FINAL

Comprehensive Management Plan
and
Environmental Impact Statement
for the
Maurice National Scenic and Recreational River

Menantico Creek, a tributary of the Maurice River

National Park Service, Philadephia Support Office
In Cooperation with Partners

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Section I — Summary

Controversial development proposals and a desire to preserve the Maurice River corridor for future generations motivated local landowners, environmental organizations and public officials in five municipalities and two counties to focus their efforts on securing long term protection.

In 1993 Congress passed Public Law 103-162 which designated 35.4 miles of the Maurice River and its tributaries in the State of New Jersey as components of the National Wild and Scenic Rivers System. The National Park Service, through the Secretary of the Interior, was given responsibility for "managing the river segments through cooperative agreements with the political jurisdictions within which such rivers pass…except that publicly-owned lands within the boundaries of such segments shall continue to be managed by the agency having jurisdiction over such lands."

As a cooperatively managed unit of the National Park System, responsibility for long-term management and protection of the Maurice National Scenic and Recreational River is shared among neighboring municipalities, Atlantic and Cumberland counties, the State of New Jersey, and the National Park Service. Primary responsibility rests with the five municipalities, all of which have developed River Conservation Zones to provide additional protection.

Over 50 percent of the designated corridor is located within the boundaries of the Pinelands National Reserve, which was established by the United States Congress in 1978. Much of the land within the National Reserve is also within the state designated Pinelands Area and falls under the jurisdiction of the New Jersey Pinelands Commission. Uses of these lands and waters within the Pinelands Area are governed by a Comprehensive Management Plan that is administered by the Pinelands Commission. The Pinelands Comprehensive Management Plan prescribes minimum standards and allowable uses within these areas and is incorporated into this document by reference.

Waterways and adjacent lands outside of the Pinelands Area but within the boundaries of the Pinelands National Reserve are subject to New Jersey's Coastal Area Facilities Review Act (CAFRA), which must be consistent with the Pinelands Comprehensive Management Plan. Adjacent wetlands outside of the National Reserve are regulated by state and federal agencies. There are seven NJ Wildlife Management Areas located within the Maurice River corridor and a total of fifteen in the Maurice River Watershed. The pristine nature of much of the river and its tributaries permitted the classification of approximately 29 miles as a "scenic" designation which represents 82% of the National Scenic and Recreational River corridor. The remaining mileage is classified as "recreational".

The Maurice River designation legislation specifically acknowledged that a River Management Plan had already been developed by Cumberland County and adopted by Maurice River Township, Commercial Township and the City of Millville that would meet the requirements of Section 6(c) of the Wild and Scenic Rivers Act. In addition, Public Law 103-162 also acknowledged the City of Vineland's Master Plan and Buena Vista Township's Land Use Plan that is consistent with the Pinelands Comprehensive Management Plan. The National Park Service has determined that Local River Management Plans and zoning ordinances for each municipality meet the protection standards specified in Section 6(c) of the Wild and Scenic Rivers Act.

Since local protection was well defined prior to designation, Public Law 103-162 directed the development of a Comprehensive Management Plan by the National Park Service. Because of the Maurice River corridor's significance to the history of the south Jersey area, it has been the focus of much planning and research with significant public involvement. So as not to duplicate the efforts already undertaken, this Comprehensive Management Plan is compiled from existing documents prepared by municipal, county, state and federal agencies since the designation in 1993.

Four of the five municipalities are located in Cumberland County, which consistently served as the primary local organization coordinating and advising municipal, state, and federal organizations. To solidify roles and responsibilities in managing the designated river corridor, partners signed a Memorandum of Understanding in 1994. The County role was clearly established and its representatives have continued to provide an appropriate forum for the resolution of issues and the identification of opportunities. The County has been responsible for coordinating local river management planning efforts and the develop-

ment of Cumberland County's Ecotourism Plan provided clear direction for the future of the Maurice River watershed.

Management of the designated Maurice River corridor acknowledges both the importance of and preference for local leadership, and the additional protection afforded by federal wild and scenic river designation. Local management focuses on the support of municipalities and the base level of protection already available through county and state government organizations. Local River Management Plans and River Conservation Zones by municipalities outline basic protection at the local level. That local protection, combined with the diligence of Cumberland County's oversight and coordination with the National Park Service, has created a successful partnership in the Maurice National Scenic and Recreational River corridor.

The National Park Service will serve as the key federal representative in the implementation of the Comprehensive Management Plan. The agency's principal role will be to represent the Secretary of the Interior in reviewing federal projects as required by Section 7(a) of the Wild and Scenic Rivers Act. The National Park Service was also given the authority to review Local River Management Plans, in consultation with appropriate representatives of local political jurisdictions and the State of New Jersey, to assure their proper implementation. Together, the National Park Service and its partners will assure the values for which the river corridor was designated as a component of the National Wild and Scenic Rivers System remain undiminished.

Several guidelines were developed during the study and designation process of the Maurice River and reflect consensus that resulted in local support for designation. They were also taken into consideration throughout the Comprehensive Management Planning process.

- The National Park Service will not acquire land within the Maurice River corridor for its direct ownership nor will the National Park Service directly manage the designated river corridor.
- Management of the Maurice River will be based primarily on the actions of local governments in cooperation with the County, the State of New Jersey, and the National Park Service.
- Protection against over regulation will be assured by using only existing local, state and federal laws to achieve comprehensive protection of the river's important resources.
- Traditional uses will be maintained.
- Landowner rights will be respected.
- Resource protection must recognize that the Maurice River is the economy in the region and designation can, and should, be used to foster local economic revitalization efforts in keeping with resource protection.

The federal boundary for the Maurice National Scenic and Recreational River consists of one-quarter mile from the high water line on each side of the designated waterway throughout the 35.4 mile corridor. This boundary envelops outstandingly remarkable resources and wetlands and provides enough land area to buffer the waterway from incompatible land uses. The federal boundary cannot exceed more than 320 acres per river mile, on average, as outlined under the Wild and Scenic Rivers Act. The National Park Service is responsible for reviewing federally sponsored or permitted projects within those lands and water areas included in the federal boundary. Since the federal boundary is limited by law, municipalities developed River Conservation Zones that exceeded the recommended federal boundary.

The Comprehensive Management Plan describes 35.4 miles of the river and its surroundings, identifies river-wide issues and opportunities along with potential actions, analyzes the environmental consequences of the plan and presents three management alternatives that were considered. Under all management alternatives, the National Park Service maintains its role as overall federal administrator and facilitator assisting local protection efforts.

The range of management alternatives consisted of:

- Continue Existing Trends (No Action) which is the preferred alternative (Alternative I)
- Establish a River Management Council with Cumberland County as the Lead Organization (Alternative II)
- More direct NPS Management (Alternative III)

A Memorandum of Understanding (MOU) among the five municipalities, Cumberland County and the National Park Service was signed in 1994 which outlined the parameters of managing the Maurice National Scenic and Recreational River. This MOU outlined the roles and responsibilities of each partner and this management approach is still in effect today. For this reason, the No Action Alternative (Continuing Existing Trends) was the preferred alternative.

The recommendations contained in this plan seek to protect water quality, preserve natural features, provide for recreational uses, provide for the continuation of agriculture, conserve river resources, and maintain existing land use patterns. They do not limit the rights of owners to maintain lawfully established uses. They do not limit rights to fish, hunt, or trap on any lands or waters (subject to property owner approval), nor do they require a change in the existing laws and programs which regulate these areas. They do not limit the continuation of lawfully existing agricultural or forestry operations, nor do they impose any restrictions on farming other than the continuation of existing state and local laws.

This Comprehensive Management Plan focuses on managing the river corridor through educating and informing the public, as well as through the strict enforcement of existing laws and regulations.

A. LEGISLATIVE BACKGROUND

In 1986 controversial development proposals along the Maurice River corridor created continuing debate about appropriate and inappropriate land uses along the Maurice River corridor. When a hazardous waste entombment facility adjacent to the Manumuskin and Maurice River confluence was proposed, local landowners, environmental organizations, and public officials in five municipalities and two counties focused their efforts on securing long term protection of the river corridor. On December 1, 1993, Public Law 103-162 was signed designating segments of the Maurice River and its tributaries in the State of New Jersey as components of the National Wild and Scenic Rivers System.

The Wild and Scenic Rivers Act (Public Law 90-542, as amended) was established to protect selected rivers in free-flowing condition and to recognize their importance to our cultural and natural heritage. To qualify for this protection, the Wild and Scenic Rivers Act requires that rivers must not only be free-flowing, but also relatively undeveloped and must possess one or more "outstandingly remarkable" scenic, recreational, geologic, fish and wildlife, historic, cultural, or other similar resources.

Public Law 103-162 designated 35.4 miles of the river corridor as a National Scenic and Recreational River. Of those 35.4 miles, 10.5 miles are on the mainstem of the Maurice River, 7.9 miles on the Menantico Creek, 14.3 miles of the Manumuskin River, and 2.7 miles of Muskee Creek. Refer to *Table #1* for classifications of various river segments.

