quality.

State Forests and Parks are managed by the New Jersey Department of Environmental Protection Division of Parks and Forests. Major segments of the Pine Barrens Byway pass through three state forests – Wharton and Bass River in the north and Belleplain in the south.

State Wildlife Management Areas and Natural Areas are multiple-use public lands administered by the Division of Fish and Wildlife and managed by the Division's Bureau of Land Management for fish and wildlife habitat and a variety of wildlife-associated recreation. The Pine Barrens Byway passes nine Wildlife Management Areas: Wading River, Swan Bay, Port Republic, Makepeace Lake, Gibson Creek, Great Egg Harbor River, Tuckahoe (Lester G. MacNamara), Peaslee and Dennis Creek.

The **Eldora Nature Preserve** is located along the southern loop of the Pine Barrens Byway and is the first preserve established by The Nature Conservancy in New Jersey for the

conservation of insects, particularly moths and butterflies.



The **New Jersey Audubon Society** has identified 11 **Important Bird Areas** within the byway corridor. Each represents an unusually rich habitat for a number of bird species.

A Leader in Environmental Stewardship

As a National Reserve, the region's nationally significant resources are protected through a program of local land use management supported by federal financial and technical assistance. Land use and environmental management is administered through the Pinelands Commission. Specific planning areas have been designated for environmental protection, forestry and agriculture, with growth being directed and encouraged in and around areas capable of accommodating further development.

As a Biosphere Reserve, the Pinelands also serves as a laboratory for fostering a harmonious relationship between humans and their environment through a program of research that integrates the social, physical and biological sciences. In addition, special programs are in place to protect open space and natural areas. Planting of indigenous species is encouraged. Farm lands are protected.



Major Natural Resources of the Pinelands

The landscape of the New Jersey Pinelands is full of complexity and richness, but it is not a landscape that offers up its richness easily to the untrained eye. In between the dramatic views of coastal areas and marshes, lies a subtle and unvaried landscape of pine and oak forests. A challenge for this byway is presenting an experience that helps both experienced and novice naturalists enjoy the route and the rich natural qualities hidden within.

Vegetative Communities

The core region of the New Jersey Pinelands consists of a mosaic of upland, aquatic, and wetland habitats. The byway corridor extends from the southern end of the Pinelands region to a point northward about midway through the region.

The Pinelands is distinctive for the widespread occurrence of dry pine, oak, and heath communities in a humid, temperate, deciduous forest climate. The presence of pine barrens in this climate results from the success of low-nutrient and fire-adapted species in invading and maintaining themselves competitively over the last several thousand years on the sandy, well-drained, nutrient-poor soils. Pinelands vegetation is also distinctive for its strong differentiation of plant communities in an area of low topographical relief. The uplands and lowlands have communities that are quite distinct from one another, controlled primarily by soil moisture differences.

Three major upland vegetative communities define the region – the oak-pine forests dominated by post oak and blackjack oak (the tallest of the three forest types), the dwarf pine plains contain short pitch pines and blackjack oaks that are often less than 9 feet (3 m) tall, the pine-shrub-oak forests (a rare community dominated by pitch pines).



Pine Barrens Byway Corridor Management Plan

Lowland areas in the Pinelands support a diversity of wetland communities, including Atlantic white cedar swamps, hardwood swamps, pitch pine lowland forests, shrub swamps, marshes, and pine barren savannas.

Rivers and Lakes

Surface waters in the Pinelands include streams, lakes, and bogs. Pine barrens streams flow in broad shallow valleys and mostly flow east and south. The streams are slow-flowing, with sand and gravel substrates.



- Mullica River
- Batsto River
- Wading River
- Oswego River
- Bass River
- Nacote Creek
- Great Egg Harbor River
- Tuckahoe River
- Dennis Creek (Jake's Landing)
- Maurice River
- Manumuskin River
- Lake Absegami
- Lake Pohatcong
- Makepeace Lake
- Lake Lenape
- Batsto Lake
- Lake Nummy

The Mullica, Great Egg Harbor, Tuckahoe and Maurice Rivers have extensive tidal estuaries as well as remote freshwater courses. These waterways are accessible from the byway route and provide opportunities to



April 2009

experience the byway corridor by canoe or kayak.

Coastal Marshes

Some of the most dramatic landscape vistas along the byway occur at interfaces between inland areas and tidal/coastal areas. The byway provides opportunities to experience both of these environments. The main locations are at Jakes Landing, the Tuckahoe Wildlife Management Area, and the Edwin B. Forsythe National Wildlife Refuge. Each of these locations allows the visitor to drive out into the marshes to view the water and the wildlife. Views with limited access are available at the many river crossings and bridges along the Mullica and Bass Rivers and in Tuckerton.



There is an abundance of tidal salt meadow and marsh, interspersed with shallow coves and bays in these areas. These are important resting and feeding habitats, as marsh plants provide food and cover for water birds and other wildlife. The quiet tidal waters serve as nurseries, spawning and feeding grounds for fish and shellfish which are important in the diets of many wildlife species.

Wildlife

The Pinelands National Reserve is home to 299 species of birds, 39 species of mammals, including 4 bats found only during migration, 91 species of fish, 33 species of reptiles,



and 26 species of amphibians. The Kirkwood-Cohansey aquifer and the wetlands and pristine headwaters arising within the Pinelands support a unique assemblage of indigenous species.

There are 223 species of special threatened or endangered emphasis in the New Jersey Pinelands, incorporating 84 species of plants and 75 species of birds.

Night Sky

While not officially given any type of designation by a government agency for this quality, locations such as Belleplain State Forest are noted by the New Jersey Astronomy Club for its clear and excellent night sky viewing conditions.

SECONDARY/SUPPORTING QUALITIES: RECREATIONAL AND HISTORIC

Recreational and Historic resources and opportunities along the byway are supporting qualities that significantly increase the byway's appeal to a diverse base of users, and enrich the story and the experience of the byway's Natural Qualities.

Recreational Qualities

Recreational opportunities along the Pine Barrens Byway are abundant, regionally and nationally noteworthy, and inextricably tied to the natural resources of the area, its rivers, forests, and diverse ecosystems. Hiking, boating, canoeing and kayaking, bicycling, birding, hunting and fishing take place along the byway in state, county and municipal parks, and along rivers, streams, estuaries and marshes that can be rated as some of the most scenic in the country. Recreational use of the areas natural resources draws a wide audience of participants to the region, enhancing the area's potential for supporting commercial ventures, and increasing the pool of



BYWAY DESCRIPTION, RESOURCES, CONDITIONS

environmental stewards concerned with protecting those resources and opportunities.

As well as being key to the byway's natural quality, water is a dominant feature in its recreational quality. Several rivers provide excellent opportunities to get close to the Pinelands' exceptional natural beauty and resources by **canoe or kayak** – Mullica River, Batsto River, Wading River, Oswego River, Bass River, Nacote Creek, Great Egg Harbor River, Tuckahoe River, Dennis Creek, and the Maurice River.



Flat terrain and quiet roads make the Pinelands an excellent area for **bicycling** (both on and off the road.) A number of bicycle trails, tours and clubs provide opportunities for bicycling throughout the Pinelands, including the 238-mile High Point to Cape May Bike Route which crosses or shares the byway route in various locations including Dennisville, Woodbine, Tuckahoe, Route 50 from Corbin City to Mays Landing, and County Route 563 from Weekstown to Green Bank. Some of the more popular off-road bicycling destinations include Belleplain State Forest, Wharton State Forest, Estell Manor Park, Clark's Landing Preserve, John's Woods Preserve, and Three Rivers Preserve.

Hiking, one of the most popular recreational pursuits in the region's parks and natural areas, will provide the hiker with unlimited

opportunities to observe a diversity of ecosystems and wildlife. Trails include the 50-mile Batona Trail linking Bass River, Wharton and Brendan Byrne (Lebanon) State Forests as well as shorter distance trails in Bass River State Forest, Forsythe National Wildlife Refuge, and Estell Manor Park.



Many of the state managed public lands along the byway are open to **hunting** and a number of ponds, lakes, reservoirs and rivers provide public access and a good population of desirable species for **fishing**.

Following is a limited listing of some of the extraordinary **wildlife viewing and birding** sites that abound along and near the byway.

At the **Edwin B. Forsythe National Wildlife Refuge**, one of the most popular places to view wildlife is Wildlife Drive, an 8-mile, one-way, unpaved road that passes through wetlands and woodlands. Spectacular concentrations of migratory water birds can be

found in spring and fall, as they stop and linger in refuge habitats managed to meet their needs. Two observation towers and the accessible Experimental Pool Overlook are equipped with spotting scopes.

The **Eldora Nature Preserve** is “the first preserve established by the Conservancy expressly for the protection of rare moth,” and it also hosts butterflies and skippers including the marbled underwing, the rare skipper, and the precious underwing. Trails lead through pine-oak woodlands and marsh edges, an old orchard, and open upland fields. Bald eagles and other raptors winter at the preserve, and migrating songbirds and hawks rest and feed in the woods each spring and fall. Grassland birds such as grasshopper and vesper sparrows find habitat in the preserve’s open fields.

River crossings on the byway sometimes offer an opportunity to view some magnificent wildlife. The New Jersey Department of Environmental Protection has confirmed that there is a bald eagle nesting site in the vicinity of the Wading River bridge on Burlington County Route 542 (Washington and Bass River Townships) and that eagle sightings are not unusual, especially in the winter months. River crossings also provide a view of some of the regions historic bridges.

Historic Qualities

Historic resources are also plentiful throughout the area of the byway. Stories of burial grounds, charming colonial settlements, early industrial development and transportation and communication routes are common throughout New Jersey and along the Atlantic Seaboard. What distinguishes these stories in the Pinelands, making them both more valuable historically and more marketable economically, are the relationships, resources, hardships and opportunities associated with life and living in the unique landscape of the

Pinelands. With this concept as a core consideration, the theme of history along the Pine Barrens Byway becomes a rare, little-known and fascinating tale of rugged individualism, fierce independence and environmental accommodation and stewardship.



Historic Districts

The byway route passes through a number of areas that have been designated as historic districts in recognition of clusters of related historic resources. These districts represent settlement patterns and the relationship of communities to navigable waterways, industrial and commercial activities. Through their geographic relationships to one another, they help tell the story of how natural features shaped the relationships of communities, people and enterprise in the Pinelands.

The following twelve historic districts along the byway route are listed on the National [N] and/or State [S] Registers of Historic Places, or have been identified by the State

Historic Preservation Office as potential districts [P]:

- Tuckerton Historic District [P]
- Port Republic Historic District [N, S]
- Pleasant Mills Historic District [N, S]
- Green Bank Historic District [P]
- Batsto Village Historic District [N, S]
- Mullica River-Chestnut Neck Archaeological Historic District [S]
- Estell Glass Works Industrial Historic District [N, S]
- Mays Landing Historic District [N, S]
- Belcoville Loading Company Mays Landing Archaeological Historic District [N, S]
- South Tuckahoe Historic District [N, S]
- Marshallville Historic District [N, S]
- Dennisville Historic District [N, S]

Historic Themes

The Pine Barrens Byway links a rich collection of historic sites and districts representing the history of the Pinelands from the colonial period to the twentieth century. A number of themes are suggested by the historic intrinsic qualities of the byway.

A broad theme of connections between the coast and the interior can be followed along the major river corridors of the byway. Some of these sites may have significance for only a specific period; others may have importance over time.

Mullica River Corridor

The landscape and communities around the northern loop of the byway are intricately tied to the Mullica River and its tributaries. The byway crosses the Mullica River in three places and its tributaries six times. The northern loop of the Pine Barrens Byway follows both sides of the Mullica River from the coast to Batsto Village. This section of the

byway is rich in history, and is blessed with two excellent interpretive centers at Batsto and Tuckerton. The Batsto Village visitors center located in Wharton State Forest, in addition to providing administrative services (brochures, schedules, tickets, and comfort stations) houses a museum that offers a history of Batsto, an 18th century iron and glass making community. The Tuckerton Seaport museum showcases historic maritime traditions and skills, and includes an exhibit area by the Jacques Cousteau National Estuarine Research Reserve focusing on the relationship between the interior of the Pinelands and the New Jersey coast.

Mullica River Corridor Historic & Archaeological (*) Sites and Districts

- Mullica River/Chestnut Neck Archaeological Historic District

North side:

- Tuckerton
- New Gretna
- Wading River
- Lower Bank
- Green Bank
- Herman *
- Crowley's Landing

South side:

- Chestnut Neck
- Port Republic
- Clark's Landing
- Gloucester Landing
- Weekstown
- Sweetwater
- The Forks
- Pleasant Mills

- Batsto Village

Great Egg Harbor River Corridor

The central spine of the byway follows the Great Egg Harbor River, crossing it three times. The River is most visible at Mays Landing. This section of the byway offers a rich account of the industries and the settlements that were manifested to exploit the resources of the Pinelands.

Tuckahoe River Corridor

In the southern loop the byway follows the Tuckahoe River from Tuckahoe to Head of River and provides access to two historic districts.

Overlapping the river corridor themes are (a) **coastal trade and industry** and (b) **churches and cemeteries**.



Finally, a number of sites don't fit neatly into categories, and some identified sites are off the byway route. These **individual resources** are important because they both tell individual stories and because they offer additional context for the collection of historic resources along the byway.

Great Egg Harbor River Corridor

Historic & Archaeological (*) Sites and Districts

- Estellville
- Estell Manor
- Estell Glass Works
- Belcoville
- Bethlehem Loading Company Mays Landing Plant Archaeological Historic District*
- Mays Landing Historic District
- Walker's Forge*
- Weymouth Church
- Weymouth Furnace*
- Canal at Weymouth Furnace*

Tuckahoe River Corridor Historic Sites and Districts

- South Tuckahoe Historic District
- Marshallville Historic District
- Etna Furnace
- Head of the River Church

Byway-Wide Themes

Coastal Trade and Industry

- Tuckerton
- New Gretna
- Port Republic
- Dennisville Historic District
- Port Elizabeth
- Delsea Drive Historic District

Churches and Cemeteries

- Weymouth Church and Cemetery
- Pleasant Mills Methodist Church
- St. Mary's Cemetery
- Boling cemetery
- Mays Landing Presbyterian Church
- Head of the River Church
- 1709 Friends Meeting House and Cemetery
- Brotherhood Synagogue of Woodbine

Individual Resources

- Woodbine
- Eldora
- Dorothy (off-route)
- Smithville
- Bass River State Forest – CCC camp
- Historic Railroads

TERTIARY QUALITIES: SCENIC, ARCHAEOLOGICAL AND CULTURAL

Scenic qualities are oftentimes extensions of natural qualities, though they also include our perceptions of the built environment. Generically they refer to views, commonly expansive or long views of a distinctive landscape. Because the landscape of the Pinelands, as viewed from the roads of the byway, offers little topography and limited viewsheds when considering the entire corridor, scenic qualities are considered a tertiary quality. This is not meant to diminish the splendor of these views; rather, it is more reflective of the number in comparison to other qualities. Archaeological and cultural qualities though compelling and sometimes unique, are likewise, more limited in number than historic qualities, so are also considered tertiary.

The byway route is exceptional in New Jersey for its natural beauty. Several segments of the byway offer lovely scenic drives in the spring and fall, including Weatherby Road through the Peaslee Management Area, and Weymouth-Elwood Road (County Route 623) through the Makepeace Lake Wildlife Management Area. The tranquil beauty of the pine and oak forest is featured at almost every point along the route, but nowhere more so than on Burlington County Route 542, Wading River-Leektown Road and Stage Road, and on Clarks Landing Road, where tall cedar stands frame the road. From the vantage point of the tower in the historic mansion at Batsto, one can view a carpet of green to the horizon in all directions, a vast forest on a scale not equaled anywhere else in the state.

Much of the route is bordered on both sides by dense forests, but several river crossings present scenic vistas of marshes and bays that are unsurpassed in New Jersey, including the

Wading River crossing at the settlement of Wading River and the Mullica River crossings at Green Bank and along the Garden State Parkway. There are also marvelous views of the placid Tuckahoe River (from Aetna Road), the Great Egg Harbor River (from Route 559 in Mays Landing), and the almost endless salt marshes at the Delaware Bay (from Delsea Drive).

Like historic quality, archaeological quality is associated with people of the Pinelands and their dynamic relationship with the landscape. Along and around the Pine Barrens Byway archaeological resources are more limited than natural, historic and recreational resources and are, therefore, considered a tertiary focus for corridor management. The criterion for considering the contribution of archaeological sites to this byway's significance is the extent to which such sites reinforce for the byway traveler the relationships between people and the land – either community or natural resources. The contributing archaeological qualities are included in the summary of historical resources in the previous section.

Cultural intrinsic qualities for the Pinelands continue to be represented by the traditions and local practices of the "Pineys," as many in the Pinelands choose to self-identify themselves. For the Pine Barrens Byway, contemporary cultural traditions and practices are often evolved from the historic cultural traditions and ways of the region.