35.4 miles of the river corridor has been designated as a National Scenic and Recreational River.

The Wild and Scenic Rivers Act provides specific limitations on the establishment of the official "federal" (or scenic and recreational) boundary. Basically, the federal government is limited to establishing a "federal" boundary for the river which does not exceed one-quarter mile from the high water line from each bank, or a boundary which does not exceed 320 acres, on average, per river mile. Refer to *Map 1* for a delineation of the federal boundary.

Section 3 of the designation legislation specifically states that the Secretary of the Interior, through the National Park Service, "shall manage the river segments designated as components of the National Wild and Scenic Rivers System by this Act through cooperative agreements with the political jurisdictions within which such segments pass, pursuant to section 10(e) of the Wild and Scenic Rivers Act, and in consultation with such jurisdictions, except that publicly-owned lands within the boundaries of such segments shall continue to be managed by the agency having jurisdiction over such lands."

Simply stated, responsibility for long term management and protection of the Maurice National Scenic and Recreational River is shared among neighboring municipalities, Atlantic and Cumberland Counties, the State of New Jersey, and the National Park Service. Primary responsibility rests with the five municipalities: Maurice River Township, Commercial Township, City of Millville, City of Vineland, and Buena Vista Township. For that reason, a *Local Management Plan For The Maurice River And Its Tributaries* was developed by the Cumberland County Department of Planning and Development prior to designation and adopted by the various municipalities. The *Local Management Plan* was prepared following a lengthy process of public involvement with input from representatives of a wide range of business, government, environmental interest groups, and citizens of both Atlantic and Cumberland Counties. The *Local Management Plan* is the foundation for long term local protection of the Maurice River and its tributaries.

Section 6(c) of the Wild and Scenic Rivers Act states that "Neither the Secretary of the Interior nor the Secretary of Agriculture may acquire lands by condemnation for the purpose of including such lands in any national wild, scenic or recreational river area if such lands are located within any incorporated city, village, or borough which has in force and applicable to such lands a duly adopted valid zoning ordinance that conforms with the purposes of this Act." All five municipalities have adopted *Local Management Plan* recommendations and their zoning ordinances are consistent with river corridor protection needs. Buena Vista Township, located within the Pinelands National Reserve, prepared a land use plan consistent with the Pinelands Comprehensive Management Plan which is even more restrictive than the Cumberland County *Local Management Plan* recommendations.

B. PURPOSE OF THE COMPREHENSIVE MANAGEMENT PLAN

Critical to this planning process was the need to recognize that many decisions regarding long term protection of the river corridor were made prior to the actual designation of the 35.4 miles of the Maurice River and its tributaries. This was due primarily to the planning process employed in the development of the *Local Management Plan For The Maurice River And Its Tributaries* prior to designation. It was determined early on in the study process for designating the Maurice River that local governments wanted to rely primarily on local controls to manage the important river resources and wanted to make decisions upfront about its long term protection and management.

In addition, Cumberland County consistently demonstrated strong support throughout the study, designation, and subsequent planning processes and has established its position as the primary local responsible organization in resource protection in the river corridor. The County continues to be proactive in resource protection acting as a facilitator when issues arise that may be contrary to that protection. This Comprehensive Management Plan recognizes the established management role of Cumberland County, encourages it, and continues to nurture and support it.

In 1994, a Memorandum of Understanding (MOU) among the five municipalities, Cumberland County, and the National Park Service was signed and witnessed by Commissioner Shinn of the NJ Department of Environmental Protection, and elected public officials, including Vice President Al Gore, Senators Bill Bradley and Frank Lautenberg, and Congressman Bill Hughes. This agreement outlined the parameters of managing the Maurice National Scenic and Recreational River, including the roles and responsibilities of participating agencies which are further described in Section V of this document. It also contained a synopsis of the primary information that is included into the Comprehensive Management Plan.

The designation legislation directs the Secretary of the Interior to prepare a Comprehensive Management Plan (CMP) in consultation with appropriate representatives of local political jurisdictions and the State of New Jersey to assure that the values for which the river segments were designated are protected. This plan reaffirms the purpose and significance of the corridor, the goals and management direction outlined during the designation process, and it complements the *Local Management Plan for the Maurice River and Its Tributaries*. The CMP is a tool that establishes the basic philosophy of resource protection and provides a rationale for making management decisions that affect those resources and the landowners and visitors experience of the resource.

This Comprehensive Management Plan for the Maurice River and its tributaries was prepared in compliance with the Wild and Scenic Rivers Act and National Park Service policy requirements.

C. THE PLANNING PROCESS

The Comprehensive Management Planning process is guided by several federal requirements, including the National Environmental Policy Act of 1969. The Act requires that a full range of alternatives be considered (including no action or change in existing trends). The Council on Environmental Quality regulations also require full consideration of other acts such as the Endangered Species Act, Clean Water Act, Clean Air Act, National Historic Preservation Act, Executive Order 11988 "Floodplain Management," Executive Order 11990 "Protection of Wetlands," and Executive Order 12898, "Federal Actions to Address Environmental Justice in Minority Populations and Low Income Populations."

This Comprehensive Management Plan is a composite of existing planning and research documents and is a joint effort among partners in the river corridor. The National Park Service, Atlantic and Cumberland Counties, the five municipalities, State of New Jersey, Citizens United to Protect the Maurice River and Its Tributaries, Inc, as well as other organizations have contributed to the development of this plan. The extensive public involvement employed during the study, designation and local management planning processes provided significant input.

In addition to this document, an *Ecotourism Plan* prepared by the Cumberland County Department of Planning and Development created a vision and implementation strategy for economic development and conservation in the Maurice River watershed. The *Ecotourism Plan* offers specific recommendations on how visitors can enjoy the significant resources of the County without adversely affecting them. Much of the information contained in the *Ecotourism Plan* is incorporated into this Comprehensive Management Plan. Clearly, Cumberland County has assumed a leadership position in the protection of the Maurice River corridor.

This Comprehensive Management Plan capitalizes on the planning processes employed by Cumberland County, complements them, and further defines long term strategies for resource protection and visitor services.

D. SUMMARY OF PUBLIC INVOLVEMENT

A number of strategies to secure public input into the designation and Local Management Planning processes, Ecotourism Plan development and the Interpretive Planning process were used. Workshops which involved many different public interests, as well as presentations to a wide range of interest groups and organizations, including municipal governments, chambers of commerce, business groups, environmental organizations, elected officials and non-profit organizations, were conducted to secure input and recommendations. A Notice Of Intent to prepare a Comprehensive Management Plan and an Environmental Impact Statement was published in the Federal Register on March 12, 1999.

E. UPDATING THE COMPREHENSIVE MANAGEMENT PLAN

This Comprehensive Management Plan provides a 10-year framework for cooperative protection of the Maurice National Scenic and Recreational River. However, it is recognized that new issues and opportunities will arise not addressed in this plan that will need attention. A report will be prepared by both the National Park Service and Cumberland County every two years indicating the status of cooperative protection efforts.

TABLE 1 - DESIGNATED AREAS AND CLASSIFICATION

RIVER SEGMENT	SEGMENT DESCRIPTION	CLASSIFICATION	OUTSTANDING RESOURCES	MILES
Middle Maurice No. 1	From Route 670 Bridge at Maurice-town to 3.6 miles upstream (at drainage ditch just upstream of Fralinger Farm	Scenic	Largely undeveloped, extensively wooded and dominated by wetlands. Only evidence of human activity is dispersed residential dwellings.	3.8
Middle Maurice No. 2	From the drainage ditch just upstream of Fralinger Farm to one-half mile upstream from the U. S. Geological Survey Station at Burcham Farm.	Recreation	Vital link to the Delaware Bay & Pinelands National Reserve, provides habitat for bald eagle and has endangered vegetation.	3.1
Upper Maurice	From one-half mile upstream from the U.S. Geological Survey Station at Burcham Farm to the south side of the Millville sewage Treatment plant	Scenic	Vital link to the Delaware Bay, provides habitat for bald eagle, habitat for the striped bass & shortnose sturgeon and is the site of endangered vegetation.	3.6
Upper Menantico	From the Route 55 Bridge to the base of the impoundment at Menantico Lake	Scenic	Vital link to the Delaware Bay, provides habitat for bald eagle, may be eligible for pristine water quality, hosts endangered plant & animal species	6.5
Lower Menantico	From its confluence with the Maurice River to the Route 55 bridge	Recreational	Vital link to the Delaware Bay, provides habitat for bald eagle, and may be eligible for pristine water quality.	1.4
Lower Manumusken	From its confluence with the Maurice River to 2.0 miles upstream	Recreation	Vital link to Delaware Bay and Pinelands, provides habitat for bald eagle, has pristine water quality and has the des- ignated Pineland Village of Port Elizabeth.	2.0
Upper Manumuskin	From 2.0 Miles upstream from its confluence with the Maurice River to headwaters near Route 557	Scenic	Vital link to Delaware Bay and Pinelands, provides habitat for bald eagle, has pristine water quality, supports endangered wildlife and sensitive joint vetch.	12.3
Muskee Creek	From its confluence to the PA Reading Seashore Line Railroad bridge	Scenic	Vital link to the Pinelands National Reserve and provides habitat for bald	2.7

A. MISSON

The primary mission of the National Park Service and its partners is to preserve in free-flowing condition the Maurice River and its tributaries and to assure the protection of significant and outstandingly remarkable resources for the benefit and enjoyment of present and future generations.