The cultural landscape can be roughly divided between the northern and southern loops of the Pine Barrens Byway and "read" for patterns distinctive to each – the southern loop presenting more open agricultural lands and the northern loop more of a wooded, enclosed landscape, as recognized by the Bass River State Forest Historic District, for

BYWAY DESCRIPTION, RESOURCES, CONDITIONS

example. Consistent to both, however, is the independent character of towns and settlements and the relatively strong line between agricultural/woodland areas and community edges. These town edges are a distinctive feature of the cultural landscape of the area and show the close relationship between settlements and the land. In much of the Northeast, these historic boundaries have been eroded by years of suburban development, commercial strips, and interstate highways. In the Pinelands a strong pattern on the landscape is clearly evident to a traveler along the byway route. For the past 30 years this traditional cultural landscape has been protected by the land use policies of the Pinelands Commission.



The Roadway²

THE BYWAY ROUTE

The byway consists of three distinctive sections:

- a Northern Loop, defined by the Mullica River watershed and nearby coastal resources;
- a Central Segment, along the Great Egg Harbor River; and
- a Southern Loop, including Belleplain State Forest and the Delaware Bayshore coastal areas.

Northern Loop

The northern route is a rough triangle with its points at Tuckerton, Batsto and Oceanville. Two sides of the triangle follow the north and south banks of the Mullica River, while the third side follows the Shore route.

The portion of the northern loop on the north side of the Mullica, between Batsto and Tuckerton, consists of the following road segments:

- Burlington County Route 542 (Batsto-Bridgeport Road)
- Burlington County Route 653 (Leektown Road)
- Stage Road
- U.S. Route 9

The leg on the south side of the Mullica River, from Batsto to Smithville, includes the following segments:

- Burlington County Route 542/ Atlantic County Route 542 (Pleasant Mills Road)
- Atlantic County Route 623 (Elwood-Pleasant Mills Road)

² For additional information on roadway elements and issues see exhibits: "Transportation Safety and Accident Record Study" and "Transportation Plan."

BYWAY DESCRIPTION, RESOURCES, CONDITIONS

- Atlantic County Route 643
(Weekstown-Pleasant Mills Road)
- Atlantic County Route 563
(Egg Harbor-Green Bank Road)
- Atlantic County Route 624
(Clarks Landing Road)
- Mill Street, Port Republic City
- Main Street, Port Republic City
- Atlantic County Route 575
(Old New York Road)
- Atlantic County Route 657
(Motts Creek Road)

The final leg of the northern loop follows U.S. Route 9 from Tuckerton to Great Creek Road in Oceanville, the entrance the Edwin B. Forsythe National Wildlife Refuge and the eight-mile Wildlife Drive. Between New Gretna and Port Republic, U.S. Route 9 merges with the Garden State Parkway, crossing over the broad estuary of the Mullica River and presenting spectacular views of the river and adjoining salt marshes.

Some of the visitor sites and natural resources defining the northern loop of the byway route are:

- Mullica River
- Batsto Village (Wharton State Forest)
- Crowley's Landing Recreation Area
- Batona Trail
- Bass River State Forest (Wading River and the Lake Absegami Recreation Area)
- Tuckerton Seaport Museum / Jacques Cousteau National Estuarine Research Reserve Exhibit
- Great Bay Boulevard Wildlife Management Area (Seven Bridges Road)
- Port Republic and the Port Republic Recreation Area

- Edwin B. Forsythe National Wildlife Refuge
- Noyes Museum

Central Segment

The central segment of the byway extends west from Batsto to Pleasant Mills and then south through Mays Landing to Tuckahoe. This portion of the byway includes the following road segments:

- Burlington County Route 542
(Bridgeport Road)
- Atlantic County Route 542
(Nesco Road)
- Atlantic County Route 658
(Columbia Road)
- Atlantic County Route 623
(Weymouth-Elwood Road)
- Atlantic County Route 559
(Weymouth Road)
- NJ Route 50



Some of the visitor sites and natural resources defining this part of the byway route are:

- Pleasant Mills
- Great Egg Harbor River
- Makepeace Lake Wildlife Management Area
- Weymouth Furnace



BYWAY DESCRIPTION, RESOURCES, CONDITIONS

- Lake Lenape Park
- Mays Landing (Gaskill Park)
- Estell Manor Park
- Tuckahoe (Lester G. MacNamara) Wildlife Management Refuge



Southern Loop

From Dennisville, the southern loop of the byway describes a rough circle, wending its way west and then north along to Port Elizabeth and the other villages along the Maurice River then east past the Peaslee Wildlife Management Area.

- NJ Route 47
(Delsea Drive)
- County Route 548
(Weatherby Road)
- NJ Route 49

At the Cumberland/Atlantic County border, the route splits and follows the north and south sides of the Tuckahoe River to the settlements of Corbin City and Tuckahoe.

On south bank, the route includes the following segments:

- NJ Route 49
- County Route 632
(Marshallville Road)

Along the north bank, the route includes the following road segments:

- NJ Route 49
- County Route 649
(Head of River Road/Aetna Road)
- County Route 611
(Main Street)
- NJ Route 50

The next leg of the route completes the circle by turning south to the small community of Belleplain in Dennis Township, then on eastward to Woodbine and finally south back to Dennisville.

Some of the visitor sites and natural resources defining this part of the byway route are:

- Maurice River
- Peaslee Wildlife Management Area
- Belleplain State Forest
- Eldora Nature Preserve (The Nature Conservancy)
- Dennis Creek Wildlife Management Area (Jakes Landing)
- Cape May National Wildlife Refuge
- Dennisville Schoolhouse Museum
- Sam Azeez Museum of Woodbine Heritage

ROADWAY CONDITIONS

An essential ingredient for the success of this proposed Corridor Management Plan for the Pine Barrens Byway (Pine Barrens Byway) is to appropriately match management measures to the priorities of the scenic byway. The following sections review these priorities in terms of safety and transportation, and make recommendations that aim to preserve, protect, enhance, and improve the byway.



BYWAY DESCRIPTION, RESOURCES, CONDITIONS

The roadway passes through large commercial areas, unpopulated forested and agricultural areas, densely populated village centers, as well as sparsely populated residential areas. The roadway is generally one lane in each direction with occasional turning lanes in highly congested areas. Paved shoulders vary from 2 to 12 feet, although some places have no shoulder or it is unpaved. In some portions of the southern loop, the road is flanked by a grassy embankment sloping away from the roadway. Guide rails are generally present on water crossings and on select curves. The posted speed limit varies between 25 mph and 55 mph. At New Gretna, Route 9 joins the Garden State Parkway. Here the route is characterized by two lanes of traffic in each direction. The northbound and southbound lanes are separated by concrete Jersey barriers. The posted speed limit is 65 mph.

Safety and accident record

An analysis of the crash data has revealed significant road safety hazards in particular locations along the byway. The analysis found a total of 818 reported accidents between 2006 and 2007. As expected, segments that feature higher traffic volumes also exhibit higher numbers of crashes. The four types of crashes with the highest frequencies were fixed-object crashes, same direction (rear-end) crashes, accidents involving animals, and right-angle crashes. These four groups accounted for nearly 80 percent of all crashes during the two-year period.

The following table provides an overview of the types of accidents and sections along the byway that should be studied to determine if safety improvements are necessary.

Table 1: Crash Summary

Accident Type	Incidents	Areas for Further Study
Fatality Crashes	14	<ul style="list-style-type: none">▪ Intersection of Route 643 & Route 612
Pedestrian/Cyclist Crashes	10	<ul style="list-style-type: none">▪ Route 542, Route 9
Fixed Object Crashes	254	
Daylight, dry, straight, no alcohol	56	<ul style="list-style-type: none">▪ Route 47 between Route 347 and Dennisville▪ Route 9 between Munion Field Rd and Otis Bog Rd
Dark, no street lights	56	<ul style="list-style-type: none">▪ Route 47▪ Route 50 between Mays Landing and Corbin City
In curve	86	<ul style="list-style-type: none">▪ Route 559 just west of Mays Landing▪ Route 9 at SB exit from the Garden State Parkway
Animal Crashes	123	<ul style="list-style-type: none">▪ North Short Loop (542, 563, 643)▪ Route 50 between Mays Landing and Corbin City
Rear End Crashes	184	<ul style="list-style-type: none">▪ Route 9 Tuckerton to Ash Road▪ Route 9 on Garden State Parkway▪ Route 47 around Dennisville▪ Route 47 at intersection with Route 670▪ Route 50 around intersection with Route 49▪ In populated places: Mays Landing, Woodbine, Tuckerton
Right Angle Crashes	81	<ul style="list-style-type: none">▪ Route 9 around Tuckerton▪ Route 47 at Bricksboro▪ Route 47 near Dennisville▪ In populated places: Woodbine, Corbin City, Mays Landing

ROADWAY DESIGN AND MAINTENANCE

A Scenic Byway is a special roadway, providing access to unique and powerful natural and cultural resources. However, the byway is primarily a roadway, a conduit for transportation. The Pine Barrens Byway, with all its beauty, attractions, and value, must accommodate a full range of users and provide functional links to the byway's resources as well as to the region's economic attractors. Roadway design and maintenance must consider the variety of users of the byway and provide ways to improve safety, and enhance the traveling experience while also preserving the special character of the roadway and its surrounding environs.

Accommodating all users requires looking beyond the personal automobile, the mode for which most transportation systems were created in the past half-century. For the byway, this means pedestrians and cyclists.

Additionally, it is important to review the use and impact of large vehicles on the byway such as trucks, buses, and large farm vehicles.



A Scenic Byway must be kept in clean and clear condition in order to maintain safe and efficient transportation and mobility. Maintenance and upkeep is particularly important for the Pine Barrens Byway, where the intrinsic qualities of the route are often not self-

evident and are supported by the cultural resources along the route. The visual and aesthetic quality as well as the physical condition of the roadway must distinguish the byway from ordinary county routes and state highways.

The recommendations for transportation improvements in this Corridor Management Plan consider level of service and operations and maintenance of the byway. The recommendations also incorporate Context Sensitive Solutions (CSS).

Maintenance on the byway will require inter-agency cooperation, since stewardship of the varied segments of the byway falls to different counties, townships, and the State Department of Transportation.

Bicycles and Pedestrians

Users of non-motorized transportation – bicyclists and pedestrians – represent critical users of the byway. Improved access for these modes will enhance the byway, since they provide users with an intimate means to experience the byway's intrinsic qualities. Additionally, the facilities that accommodate these users can enhance the visual quality and aesthetic feel of the byway. Recreational cyclists have also been shown to contribute to the local economies and represent a form of lower-impact tourism. Pedestrian activity, particularly in the Regional Growth Areas and Pinelands Towns and Villages, further enhances the byway's special cultural and historic character. Cyclist and pedestrian activities will be encouraged through accessibility and enhanced safety wherever possible.

Though bicycle and pedestrian conditions are not uniform throughout the byway, few of the byway segments possess formally classified bicycle facilities. In many instances, the existing infrastructure could support such classification. The byway features several

notable segments where significant opportunities for improving cyclist and pedestrian activity exist. These include Route 47 from the Cape May County line to Glade Road in Cumberland County, DeHirsch Avenue/County Route 550, sections of road both north and south of the Mullica River, and the High Point to Cape May Bicycle Route.

Gaps in bicycle and pedestrian connectivity should be completed to provide a seamless byway experience for these users. Connectivity will not only improve access but also provide for a safer environment for these vulnerable users. This connectivity will not be limited to the byway itself. Rather, the Pine Barrens Byway will capitalize on the existing assets that surround it and add to its intrinsic qualities.

Large Vehicles

The Pine Barrens Byway not only provides access to beautiful and exciting scenic and recreational assets of the area; it also serves as a functional transportation link and economic conduit for people who live and work in the region. The priorities and needs of the recreational user and the commercial user can frequently be at odds.

Several regulations govern trucking on and around the byway. The NJDOT Trucking Network as prescribed in the New Jersey Access Code provides access to trucks between 96 and 102 inches in width to some byway segments. These include Routes NJ 47, NJ 50, CR 559, CR 542, and US 9. The Access Code also restricts access to several byway segments including County Routes 548, 557, 681, and 575.

Buses provide an alternate mode for people to access the byway. Those using the bus system may then become pedestrians or bicyclists on the byway. Two types of high-occupancy buses operate on segments of the

byway. The first is regularly scheduled, fixed-route New Jersey Transit vehicles. The second is for-hire coaches used for group tours.

The corridor assessment revealed that the prioritized truck route system effectively and efficiently manages truck traffic around the byway. The New Jersey Access Code does allow for additions and removals from the lists of network and restricted routes.

Buses along the byway do not represent a significant modal share of all byway trips. NJT (New Jersey Transit) 553 coincides with the byway for a short distance through Mays Landing. Route 47 shares a significant length of the NJT 313 route, but only 3–4 buses run per day in each direction with a headway around 4 hours between each bus. NJT 559, which runs along Route 9 from Tuckerton to Smithville, does offer frequent service, but that road segment features some of the greatest traffic volumes on the byway.

The byway segments with transit services do not appear to have road geometry issues, and the buses do not seem to impact negatively the flow of traffic in the area. Increased frequency of service or additional transit routes may assist in reducing the seasonal traffic congestion that is experienced on various segments of the byway as travel demand to the New Jersey shore increases. Improved transit services should be studied further.

Though large farm vehicles do not contribute greatly to traffic congestion or represent a large modal share on the byway, the roadway wear and damage they cause can be significant. In areas with high concentrations of farmlands or high volumes of farm vehicle traffic, agencies responsible for road maintenance must be vigilant in maintaining the quality of the roadway so as not to degrade the byway experience. These improvements

should be provided for in the relevant transportation improvement programs.

Context sensitive solutions

NJDOT has long recognized the value of applying the practice of Context sensitive solutions (CSS) to its projects. The practice has been officially legislated into DOT procedure and must be included on all new projects. CSS are approaches to design and planning that prioritize the input of local communities. The approach engages with these communities early and actively in the planning process. According to NJDOT, CSS involve:

A commitment to a process that encourages transportation officials to collaborate with community stakeholders so the design of the project reflects the goals of the people who live, work, and travel in the area. Such collaboration results in creative and safe transportation solutions.

The communities that define the Pine Barrens Byway and provide the route with its distinctive historical and cultural resources are best suited to provide guidance on byway transportation planning and design initiatives. It is critical that these stakeholders should be engaged throughout the planning and design process.

The existing physical design of the road largely contributes to the character and the special qualities of the roadway. Much of the byway comprises a single lane of traffic in each direction. These smaller roads provide the byway user with a more intimate byway experience. This character should be preserved except in locations where safety hazards require altering geometries or sightlines.

Any plans that may alter the road geometries or cross-sections should be approached using

the principles of CSS. This approach should be used for all byway corridor and right-of-way alterations, including maintenance programs, drainage products, and resurfacing projects. In addition, guidelines are needed to provide a holistic and uniform presentation for the byway. For instance, where possible the conventional guide rails should be replaced with steel-backed wood. Unique and uniform signage should be developed. These details will reinforce the special character of the byway and create a seamless experience for the byway user. These guidelines should be developed in accordance with CSS.

Local Planning and Policies³

The CMP is only one element of land use planning for the communities through which the Pine Barrens Byway passes. There are regulatory and non-regulatory plans and policies at the local, regional, state and national level that all have some applicability to the Pine Barrens Byway corridor. For the municipalities, these consist of the local comprehensive plans and zoning regulations. At the regional level, the Pinelands Comprehensive Management Plan establishes land use management requirements for all areas in the Pinelands National Reserve. At the state and county level, there are programs that provide land preservation tools and funding mechanisms that help communities preserve open space and agricultural lands.

This section of the CMP assesses regional development trends and outlines strategies for managing development along the corridor to preserve the byway's intrinsic qualities.

³ For additional information on regulations and management capacity affecting the region along the byway see "Institutional Survey" and "Development Trends Assessment" exhibits.

REGIONAL GROWTH TRENDS

Development patterns along the Pine Barrens Byway should be considered in the context of larger growth patterns in southern New Jersey. Population growth over the past decade has been stronger in the northern and eastern byway communities. From 2000 to 2007 the 16 byway municipalities added approximately 13,000 new residents (11%, or 1.5% per year). However, the three most populous of these communities - Little Egg Harbor Township, Galloway Township and Hamilton Township - together absorbed more than this net regional growth, averaging 20% growth over the seven-year period. In contrast, the three Cape May communities saw a total decline of more than 1,900 residents during the same period. (For the 2000-2007 period, Dennis Township had the second-highest rate of population decline among all New Jersey municipalities, with Upper Township ranking eighth in the State.) Of the remaining 10 municipalities, only Tuckerton and Maurice River Township have experienced any significant population growth since the 2000 Census, with the remaining communities seeing only minimal increases or decreases.

The population growth patterns among the byway municipalities reflect the strong growth along the upper coast and a general population decline in Cape May County. In addition, much of the inland area along the byway route is in public ownership as state forests, wildlife management areas and county parks, as well as in Pinelands Preservation and Forest management areas.