B. PURPOSE

The purposes of establishing the Maurice National Scenic and Recreational River are as follows:

1. to declare the importance and irreplaceable resource values of the Maurice River and its tributaries to human health, traditional economic activities, ecosystem integrity, biotic diversity, fish and wildlife, scenic open space and recreation and to protect such values;

2. to recognize that the Maurice River System will continue to be threatened by major development and that land use regulations of the individual local political jurisdictions through which the river segments pass cannot alone provide for an adequate balance between conservation of the river's resources and commercial and industrial development;

3. to recognize that segments of the Maurice River and its tributaries additional to those designated under this Act are eligible for potential designation;

4. to educate visitors and residents about the significant resources of the river corridor and the responsibilities associated with them.

C. RIVER SIGNIFICANCE

The Maurice River corridor is an unusually pristine Atlantic Coastal river with national and internationally important resources. As part of the Atlantic flyway, its clean waters and related habitats are vitally important to the migration of shorebirds, songbirds, waterfowl, raptors, rails, and fish. Historically, the Maurice is home to a rich fishing, boating, and oystering heritage. The river supports New Jersey's largest stand of wild rice and 53 percent of the animal species that New Jersey has recognized as endangered, excluding marine mammals. The river is a critical link between the Pinelands National Reserve and the Delaware Estuary – both nationally and internationally important.

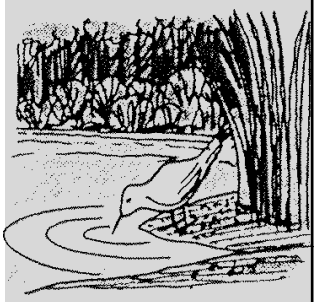
A resource assessment of the Maurice River and its tributaries shows that the area possesses numerous outstandingly remarkable natural, historical, cultural, scenic and recreational resources that are important at the local, regional, and international levels, including rare plant and animal species and critical habitats for birds migrating to and from the north and south hemispheres.

. . . the designated area functions as an important biological link between the Pinelands and the Delaware Bay.

In a regional context, the designated area functions as an important biological link between the Pinelands and the Delaware Bay. The river drains extensive forest and shrub wetlands. Their shorelines and the shorelines of their small tributaries are dominated by woody vegetation that overhangs the banks and shades the water, maintaining low water temperatures, trapping sediment and other pollutants, and delivering fine-to-coarse organic matter to the streams in a manner characteristic of undisturbed riverine systems. Very high quality water is delivered to the Delaware Bay by the Maurice River system. This water is critically important to regional oyster, crab and fin-fish industries. These traditional industries presently have considerable social and economic importance in Cumberland County, as they have had for at least five human generations.

The Maurice River system functions in direct relation to the Cohansey aquifer, the region's source of groundwater. Because of the sandy substrate, the Maurice River system both contributes to, and draws from, the Cohansey aquifer depending on localized physiography and the seasonal distribution of precipitation.

It is the overall biological integrity of this river that makes it important to the natural and cultural resources of the Delaware Estuary. The National Estuary Program (established by amendments to the 1988 Clean Water Act) recognizes the Delaware Estuary as nationally important. The estuary qualifies, and has been nominated to, the Convention of Wetlands of International Significance, also known as the Ramsar Convention of 1971. (The convention is an inter-governmental treaty that provides the foundation for international recognition and cooperation in conserving wetland habitats of global importance.)



Within the context of the western hemisphere, the Maurice River and its tributaries function as a critical migration-related habitat for shorebirds, songbirds, waterfowl, raptors, rails and fish. The important and interrelated factors of water quality and land use, coupled with the area's estuarine nature and geographic location along the Atlantic flyway, have a direct relationship to the health and viability of these populations.

The Maurice River and its tributaries drain the southwest portion of the Pinelands National Reserve, which is also an International Biosphere Reserve under the United Nations Man and the Biosphere program. The Pinelands National Reserve is about 1.1 million acres in size and was established in 1978. The Maurice and the Manumuskin Rivers form the southwestern boundary of the Pinelands National Reserve. The Pinelands Commission considers the entire Manumuskin watershed to be an ecologically critical area which supports important aquatic communities characteristic of the Pinelands. The Pinelands Comprehensive Management Plan (1980) identified the Maurice River drainage basin as an adjacent area of importance. Such areas are defined as important to the maintenance of the Pinelands environment. In addition, the NJ Conservation Foundation has described the Manumuskin River as follows: "About eighty five percent of the drainage basin of the Manumuskin is forested and nearly one-quarter supports wetlands. There are no sewage treatment plants, landfills or industrial discharges in the watershed, which has a population fewer than 100 persons per square mile. The Nature Conservancy described the estuarine portion of the river which supports the globally rare Sensitive Joint Vetch as 'The least disturbed tidal freshwater wetlands in New Jersey'." Freshwater wetlands within the Maurice River System have been identified as USEPA Priority Wetlands in the Environmental Protection Agency's publication entitled "Priority Wetlands for the State of New Jersey." The US Fish and Wildlife Service has also recognized the environmental significance of the Maurice River corridor in three publications: *Regional Wetlands Concept Plan: Northeast Region; The 1998 Update - North American Waterfowl Management Plan; and the North American Waterfowl Management Plan - 1999 United States Progress Report*.

Cumberland County's heritage is steeped in the history of the Lenape people and the European settlers who came later. Many current residents trace their native American roots to the Lenape nation; a nation that numbered some 6,000 inhabitants at the time of the earliest colonial explorations of the Delaware Bay region.

It was the rich natural resource base of the County that shaped its first European settlements. Villages developed around the fishing, seafaring, and oystering industries. The waterways of the Cohansey and Maurice Rivers provided commerce and trade with cities and other communities in the region and along the east coast. The many deposits of silica sand promoted the development of glass manufacturing in Millville and Bridgeton. Fertile soils and a mild climate enabled the farming industry to develop in Vineland and the rural western parts of the County. Recreational opportunities helped make Fortescue one of southern New Jersey's finest resort communities at the turn of the century.

D. SPECIAL MANDATES

As a result of citizen input, Congressional directives, and the findings of several background reports, guidelines were developed that resulted in local support for designation of the Maurice River as a component of the National Wild and Scenic Rivers System. Recommendations contained in this plan, and subsequent actions should be consistent with the following six guidelines.

1. **No Federal land acquisition will take place for National Park Service ownership nor will the National Park Service directly manage the river corridor.** The National Park Service has made it clear from the beginning of the study process through designation for the Maurice River that it has no interest in, or intention of, acquiring land in the river corridor for purposes related to the National Wild and Scenic Rivers System. This "No Acquisition" policy was a critical criteria for securing local support for designation.

2. **Local Management.** Management of the Maurice River will be based primarily on the actions of local governments in cooperation with the County, State of New Jersey and the National Park Service. The *Landowners Survey Report for the Maurice River* concluded that, while local citizens are very concerned with pollution and environmental protection, they are also concerned with government over-regulation and the possible loss of private property rights. Landowners want to protect the environmental integrity of the area while having an active role in determining the type of protective measures that will be used.

3. **Recognize and Use Existing Programs.** Protection against over regulation will be assured by using only existing local, state and federal laws to achieve comprehensive protection of the river corridor's important resources. The intent of this condition is to avoid additional bureaucracy or regulation while meeting the needs of river conservation and local economic vitality.

4. **Traditional Uses Maintained.** A primary reason for designation of the Maurice River corridor was in response to the desires of local citizens to maintain and conserve the river values that are important to them. One condition of future actions will be to maintain traditional uses such as agriculture, fishing, marinas, hunting and trapping.

5. **Protection of Landowners Rights.** The intent of this and any future conservation strategy for the Maurice River area is to ensure that the important resource values are protected, while simultaneously protecting the property rights of landowners.

6. **Recognition of Economic Need.** It is important to recognize that, by and large, in Cumberland County the river **is** the economy. Today, natural resources are still important economic factors in the County. Resource protection must recognize and address the traditional economy whether those businesses are oysters, crabs, fishing, recreation, or tourism. Wild and Scenic designation can and should be used to foster local economic revitalization efforts while assuring resource protection.

In addition to the above special mandates, Section 3(d) of the designation legislation specifically encouraged the Secretary of the Interior to work with the local municipalities to negotiate agreement and support for designating those segments of the Maurice River and its tributaries which were found eligible for designation and were not designated under Public Law 103-162. To date, Commercial Township has not expressed an interest in pursuing the inclusion into the National Wild and Scenic Rivers System those segments excluded from the original designation.

IV. Goals and Objectives

A. GOALS

Throughout the study and planning processes for the Maurice River several important goals were identified as the framework for future direction. They are:

Foster the protection and enhancement of the natural, cultural and recreational resources of the rivers and their adjacent lands for future generations.

Promote economic vitality by acknowledging rights of traditional businesses and stimulating future compatible opportunities.

Encourage coordination and consistency among existing levels of government, businesses, organizations and individuals to facilitate implementation of management plans, without creating a new regulatory agency or infringing on individual property rights.

B. OBJECTIVES

The following objectives or vision statements were generated throughout the various planning processes and reflect public input.

A sense of the fragility of river resources must be communicated to residents and visitors to assure respect and preservation.

Create advocates for both resource protection and responsible tourism.

Protect resources from overuse and inappropriate uses.

Support wildlife, fisheries and the recreational values associated with the designated corridor.

Protect and the significant scenic, cultural, historic and natural qualities of the river corridor.

In addition to the above statements, the following visitor experience objectives were identified: Visitors and residents will …

… learn the value of the resources of the Maurice River corridor through inspirational, educational, and interactive experiences leading to advocacy for resource protection.

… have educational opportunities to understand the significance of the area, leading to heightened public awareness about the Scenic and Recreational River, local related industries, plant and animal habitats, and cultural/historic resources.

… become aware of the Maurice River system as one of the most significant and critically important national and international migratory bird habitat and tidal wetland ecosystems in New Jersey.

… experience the fragile and invaluable natural and cultural resources in ways that leave them unimpaired for future visitors.

… learn about human relationships with the natural resources as they have evolved from prehistoric times to the present through exposure to genuine and unimpaired natural and cultural resources.

… have access to appropriate amenities and facilities to assure an enjoyable, safe, inspirational, and interactive experience with the area's significant resources.

… be able to participate in passive and active recreational opportunities without compromising significant resources.

… have opportunities to experience the rich traditional culture of the area through special events, celebrations, and other local cultural activities.

… be adequately informed and oriented to experience the river system and related regional resources while respecting private property and needs of local residents.

A. OVERVIEW

Approximately 5.6 percent of the designated river corridor is owned by public agencies for conservation purposes, about 8 percent is owned by private non-profit conservation organizations, about 2.7 percent is owned by sand mining companies, and about 83.7 percent is owned by individual citizens.

Over 50 percent of the designated river corridor is located within the Pinelands National Reserve...

Over 50 percent of the designated river corridor is located within the Pinelands National Reserve which was created for the purpose of protecting the significant natural and cultural resources of the New Jersey pine barrens region. The Pinelands National Reserve is managed by the State of New Jersey under two separate state programs. The New Jersey Pinelands Commission has jurisdiction over those areas within the Pinelands Area which is comprised of the approximately 300,000 acre Preservation Area and the surrounding 640,000-acre Protection Area (the State Pinelands Area boundaries differ somewhat from the federally established Pinelands National Reserve). In areas outside of the Pinelands Area, the NJ Department of Environmental Protection (NJDEP) may have jurisdiction under the provisions of the Coastal Area Facilities Review Act (CAFRA), the New Jersey Freshwater Wetlands Act, the 1970 Wetlands Act (which regulates coastal wetlands) and the Waterfront Development Act (which regulates development below the mean high water line).

The following is a brief overview of the areas of responsibility of each organization participating in the management of the Maurice National Scenic and Recreational River.

B. ROLES AND RESPONSIBILITIES

1. Agencies/Organizations

a. Federal Government

(1) National Park Service

The commerce clause of the US Constitution gives the federal government the authority to regulate certain interstate resources, such as water and air. The National Park Service shares jurisdiction with New Jersey for activities in and on the river relating to recreational use. This jurisdiction does not apply to the bottom of the river or land areas in the Maurice River corridor. The National Park Service has no proprietary jurisdiction over lands and structures since it owns no lands.

Regulations contained in Chapter 1 of 36CFR (Code of Federal Regulations) provide for the proper use, management, and protection of resources within areas under the jurisdiction of the National Park Service. This includes "…Waters subject to the jurisdiction of the United States (federal government) located within the boundaries of the National Park System, including navigable waters and areas within their ordinary reach…. (up to the mean high water line in places subject to the ebb and flow of the tide and up to the ordinary high water mark in other places) and without regard to the ownership of submerged lands, tidelands, or lowlands."

Public Law 103-162 designating the Maurice National Scenic and Recreational River contained specific language that "The Secretary of the Interior shall manage the river segments designated ….through cooperative agreements with the political jurisdictions within which such segments pass, pursuant to section 10(e) of the Wild and Scenic Rivers Act, and in consultation with such jurisdictions, except that publicly-owned lands within the boundaries of such segments shall continue to be managed by the agency having jurisdiction over such lands." Navigable waterways are under the jurisdiction of the federal government whether or not they are included in the National Wild and Scenic Rivers System.

The National Park Service will serve as the key federal representative in implementation of the Conservation Management Plan.

The National Park Service (NPS) will serve as the key federal representative in implementation of the CMP and will represent the Secretary of the Interior in reviewing federal water resource projects as required by Section 7(a) of the Wild and Scenic Rivers Act. The NPS will review any proposed water resources project that requires federal assistance through permits, licenses, funding, or other action encroaching on or directly affecting any designated segment of the Maurice National Scenic and Recreational River. During its review, NPS will evaluate each proposed project in terms of its potential impact upon the CMP's objectives and standards and on the designated area's outstandingly remarkable resources.

The NPS role as specified in the signed 1994 Memorandum of Understanding and which continues today is defined as follows:

(a) The NPS agrees to work cooperatively to ensure that the Comprehensive Management Plan is implemented fairly and equitably. In addition, the NPS appreciates that there are many interests in the Maurice River watershed and that the management of the designated area requires sensitivity to these many interests;

(b) The NPS recognizes that the primary role of federal agencies in management of the designated river segments is limited to those projects that require federal funding, licensing, or permitting. The NPS will rely on the County and local governments to implement the management plans in ways that will not threaten the resource values of the designated areas;

(c) NPS recognizes that the local governments, through their planning and zoning authority, shall administer the river management plans within their jurisdiction on a day-to-day basis and that the local governments shall grant the necessary zoning, subdivision and site plan approvals in accordance with the river management plans;

(d) NPS agrees to work as a partner with local governments to solve problems and resolve issues regarding the conservation and development of these waterways. This means that any federal action taken will be done in consultation with local governments; and,

(e) NPS will work with the State of New Jersey to streamline the federal and state regulatory processes in the designated area.

The National Park Service will jointly prepare the biennial report with Cumberland County to assure that municipalities are in compliance with Local River Management Plans and that proper implementation of local plans protects the values for which the river segments were designated into the national system. The National Park Service has been charged by Congress to review Local River Management Plans every two years and to determine if any deviation from these plans resulted in the diminution of the values for which the river segment concerned was designated.

Jurisdictional Boundary

The federal boundary for the Maurice River consists of one-quarter mile from the mean high water line throughout the 35.4-mile corridor. This boundary provides enough land area to buffer the waterway from incompatible land uses. The federal boundary does not exceed 320 acres, on average, per river mile as outlined under the Wild and Scenic Rivers Act. The NPS will review federally sponsored or permitted projects within the established federal boundary. *Map #1* outlines the federal boundary for the Maurice River and its designated tributaries.

(2) US Army Corps of Engineers

The US Army Corps of Engineers is mandated to regulate certain activities in all waterways and wetlands under the Clean Water Act; Section 103 of the Marine Protection Research and Sanctuaries Act of 1972; and Section 9 & 10 of the River and Harbor Act of 1899. In general, the Corps of Engineers has jurisdiction over all construction activities in tidal and/or navigable waters, including adjacent wetlands shoreward to the mean high water line. In other areas such as non-tidal waterways, adjacent wetlands, isolated wetlands, forested wetlands, and lakes, the Corps has regulatory authority over the discharge of dredged or fill material. Any individual, company, corporation or government body planning construction or fill activities in waters of the United States, including wetlands, must obtain a permit from the Corps of Engineers.

. . . the Corps of Engineers has jurisdiction over all construction activities in tidal and/or navigable waters. . .

(3) US Fish and Wildlife Service

The U.S. Fish and Wildlife Service (USFWS) is a bureau within the US Department of the Interior with the mission of "working with others to conserve, protect, and enhance fish, wildlife, and their habitats for the continuing benefit of the American People." The New Jersey Field Office (NJFO), located in Pleasantville, Atlantic County, implements the USFWS's Ecological Services (ES) program throughout New Jersey which includes: protecting endangered species and implementing recovery efforts, reviewing federal projects and activities under federal permit or license, investigating environmental contaminant problems, developing partnerships, and providing public education and outreach. The NJFO's responsibilities focus on stewardship of federal trust resources, which include federally listed threatened and endangered species, migratory fish and birds, certain marine mammals, and federal lands including National Wildlife Refuges (NWR).