Population density in communities along the byway varies widely. Tuckerton, the smallest byway municipality, is by far the most densely populated, followed by Little Egg Harbor Township, Egg Harbor City and Woodbine Borough. At the other end of the

spectrum, Washington Township has the second lowest population density among all New Jersey municipalities. Bass River Township and Estell Manor City also have overall densities less than 50 persons per square mile.

Differential population growth rates reflect a higher capacity for growth outside the Pinelands Area compared to within it, for the 16 municipalities along the Pine Barrens Byway scenic byway. Weymouth Township and Corbin City were exceptions to this overall pattern, with significantly higher population growth inside the Pinelands Area than outside; however, in both cases development in the area of the municipality outside the Pinelands is constrained by wetlands and wildlife management areas surrounding the Great Egg Harbor, South and Tuckahoe Rivers.

DEVELOPMENT POTENTIAL

Change along the byway is inevitable and in many areas desirable. Where and how development is accommodated will determine if changes can serve to protect the byway's intrinsic qualities while enhancing levels of service, increasing travelers' options and meeting the varied needs of byway communities.

Along and around the byway's **northern loop** most development is located closer to the New Jersey shore around Tuckerton, New Gretna, Port Republic City and Smithville. The regional transportation networks of Route 9 and the Garden State Parkway serve here both as development corridors and as funnels to development centers. In these areas municipalities are actively engaged in planning for change including developing plans, making adjustments to zoning, creating land use ordinances, implementing design standards and instituting development review practices.

BYWAY DESCRIPTION, RESOURCES, CONDITIONS

Inland and west of the Garden State Parkway development pressure is limited and few changes are anticipated. Much of this portion of the byway is in public ownership and development in most of the privately-owned land in the corridor is subject to strong development controls (primarily the Pinelands Preservation and Forest management areas) that limit the potential intensity of use.

The **central spine** of the byway is primarily rural with several small-scale villages. The exception to this general pattern is Mays Landing. Much of the central spine is protected from development by publicly-owned open space including three Atlantic County parks and several State wildlife management areas. South of the Atlantic City Expressway the landscape and patterns of development are influenced by the Great Egg Harbor Wild and Scenic River and its extended corridor resources. Development along the central spine is occurring primarily in Mays Landing (Hamilton Township), where redevelopment and infill are principal strategies for directing growth.

Two regional routes, US 40 and NJ 50, converge in Mays Landing and attract substantial commercial development along their corridors outside the town center where larger lots support auto-dependent regional scale facilities. Immediately south of Mays Landing on Route 50, Belcoville (Weymouth Township) has the potential for some commercial development. The smaller nodes of Nesco, Elwood and Corbin City/Tuckahoe also have potential for growth on a small scale, although currently they all are experiencing little development pressure.

The byway's **southern loop** is made up of rural roads and highways with scattered villages including Port Elizabeth-Bricksboro,

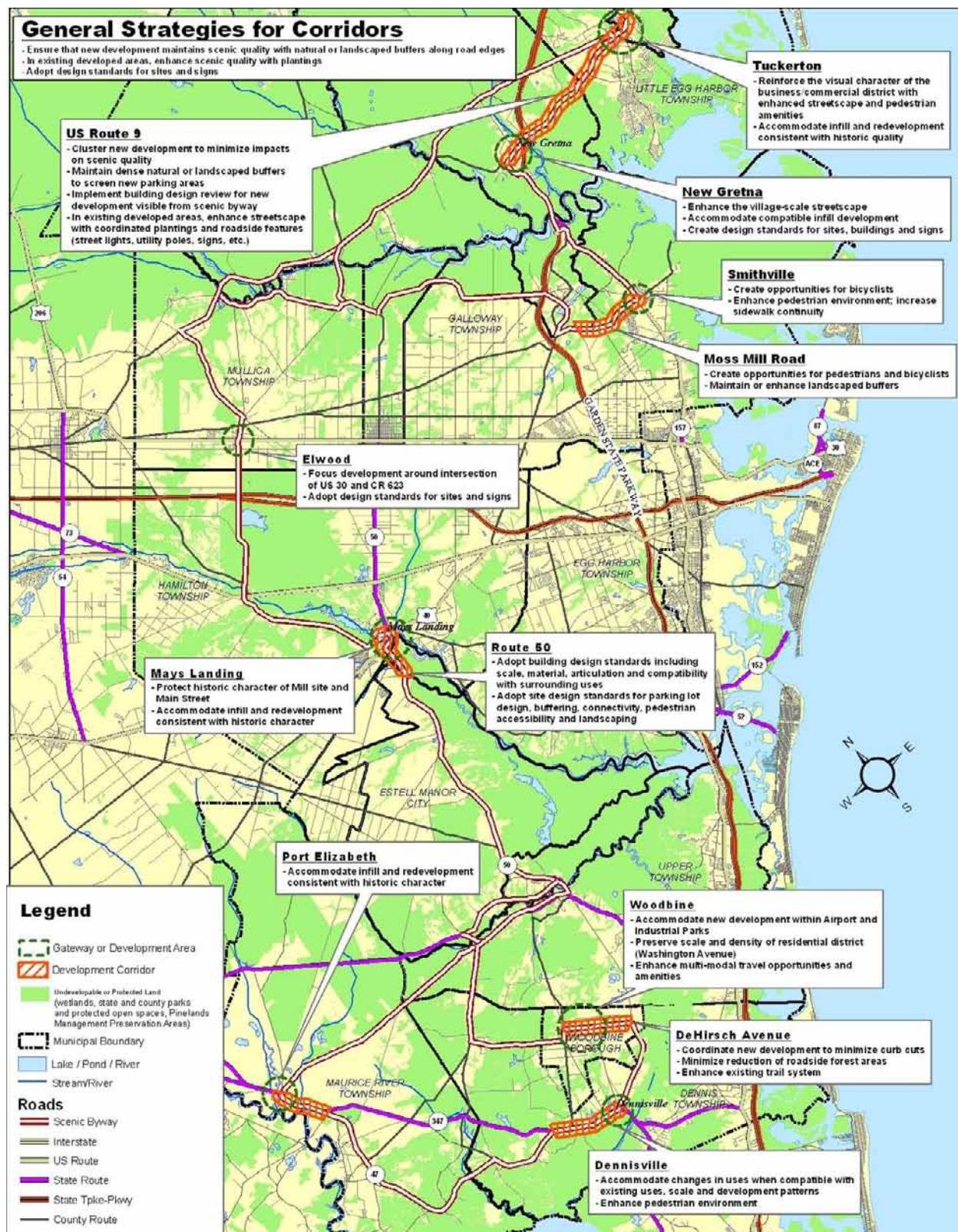
Delmont, Eldora, North Dennis, Dennisville and Belleplain. With very little development pressure, this area has retained its current character for some time. An exception is Woodbine, a Pinelands Town and the largest community along the byway. While Woodbine is not experiencing any substantial development pressure at this time, the Borough is working to attract new development through local planning, infrastructure improvements, and zoning changes.

New development along the byway is likely to be concentrated along **corridors** with supporting infrastructure and zoning, access, proximal development and available land. Four corridors along the byway share these characteristics and seem most attractive to development:

- US Route 9 from Tuckerton to New Gretna
- Moss Mill Road in Galloway from Smithville to Port Republic
- CR 559 and NJ 50 in Mays Landing and Belcoville
- DeHirsch Avenue in Woodbine

Smaller-scale development will also likely take place in existing village and town **centers** along the scenic byway route, primarily as infill or redevelopment. In particular, two sections of Delsea Drive (NJ Route 47) have some potential for additional development, although there is not currently any significant development pressure. These are the sections of Route 47 to the north and south of NJ 347, between Dennisville and North Dennis and between Bricksboro and Port Elizabeth. These areas support high volumes of traffic to and from Cape May and Shore communities south of Ocean City.

BYWAY DESCRIPTION, RESOURCES, CONDITIONS



MANAGING DEVELOPMENT

The Pine Barrens Byway Scenic Byway corridor will evolve over the years guided by state, county and municipal plans, policies and regulations. The success of the evolution will depend on preservation of the byway's intrinsic qualities and by the thoughtful accommodation of development. Some development will enhance the byway traveler's experience because it offers desired services, increases options for activities, or improves the quality of the built environment viewed from the byway. Other development, though inconsequential to byway travelers, may provide the host community with needed employment opportunities, an expanded tax base, or other benefits that could improve residents' quality of life or the municipality's ability to serve the public.

With the State Development and Redevelopment Plan and the Pinelands Comprehensive Management Plan in place, and with support from state and county planning, funding and action programs, municipalities are well supplied with tools that can be employed to preserve open space and accommodate development.

"Smart growth" is a planning principle embraced by the State of New Jersey and the Pinelands Commission and is integrated into their planning and actions. Under the Pinelands Excellence Program, in 2002 and 2005, the Commission assisted Communities with Pinelands-designated Regional Growth Areas with issues of rapid and sprawling development patterns that were eroding municipal assets and overburdening natural resources. The program provided funding for planning and implementation tools to assist municipalities in the visioning and creation of livable communities. The strategies that came out of these Pilot Programs are grounded in smart growth principles, focus

on zoning and design, infrastructure and open space, and provide viable options for land use management.

Further, as a result of its five-year review of the Pinelands Comprehensive Management Plan, the Pinelands Commission is currently advancing a proposal to require clustering of residential development in designated Forest Areas and Rural Development Areas. This is a key smart growth strategy as it allows reduced minimum lot sizes in exchange for the preservation of larger tracts of open space. It also seeks to direct development toward the appropriate locations of a property, such as close to roads and other infrastructure, and away from sensitive resources. Given the substantial land area along the byway within the Forest and Rural Development Areas, this proposal has the potential to make a large impact on a municipality's ability to maintain its essential character while discouraging scattered or sprawling development.

Other sources of assistance based on smart growth principles include the "Future in Transportation" and "Centers of Place" programs administered by the New Jersey Department of Transportation.

OPEN SPACE PRESERVATION

A logical first step in managing lands at a site level, within a municipality or along a byway corridor is to determine the resources or lands that should be protected. Criteria for protection vary but can include sensitive, unique or outstanding environmental resources, historic or cultural resources, connectivity to other protected open spaces, and capacity to provide a buffer or viewshed for another resource. Once the lands are identified as critical or important to protect, the next step is to determine what type of protection is available and feasible.

Open space protection is supported through two exceptional programs in the State of New Jersey: the Green Acres Program and the Farmland Preservation Program. Of the counties along the byway, all but Burlington County have a County Agricultural Development Board that bears substantial responsibility for administration of the Farmland Preservation Program.

County Government

Open space preservation is also considered at the regional level where county planning agencies create Open Space Plans and assist municipalities in identifying potential lands for preservation, prioritizing lands, and sometimes for funding these acquisitions or protections.

Atlantic County's 2000 Open Space and Recreation Plan (OSRP) notes that the county intends to expand its mission to include increased coordination and participation with public and private groups to assist municipalities in meeting their local open space and recreation goals. Atlantic County is one of the four counties along the corridor with an Open Space Trust Fund to secure open space. Its Trust is used to acquire and improve land and water bodies for regional parks as well as preserve active farmlands. Funded with a two cent tax since 2000, the Trust has targeted over 500 acres of land for preservation.

In **Burlington County**, the Resource Conservation Department is responsible for Farmland and Open Space Preservation, as well as Parks and several other environmental related services. In 2005 the Department released the Burlington County Parks and Open Space Master Plan. The County has also undertaken a series of studies to evaluate and address farmland loss and preservation. These focus on northern Burlington County

and generally do not include the area of or around the byway.

Within **Cape May County**, the Planning Department includes the Division of Open Space and Farmland Preservation. The Division, guided by its Open Space and Recreation Plan (Amended 2007) that identifies general areas and property types suitable for acquisition, generally acquires titles in fee simple for open space parcels. The County's new Comprehensive Farmland Preservation Plan will likely assist in identifying farmland sites. Open Space and Farmland acquisitions are supported by the County's Open Space and Farmland Preservation Trust, funded since 1989 with a dedicated tax of one cent per 100 dollars of assessed value. Today that fund generates over \$1.3 million per year.

Cape May County is also considering a transfer of development rights program to assist in the preservation of open space. Using a Smart Growth grant from the State, the county is identifying areas that municipalities may designate as target or receiving areas for the transfer of development rights program.

A high producer of agricultural products, **Cumberland County** established the Cumberland County Farmland Preservation, Open Space, Parks and Recreation Trust Fund in 1996 with a one cent tax per one hundred dollars of assessed value. The fund provides matching funds for the purchase of development restrictions within the Farmland Preservation Program, as well as other park and open space acquisitions and improvements.

Although **Ocean County** has not updated its Open Space and Recreation Plan from its 1988 Comprehensive Management Plan, it has acted on its concern for the loss of open space by establishing the Ocean County Natural Lands Trust Program in 1997 and

developing a Farmland Preservation Management Plan in 2007. The Ocean County Natural Lands Trust Program, funded with a dedicated tax of 1.2 cents per 100 dollars of valuation, provides the County with funds in excess of \$8 million per year for conservation and farmland preservation.

The Ocean County Farmland Preservation Comprehensive Management Plan has set a ten-year goal to preserve 60 percent of its active farmland. This comprehensive planning tool provides considerate and viable land use strategies that could be used throughout the communities along the byway where farmland preservation is desired.

Local Planning

Planning for the preservation of open space and farmland at the local level may be supported by municipal Open Space and Recreation Plans. The following list indicates which of the byway communities have such Plans listed on either the Garden State Greenways data bank of municipal open space plans or on the municipality's web site.

- ✓ Tuckerton Borough
- ✓ Little Egg Harbor Township
- Bass River Township**
- Washington Township**
- Galloway Township**
- Port Republic City**
- ✓ Egg Harbor City
- ✓ Mullica Township
- ✓ Hamilton Township
- Weymouth Township**
- Estell Manor City**
- ✓ Corbin City
- ✓ Upper Township
- ✓ Woodbine Borough
- Dennis Township**
- ✓ Maurice River Township

Outdoor Advertising and Amenities⁴

This assessment looks at the various built elements along the byway and considers how they add to or detract from the byway experience. It includes consideration of outdoor advertising, sign clutter, cell and communication towers, utility lines, street amenities, and lighting fixtures.

The elements that contribute to the visual experience of traveling along a road can be grouped into three zones:

- The **road edge** includes those elements that are within the road right-of-way between the traveled way and abutting properties. This zone contains public infrastructure such as utility poles and lines, street lighting poles and fixtures, and pedestrian amenities such as trash cans, benches and newspaper boxes. It is also the zone within which government agencies have the most control because of their ownership of the right-of-way.
- The **roadside** consists of abutting properties and includes private on-site and off-site signs as well as buildings, parking areas, and private lighting. Local governments can affect and manage the visual quality of these areas through regulatory measures such as zoning ordinances, sign ordinances and site plan review.
- The **viewshed** includes larger and more distant elements such as water tanks and towers for radio, television and microwave transmission, and wireless tele-

⁴ Further discussion on the effects of outdoor advertising and other elements within the corridor's viewshed can be found in "Assessment of Visual Quality Impacts".



phone communications. The extent of the viewshed is a function of landform and vegetation: where the road travels through a wooded area with little elevation change the viewshed will be very narrow except directly ahead along the road corridor; but in more open areas such as along waterways or agricultural fields viewsheds can be expansive.

ROAD EDGE

Given the rural nature of the byway corridor, **street amenities and lighting fixtures** play a limited role in the byway's infrastructure. Street amenities (excluding sidewalks that are included in the transportation analysis) and street furniture were not noted as significant in any areas along the byway. Where lighting does exist within the villages and town centers of Tuckerton, New Gretna, Mays Landing and Woodbine and at some clusters of buildings along the byway it is unobtrusive from a design standpoint.

Utility poles and lines are visible along most roads of the byway, but are generally obscured by the forest edge, as particularly older poles are often the color of tree trunks and utility lines often are at or below the height of the tree canopy. Poles and lines are most visible and obtrusive in the more urban areas where poles are not camouflaged by trees and lines regularly cross over the streets.

In limited areas along the byway, such as County Route 550 through Belleplain State Forest, underground utilities have been installed. Underground utilities offer multiple benefits, including improved highway safety due to the elimination of roadside elements, increased safety for the utility since it is out of harm's way from wind, ice and collisions, and enhanced viewsheds.

Signs within the right-of-way are generally restricted to regulatory and directional signs of municipalities, counties or the state. These signs are typically small and unobtrusive though there are areas where the number and/or placement are problematic.

ROADSIDE

The primary detractions from views along the corridor are sign related and include billboards, and excessive, poorly designed or inappropriately placed signs.

Regulations

Because most of the Pine Barrens Byway Scenic Byway Corridor is within the Pinelands Area, the quality of its visual assets is largely protected by the regulations of the Pinelands Comprehensive Management Plan including those that govern Scenic Corridors, Special Scenic Corridors, signs, motor vehicle screening and storage and location of utilities. Those areas outside the Pinelands Area are governed by both state and local land use ordinances.

Areas of Visual Impact

Along most of the Pine Barrens Byway scenic byway, the visual impacts of signs are adequately controlled through a combination of existing sign regulations and public land ownership. However, there are a few areas along the byway where sign size, design, placement or clutter negatively impacts the visual quality of the scenic byway. Generally, sign issues are most prevalent within the more urban areas where a greater diversity and density of signs exist. The following areas have been identified as areas where signs are impeding the visual quality of the roadside.

- Tuckerton (Tuckerton Borough)
- Little Egg Harbor Township – central commercial area



- Route 9 between Tuckerton and New Gretna (Bass River Township)
- New Gretna (Bass River Township) - Garden State Parkway
- Route 9 between New Gretna and Port Republic City (Bass River Township, City of Port Republic City, Galloway Township)
- Mays Landing - commercial strip south of downtown
- Route 47 between Port Elizabeth and Dennisville (Maurice River Township, Dennis Township)
- Woodbine

In other areas along the byway, signs advertising campgrounds are generally very large and appear out of scale for the setting. Developer and contractor signs, particularly those that identify lots or homes for sale within a planned development, represent another type of advertising that is often obtrusive and out of scale in the landscape.

VIEWSHEDS

Cell towers and antennas are noted in several areas along the byway though they are

generally at a distance from the corridor and are not dominant in any sensitive viewsheds.

In 1995 the Pinelands Commission adopted amended regulations to permit local communications facilities to exceed the 35-foot height limit if a comprehensive plan for the entire Pinelands Area is first prepared and approved by the Pinelands Commission. A regional facilities plan (The Cellular Plan) was submitted by members of the cellular industry and approved by the Commission in 1998 then amended in 2000 and 2003 to accommodate the Personal Communication Services industry (The Cellular and PCS Comprehensive Plan).

There are two prominent communications towers along the byway route. On US Route 9 in Little Egg Harbor Township, approaching Giffordtown Road from the west, a communication tower is very evident because it is more or less straight ahead. Initially, it is seen in glimpses through the trees, but as the amount of development increases and the roadsides open up it becomes a prominent feature. The second prominent cell tower is on the southern side of Route 47 in Dennis Township near Eldora.



A Vision for the Byway

The Pine Barrens Byway links and interprets important natural, scenic, historic and recreational sites within the New Jersey Pinelands region, telling the story of the Pine Barrens and the Pinelands National Reserve. In so doing, it helps visitors to understand and appreciate this environment, reinforces local and regional efforts to protect these resources, and supports low-impact economic development based on tourism and recreation.

Designation of the Pine Barrens Byway as a National Scenic Byway, and the actions and organizational cooperation that will result from that designation, will shape our region for the future. The National Scenic Byway designation will identify the Southern Pinelands as a destination on the level of a National Heritage Area, National Seashore or National Park, and will thereby attract visitors who share our appreciation of the natural environment and will be interested in our history, culture and nature-based recreational opportunities.

The Scenic Byway will present the Pinelands story and resources in a coherent manner, so that people visiting one part of the byway will quickly gain an appreciation for the full range of resources offered by the region. People from around the nation and world will be able to learn about and appreciate what makes this place special.

The design and management of the Scenic Byway will complement the region's natural quality and reinforce the sense of being in a special place. More than simply providing access to natural and recreational resources, the Byway route will become a distinctive

feature within the landscape, and traveling along the Byway will be an integral part of the visitor experience.

The Pine Barrens Byway will thus become central to the region's community development, economic development and natural heritage conservation efforts. In so doing, the Scenic Byway will be a model for how business and environmental groups can work together to create a healthy economy based on a conserved environment.

The Pine Barrens Byway will be used by several different groups of users.

- The Pinelands Commission and partner organizations (e.g., National Park Service) will design wayfinding and interpretation around the scenic byway route, in order to promote an increase in awareness of and appreciation for the region's sensitive resource base.
- Travelers to South Jersey will use the scenic byway as a way to explore and learn about the Pinelands National Reserve, and to find recreation and accommodation facilities and services.
- Environmental and heritage organizations will use the scenic byway to increase awareness of the region's natural and heritage resources, and to increase visitation to their facilities.
- Recreation and tourist-oriented businesses along the byway will include the scenic byway in their marketing efforts, in order to establish their image as environmentally-conscious businesses and to attract visitors who are interested in nature and heritage tourism and outdoor recreation.





Goals for the Byway

Resource Protection & Management

- Protect and enhance the natural and scenic qualities of the Southern Pinelands.
- Maintain historic and cultural resources, and interpret the relationships between the region's history and traditions and its natural resources.

Regional Identity

- Strengthen the image of the Pinelands as a nationally significant ecologic region.
- Foster awareness of and pride in this unique natural asset among New Jersey's citizenry.

Tourism & Economic Development

- Expand small-scale tourism based on the region's natural, historic and recreational resources, to assist existing businesses and support local economies.
- Create a sustained partnership among the byway communities to address resource protection, tourism and economic development opportunities and challenges along the byway.

Recreation

- Increase opportunities to access and learn about the region's natural systems, including scenic pull-offs and waysides, wildlife viewing platforms, boardwalks, trails, canoe/kayak launches, and interpretive kiosks and panels.
- Enhance visual access to scenic resources where appropriate, such as through selective thinning of roadside vegetation to provide filtered views to rivers, lakes and ponds.
- Promote visitation to managed historic and cultural sites.
- Enhance and expand networks of recreational opportunities along the byway, including bicycling and paddling routes.

Roadway Design & Management

- Develop and implement design standards that protect and enhance the route's character as well as maintaining safety for vehicles, bicyclists and pedestrians.
- Ensure consistency in roadway design, signs, structures and maintenance throughout the byway, so that travel along the route is a seamless experience.





Experiencing the Pinelands

Existing Visitor Sites ⁵

The following review of existing interpretive installations and resources along the byway summarizes what the traveler can find today, notes weak points or missing links in the interpretive experience, and suggests ways to strengthen the existing materials in order to create a stronger, more integrated experience. The sites are classified as primary interpretive sites, secondary interpretive sites ("interesting places along the way"), and scenic drives and trails.

PRIMARY INTERPRETIVE SITES

Batsto Village



Batsto State Park has an excellent visitor center and interpretive exhibit located in Batsto Village. The visitor center is fully staffed and offers a gift shop and bookstore. The interpretive exhibits provide information on the overall natural history of the Pinelands, the specifics of history of Batsto Village and various focused stories on the lives of interesting residents of the Pinelands. Batsto

⁵ Further information on interpretation sites and opportunities along the byway is provided in the "Interpretive Plan."

Village is a living history center consisting of 33 historic buildings and structures including the Batsto Mansion, gristmill, sawmill, general store, workers' homes and post office. There are nature trails within the Natural Area and a trail guide is available at the interpretive center at Batsto State Park.

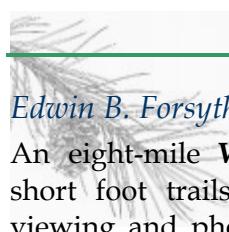
Batsto State Park also offers a guided tour via cell phone. Visitors can call a number on their cell phones and listen to a guided tour at one of 18 stops highlighting the historic sites and buildings in the village, such as the blacksmith shop, gristmill and sawmill. Each pre-recorded message is approximately two to three minutes, and follows a walking tour brochure. This project is supported and funded by the Batsto Citizens Committee, Inc., a volunteer group dedicated to preserving and promoting the site.

Tuckerton Seaport Museum and Jacques Cousteau National Estuarine Reserve Exhibit

The **Seaport Museum** is a recreated late 19th and early 20th century maritime village on 40 acres along Tuckerton Creek. The village contains 13 historically replicated buildings of the "Bayman's" era many of which are complete with costumed trades- and craftsmen and -women, including boatbuilders, oystermen and clammers, whalers, lighthouse keepers, ship captains and others who demonstrate the day to day life of the coastal New Jersey village.

The **Jacques Cousteau National Estuarine Research Reserve** exhibit has interpretive displays on coastal subjects such as wetlands, fish and wildlife, barrier islands, the Pinelands, the Long-term Ecosystem Observatory at 15 Meters (LEO-15) and culture of people who live along the coast.



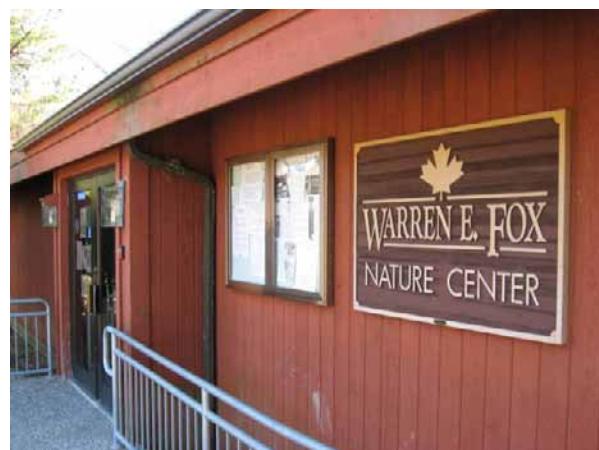


Edwin B. Forsythe National Wildlife Refuge

An eight-mile **Wildlife Drive** and several short foot trails provide excellent wildlife viewing and photo opportunities. There are also several interpretive panels at the entrance to the property which provide information on the Refuge and its mission. A small art gallery is located at the entrance.

Estell Manor Park

A primary feature of the Estell Manor Park is the **Warren E. Fox Nature Center**, built in the 1980's using a passive solar design. The Center provides education and recreation programs, live animal and environmental displays, maps, brochures, and rest room facilities. A Backyard Habitat education area is part of the site and it includes a natural playground, campground, constructed pond and native vegetation plantings. A wide variety of staffed interpretive walks are presented by the Center. Classes and trainings are provided for children, the general public and school teachers.



The **Swamp Boardwalk trail** is a significant interpretive facility that offers access to interior wooded areas for those with movement challenges, as well as offering a route to access a variety of habitats without causing direct damage to the areas from foot traffic.

Estellville Glass Works Industrial Historic District is located in the southern portion of the county park. There are interpretive panels near the ruins of the glass works. In 1995-1996, the ruins of the Estellville Glassworks were stabilized. General erosion, vandalism, and acid rain were the main factors leading to the decision to help save what is left. Sidewalks and interpretive signs were placed at the sites, so this site is now more visitor-friendly.

The County recently approved a master plan for Estell Manor that will involve investments in a wide variety of facilities and improvements. Some of the major recommendations with relevance for the byway include the following:

- develop a narrow gauge rail line through the property on abandoned rail beds;
- expand the Fox Nature Center;
- build an overlook platform along the South River;
- make trail connections to the wildlife management area;
- improve Gaskill Park in Mays Landing and other open space properties;
- improve signage; and
- further restore and interpret the Manor House.

Belleplain State Forest

The state forest has a visitor center at the forest entrance off Highway 550. Three interpretive signs are placed in front of the visitor center. They focus on the New Jersey Coastal Heritage Highway, the State Forest and the Pinelands National Reserve. There is also a staffed visitor center with basic brochures, maps and books on the Forest and on the Pinelands.



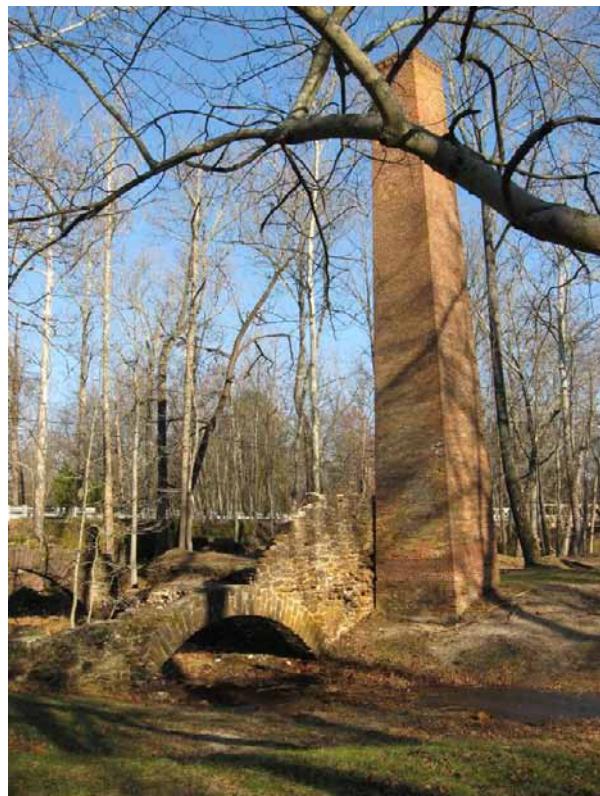
There are interpretive trails running through Belleplain State Forest. They highlight the natural features of the Forest including species of trees, shrubs, wildflowers and animals native to the area. Sights or signs of deer, bobcat, coyote, fox, and other mammals are common. An audio tour on cassette tape is also available for these trails.

SECONDARY INTERPRETIVE SITES – INTERESTING PLACES ALONG THE WAY

Bass River State Forest

The State Forest has an interpretive pavilion along the South Shore Road and there are signs along the trails in the Forest. There is a self-guided nature tour in the Absegami Natural Area. This area offers the only opportunity along the byway corridor to see and experience the pygmy pine forest.

Weymouth Furnace (Atlantic County Park System)



Pine Barrens Byway Corridor Management Plan

There is one interpretive sign relating to the furnace and its history. There is also a sign that conveys information on the archeological site and ruins and future plans. The canals at Weymouth furnace are also archaeological resources. The site lies right on the Great Egg Harbor River and is a very pleasant, peaceful place to stop and walk around. Canoers and kayakers can launch from this site.

Lester C. MacNamara (Tuckahoe) Wildlife Management Area

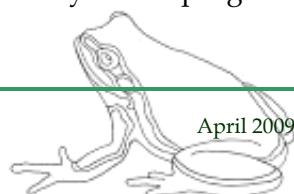
The coastal settings underline the degree to which the Pinelands exist in such close proximity to the ocean and the degree to which the saltwater and freshwater ecosystems intertwine in this region. The open landscapes of these coastal drives will also provide people with a psychological break from the closeness of the thick pine-oak forests and shrub forests of the Pinelands.

There is an **8-mile Drive** which travels along the dikes used to impound the brackish and fresh waters. Interpretive signage can be found in several locations along the route. The views are spectacular.

Eldora Nature Preserve – The Nature Conservancy's Delaware Bayshore Office and Visitor Site

The Eldora Nature Preserve, site of the chapter's Delaware Bayshore Center, is the first preserve established by the Conservancy expressly for the protection of rare moths. Historically, the land has been farmed, and a house existed on the site from at least 1872. The interpretive trail at Eldora allows the public to enjoy the natural treasures of this special place and learn about moths and supporting species.

In 1998, the Conservancy renovated the existing structure and opened the Delaware Bayshore Center. The Bayshore program



focuses on conservation in a larger area. Spanning two states, the Delaware Bayshore is a relatively intact natural area acknowledged as one of the Earth's most important stopovers for migratory birds.

Cape May National Wildlife Refuge (Great Cedar Swamp Section)

This portion of the Refuge offers the Cedar Swamp Trail on Tyler Road for hiking and some interpretive panels on the Swamp. This trail provides excellent opportunities for birding, nature photography, and environmental education.

SUPPORTING VISITOR AND INTERPRETIVE SITES

These are sites that take people out into the landscape or offer detailed experience related to a specific topic.

Batona Trail

The Batona Trail offers the region's longest uninterrupted hiking experience. It allows visitors to explore into the depths of the Pinelands landscape to a much greater degree than any other area along the byway corridor. There are periodic interpretive signs along the trail.

Great Bay Boulevard

The Great Bay Boulevard is a ten mile nature drive that stretches from Tuckerton through the Great Bay Wildlife Management Area, ending at the tip of the peninsula at the Rutgers University Marine Field Station. Built by the Civilian Conservation Corps (CCC) in the 1930s, the area looks about the same now as it did then, offering water and marsh views as well as access sites for small boats and a pedestrian accessible beach with views of Atlantic City and Long Beach Island.

Noyes Museum

The Noyes Museum, the only fine arts museum in Southern New Jersey provides exceptional arts education activities and focuses on collecting, preserving and exhibiting the arts and crafts and folk art of, in particular, New Jersey and the mid-Atlantic Region. The museum enjoys a serene lakeside setting adjacent to the Edwin B. Forsythe National Wildlife Refuge in Oceanville.

Dennisville Schoolhouse Museum

Dedicated to collecting, recording and preserving the history of the Dennis Township area, it is located within the National Historic District of Dennisville at 681 Petersburg Road and is open year round. The museum offers a collection of photographs and materials collected from Dennisville and the nearby communities.