The NJ office of the Fish and Wildlife Service's responsibilities focus on stewardship of federal trust resources

The United States Government passed the Endangered Species Act (ESA) in 1973. The Act entrusts the USFWS with the responsibility to protect and restore federally listed threatened and endangered species and their habitats. The NJFO is responsible for 20 federally listed species in New Jersey. Section 7 of the ESA states that all federal agencies shall consult with the USFWS to insure that any action authorized, funded, permitted, or carried out, is not likely to jeopardize the continued existence of any endangered or threatened species. Other activities relating to the ESA in New Jersey include implementing recovery efforts for listed species; reviewing projects that could adversely affect listed species; monitoring populations of listed and declining species; working with partners to conserve listed species habitats; assessing the status of species considered candidates for listing; and educating the public about threatened and endangered species, why they are important, and what people can do to help.

Under the authority of the Fish and Wildlife Coordination Act, the NJFO provides technical assistance and project review to other federal agencies. The USFWS participates in project planning to protect federal trust resources in federally funded or permitted activities such as flood control projects, dredging projects, and proposals involving development in wetlands.

Through the USFWS's environmental contaminants program, NJFO biologists may get involved in activities such as conducting scientific investigations to document and remedy contaminant-related problems for fish and wildlife, monitoring long-term contaminant trends, participating in oil and chemical spill clean-ups, consulting with the US Environmental Protection Agency to reduce impacts to federal trust resources on Superfund sites, and ensuring that polluters restore and compensate for environmental damage.

Another beneficial program that the NJFO administers in New Jersey is the Service's *Partners for Fish and Wildlife*, a program directed at protecting and restoring important fish and wildlife habitats on non-federal lands through voluntary partnerships. The program's main focus is wetland restoration, but the Service also pursues riparian and upland restoration. Individual citizens and groups looking to restore, enhance, or even create wildlife habitats can contact the NJFO for more information about the *Partners for Fish and Wildlife* or other partnership programs.

The NJFO provides educational opportunities for elementary and high school students. The *Earth Stewards* program blends the USFWS's mission with school curricula, helping students understand and appreciate New Jersey's wild living resources while advancing the school's educational efforts. Other outreach efforts include public contact at festivals and shows, producing educational materials, working with Congress, and informing the media to better educate people about fish and wildlife.

The NJFO also works closely with USFWS counterparts in law enforcement and National Wildlife Refuges, including the Cape May NWR, which manages 8,000 acres in Cape May County, part of which is located within the designated Great Egg Harbor National Scenic and Recreational River corridor

b. State of New Jersey

(1) NJ Department of Environmental Protection (NJDEP)

The NJDEP is responsible for the Coastal Area Facilities Review Act (CAFRA), the Freshwater Protection Act, and Section 404 of the Federal Clean Water Act.

A substantial portion of the designated Maurice River corridor is in the Coastal Area Facility Review Act Area and has been delineated as Coastal Planning Area 5 (environmentally sensitive). CAFRA was enacted by New Jersey in 1978 to implement the federal Coastal Zone Management Act. Specific language exists under the Rules on Coastal Zone Management (NJAC7:7E) incorporating the goals of the NJ Wild and Scenic Rivers Act and the National Wild and Scenic Rivers Act which recognizes the outstanding scenic, recreational, fish and wildlife, floral, historic, cultural and similar values of certain rivers of the State, in addition to the goals of reducing loss of life and property resulting from unwise development of floodplains. Wild and Scenic River corridors (defined under NJAC 7:7E-3:46) include New Jersey rivers designated into the National Wild and Scenic River system. The following policies are relevant to Wild and Scenic River Corridors:

- Development may be permitted in State designated river areas in accordance with NJAC 7:38-1, including special regulations for a particular river, or sections thereof, adopted upon designation to the NJ Wild and Scenic Rivers System.
- Development which provides general public recreational use of and access to a designated river area, consistent with the classification of the river and flood plain regulations, is encouraged.
- Development must be consistent with all other coastal rules, in particular the performance standards found in the Flood Hazard Areas Rule (NJAC 7:7E-3:25) and other Special Areas rules.
- Development which would have an adverse effect on the values for which a river is being considered as a potential addition to the National Wild and Scenic Rivers System including but not limited to the scenic, recreational, fish and wildlife attributes of the river corridor, is prohibited.

- Development shall conform to the standards set forth by the locally adopted River Management Plan in a Wild and Scenic River corridor.

Maurice River entrance to Menantico

Revisions to CAFRA and the implementing rules require that single family homes, etc. obtain a CAFRA permit if the proposed construction is within 150 feet of the mean high water line, a beach or a dune. The applicant must demonstrate compliance with the Rules on Coastal Zone Management. These rules pertain to CAFRA projects, waterfront development projects and coastal wetlands projects.

Freshwater wetland projects are governed under the Freshwater Wetlands Protection Act Rules. In 1994 the Department of Environmental Protection also assumed responsibility for Section 404 of the Federal Clean Water Act (CWA) which regulates the discharge of dredge or fill material into waters of the United States as identified in the Clean Water Act. The NJDEP also administers New Jersey's own individual and general permit program for the discharge of dredged and fill material into state regulated waters within its jurisdiction.

The New Jersey Division of Fish and Wildlife, also under the NJDEP, owns and manages for the purposes of wildlife habitat enhancement and low intensity recreation, six wildlife management areas in, or near, the Maurice River corridor. They are: Union Lake WMA, Edward G. Bevan WMA, Heislerville WMA, Egg Island/Berrytown WMA, Peaslee WMA, and Menantico Ponds WMA.

The NJDEP has also embarked on a new watershed management initiative producing a draft "Statewide Watershed Framework Document." The Maurice River corridor is included in Watershed Management Area #17. *See Map #4*. Protection of the watershed will ultimately enhance and protect the resources within the federal boundary of the Maurice National Scenic and Recreational River.

NJDEP has recognized the importance of both state and nationally designated wild and scenic rivers through its policies and Administrative Codes, specifically Title 7 of the NJ Administrative Code, Chapter 1E (Discharges of Petroleum and other Hazardous Substances) Subchapter 1: General Provisions. This Code specifically mentions areas designated as wild, scenic, recreational or developed recreational rivers, pursuant to the National Wild and Scenic Rivers Act as environmentally sensitive areas when considering the discharge of hazardous substances. In addition, Chapter 7E (Coastal Zone Management, Subchapters 2 and 3 of the same Administrative Code) recognize Special Areas that merit focused attention. Chapter 3 contains specific language regarding the placement of structures within 50 feet of any authorized navigation channel and development which would cause soil and shoreline erosion and siltation.

NJDEP recently published draft Water Quality and Watershed Management Rules and Proposed Freshwater Wetlands Rules. The agency is also revising the New Jersey Best Management Practices Manual for Control of Nonpoint Source Pollution from Stormwater.

(2) New Jersey Pinelands Commission

In 1978, the U.S. Congress established the Pinelands National Reserve. Under the

Pinelands Protection Act, the Pinelands Commission was established by the State of New Jersey and was granted strong land use regulatory powers. See *Map #5*.

In 1980, the Pinelands Comprehensive Management Plan was enacted. Under the provisions of the Comprehensive Management Plan, most municipalities have adopted conforming Master Plans and Zoning Ordinances, which were certified by the Pinelands Commission. Included in the items reviewed for conformance are permitted land uses and intensity of development; water quality standards (including wastewater and storm water management); and protection of wetlands, endangered and threatened species, cultural resources, and vegetation.

River access on Manumuskin River at Rt. 47 bridge

Chapter 50, Subchapter 6 (Management Programs and Minimum Standards) of the Pinelands Comprehensive Management Plan addresses requirements for scenic corridors of special significance to the Pinelands. Specific in this Subchapter is the requirement that all structures within 1,000 feet of the centerline of the following river segments be designed to avoid visual impacts when viewed from the river:

- Maurice River from the Delaware Bay to the Manumuskin River
- The Manumuskin River from its confluence with the Maurice River to the Route 49 crossing near Cumberland Road.

c. Citizens United to Protect the Maurice River and its Tributaries, Inc. (CU)

Citizens United is a nonprofit organization that was instrumental in securing designation for the Maurice River corridor. The organization's mission is one of preservation and protection and its activities cover all aspects of watershed protection. Citizens United works to increase public awareness of the outstanding resources that exist in the Maurice River corridor, has developed educational programs, and sponsors hands-on habitat projects. Citzens United has representation at local planning and zoning board meetings, constantly maintains communication with all regulatory agencies, and works as an advocate for the Maurice River.

d. Counties

(1) Atlantic County

One municipality (Buena Vista Township) is located within Atlantic County. While Atlantic County recognizes the importance of the Maurice River and its tributaries, a very small percentage of the designated area is located within its borders. Atlantic County continues to be involved in planning projects through Buena Vista Township.