Woodbine and Sam Azeez Museum



The Sam Azeez Museum of Woodbine Heritage, housed in the 114 year-old Brotherhood Synagogue, celebrates the history of Woodbine. The interpretive displays are professionally designed and do a good job of relating the history of the community's formation as a Jewish farming settlement and then subsequently a town with a diverse economy.

Road to Jakes Landing

Dennis Creek Wildlife Management Area is designated an Important Birding Area by NJ Audubon. Existing parking, boat access and a portable toilet are available at the end of the access road at Jakes Landing. This site offers a very nice introduction to coastal, marsh habitat along the byway. The drive/walk down Jakes Landing Road is scenic and peaceful. A trail extends into the woods along the road. The parking and boat launching area at the end of the road are highly scenic.

Visitor Needs and Expectations

ASSESSMENT OF EXISTING INTERPRETATION

The best way to describe the byway's current interpretive presentation would be **thematically consistent, but uncoordinated and disjointed**.

The major theme for 90% of the interpretive materials is the natural heritage of the Pinelands. That theme is covered in various ways in the Southern Loop, the Central Segment and in the Northern Loop. On the one hand, this means that existing interpretive materials focus on one of the already-defined central themes for the region – the natural environment. In many cases, connections are also drawn on the relationship between people and the natural systems, and thus the other interpretive themes are covered.

The interpretation that exists today falls with these categories. Existing interpretation can be categorized as follows:

■ Visitor Centers

A few recent, well-designed installations that provide broad, well-conceived experiences. The Batsto Visitors Center,

Tuckerton Seaport Museum and Jacques Cousteau "Living on the Edge" Exhibit, and the Woodbine Heritage Museum are examples of this category.

■ Interpretive outdoor panels

These are located along the byway at various state, county, and federal sites. Many of these are smaller, dated installations that cover appropriate material but must be updated. Estell Manor and Belleplain State Forest are examples.

■ Signage and site markers

These are dispersed along the byway, but usually lack a cohesive design and organization. Signage along the Tuckahoe Nature Drive is a good example of this category.

■ Websites

Websites that were designed from the perspective of providing official overviews of the region, versus being educational or interpretive in flavor.

■ Self-guided Tours

A recorded tour for cell phones is provided at Batsto State Park.

Interpretation and the Internet

The Internet plays an important interpretive role for all travel destinations and travel decisions including the Pinelands. Obtaining first impressions of a place, absorbing an overall image, developing an itinerary, researching particular interests before a trip – each of these aspects of one's learning and relationship with a place is impacted by the internet. There are many specialized sites on specific aspects of the region, but the following provide an interpretive overview. Websites relating to tourism are reviewed in the Tourism chapter of the plan.

NJPineBarrens.com

This excellent, private site provides the strongest support at present for the Pinelands interpretive program. With articles, photos, forums, maps and other information, one can easily browse and find both overview information and detailed postings of specific places and excursions experienced by site participants. Of particular importance, this site is written with a clear voice of connection, concern and advocacy. That voice conveys the emotion of why this place is important to the web site's authors and why it might be important to the potential visitor. The design is professional, user friendly and engaging. This site is a good model for how the byway might want to present itself.

The Pinelands Commission

Some of the information on the Pinelands Commission web page could be incorporated into a visitor-ready interpretive program easily accessed from the web.

PineyPower.com

The PineyPower site is jam-packed with information on the region and its events for a full year. PineyPower is not specifically focused on the travel trade, but is popular with people already-familiar with the region who want to learn more.

National Park Service

The Pinelands is a National Reserve and as such it has involvement from the National Park Service. The National Park Service's connection to the Reserve sends a strong message that this is an unusual place, probably meriting more investigation and perhaps a visit.

Scenic Byways in New Jersey

The state byway site orients the user to the presence and purpose of the byways in New Jersey – certainly its primary purpose. Next, it provides an overview of each byway with

some information on history and interest and then more detailed information on navigating each route.

ANALYSIS OF ADDITIONAL INTERPRETIVE TECHNIQUES

For the purposes of designing a cohesive byway interpretive program, the following objectives should be considered:

Coordination of a byway-wide interpretation format

- Find ways to connect and cross-promote existing interpretation;
- Identify gaps in the stories that are told
- Find compelling ways to get visitors out into the environment to experience the place;
- Develop a program that is financially and operationally realistic;
- Incorporate long-term and short-term strategies.

Printed material

- Identify existing interpretation sites on a byway visitor map;
- Distribute informational brochures, descriptive educational pamphlets and related interpretive materials at each of the visitor sites.

Events

- Events can help tell the story of the byway. These may include historic re-enactments, wildlife viewing tours, field trips with local school groups.

Multimedia and digital technology

- Create new web content that supports the overall interpretive program and encourages people to come and visit and experience the interpretive program;
- Expand self-guided tours including podcasts and cell phone call-in tours;

- Produce television and radio programming that highlights key stories of the byway for distribution to local broadcast networks, school groups, and visitor centers.

Wayfinding⁶

Wayfinding signs are the principal form of visitor orientation and direction for a byway route. Wayfinding signs are generally logos or shields that mark the route and provide information in two key situations: turns and movements, and confirmation. Through the design and installation of a single logo or shield to mark the byway route, byway travelers are provided with a uniform and reliable route marking that operates in conjunction with, but independently from, other identifiers such as route numbers and road names. Wayfinding is particularly important for the Pine Barrens Byway because it takes many turns and follows multiple US, state and county route numbers.

BYWAY LOGO/SHIELD

The byway logo/shield will be the principal indicator identifying the byway route for the traveler. The logo/shield should be distinctive in form and color and easily recognized. It should also be simple and attractive in its graphic design. It should be recognized from a distance, due to its color and shape –not text or imagery. The byway logo/shield should be introduced at the gateway points and reinforced on all interpretive signs and panels, and with all general byway marketing efforts (web and print based).

TURNS AND MOVEMENTS (DIRECTIONAL) SIGNS

Turns and movements (directional) signs include the byway logo/shield with addition-

⁶ For a more in depth discussion on wayfinding see exhibit “Signage Plan”.

al traveler information affixed immediately below the logo/shield.

CONFIRMATION SIGNS

Confirmation logos or shields should be placed after all turning movements directed by the byway wayfinding system and periodically route to reassure byway travelers that they are still traveling the Byway. Due to the many turns that are a part of the Pine Barrens Byway route and the multiple crossroads and intersections not associated with the byway route, regular confirmation signs will be an important consideration. Confirmation signs should be placed within one-quarter mile after the turning movement, and generally every 8 to 10 miles for lengthy byway segments from which no turning is required.

DESIGN AND INSTALLATION

Byway logo/shield signs should be identical in size and installation. All byway logo/shield signs should have the back of the sign painted a dark neutral color (such as brown, black or dark green) to minimize the visual impact on the landscape, and should be installed on uniform posts, ideally matching the color of the back of the sign. In general, byway logo/shields should be proximate to US, state or county route shields indicating intersections or confirmation of the route number. Coordination with existing route shields should be undertaken to avoid sign clutter and minimize confusion.

DESTINATION SIGNS FOR WAYFINDING

The Pine Barrens Byway is a non-linear route with loops and parallel routes in some areas, and as a result offers the traveler multiple options to continue on the byway. At some intersections the byway route may continue straight as well as making a turn to the left or right. Approaching an intersection with wayfinding signs showing the byway route both

continuing straight *and* turning left (for example) can potentially be confusing for the visitor. This is especially problematic for visitors who are using the wayfinding signs as their principal tool for guidance and direction, since not all visitors will have a byway map. At these intersections it is critical that wayfinding signs be paired with clear destination (guide) signs indicating the direction to communities and points of interest.

A list of principal destinations for general wayfinding should be established. These should include gateway communities, other town centers with visitor services, key transportation junctions, and attractions that have high visitation. (This should not, however, be a list of all destinations along the route.) Destination signs for wayfinding should be posted in advance of all intersections where a choice/option in the byway routing is presented. At such decision points, the additional destination information will assist byway visitors in making an informed

choice. In general no more than three destinations should be listed on any one sign.

The following locations are recommended for destination signs for wayfinding:

- Tuckerton
- Mays Landing
- Port Elizabeth
- Batsto Village
- Tuckahoe
- Woodbine
- Atlantic City Expressway
- Garden State Parkway
- Belleplain State Forest

BRANDING

It is recommended that whatever is chosen as the byway logo, be used for all wayfinding for the byway route and that it be used on destination signs as well.



Promoting Tourism and Economic Development

The Tourism Market⁷

The Pine Barrens Byway is close to an area that receives millions of visitors a year – Atlantic City and the Southern Jersey Shore – and yet it has a very small tourism economy. One might assume that if the region had natural tendencies towards tourism, the market would have found them and, therefore, that the lack of tourism implies that the prospects for tourism growth are poor. It appears that this is not the case; rather, the route's proximity to a large potential market offers an opportunity for the byway to pursue travelers whose interests mesh with those of the byway.

However, it should also be noted that there is little appetite within the Pinelands communities for tourism growth similar to what one finds along the coast. Indeed, to a large degree, the parameters of the Pinelands Act prevent that type of development from expanding along the byway.

COORDINATING THE VISITOR EXPERIENCE

A key challenge for the byway communities will be determining how to benefit and grow the local economy by linking to the visitor experience. There is currently a weak connection between the main reason why people will travel to the Pinelands (i.e., the environment) and the places where economic benefit is needed (i.e., the villages and town centers). Therefore, the byway program should place a major emphasis on finding ways to link the villages with the general byway experience and *vice versa*. Byway visitors should see

⁷ The issues and opportunities related to tourism along the byway are documented in “*Tourism Opportunities Narrative*”.

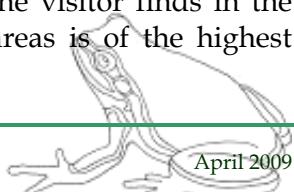
these centers as critical links in the overall chain of experiences that define the byway.

Thus, this byway strategy is designed to direct visitors both to the special environmental experiences of the region and to the existing businesses, which exist primarily in the villages. This plan places a strong emphasis on the idea that all visitors should be directed to the villages and to use them as “base camps” from which to venture into the region.

The plan is also designed to find opportunities for increasing the number of visitors and their lengths of stay largely within the parameters of the existing lodging base. Given the seasonality of Pinelands tourism, it is unlikely that new lodging establishments will prosper solely from Pinelands travelers. Instead, Pinelands travelers can enhance existing establishments and perhaps encourage the opening of B&Bs or other part-time, small scale lodging properties. Therefore, the byway program needs to create and promote compelling reasons for visitors to go to the villages.

It should be noted that proximity to large tourism markets does not guarantee a successful new tourism product. Visitors seeking gaming, nightlife, and shopping in Atlantic City or beach amusements do not necessarily fit the traditional model for nature-based tourism. This plan considers ways to attract different types of visitors to the byway.

In addition, it is just as important to ensure that the environmental-related experiences and information that the visitor finds in the outlying, non-village areas is of the highest



quality. A large number of recommendations relate to improving these facilities and creating new activities that enhance visitors' environmental education and experiences.

GUIDELINES FOR VISITOR EXPERIENCE

The experience of the visitor to the Pine Barrens Byway should be characterized by guidelines that help to consistently shape the interpretive approach and the experience of the byway. First, the experience of this place must be simplified. Most people take away from a destination only the broadest, most obvious facts and knowledge about the place – how big are the mountains, why is the water so blue, who won the battle at this site, etc. When a destination like the Pinelands offers a more complex, subtle set of messages, the message must be condensed. The byway must present a simple message about the place that focuses on a few ideas for each element.

Amplify and Clarify Subtleness

There is a sameness to the Pinelands landscape to the untrained eye. Therefore, the byway must seek ways in which difference can be appreciated and small differences amplified. For example, exploring the oak-pine forest system might be clarified by providing images and models of the pygmy pine forest system. Ways should be found to see, hear, touch and understand the differences. Present interpretation that clarifies the distance to groundwater or the depth of the aquifer beneath one's feet. Smell the moss, taste the water, see the difference between land that has burned and land that has not burned. Many of these ideas are explored well at the Batsto Visitors Center but can be expanded in other interpretative locations.

Emotional Experience – Remoteness and Peace

A central aspect of the Pinelands is that if one enters the heart of the place, one is removed from everyday life. One need only drive a half mile on a sand road to lose sight of civilization. Take one turn around a river bend and all development disappears. The feeling of being surrounded by nature is central to the Pine Barrens. The most dramatic sights and experiences of each natural resource destination along the byway should be highlighted for the traveler. Whether that is a beautiful view of a tidal marsh or the enclosed, silent experience of navigating a river, the visitor should be encouraged to have that feeling or encounter that experience.



Excitement, thrills, adrenaline ... these are *not* the experiences one will find in the Pinelands (Nearby, Atlantic City offers plenty of that for those who need some stimulation.) Instead, the message for visitors should be one that conveys the degree to which peace, silence and serenity will be found in this region. Therefore, each destination should clearly indicate the way in which one can step into that Pinelands peace.



Pine Barrens Byway Corridor Management Plan



Relevance of Environmental Message

Find a few key connections between the environmental stewardship of the Pinelands and the everyday lives of visitors. Examples might include water quality, new medicines from rare plants, or engineering discoveries from observing birds in flight or other connections. Aside from the philosophical or spiritual responsibility of humans to protect the earth, what are the practical reasons to do so? How does the Pinelands represent a model worth considering in other places?

Coastal Areas along the Byway as Counterpoints to the Pines

Jakes Landing, the Tuckahoe WMA nature drive, the marshes at the rivers, the Edwin Forsythe Nature Drive and downtown Tuckerton - these areas offer long views, fresh sea air, wind, open skies. Provide ample ways for visitors to learn and linger in these locations. Also, offer clear information and directions on the engaging experiences back in the pines that lie nearby.



Universal Accessibility

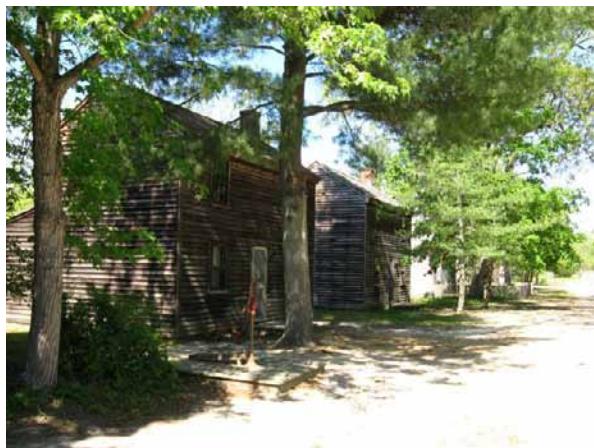
Boardwalks, trails, sidewalks, easy equipment rentals, motorized scooters and golf carts, cycling routes, canoeing routes, guided tours, audio tours, Braille signage, multi-language interpretation, music of the place - find every potential way to encourage people to get out of their cars and feel and touch the



Pinelands. Send a message of this byway being accessible and enjoyable for people of all ages and physical abilities. If people feel the peace of the place, they will stay longer and return.

CONNECTING HUMAN HERITAGE TO NATURAL HERITAGE

A central aspect of the themes for the Pinelands Interpretive Plan is telling the stories of how people relate to the natural landscape of the region. All of the above guidelines should apply to these concepts and should seek ways to integrate the people-nature connection.



EMBRACING UNRELATED TOPICS

While it is perhaps appealing to imagine a byway that somehow presents every aspect of its character within a very tight, consistent framework, every place has a variety of "story-lines" and activities. For the Pine Barrens Byway, Woodbine's Jewish heritage, the railroad in Tuckahoe and related railroad activities in Buena, the Belcoville Munitions history, and the Renault Winery are examples of byway stories that can be related to the environment with some effort, but also just stand on their own as interesting experiences and topics. These should all be embraced within the byway program, not left out if they do not neatly fit within the main environmental or people-environment message.



Bringing the Environmental Experience into Community Centers

When visitors come to the Pine Barrens Byway, they will primarily be seeking an environmental experience – canoeing, hiking, bird watching, nature education, fishing, hunting, botany immersion, foliage viewing and similar activities. At times they will come because of an event and some may pursue a very specific cultural-heritage interest such as Batsto Village or the Museum of Woodbine Heritage. One exception may be Tuckerton Seaport with its maritime focus; this draws and will continue to draw people with an interest in sailing history. However, in general, the environment will be the focus of most visitors' interests and activities.

If the intention is to bring visitors into the villages and town centers in order to maximize economic impact, then the centers must participate in this environmental experience, or at the very least, offer information and services that encourages all visitors to stop in the centers. While the centers will not offer the pristine solitude of a sand road or the views of a walk along the marshes, they must be connected to the reason why people come to the Pine Barrens Byway. Each center should go through a planning process to create an environmental experience within its community.

Historic centers can also reinforce the concept of being away or detached from everyday life. After a day hiking or canoeing, a historic B&B and local fare on a charming historic street provides the visitor with a comfortable, but unique accommodation.

A very important part of this project should be the coordination along the byway so that communities do not replicate the same stories and experiences. The centers should work cooperatively with the eventual objective of creating a brochure and map that would list



all of the "center environmental experiences" and offer such a broad variety that some visitors would choose to travel between centers just to enjoy these activities.

BRINGING AN ARTISAN FLAIR TO THE BYWAY

There are a number of artists and artisans along the byway or generally in the Southern Pinelands. In a way, a byway is a linear experience of education and opportunities through a region. The region's resources should be condensed along the byway so that people can taste the full flavor of the place. Several ideas flow from this concept, including open studio programs, interpretive art, competitions, and sale of goods.

CAPITALIZING ON HIGH TRAFFIC VOLUMES AT THE EDGES OF THE PINELANDS

A marketing program along Route 55, Route 9 and the Atlantic City Expressway and/or creative promotional signage along Route 47 will reach literally millions of eyes every year with a message about the reasons why someone should venture off the beaten path and explore the Pine Barrens Byway. These auto travelers have already demonstrated a willingness to travel into South Jersey. They like what lies just beyond the Pinelands – Cape May, the ocean, the beach – and may like what the Pinelands offers too. They will view the promotional signage for extended periods of times during traffic slowdowns and traffic jams. They will find themselves in a situation that begs for the serene, uncrowded experience of the Pines. They will be classic consumers in a frame of mind that is open to inquiry about your product – the byway. Barn murals, small-scale sequential signage, low power radio stations with awareness signage, and information panels and promotional brochures are ideas to consider.

CREATE MORE GUIDED PINELANDS EXPERIENCES

Travelers are increasingly willing to pay for personalized guiding services at destinations. These “concierge services” allow people to pay a fee and have personal guiding through a region. The experience is like hiring a National Park Service ranger to give you a personal tour for a day. The information content is high. There may be easier access to less-visited locations or sensitive sites. The access to a specialized vehicle opens up new areas to the casual visitor. While the Pinelands currently supports some guide businesses, they are not well promoted and they are not seen as a formal part of the tourism program. Promote the idea of personalized trips as a part of what makes this byway special. Growing a certified guide program through local colleges and institutions could expand this effort.



ENCOURAGE AND PROMOTE LOCAL BUSINESSES THAT PROVIDE GOODS AND SERVICES RELATED TO THE VISITOR EXPERIENCE

There is a need for more regional-product shopping opportunities along the byway. Entrepreneurs face the classic chicken-egg problem of insufficient current numbers of visitors to support opening new gift shops. Yet the shopping experience is one of the best

ways to draw visitors into the character of a place. Opportunities to browsing and learn about local art, crafts, books, clothing, jewelry, regional cuisine, and other items sends a message of sophistication (i.e., “This place is sufficiently compelling to have both a heritage of traditional crafts and goods and a place that draws creative people who live here.”) Shopping results in people taking things home with them. Items of beauty evoke conversations back home about the trip and the place. Some local items are for sale at the gift shops at Batsto Village and Tuckerton Seaport.

In addition, there is an opportunity for businesses that can provide services to visitors (guided tours, equipment rental, accommodations, and food) to market themselves as part of a coordinated byway-wide effort. For an expansion of this strategy refer to “*Tourism Opportunities*.”

COORDINATE WITH OTHER NEW JERSEY HERITAGE TRAILS

The New Jersey Division of Travel and Tourism identifies three “Heritage Trail” locations in New Jersey. These include the New Jersey Coastal Heritage Trail (managed by the National Park Service), the Cape May Historic District and the Mid-Atlantic Center for the Arts, and the Heritage Trail of Somerset County (a private nonprofit organization). The first two present opportunities to coordinate on tourism and marketing as they are located near the byway route. The second and third also provide possible models for managing and marketing the interpretive sites in a coordinated effort through a non-profit entity.

Scenic Byway Marketing⁸

The Pine Barrens Byway faces several interesting challenges and unusual opportunities regarding marketing itself to travelers:

- The region is well known within New Jersey and the nearby metro areas as a *place*, but not necessarily as a *place to travel*. In other words, people know that there is a big part of New Jersey called *The Pinelands* but it is not strongly seen as a travel destination.
- Lying so close to some of the Mid-Atlantic's major destinations – the Jersey Shore, Atlantic City and Cape May – offers interesting opportunities that are rare for a rural region. There are many potential visitors traveling very close to the region each year.
- A realistic perspective of the Pinelands must acknowledge that it may never become a major destination like many of our national parks. While it offers many beautiful and intriguing places and stories, it does not offer breathtaking landscapes that are typically so critical to the average person's enjoyment of a natural area.
- It is also true that currently there are limited numbers of lodging and dining establishments along the byway. In other words, the capacity of the byway to feed and lodge more visitors has some limits.
- Visitors who will enjoy the Pinelands are those who will leave their car and venture a bit into the landscape in order to feel the essence of the place. The primary markets that mesh with this criterion are canoers, kayakers, campers, hikers, botany-buffs and wildflower fans, and birders. The night skies draw stargazers. The heritage

will draw people interested in Revolutionary War history, pirates, Jewish settlements, New Jersey history and railroad enthusiasts. As an entrance point for many colonists, there is also a large genealogical market. Finally, there will be average people interested in a quiet weekend away in a beautiful, new location or shore-goers needing an inland day of activities.

- Therefore, positive impacts can be experienced with relatively modest gains in visitation from the region's most natural markets. An extra 100 people per day wandering into the shops and diners of Mays Landing, Woodbine, Tuckahoe and Tuckerton can very helpful to local merchants. This is equivalent to an average of an additional 30-50 cars venturing along the byway each day. Assuming typical food and gift expenditures of \$25 per day per visitor, this translates into an extra \$2500 per day added to local economies or \$500,000 over the course of a typical 200 day tourism year (i.e., leaving out periods of bad weather and thus low travel levels). Adding an extra \$20,000 in revenues each to 25 small businesses along the byway is not insignificant in these times.

The strategies introduced in “*Marketing the Byway*” and outlined in the implementation matrix following are all low cost, effective ways to bring the Pinelands to the minds of more travelers and to encourage visitors to come and stay in the region.

⁸ For an expanded discussion on byway marketing see “*Marketing Narrative*”.



Management Strategies

Strategies for managing the Pine Barrens Byway scenic byway grew from the goals of the vision statement that articulate the desired future of the byway corridor, its look, feel and function. The vision recognizes that the byway has the potential to focus public and private energies and resources on the region's assets to bring about positive changes that will preserve and enhance intrinsic qualities while fostering supporting and compatible development.⁹

The most basic and important strategy is to care for the corridor's resources and then to make them relevant to the visitor through storytelling or experiences.

- **Preserve, protect, maintain and enhance the natural, historic and scenic qualities of the byway.**

This is the fundamental purpose of the corridor management plan and provides a touchstone for each action. Ask the question "will this action preserve, protect, maintain or enhance the intrinsic qualities of the byway" for each action that is recommended. An action must provide or lead to one of these benefits, either directly or indirectly.

- **Strengthen the byway's regional identity.**

The Pinelands is an internationally acknowledged ecosystem and resource, yet locally may be undervalued and credited. The corridor management plan will seek to heighten awareness and understanding of the region's attributes to facilitate appropriate land use choices, foster local pride, increase stewardship, and create a known, marketable identity.

⁹ For an expanded discussion of Management Strategies, see "Management Strategy Plan".

- **Prevent or minimize negative effects of transportation, visitor use, and development.**

Transportation and circulation, an increase in visitor activity, and economic development are all desired components along select areas of the scenic byway, though each has the potential to negatively affect its intrinsic qualities if not carefully considered and implemented. Designing and managing the roadway corridor must be considered in the context of providing an enjoyable experience to byway users. The Corridor Management Plan is focused on both preventing and mitigating unintended impacts, and supporting the appropriate existing and future uses and development.

- **Provide interpretation in a variety of ways to reach a diverse audience.**

While the intrinsic qualities of the byway need no explanation for some visitors to enjoy the resources it has to offer, in order to engage a more diverse audience, the plan must create a framework of storytelling or information dissemination that is convenient to find, to use and to understand. This will mean different things to different people so a single interpretive strategy will not be effective. The byway user, whether searching for a recreational adventure, to capture the essence of a moment in history, or to appreciate the perfection of a migratory flight, will be given the choice of a variety of interpretation tools or opportunities that make the landscape and its qualities approachable and comprehensible.

■ Increase physical and visual access to corridor resources.

Only by increasing the awareness of and access to the byway's assets will the corridor realize its potential to engage and delight its visitors. Increasing access can include opening viewsheds through pruning vegetation, enhancing visibility through framing and orienting strategies, by increasing the number of trail heads and parking facilities, and by improving or developing new trails, signage, viewing platforms, and boat ramps. Increasing the visibility and accessibility also includes marketing and interpretation in a variety of formats for the most diverse audience.



■ Create, expand, and enhance recreational networks.

A critical mass of recreational facilities, trails and services is desired to strengthen the byway's draw as a recreational destination. Increasing the number, size and connectivity of these will help develop a more comprehensive network with the capacity to provide a greater diversity and intensity of recreational experiences. More structured and integrated networks will allow users to combine activities such as hiking and boating, biking or camping and allow service providers to target a larger market base than a single use trail or facility.



Strategies for supporting economic development to enhance the preservation and interpretation of resources are well understood and modeled within the state and nation. Lodging, food, transportation services, entertainment and shopping opportunities are needed and desired by visitors and provide an opportunity to expand local economies that support the region's resources.

■ Support local economies based on natural, historic and recreational resources.

Commercial activities, products or services that harvest or use the natural, historic, and recreational resources of the byway region will be encouraged and supported. These activities, products or services provide employment for residents, diversify the tax base of municipalities, meet the needs of byway users, and help strengthen the identity of the region by highlighting and reinforcing the connection between the resources being used and the region.

Marketing and management strategies are then the glue that binds the elements together.

■ Create and expand promotion of resources, services and facilities.

By analyzing opportunities that exist based on intrinsic qualities, and existing services and facilities a framework is developed for strengthening interpretation through a simplified and assimilated

lated thematic approach, for developing stronger partnerships that integrate interpretation and marketing, and for strategically supporting capital improvements and economic development that advances the byway's vision.

- **Promote a holistic approach to planning.** The goals of the scenic byway will be realized only through a holistic planning approach that considers the varied objectives of multiple municipalities, land owners and managers, service providers, advocates and other stakeholders and coordinates or integrates their interests and capacities to create viable planning

tools. Holistic planning seeks to exploit the cross pollination of ideas to develop creative initiatives and solutions.

- **Create a framework for sustainable partnerships.**

Creating a Corridor Management Plan is an initial step in the development of a scenic byway corridor but has no purpose without implementation and is only truly effective with ongoing evaluation and adaptation. Implementation requires a significant and dedicated work force committed to partnering to bring about and sustain the desired vision.



Implementation

An implementation plan is the compilation of recommended actions prioritized and organized into a framework that outlines a desired schedule, indicates who is responsible for initiation of the action, and suggests funding sources that may be appropriate. To provide follow through for actions, the plan describes the mechanisms that are in place or that need to be put in place, to provide review and enforcement functions. An implementation plan is not a static document, rather it should be updated at least annually to reflect changes that have occurred, are desired or are anticipated. Therefore, the plan includes a strategy for monitoring the status of action items and periodically assessing the implementation goals, and revising as needed, in order to make the plan a living document. Finally, the plan proposes an open, inclusive and iterative process that engages stakeholders at various points in the implementation of recommended actions, the monitoring of progress, the assessment of results and the revision of the plan's goals and actions.

Each of the following sections highlights a general element of corridor management and briefly describes the primary findings of the studies undertaken as the basis for this Plan. For further information on those studies refer to the documents indicated.

Following the short narrative for most elements, a matrix lists a variety of actions that together make up a work plan for corridor management. The matrixes on the following pages are organized to be as concise and direct as possible. A recommended objective, the goal it addresses, and its projected time frame in a highlighted box is followed by a single or a set of recommended actions. Along with each action is a recommended

agency, group, or individual who may lead the task as well as other key stakeholders who should be involved. A reference document is listed when more information is available within the reports prepared as support for the CMP.

Land Use and Development

New Jersey and the Pinelands have a long and strong history of land preservation efforts resulting in extensive public ownership of lands along the byway. However, it is important to **continue to identify and prioritize land for conservation and preservation** as land uses change and development occurs. Lands that may be identified will include those that provide connections to other parks, trails and open spaces, provide water quality protection, enhance community park systems, preserve viewsheds or provide buffers.

While natural resource protection is a primary goal, development along areas of the byway corridor is both inevitable and desirable. It has the potential to improve local economies and enhance traveler services; however, without careful planning, permitting, and construction, development can have unintended consequences. Municipalities can do a great deal to affect development and assure that it provides the benefits they desire and prevents or mitigates negative impacts. **Smart growth** policies and strategies will be used as the basis for evaluating and revising zoning and land use regulations to guide and support development. At the site level, plans will be fully informed by utilizing context sensitive solutions aimed at seamless integration into the existing community fabric.



Smart growth encourages growth in areas that already sustain development, have supportive infrastructure and provide opportunities for reducing travel between facilities or services. These criteria point to the **Pinelands towns and village centers and commercial corridors** as the most suitable sites for expansion of municipal, commercial and residential

facilities. As target areas for further growth, these centers and corridors will be studied comprehensively to determine how to support this growth most effectively. Land use regulations, policies and infrastructure will all work together.

LAND USE AND DEVELOPMENT

Recommendation	Key Personnel	Reference
Accommodate commerce while maintaining a safe and efficient level of highway service, including convenient user facilities		
Goal: Tourism and Economic Development		
Time Frame: Within 5 years		
Determine the type of commercial uses/user facilities that are desired and analyze the potential for municipal support.	Municipal Planning Commission, Regional or Municipal Economic Development Office	
Assess potential impacts of desired businesses to highway service and consider capacity to mitigate.	Municipal Planning Commission, County or State DOT	
Identify and market target commercial buildings/areas within centers and business cores.	Chamber of Commerce, Regional or Municipal Economic Development Office	Development Trends and Management Plan
Identify strategies for enhancing existing development and accommodating new development while preserving the intrinsic qualities of the corridor		
Goal: Tourism and Economic Development		
Time Frame: Within 5 years		
Create a development handbook that clearly articulates municipal and corridor goals, regulations, and application and approval processes.	Municipal Planning Board, Regional or Municipal Economic Development Office	
Establish design standards & require design review for all new development except single family dwellings. If review creates a hardship due to limited municipal capacity, consider a scenic byway design review board.	Municipal Planning Board	Development Trends and Management Plan
Require developers to submit a landscape plan for any non residential development.	Municipal Planning Board	
Complete an Open Space plan for each municipality identifying lands to preserve, protect, acquire, and/or enhance.	Regional Planning Commission, Conservation Committee	Development Trends and Management Plan

LAND USE AND DEVELOPMENT

Recommendation	Key Personnel	Reference
Allow and encourage Flexible Residential Development (FRD) to reduce land consumption for residential development		
Resource Protection and Management		
Time Frame: Within 5 years		
Revise zoning to allow Flexible Residential Development by right, and require design review.	Municipal Planning Board, City or Township Council, Pinelands Commission	Development Trends and Management Plan
Support the Pinelands Commission proposal to require clustering of residential development in designated Forest Areas and Rural Development Areas.	Municipal Planning Commission, Regional Planning Agency	Development Trends and Management Plan
Consider additional strategies municipalities can adopt to increase use of FRD.	Regional Planning Agency, Municipal Planning Board	
Establish consistent site design and performance standards for parking lots, buffering, connectivity, pedestrian accessibility and landscaping		
Goal: Resource Protection and Management, Road Design and Management		
Time Frame: Within 10 years		
Assess municipal parking requirements in an effort to minimize parking to the extent feasible.	Municipal Planning Board, City or Township Council	
Consider shading requirement of 50% for parking lots (within 15 years of construction).	Municipal Planning Board, City or Township Council	
Establish a maximum curb cut dimension and provide a guideline for existing uses to comply within a reasonable time period.	Municipal Planning Board, County or State DOT	
Locate parking in the rear of street facing buildings.	Municipal Planning Board, City or Township Council	
Consider zoning that allows historic structures to dominate roadside character and sets new structures back behind buffers.	Municipal Planning Board, City or Township Council	
Create village zoning that adheres to smart growth principles, creating a more dense and walkable village center		
Tourism and Economic Development		
Time Frame: Within 10 years		
Establish maximum setbacks in centers to create a pleasing human scale.	Municipal Planning Board, City or Township Council	

LAND USE AND DEVELOPMENT

Recommendation	Key Personnel	Reference
Encourage density in centers to create focal points and differentiate centers from rural development.	Municipal Planning Board, City or Township Council, Pinelands Commission	Development Trends and Management Plan
Create sidewalks or access ways in centers to the extent practical or possible. In rural centers separate sidewalks from roadways with a vegetated buffer strip; in urban cores install sidewalks abutting roadways.	Municipal Planning Board, City or Township Council, County or State DOT	
Allow a greater mix of uses within centers to help create vitality and interest.	Municipal Planning Board, City or Township Council, Pinelands Commission	
Ensure that new development is compatible with existing or historic character.	Municipal Planning Board	
Undertake a comprehensive zoning review to ensure that each regulation serves to protect or enhance the byways intrinsic qualities		
Resource Protection and Management Time Frame: Within 10 years		
Revise local zoning for maximum reasonable protection of the byway's intrinsic qualities.	Municipal Planning Board, City or Township Council, Pinelands Commission	

Corridor Aesthetics

The way the corridor looks is a function of land use, maintenance and design. Land Use is generally determined and not likely to change substantially. Maintenance of the corridor roadside, and design and maintenance of signs have the potential to have a large and more immediate impact on corridor aesthetics.