(2) Cumberland County

With four of the five municipalities in the designated corridor located in Cumberland County, the County emerged as a leading organization throughout the study, designation and follow-up planning processes for the Maurice River. The County was instrumental in securing designation and in developing the 1991 *Local River Management Plan for the Maurice River and Its Tributaries.* This document outlined a consistent approach to resource protection, providing a framework for creating a river conservation zone. In addition, the County's 1995 *Ecotourism Plan* clearly outlines goals and strategies for the future of the Maurice River watershed.

The 1994 Memorandum of Understanding outlined Cumberland County's role in the designated river corridor as follows and this role continues:

(a) Since the County does not have the regulatory authority of the federal, state, or municipal governments in implementing the Comprehensive Management Plan, it will act as a coordinator and advisor of municipal, state, and federal actions. The County will provide an appropriate forum for the resolution of differences should they arise regarding interpretation and implementation of the Comprehensive Management Plan. It will reinforce the role of the local governments as the primary agents for implementing local Management Plans. The County will:

- Provide technical assistance to, coordinate with, and resolve differences among the municipalities regarding implementation of the Comprehensive Management Plan.
- Work with citizens, businesses, and municipalities to develop an education program on sensitive use of the river corridor.
- Promote conservation in conjunction with its municipalities to develop objectives that provide both for natural and cultural resource preservation, enhancement of the local economy, and the continuation of traditional and compatible uses of the waterways and their environs.
- Beginning on December 1, 1995 and every two years thereafter, the County will provide to the NPS a status report on the local management efforts.
- Provide an assessment of the facility needs in the region in conjunction with its municipalities and NPS, such as welcome centers, maritime and interpretive museums, public parks, recreation areas, and other facilities.

Since the MOU signing, the County assumed responsibility for monitoring compliance with Local River Management Plans, keeping in touch with municipalities to assure consistent application of zoning ordinances in the river management boundary. The County has also prepared biennial reports discussing progress, as well as issues affecting long term protection of the Maurice River corridor. In addition, the County's *1995 Ecotourism Plan* addressed facility needs in the river corridor.

The National Park Service recognizes the important role Cumberland County plays in the long term management of the Maurice National Scenic and Recreational River and supports its continued partnership.

e. Local Jurisdiction and Involvement

As part of Cumberland County's *Local River Management Plan for the Maurice River and Its Tributaries*, each of the five municipalities created a River Conservation Zone or District for the specific purpose of providing protection of natural resources while providing regulations for future development of the adjacent area. The overall purpose of creating a River Conservation Zone/District is to protect the significant river-related resources to the extent possible by municipal ordinance. Its intent is to provide a balanced strategy between environmental protection and appropriate levels of resource-related economic development. Established as an overlay zone, the River Conservation Zone imposes a set of development requirements in addition to those of existing underlying zoning. Creating local River Conservation Zones provides a consistent and uniform treatment of the river corridor and its resources among the different municipalities. The River Conservation Zone provides for the following key land use measures:

- minimum building lot size;
- minimum river lot frontage;
- adequate setback distances from the river for buildings and septic systems;
- provision for natural vegetation filter and buffer strips along the shoreline;
- maximum limits for vegetation clearing per building lot;
- regulation of kinds of land use; and
- cluster options for planned developments.

At present, all five municipalities have adopted zoning ordinances that have been reviewed and accepted as Local River Management Plans complying with Public Law 103-162. See *Map #9* for composite zoning of the river corridor

(1) Buena Vista Township

Buena Vista Township, located in Atlantic County, contains about 11 percent of the total designated area, the smallest portion of any municipality. However, that portion comprises the forested headwaters of the Manumuskin River which is classified as "scenic" under the National Wild and Scenic Rivers System. This segment of the river flows through a Pinelands Forest Area and municipal zoning and master plans for this area are required to be consistent with the NJ Pinelands Comprehensive Management Plan.

Zoning for Buena Vista's the Forest Area District is as follows:

- Minimum 300 foot setback buffer from shorelines or wetlands
- Minimum lot size of 30 acres. Permitted uses include single family detached dwellings, agriculture, forestry, fish and wildlife management, low-intensity recreation, Pinelands resource-related uses, campgrounds, agricultural-related uses and home occupations.

(2) Commercial Township

Commercial Township's jurisdiction lies along the southwestern portion of the Maurice River main stem, from Laurel Lake to Shellpile. The Township Planning Board adopted the Local River Management Plan produced by Cumberland County as an amendment to their Master Plan. The Master Plan provides clear goals, objectives and guidelines for the future development of the Maurice River corridor. In addition, Commercial Township established a River Conservation & Flood Plain Overlay District along the Maurice River to provide land use controls which are necessary for implementation of the Local River Management Plan and to protect local citizens from flood hazard. Commercial Township has also submitted a center petition to the State Planning Commission to designate Mauricetown and Port Norris. A decision on this designation is pending.

The River Conservation District provides for the protection of the natural resources of the Maurice River and its tributaries while providing regulations for the future development of the adjacent area. The River Conservation and Flood Plain District is established as an overlay zone, imposing a set of development requirements in addition to those of the existing, underlying zoning district. This District contains two sub-districts: The Resource Protection/Flood Hazard Sub-District and a Development Sub-District.

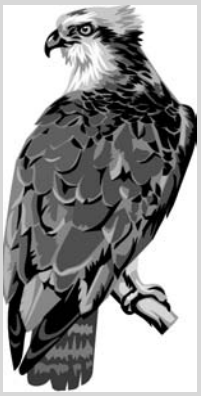
(a) Resource Protection/Flood Hazard Sub-District.

(1) The following principal uses are **acceptable** within the Resource Protection/ Flood Hazard Sub-District.

- Low Density residential with the following restrictions

- minimum lot size of 5 acres per unit
- minimum building setback of 150 feet
- maximum clearing of vegetation of 20 percent of lot area
- minimum septic system setback of 150 feet
- maximum lot coverage of 5 percent of total lot area

- Conservation Activities
- Pasture, grazing land
- Recreational uses not requiring regrading or removal of trees, shrubs, or vines, such as a park, picnic grove, boating club, but excluding closed structures or storage areas
- Game farm, fish hatchery
- Hunting and fishing reserve
- Wildlife sanctuary, woodland preserve or arboretum



(2) The following uses are **prohibited** within the Resource Protection/Flood Plain Hazard Sub-District:

- Landfills
- Waste Storage/Incineration
- Sludge Farming
- Radioactive waste facilities

(3) Setbacks

All building setbacks and septic system setbacks shall be measured from the Mean High Water Line. This is the line formed by the intersection of the tidal plane of mean high water with the shore.

(4) Clearing of Vegetation

All principle uses shall be limited to a maximum amount of removal of natural, indigenous vegetation. Replanting of ornamental species shall not constitute adequate mitigation for exceeding this requirement.

(5) Buffers and Natural Filter Strips

A vegetative buffer, composed of indigenous species, shall be maintained parallel to the Mean High Water line for a width of not less than 50 feet. For the purposes of normal pedestrian access to the waterfront, an opening of not more than 10 feet may be excluded from the buffer requirement.

(6) Minimum River Frontage

A minimum river lot frontage of 300 feet shall be required for all principal uses located adjacent to the Maurice River.

(7) Areas defined as Flood Hazard Areas are governed by additional requirements specifically identified in Section 8.7 of the Zoning Ordinance.

(8) Medium Density Residential/Cluster Development is permitted within the Resource Protection Sub-District as a conditional use when utilizing the cluster development criteria described in the River Management Plan addendum to the Township Master Plan.

(b) Development Sub-District

Existing commercial, maritime-based industrial activities, and such other land uses permitted under the regulations of the existing or future underlying zoning district shall continue without the additional requirements of the ordinance, providing that the specific requirements of the ordinance relating to measures to protect against Flood Hazard are observed.

(3) The Township of Maurice River

The Township of Maurice River comprises the largest portion of the designated area. It includes the eastern bank of the Maurice River main stem from the southern end to the Menantico River confluence (about 13 river miles). Maurice River Township contains Muskee Creek, a portion of the Manumuskin River, and a portion of the southeast bank of the Menantico Creek.

The Township's zoning ordinance for the area inside of the Pinelands conforms to the Pinelands Comprehensive Management Plan and therefore contains protections for natural, ecological, and cultural resources. With the exception of villages such as Port Elizabeth/ Bricksboro, commercial and other more intensive uses are generally prohibited throughout the remainder of the Township inside of the Pinelands area. In Maurice River Township, the State Planning Commission recently endorsed five centers (Port Elizabeth, Dorchester/Leesburg, Mauricetown Station, Delmont and Heilerville). The endorsement also included recognition of the Township's environs protection efforts and river management plan.