DESIGN CONSIDERATIONS

The scenic byway will have a **distinct and uniform design vocabulary** that is consistent throughout the corridor and addresses infrastructure materials, layout, design, application and maintenance standards. This design vocabulary will place primary importance on limiting impact on both the visual and physical disturbance of the natural environment rather than bringing attention to the design itself. It will reflect the balance of a manicured and a natural environment, providing flexibility to allow for design cohesion whether in built up centers or along rural wooded ways.

Signs are a significant element of roadway and roadside infrastructure and will be addressed immediately and strategically. Byway signs for wayfinding and interpretation will add another layer of signage throughout the corridor and will be created and coordinated through a comprehensive sign plan. (See *Sign Plan*) Outdoor adver-

tising represents another type of sign that is prevalent along the byway and has a substantial impact on the visual quality of the roadside in limited areas. A strategy for **monitoring and controlling outdoor advertising** will be developed among the 16 municipalities along the byway. The strategy will develop an approach to outdoor advertising that recognizes the importance of advertising in commercial zones and honors the tranquility of nature outside those areas. While state and federal laws in place give broad guidance to outdoor advertising to ensure public safety and limit some negative impacts, local regulations provide substantial opportunities to affect the design, placement and amount of outdoor advertising and therefore the character of the byway's roadsides.

Regulatory signs which are independent of byway signage and outdoor advertising are one of the most frequent features along the byway route. These publicly owned and managed signs are the property and responsibility of federal, state, county and municipal agencies. Their placement, design and maintenance will be reviewed and a framework will be developed for **improving the visual and functional quality of signs** that meets the needs of each stakeholder involved. (See *Transportation Safety & Accident Record Study and Assessment of Visual Quality Impacts*).



Pine Barrens Byway Corridor Management Plan



CORRIDOR AESTHETICS

Recommendation	Key Personnel	Reference
<p>Assess areas identified for potential view shed development or enhancement and create standards for maintenance including thinning vegetation</p> <p>Goal: Resource Protection and Management; Recreation</p> <p>Time Frame: Within 5 years</p>		
<p>Complete a natural and cultural resource inventory and management plan for each municipality or county that determines how resources can be best highlighted using visual access, signage, pull offs, or other strategies.</p>	Municipal Planning Board, Regional Planning Agency, Conservation Commission,	Tourism Opportunities
<p>Establish and maintain natural road edge (stripe pavement edges and clear vegetation as appropriate) in all but urban areas</p> <p>Goal: Roadway Design and Management</p> <p>Time Frame: Within 5 years</p>		
<p>Create a design handbook for road edges that illustrates guidelines for rural, village and commercial core and urban areas.</p>	Byway Task Force, Pinelands Commission, County DOT, State DOT	Transportation Safety & Accident Report Study, Transportation Plan
<p>Encourage wooded road edges, canopied road cover and historic fences or other built elements to the extent practical or possible to maintain and enhance the rural and scenic character of the corridor.</p>	Byway Task Force, Pinelands Commission, County or State DOT	
<p>Minimize overhead utilities to the extent feasible</p> <p>Roadway Design and Management</p> <p>Time Frame: Within 10 years</p>	Develop a strategy to systematically replace overhead wires with underground wires as practical.	Regional Planning Agency
<p>Ensure that signage is effective, attractive and consistent throughout the byway</p> <p>Roadway Design and Management</p> <p>Time Frame: Within 5 years</p>	Byway Task Force, County DOT, State DOT	Signage Plan
<p>Develop and implement a sign plan that includes design, placement, and function recommendations.</p>		
Identify signs that do not adhere to sign standards and create a strategy for bringing them into compliance within a reasonable time frame.	Municipal Planning Board	

CORRIDOR AESTHETICS

Recommendation	Key Personnel	Reference
Encourage replacing existing guide rails when feasible with distinctive/rustic guide rails Goal: Roadway Design and Management Time Frame: Within 5 years		
Reassess use and placement of guide rails to minimize the visual impact to the extent possible while maintaining safety.		
Develop design standards for guide rails that maximize the use of natural materials and muted colors and minimize visual impact		
Establish an integrated pest management program (IPM) to reduce the use of herbicides to manage vegetation around guide rails.		
Implement streetscape improvements that help create social environments and visual continuity from village to village Goal: Roadway Design and Management; Tourism and Economic Development Time Frame: Within 10 years		
Create zoning ordinances that regulate streetscape vegetation (size, species, age, etc.).	Municipal Planning Board, City or Township Council	
Develop a strategy to increase tree canopy within centers to create attractive and comfortable spaces where possible.	Municipal Planning Board, County or State DOT	
Install sidewalks appropriate to design and density of centers where possible.	County or State DOT	
Install pedestrian amenities such as benches and seating walls within parks and along sidewalks to encourage socialization where possible.	Municipal Planning Board, County Parks Department, County or State DOT	
Consider pocket parks within centers designed to encourage use by residents and visitors where possible.	Municipal Planning Board, County Parks Department	
Develop an approach to standardize lighting respecting the dark sky initiative Goal: Resource Protection and Management; Roadway Design and Management Time Frame: Within 10 years		
Evaluate need for existing lighting in order to reduce street lighting to only those areas where it is required to ensure safety.		

CORRIDOR AESTHETICS

Recommendation	Key Personnel	Reference
Standardize roadway lighting along the corridor to the extent feasible.		
Use pedestrian scale lighting to the extent practical within centers.		
Create or revise lighting ordinances to address sign, site and façade lighting.	Municipal Planning Board, City or Township Council	

Environmental Issues and Impacts

The restrictions and regulations of the Pineland's Reserve, along with vast amounts of public land ownership have done a great deal to preserve and protect the lands and waters of the Pinelands and thus the scenic byway corridor. Still, because ecosystems are connected and affected in a myriad of ways environmental issues and impacts are inevitable in even the most protected areas.

Continued **inventorying and monitoring** must remain a high priority and ongoing strategies to **protect resources** and **mitigate any negative effects of change** must be put in place. In addition, every effort must be made to **increase local and visitor awareness** of the uniqueness and fragileness of the environment so they can develop an understanding of what it takes to make a positive contribution to its protection.

ENVIRONMENTAL ISSUES AND IMPACTS

Recommendation	Key Personnel	Reference
<p>Prioritize sites where preservation and/or environmental restoration (invasive plant removal, bank stabilization and others) is needed and develop a timeline and implementation plan for undertaking such efforts</p> <p>Goal: Resource Protection and Management</p> <p>Time Frame: Within 5 years</p>		
<p>Prioritize areas with highest need for preservation and outline strategies including acquisition, restriction, restoration or enhanced maintenance.</p>	<p>County Planning Agency, Municipal Planning Board, Conservation Commission</p>	
<p>Each community will continue to assess the condition of its natural resources along the byway and develop a priority listing of sites in need of remediation.</p>	<p>Conservation Commission</p>	<p>Intrinsic Qualities</p>
<p>Identify the appropriate strategies and potential funding opportunities for remediation efforts for each resource/site and implement as feasible.</p>	<p>Regional Planning Agency, Conservation Commission</p>	
<p>Consider the value of Low Impact Development to minimize site disturbance and treat stormwater runoff on site</p>		
<p>Goal: Resource Protection and Management</p> <p>Time Frame: Within 5 years</p>		
<p>Evaluate the option of adopting a Low Impact Development ordinance for each municipality.</p>	<p>Municipal Planning Board, City or Township Council</p>	
<p>Increase the preservation and use of native species and naturalize all development sites</p>		
<p>Goal: Resource Protection and Management</p> <p>Time Frame: Within 5 years</p>		
<p>Consider creating or revising zoning to require the use of native species within landscape buffers.</p>	<p>Municipal Planning Board, City or Township Council</p>	
<p>Increase coordination and participation with public and private groups to assist municipalities in meeting local open space and recreation goals</p>		
<p>Goal: Resource Protection and Management</p> <p>Time Frame: Within 5 years</p>		
<p>Seek coordination with public and private agencies to identify, preserve, acquire and/or enhance public open space holdings to better serve local communities.</p>	<p>Regional Planning Agency, Municipal Planning Board, Conservation Commission</p>	

ENVIRONMENTAL ISSUES AND IMPACTS

Recommendation	Key Personnel	Reference
<p>Create a culture of environmental awareness and stewardship that engages a variety of stakeholders to control and eliminate invasive plant species and increase public and private plantings of appropriate native species</p> <p>Goal: Resource Protection and Management</p> <p>Time Frame: Within 10 years</p>		
<p>Organize regional festivals and activities that enhance environmental awareness and encourage environmental stewardship.</p>		
<p>Recognize outstanding urban trees, tree plans and tree care to highlight and celebrate the importance of native trees and forest systems – both urban and rural.</p>		
Institute an urban forestry program for Pinelands centers to increases native plantings.	Municipal Planning Commission, Conservation Commission	

Traffic Capacity and Safety

The roadways of the Pine Barrens Byway exist to transport people and goods as safely and as efficiently as possible. This mission is not changed or diminished by the overlay of a scenic highway designation. However, accommodation of additional users and uses must be considered for a successful merger of transport system and tourism trail.

The Pine Barrens Byway will seek to **increase connectivity for bicyclists and pedestrians** throughout the corridor to enhance user safety and enjoyment. Increasing the connections of existing trails, lanes and sidewalks will create opportunities for more people to experience the byway in a close and personal way. Stepping outside one's car to explore the intrinsic qualities of the byway is a critical step to understanding and appreciation of the byways resources and offerings. Greater connectivity of trails

or access ways may also increase the likelihood of longer trips, opening up new opportunities for increased services.

While the personal automobile is likely to remain the transportation mode of choice for most byway users, the Pine Barrens Byway will **study the potential for enhanced transit services**. Effective transit services could assist in reducing seasonal traffic congestion along various segments of the byway.

Trucks along the byway have not been noted as significant with the exception of along US Route 9 in Tuckerton. At the request of municipalities, the Pine Barrens Byway will **assess potential amendments to the NJ Access Code (trucks)** to address current issues and assure long term cooperation and coordination with commercial trucking interests.

TRAFFIC CAPACITY AND SAFETY

Recommendation	Key Personnel	Reference
Improve Road Safety for all modes of travel		
Goal: Roadway Design and Management		
Time Frame: Within 5 years		
Undertake a comprehensive speed limit analysis to determine lowest practical speed limit and work with regulatory agencies to adjust.	Municipal Police, State Police	Transportation Safety & Accident Record Study
Assess need for enhanced clear zones and develop guidelines for initial and annual maintenance.	County DOT, State DOT	Transportation Safety & Accident Record Study
Assess problematic intersections, develop design solutions and seek funding for needed changes.	Municipal Police, County DOT, State DOT	Transportation Safety & Accident Record Study
Evaluate scenic turnouts to determine if appropriate signage, parking, and sight distances exist and respond as needed to ensure safety.	Task Force, Municipal Police, County DOT, State DOT	Transportation Safety & Accident Record Study
Limit curb cuts to the greatest extent possible		
Goal: Roadway Design and Management		
Time Frame: Within 5 years		
Review local zoning ordinance and revise as needed to limit number and width of curb cuts to the greatest extent possible.	Municipal Planning Board, City or Township Council	
Identify curb cuts that exceed existing regulations by width or number and require elimination of excessive cuts within a reasonable period of time.	Municipal Planning Board	

TRAFFIC CAPACITY AND SAFETY

Increase opportunities, comfort and safety for non-motorized vehicle users

Goal: Recreation; Roadway Design and Management

Time Frame: Within 5 years

Expand bicycle and multi-use trails and lanes where applicable and possible.	Regional Planning Agency, Municipal Planning Board, NJ Division of Parks and Forestry NJ Division of Fish and Wildlife County Parks Department County or State DOT	Transportation Plan
Increase shoulder widths to the extent possible to accommodate non motorized users.	Regional Planning Commission County DOT State DOT	Transportation Safety & Accident Record Study
Enhance intersections by using dotted lines to help bicyclists navigate safely.		Transportation Safety & Accident Record Study

Use traffic calming measures where reduced speeds or enhanced safety measurements are needed

Goal: Roadway Design and Management

Time Frame: Within 10 years

Design and install crosswalks that are distinctive and uniform throughout the corridor where possible.	Byway Task Force, County DOT, NJ DOT	
Perform an assessment of areas along the byway where traffic calming strategies could enhance safety.	Municipal Police State Police County DOT State DOT	
Consult with agencies with authority for managing the roadway for assistance with developing context sensitive solutions for all areas where traffic calming is needed.	Municipal Planning Board Municipal Police County DOT State DOT	Development Trends and Management Plan, Transportation Plan

Visitor Information & Services

The Pine Barrens Byway corridor passes through an incredibly diverse and interesting area that provides unlimited opportunities for environmental, recreational and heritage tourism. Yet, much of what is at a visitor's fingertips is also nearly out of sight, creating a challenge for making it assessable and understandable.

Visitor information and services in place today, provided by a diversity of agencies, organizations and individuals support a growing tourism industry, however both information and services need to be increased, improved and coordinated in order to serve visitors comprehensively and effectively, as is the goal of the Pine Barrens

Byway. Wayfinding, interpretation, access, experiences, tourism, and marketing need to be considered together and then designed and implemented strategically to create the greatest impact with the most efficient use of funds, resources and actions. Maintenance and ongoing monitoring and adjustments must follow.

Telling compelling stories in the most appropriate ways, reaching targeted audiences with the information needed, providing authentic and inspiring experiences, educating, welcoming, creating awareness and stewards; these are the reasons for enhancing visitor information and services along the byway.

VISITOR INFORMATION & SERVICES

Recommendation	Key Personnel	Reference
<p>Develop an approach to signage along the byway that ensures safety, relays important information and minimizes visual intrusion</p> <p>Goal: Regional Identity; Tourism and Economic Development; Roadway Design and Management</p> <p>Time Frame: Within 5 years</p>		
<p>Establish a Pine Barrens Byway sign review board to discuss and make recommendations for improved signage along the byway route.</p>		
Investigate options to improve safety warning signs while minimizing sign clutter.	County DOT, State DOT	
Establish byway gateway points.	Byway Task Force	Signage Plan
Develop a comprehensive signage plan/manual. It will: <ul style="list-style-type: none"> ■ Standardize installation and compatibility among signs ■ Reduce redundant, excessive and unnecessary signage ■ Establish a minimum distance between signs ■ Redesign and minimize signs prohibiting specific activities and pulloffs ■ Establish design standards for sign aesthetics/visual quality 	Byway Task Force, Promotion Committee, County DOT, State DOT	Signage Plan
Remove “adopt-a-highway” signs and replace with recognition in byway publication or at waysides.	County DOT	Signage Plan
<p>Increase tourism through effective branding and marketing.</p> <p>Goal: Regional Identity; Tourism and Economic Development</p> <p>Time Frame: Within 5 years</p>		
Form a byway Promotion Committee	Byway Task Force	Tourism Opportunities; Marketing
Clarify a byway and regional image and integrate into all new and revised marketing efforts.	Byway Task Force Promotion Committee	Marketing
Obtain spectacular photographs and create an image library for effective marketing.	Promotion Committee	Marketing

VISITOR INFORMATION & SERVICES

Recommendation	Key Personnel	Reference
Connect the byway to nearby destinations to take advantage of established market shares in close proximity.	Promotion Committee Chambers of Commerce, Regional Planning Agencies	Marketing
Develop an image that combines the branded feel of National Parks with the regionally distinctive quality of Natural Heritage Areas.	Promotion Committee	Marketing
Develop a byway presence on related websites including New Jersey Tourism Website, National and State Scenic Byway sites, Trip Advisor and other travel guide sites.	Promotion Committee	Marketing
Submit information about the byway to the following services: <ul style="list-style-type: none"> ■ Google maps ■ Mapquest ■ Yahoo maps ■ Randmcnally.com ■ Garmin 	Promotion Committee	Marketing
Identify the most distinctive, quality lodging properties and restaurants along or near the byway and market get-away weekends focused on a combination of the businesses and the byway.	Promotion Committee Chambers of Commerce	Marketing
Promote the byway in travel guides by submitting information to the author/publisher.	Promotion Committee	Marketing
Attract journalists to visit and report on the byway.	Promotion Committee	Marketing
<p>Create a framework for directing and informing visitors along the corridor</p> <p>Goal: Regional Identity; Economic Development and Tourism</p> <p>Time Frame: Within 5 years</p>		
Link primary visitor centers to the other facilities along the byway and to the Village Centers via clear maps, brochures and programming.	Promotion Committee, NJ Parks and Forestry NJ Fish and Wildlife, County Parks	Tourism Opportunities