Menantico Creek

Zoning Ordinance No. 381 established a River Conservation District for the specific purpose of providing protection of the natural resources of the Maurice River and its tributaries while providing regulations for the future development of the adjacent area located outside of the Pinelands Management Area. The Local River Management Plan produced by Cumberland County was adopted by the Maurice River Township Planning Board as an amendment to the Township Master Plan.

Within the River Conservation District are two sub-districts: the Resource Protection Sub-District and the Development Sub-District

(a) Resource Protection Sub-District

(1) The following principal uses are **acceptable** within the Resource Protection Sub-District.

- Low Density residential with the following restrictions
  - minimum lot size of 5 acres per unit
  - minimum building setback of 150 feet
  - maximum clearing of vegetation of 20 percent of lot area
  - minimum septic system setback of 150 feet
- Conservation Activities
- Pasture, grazing land
- Recreational uses not requiring regrading or removal of trees, shrubs, or vines, such as a park, picnic grove, boating club, but excluding closed structures or storage areas
- Game farm, fish hatchery
- Hunting and fishing reserve
- Wildlife sanctuary, woodland preserve or arboretum

(2) The following uses are **prohibited** within the Resource Protection Sub-District:

- Landfills
- Waste Storage/Incineration
- Sludge Farming
- Radioactive waste facilities

(3) Minimum Lot Size
The minimum lot size required in this Sub-district shall not hold precedence over larger minimum lot sizes required in underlying zoning districts. In the case of a conflict between the RC overlay zone and the underlying zoning district, the largest minimum lot size shall be required.

(4) Setbacks
All building setbacks and septic system setbacks shall be measured from the Mean High Water Line.

(5) Clearing of Vegetation
All principle uses shall be limited to a maximum amount of removal of natural, indigenous vegetation. Replanting of ornamental species shall not constitute adequate mitigation for exceeding this requirement.

(6) Buffers and Natural Filter Strips
A vegetative buffer, composed of indigenous species, shall be maintained parallel to the Mean High Water line for a width of not less than 50 feet. For the purposes of normal pedestrian access to the waterfront, an opening of not more than 10 feet may be excluded from the buffer requirement.

(7) Minimum River Frontage
A minimum river lot frontage of 200 feet shall be required for all principal uses located adjacent to the River corridors.

(8) Medium Density Residential/Cluster Development is permitted within the Resource Protection Sub-District as a conditional use when utilizing the cluster development criteria described in the River Management Plan addendum to the Township Master Plan.

(b) Development Sub-District
Existing commercial, maritime-based industrial, and such other uses as allowed under the existing and future regulations of the underlying zoning district shall continue without the additional requirements of this ordinance.

(4) City of Millville

The City of Millville's jurisdiction within the designated area comprises the northern portion of the Maurice River main stem, from the Menantico Creek to the designated corridor's northern terminus, about four river miles. In addition, Millville's jurisdiction stretches for about 11 river miles along the lower part of Menantico Creek.

Prior to designation, the City of Millville created a local river conservation district and a zoning ordinance for its portion of the designated river corridor meeting the requirements of Public Law 103-162. The intent of the River Conservation District is to provide measures that insure the protection and enhancement of the natural resources of the Maurice River and its tributaries, as well as promote the public health, safety and general welfare of the City of Millville.

(a) Permitted Uses

(1) Single family residences

(2) Conservation activities

(3) Recreational uses, excluding shooting ranges and campgrounds; provided there is minimal disruption of wildlife habitat and minimal clearing

(4) Hunting, fishing, trapping where permitted

(5) Hunting and conservation clubs

(6) Nurseries and forestry uses with approved management plans

(7) Reforestation with approved forestry management plans

(8) Site or route location, construction, or enlargement of:

- Public utility transmission lines
- Publicly provided access sites, roads, bridges only with appropriate review and approval of permits required by local, state, and federal agencies including, but not limited to the Board of Public Utilities and the NJ Department of Environmental Protection

(9) Maintenance and repair reasonable and necessary for the continuance of an existing use.

(b) Accessory Uses. Permitted as accessory, provided they are in conformance with the appropriate standards

(1) Nonresidential uses or structures customarily incidental to residential uses, including: carports, garages, sheds, and storage buildings

(2) Fences

(3) Swimming pools

(4) Windmills

(5) Essential services

(6) Any other use or structure customarily incidental to any permitted principal use

(c) Conditional Uses in conformance with appropriate standards

(1) Home occupations and home professional occupations

(2) Cluster development

(3) Single family homestead development, provided certain conditions are met:

- The property or tract contains at least 5 contiguous acres in single ownership described in one all-inclusive deed
- The density shall not exceed one unit per two acres
- The maximum number of new lots created shall be two
- The parcel is surrounded on 75 % of the perimeter of the property by existing residential development
- There are no variances or waivers required for frontage, coverage, height or setbacks as required in the zone.
- The design of the housing including landscaping, buffering, screening and siting of the dwelling units is in harmony with the surrounding residential uses
- The soils are satisfactory for the design and construction of the septic system

(d) Prohibited Uses

All uses not specifically permitted by right or by conditional use permit are prohibited in the River Conservation Zone. Landfills, dumps, waste storage and incineration facilities, sludge farming, radioactive waste facilities and/or any other uses that pose a direct threat to the outstandingly remarkable resources and attributes of the Maurice River and its tributaries are prohibited.

(e) Planned Cluster Development

This provision is intended to permit smaller lot sizes where the physical layout of the lots is so arranged as to assure the control of pollution and preservation of environmentally sensitive features and viewsheds to a greater extent than would be expected if the lots were developed under conventional subdivision regulations. A condition of all cluster development is the preservation of open space in perpetuity.

(f) River Conservation Standards

All land uses shall comply with the following standards:

(1) A vegetational buffer composed of indigenous species, extending at least 50 feet in depth measured landward from the bank of the river.

(2) The removal of natural vegetation shall be controlled in accordance with established criteria

(3) Pollution controls such that the location and nature of the septic systems must insure that effluent from the tanks will not reach the ground or surface waters in a condition which will contribute to health hazards, turbidity, fertility, taste, or otherwise impair the character of the adjacent or nearby waterway

(4) Grading and filling for the purpose of preparing a parcel for permitted development must meet established conditions.

5. City of Vineland

The City of Vineland is located in northeast Cumberland County in the southwestern portion of the Pinelands Area. The Pinelands Commission fully certified the City's 1992 Master Plan and Land Use Ordinances. The City of Vineland's jurisdiction within the designated area is along both banks of Menantico Creek, north of the City of Millville, to Menantico Lake. It also extends along the west bank of the Manumuskin River to its headwaters in Buena Vista Township.

City Council adopted Ordinance No. 96-4 in 1996 which established River Conservation Areas along the river segments within their jurisdiction.

a) Delineation of River Conservation Areas

River Conservation Overlay Areas are established along the Manumuskin River in its entirety and the Menantico Creek from the impoundment at Menantico Lake southward. These zones are one-half mile wide, measuring one-quarter mile on each side of the centerline of the waterways, as shown on the City's zoning maps.

(1) Permitted Uses

The following uses are permitted in a River Conservation Area:

- Single family dwelling
- Agricultural or horticultural operations
- Forestry
- Conservation activities
- Passive recreational uses
- Utility transmission and distribution lines; and
- Sewage pumping station

Manumuskin River enters Maurice River

(2) Accessory Uses

Accessory Uses, if allowed in the underlying zoning district, are permitted in a River Conservation Area and must meet specific requirements.

(3) Conditional Uses

Conservation cluster development shall be permitted in a River Conservation Area if specific requirements are met.

(4) Prohibited Uses

The following uses, even if permitted in the underlying zoning district, are prohibited in a River Conservation Area:

- waste storage, disposal or transfer facilities
- resource extraction
- all industrial uses

(5) Design Standards

The following design standards are applicable to all permitted uses, along with their allowable accessory uses, in a River Conservation Area, unless otherwise stated.

- Lot Size: The minimum lot size is 5 acres
- Waterway Frontage: For any lot abutting a waterway (Manumuskin River or Menantico Creek), the minimum waterway frontage shall be 300 feet.
- Building setback from waterway: Principal and accessory buildings shall be a minimum of 350 feet from the centerline of the waterway, as shown on the City's zoning maps
- Clearing of Vegetation: No more than 20 percent of a property may be cleared of natural, indigenous vegetation.
- Vegetative Buffer: Any clearing of natural, indigenous vegetation shall be a minimum of 100 feet from the centerline of the waterway to provide for the protection and enhancement of resource values, including the scenic qualities.
- Individual Subsurface Sewage Disposal Systems: Design, approval and construction of individual subsurface sewage disposal systems shall be in accord with the provisions of NJAC 7:9A

(6) Subdivisions

A conservation cluster development shall be permitted in a River Conservation Area as a conditional use, provided that all the provisions specified in the ordinance are met.

f. Existing Recreation Areas

1) Inventory of Facilities

(a) Recreational Boating

- Marinas and Power Boat Facilities: There are fourteen private marinas and power boat rental facilities located on the Maurice River.