VISITOR INFORMATION & SERVICES

Recommendation	Key Personnel	Reference
Install, at a minimum, a 36" x 48" map panel and/or a computerized kiosk at the current welcome center with software that focuses on the byway and helps to make people aware of its resources and programs.	Byway Task Force, NJ Parks and Forestry NJ Fish and Wildlife County Parks	Tourism Opportunities
Develop a comprehensive and coordinated wayfinding/ interpretation/ promotion system: It should include: <ul style="list-style-type: none"> ■ A TODS program to enhance visitor awareness of resources and facilities ■ A standard practice for posting byway wayfinding signs ■ Coordinated design standards for signs, panels, brochures etc. with flexibility for use by a diversity of stakeholders (agencies, municipalities, organizations) 	Byway Task Force, Promotion Committee, Chambers of Commerce NJ Fish and Wildlife NJ Parks and Forestry, County Parks	Tourism Opportunities, Signage Plan
Consider ways to capitalize on the high traffic volumes at the edges of the Pinelands	Promotion Committee Chambers of Commerce	Tourism Opportunities
<p>Enhance Interpretation of the byways many intrinsic qualities</p> <p>Goal: Regional Identity; Tourism and Economic Development; Recreation</p> <p>Timeframe: Within 5 years</p>		
Work with the Pinelands Commission and public schools to coordinate curricula on history and environment with the Interpretive Plan.	Byway Task Force NJ Parks and Forestry NJ Fish and Wildlife Historical Commissions and Societies	
Identify existing interpretation on visitor maps and materials.	Promotion Committee Pinelands Commission	
Identify gaps in the stories that are told.	Byway Task Force through an Interpretation Working Group Pinelands Commission	Interpretation Plan, Tourism Opportunities

VISITOR INFORMATION & SERVICES

Recommendation	Key Personnel	Reference
Assure that primary information centers meet the needs of a diverse audience.	Byway Task Force NJ Fish and Wildlife NJ Parks and Forestry County Parks	Interpretation Plan, Tourism Opportunities
<p>Create a diversity of interpretive tools including site furnishings, maps, brochures and guides, curricula, events, documentaries, web sites, and downloadable information for iPods, cell phones and GPS systems.</p> <ul style="list-style-type: none"> ■ Develop a visitor-ready byway map and brochure. ■ Develop a series of themed brochures that will offer itineraries and background information on specialized topics (see Tourism Report). ■ Identify ideas for radio/television broadcasts and work with local public stations and sponsors to create opportunities for development ■ Develop a series of audio travel products. 	Byway Task Force through an Interpretation Working Group Promotion Committee Pinelands Commission	Interpretation Plan, Tourism Opportunities, Marketing
Increase and improve site panels at identified locations.	Byway Task Force, NJ Fish and Wildlife NJ Parks and Forestry County Parks	Interpretation Plan
Define ways to improve the dated installations so that they mesh with the newer installations.	Byway Task Force, NJ Fish and Wildlife NJ Parks and Forestry County Parks	Interpretation Plan, Tourism Opportunities
Create new web content that supports the overall interpretive program and encourages people to come and visit and experience the interpretive program.	Byway Task Force, Promotion Committee	Tourism Opportunities
Consider ways to involve local businesses in interpreting the area's resources, such as by creating restaurant placemats with maps and information, in room promotions for lodging facilities and others.	Promotion Committee, Chambers of Commerce	Marketing

VISITOR INFORMATION & SERVICES

Recommendation	Key Personnel	Reference
Find ways to connect and cross-promote existing interpretation.	Byway Task Force	
Coordinate with Other New Jersey Heritage Trails.	Byway Task Force	Tourism Opportunities
Focus efforts on encouraging travelers to "come closer"¹⁰ as many of the byways intrinsic qualities remain hidden to those who remain in their cars		
Goal: Regional Identity; Tourism and Economic Development; Recreation		
Time Frame: Within 5 years		
Undertake a study or studies to assess opportunities for increased access to the byway's intrinsic qualities; prioritize and implement as feasible.	Pinelands Commission	Tourism Opportunities
Create a strong travel oriented web site that is targeted toward the visitor who wishes to visit the byway: It should: <ul style="list-style-type: none"> ■ Highlight the variety of resources available ■ Relay the type of experience that can be found ■ Offer a variety of itineraries ■ Indicate the availability of services 	Byway Task Force	Tourism Opportunities Marketing
Create more guided Pinelands experiences.	Promotion Committee Chambers of Commerce NJ Fish and Wildlife NJ Parks and Forestry	Tourism Opportunities Marketing
Assess public visitor service facilities and policies and create a strategic plan to improve them as needed.	Byway Task Force Municipal Planning Board Facility Owners	
Identify potential locations where people can climb up and see the Pinelands from a viewing station or platform. Use existing facilities, such as the Batsto Mansion, to the extent feasible.	Byway Task Force NJ Fish and Wildlife NJ Parks and Forestry County Parks	

¹⁰ National Scenic Byways Program marketing slogan.

VISITOR INFORMATION & SERVICES

Recommendation	Key Personnel	Reference
Where possible, locate roadside pull-offs where people can enjoy scenic views such as the Mullica River.	Byway Task Force Municipal Planning Board NJ Fish and Wildlife NJ Parks and Forestry County Parks County DOT NJ DOT	Tourism Opportunities
Explore the possibility of providing parking near bridges.	Byway Task Force Municipal Planning Board County DOT NJ DOT	
Promote scenic experiences just off the byway.	Promotion Committee	
<p>Bring the environmental experience into community "centers"</p> <p>Goal: Economic Development and Tourism</p> <p>Timeframe: Within 10 years</p>		
Each identified "center" should go through a process to create an environmental experience within their centers (walking arch tour, nature tour, audio tour of interesting people, etc.).	Byway Task Force, Municipal Planning Board	Tourism Opportunities
Identify local heritage sites in each segment of the byway and focus investment at those sites.	Byway Task Force, Municipal Planning Board	Tourism Opportunities
<p>Support and sustain local businesses that provide goods and services related to the visitor experience</p> <p>Goal: Tourism and Economic Development</p> <p>Timeframe: Within 10 years</p>		
Assist local businesses in the design of site signs that effectively advertise goods and services while contributing to the identity of the byway.	Byway Task Force Chambers of Commerce Economic Development Offices	
Develop a framework for coordinating the marketing and promotion of businesses that can provide products and services to byway visitors to enable them to market themselves as part of a byway-wide effort.	Promotion Committee Chambers of Commerce	

VISITOR INFORMATION & SERVICES

Recommendation	Key Personnel	Reference
Install Tourist Oriented Destination Signs (TODS) to strengthen marketing.	Byway Task Force County DOT NJ DOT	Signage Plan
Highlight local artists and artisans through events, marketing and sale of goods and services.	Promotion Committee Chambers of Commerce	Tourism Opportunities
<p>Create a Byway Retail Program that will seek to accomplish one or more of the following:</p> <ul style="list-style-type: none"> ■ Identify all potential Pinelands-related products ■ Act as a wholesaler/warehouse of these products. An economic development oriented organization can use public funding to purchase the goods, store them and sell them at cost-plus-service-fee to local retail shops. ■ Organize a group of existing retail shops to broaden their offering of Pinelands goods. ■ Organize local artisans and crafts people to adopt a branding program for the byway. Create or use the Pinelands logo on these goods. Perhaps return a portion of the proceeds to an art or crafts-oriented program along the byway. ■ Work with visitor information and orientation centers to create a small retail space within their buildings to broaden the retail outlets on the byway. 	Promotion Committee Chambers of Commerce	
Initiate a working group to research and evaluate additional forms of marketing assistance that could be provided to local businesses.	Byway Task Force	

Byway Management

A scenic byway corridor is not protected or managed through a right of ownership, since the corridor – composed of the road right of way, the lands abutting it, and viewsheds – is held by multiple owners with varying needs, expectations, resources and capacities.

- The roadway, shoulders and other land within the right-of-way are managed by state or county highway departments, which are primarily concerned with maintaining traffic flow and safety while serving local and regional access requirements.
- Much of the land directly abutting the byway consists of state, county or federal lands, which are managed for natural resource protection, public recreation, or some combination of the two. The agencies which have supervision over these lands need to manage visitor access, which may include controlling or preventing access to sensitive areas. Some land along the route is also owned by private nonprofit organizations dedicated to resource protection, which have management objectives similar to those of the public land managers.
- Private landowners along the byway are interested in preserving access to their properties, both for themselves and, in the case of commercial land, for their patrons.
- Environmental agencies are charged with protecting natural resources.

Because of the multiple management entities involved, implementing a corridor management strategy for the scenic byway can be a complex undertaking. It is important that there be an organization in place to monitor and to some extent coordinate the efforts of these separate entities along the byway.

BYWAY MANAGEMENT ENTITY

The Corridor Management Plan was developed under the supervision of the New Jersey Pinelands Commission and with input from the Heritage Trail Committee, representing the byway's 16 towns and five counties. As the byway moves from planning to implementation, a different structure must be developed. There are several reasons why the Pinelands Commission should not be the permanent management entity: the Commission's primary mandate is to protect the ecology of the region rather than to promote tourism; it does not have the staff capacity to coordinate an ongoing byway effort; and, perhaps most important, the byway needs to have a strong commitment at the local level, which can be supported, but not directed, by a state agency such as the Commission.

A byway management entity should include representatives of the municipalities and counties through which the route passes, but must also reach out to include the full range of stakeholders who have vital interests in the byway and whose active participation will be essential to its success. The purpose of this organization is not to supersede the responsibilities and authorities of the public agencies and private landowners, but to help coordinate their activities and focus on actions to enhance and strengthen the byway.

A **Scenic Byway Task Force** will be established as the overall byway management entity, charged with overseeing implementation of the Corridor Management Plan and providing a coordinating or clearinghouse role. A suggested composition of the Task Force is as follows:

- 3 county representatives (Atlantic, Cape May and Ocean Counties have been most active during the planning process and cover 13 of the 16 byway communities)

- 5 municipal representatives, including at least two north and two south of the Atlantic City Expressway
- 3 state agency representatives: (Division of Parks and Forestry, Division of Fish and Wildlife, and Department of Transportation)
- 1 representative of the US Fish & Wildlife Service
- 2 representatives of private environmental organizations (e.g., New Jersey Audubon, The Nature Conservancy, Pinelands Preservation Alliance)
- 1 representative of the National Park Service/New Jersey Coastal Heritage Trail
- 3 economic development or tourism organizations
- 3 representatives of private recreation businesses
- 1 landscape architect, planner or environmental specialist

This Task Force will be divided into two working groups, one responsible for infrastructure and resource management, and the other focusing on tourism and economic development. The full Task Force could then meet 3 to 4 times per year, with the working groups meeting more frequently as needed to move projects forward.

A key responsibility of the Task Force will be to identify and prioritize projects along the byway. However, these projects will remain the responsibility of existing agencies: for example, the county highway departments will maintain and improve roadway infrastructure and directional signage, guided by byway-wide standards.

Initially, the Task Force will be an ad hoc organization with no formal legal standing. Grant funds can be applied for and admin-

istered on behalf of the Task Force by an appropriate public agency, possibly Atlantic County. As the Task Force gains some experience in operating in this way, consideration should be given to the desirability of creating a permanent nonprofit organization that can receive and expend funds on its own.

REVIEW AND ENFORCEMENT FUNCTIONS

While the Byway Task Force will provide overall coordination for implementation of the Corridor Management Plan, existing agencies and organizations will continue to be responsible for review and enforcement actions within their spheres of authority. The following discussion summarizes these responsibilities with respect to the five categories of implementation actions presented above.

Land Use and Development

Land use management authority in New Jersey resides at the local level: i.e., the township, city or borough. Consequently, implementation actions involving changes to land use and development regulations – such as zoning ordinances, site plan review regulations and subdivision regulations – will be developed by municipal planning boards and will be enacted by the planning board or the municipal council, depending on the particular regulation. Land use regulatory changes in the Pinelands Area are also subject to review and approval by the Pinelands Commission. Outside the Pinelands Area; local land use plans are subject to the cross-acceptance provisions of the New Jersey State Development and Redevelopment Plan; as a result, local zoning changes (which must be consistent with the land use plan) are subject to review by the county and the Pinelands Commission, and approval by the State Planning Commission's Office of Smart Growth.

Enforcement of land use and development regulations will remain the responsibility of the individual municipalities.

Regulations that impact managing access to the scenic byway (such as curb cut regulations) will be reviewed and enforced by the agencies with responsibility for the roadway where possible, which include the New Jersey Department of Transportation for state and federal routes, county highway departments for county routes, and municipalities for local roads.

Corridor Aesthetics

Actions to maintain or enhance the aesthetics of the corridor include maintenance of the roadway and areas within the right-of-way (e.g., vegetation, signage, guide rails), and activities outside the right-of-way such as viewshed management and outdoor lighting standards. Where possible, the public agencies that control the roadway (state, county and local highway departments, based on the status of the particular route segments) will be responsible for evaluating, implementing and reviewing the status of recommended actions within the right-of-way. Municipal planning boards and county planning departments will be responsible for reviewing actions outside the right-of-way. Municipal planning boards will be responsible for implementing and enforcing lighting standards.

Environmental Issues and Impacts

Some identified actions to address environmental quality involve land acquisition or protection, while others are regulatory in nature. Open space acquisition will be implemented and reviewed by local conservation commissions and county planning agencies. Regulatory actions will be reviewed, implemented and enforced by municipal planning boards and municipal councils, subject to approval by the Pinelands Commission or the Office of Smart Growth, as applicable.

Traffic Capacity and Safety

Actions to maintain and enhance the traffic-carrying capacity and safety of the scenic byway are the responsibility of the state, county and municipal highway departments with control of each particular segment. Enforcement of motor vehicle regulations along the route is the responsibility of local police departments, county sheriff departments, and the State Police, depending on the jurisdiction.

Visitor Information and Services

Responsibilities for review, implementation and enforcement of signage providing visitor information will be shared by the agencies with control of the roadway segment; local land use permitting and enforcement agencies; and public land management agencies owning land abutting the byway (e.g., Atlantic County Parks, New Jersey Division Parks and Forests and Division of Fish and Wildlife, U.S. Fish and Wildlife Service).

BYWAY MANAGEMENT

Recommendation	Key Personnel	Reference
<p>Assure that the Pine Barrens Byway is managed cooperatively and effectively.</p> <p>Goal: All Timeframe: Within 5 years</p>		
Establish a byway Task Force, to be responsible for monitoring and supporting actions for byway protection, enhancement, marketing and promotion.	Pinelands Commission	
Identify agencies and organizations that wish to partner with the Task Force to implement the plans of the CMP.	Byway Task Force Pinelands Commission	
<p>Create a framework that encourages broad-based involvement.</p> <p>Goal: All Timeframe</p>		
Develop a list of project partners for priority projects, and revisit and revise the list as projects are completed and new projects identified.	Byway Task Force	
Develop a web of partnerships that support like causes to increase opportunities for interpreting and marketing.	Byway Task Force	
Engage educators to enhance local awareness and appreciation.	Byway Task Force Pinelands Commission Schools	
Develop a strategy that helps stakeholders to build off each others' successes so that one successful project leads to another.	Byway Task Force	

Public Process

Public participation in the development and management of the scenic byway must be ongoing. Opportunities for participation will occur regularly as projects are undertaken. Each project will have its own public process and will always be recognized as a part of the larger byway project. In addition to ongoing participation revolving around specific projects, the Byway Task Force will submit an **annual report** to each municipality and county planning agency and all other organizations identified in the process. The annual report will:

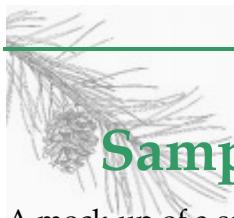
- indicate the status of all action items;
- document and evaluate projects undertaken;
- share information on potential projects, and;

- highlight any relevant issues along the byway.

The process will require a response from each reviewing entity. The response will:

- indicate the entity's level of satisfaction with the process and projects;
- outline planned or potential projects for which the organization is responsible;
- document any concerns;
- provide overview of a public process, and;
- make any new recommendations for revising the Implementation Plan.

The Byway Task Force will then be responsible for revising the Implementation Plan based on feedback and anticipated fiscal and institutional capacity.



Sample Byway Map Marketing Brochure

A mock-up of a sample byway marketing brochure map follows. Such a brochure would include a map on one side and a description of sites and services on the other side. The brochure breaks the byway into three segments.

- Northern Loop
- Central Section
- Southern Loop