2) River Access Points

The City of Millville has a public boat ramp. This ramp is located on Fowser Road and provides access to the Maurice River. The County right-of-way at the Mauricetown Bridge has also been used, unofficially, as a location to launch small boats. In addition, public access is available at the State marina in Fortescue. Most of the private marinas in the County also provide public boat launching for a fee. There are also a number of small boat launches at many of the Fish and Wildlife Management Areas in the County. The Dix, Egg Island, Fortescue, Heislerville and Nantuxent Fish and Wildlife Management Areas all have locations from which car top boats can be launched.

Canoeing along the Menantico

3) Canoe and Small Boat Rental Facilities

There are canoe rental facilities in Vineland. One operator serves the upper Maurice River area and the other serves canoe enthusiasts on Sunset Lake. There is also public access for small boats onto Union Lake from the newly constructed facilities at the Union Lake Fish & Wildlife Management Area.

(b) Fishing, Hunting, Crabbing and Trapping Opportunities

There are 15 major state owned natural areas in Cumberland County, with six located within the Maurice River corridor. The NJ Division of Fish and Wildlife published guides to hunting and fishing on their lands which includes a listing of ponds, lakes and reservoirs that are open to public fishing.

(1) Fishing

There are seven state owned properties that the NJ Division of Fish and Wildlife promote as public fishing areas. These include Cumberland Pond, Cedarville Ponds, Clarks Pond, Heislerville Ponds, Menantico Ponds, Shaws Mill Pond and Union Lake. Of these sites, Union Lake is the largest, most accessible, and most developed, supporting a new boat ramp. Menantico Ponds in Millville also provides a boat ramp and parking area.

In addition to the state-owned lands, there are municipal and privately owned fishing areas in Cumberland County. There is excellent fishing in many areas; however, much of this fishing is done by boat since there are very few fishing piers or other locations that provide public access from land. The Mauricetown

Park, adjacent to the Maurice River, provides a location for fishing from land.

(2) Hunting

Many of the state owned Wildlife Management Areas provide hunting opportunities. The Union Lake Wildlife Management Area, as well as Heislerville and upper portions of the Dix property encourage hunting. In addition, the Edward G. Bevan, Egg Island, and Peaslee Wildlife Management Areas are also popular hunting spots.

In addition to the above public facilities, there are several private hunting areas. The Bayside Tract, a 3,500-acre property in Greenwich Township, has been deed restricted by the Public Service Electric and Gas Company to provide hunting opportunities. The Glades Preserve in Downe Township is owned by the Natural Lands Trust and is open to the public. The Maurice River corridor also has a long history of railbird hunting. This sport, conducted from rail boats in the marshes and wetlands of the tidal Maurice River, is one of the finest hunting grounds for this species anywhere in the mid-Atlantic region.

(3) Trapping

Trapping is a tradition in Cumberland County that dates back to the earliest days of the American Indian settlements in the area and continues today on a very limited basis. The Menantico and Manumuskin Creek corridors in Maurice River Township are particularly popular trapping spots.

(c) Birding

Cumberland County's outstanding natural areas make it a premier location for birding enthusiasts. The wide array of migratory birds are visible along the Delaware Bay in particular. The Bear Swamp area in Downe Township is particularly well known for its diversity of breeding birds, and the Wildlife Management Areas and lands owned by the County and municipalities, as well as nonprofit organizations, provide excellent viewing opportunities.

7. Non-Profit Organizations and Passive Recreation

(a) The Nature Conservancy is an international conservation group which owns several properties in the Maurice River corridor for preservation and conservation purposes.

(1) The Manumuskin Preserve is a 3,800 tract located at the confluence of the Manumuskin Creek and the Maurice River.

(2) The Gandy's Beach Preserve in Downe Township contains 275 acres of wetland habitat along the Delaware Bay.

(3) The Willow Grove Preserve located on the upper Maurice River contains 1,100 acres

(2) The Natural Lands Trust, Inc. is a non-profit conservation organization that also owns several tracts in Cumberland County.

(1) The Glades Wildlife Refuge is a 5,000-acre property containing some of the most impressive wetland vistas in the region.

Peek Preserve and sewage treatment plant, Millville

(2) The Peek Preserve, a 190-acre tract in Millville provides some of the finest freshwater plant communities in the Maurice River corridor, including 30 acres of cedar swamp, 30 acres of pitch pine and oak woods, and 130 acres of wild rice marsh.

A. MANAGING THE CORRIDOR

The long-term management strategy for the Maurice River corridor was defined in a Memorandum of Understanding in 1994 which established specific roles for Cumberland County, the five municipalities, and the National Park Service. Cumberland County has continued to be the local liaison among the municipalities and coordinates with the National Park Service on critical issues. This process has been effectively working for the last six years.

Through a variety of mechanisms, citizens concerned with the future of the Maurice River were able to identify many issues affecting land and resource management and make recommendations on a wide range of subjects. The policy statements are generally "issue driven." The issues identified will undoubtedly change over the years as new threats and opportunities arise.

1. Issues & Recommendations

a. Natural Resource Protection

(1) Air and Noise Pollution

Policy: Assure that recreation activities on the Maurice River and its tributaries do not adversely affect the resource or local residents.

> **Recommended Action:** Local municipalities should enforce existing ordinances relating to noise or develop an ordinance consistent with NJ State Law mentioned below.
>
> **Recommended Action**: Enforce existing NJ State Law (Subchapter 4, Watercraft Noise Control, 13:82-4.1) that "No person shall operate…any vessel or watercraft capable of emitting noise totaling in excess of 90dba in or upon the waters of the State."

(2) Carrying Capacity

Policy: Recreational boaters are to be directed to areas of the river corridor where the resource can safely accommodate use.

> **Recommended Action:** Enforce existing state laws that do not allow motorized recreation activities that create a wake in the three tributaries of the Maurice River corridor; namely, the Manumuskin River and Menantico and Muskee Creeks. Limit recreational boating to those with electric motors in tributary areas specifically identified under Resource Protection Areas of this Section. This is necessary to avoid degradation of existing resources.
>
> Based on the *Recreational Capacity Analysis for the Maurice River Watershed* prepared for the City of Millville, and the NJ State Marine Police safety regulations, motorized recreational boating and associated activities are inappropriate in areas that are less than 200 feet wide. These areas are for transport and recreation activities that do not create a wake.
>
> **Recommended Action:** No additional launching sites are recommended in the designated tributaries. Additional launching sites on the mainstem of the Maurice River should be carefully reviewed to assure that the increased usage does not adversely affect the reasons for designation.

(3) Communication Towers

Policy: Any development that negatively impacts either the scenic or recreational qualities of the Maurice River corridor or its outstandingly remarkable resources located within the federal and locally established boundaries of the river conservation zones should be prohibited.

Recommended Action: Communication towers are considered an incompatible use within the federally established boundary.

Recommended Action: Cumberland County, local municipalities and the National Park Service must work with the Pinelands Commission and the NJ Department of Environmental Protection during the planning phase of tower placement to assure that communication towers are not located within the federal boundaries of the Maurice River corridor. In addition, municipalities need to adopt zoning ordinances directing the placement of cell towers at appropriate locations.

(4) Commercial Use of the River Bottom

Policy: Encourage long term preservation and sustainability of aquatic resources in the designated corridor.

Recommended Action: The NJ Division of Fish and Wildlife's Bureau of Shellfisheries should make strong recommendations for mitigation of any adverse impacts from proposed actions when reviewing and commenting on projects requiring State permits.

(5) Cultural Resources

Policy: Provide for the protection of existing cultural resources that exist along the river corridor. Cultural resources are defined as sites, structures, landscapes, objects, and ethnographic resources.

A substantial number of studies and reports have been produced documenting the cultural resources of the corridor. The Pinelands Commission staff have documented many pre-historic occupation sites along the River. The Pinelands Commission has an archeologist on staff who performs cultural resource surveys. In addition, the Pinelands Commission requires provisions to protect cultural resources in municipal ordinances. Refer to the Bibliography/Reading List under Section VIII. Also refer to *Appendix 4* for a listing of historic structures and sites.

Recommended Action: Provide guidance to local municipalities about sources of information such as report repositories, local experts, and the Pinelands Commission to guide decision-making.

(6) Docks, Bulkheads and Marinas

The US Army Corps of Engineers and the NJDEP simplified the State General Permit 19 (SPGP19) process in the Maurice River corridor for docks and piers. Applicants can receive both a state permit and a federal SPGP19 by only applying to NJDEP. The National Park Service will provide comments to NJDEP and a permit will be issued as long as there is no adverse effect from the proposed work. If during the review a determination is made that there is a potential for adverse effect from a project, then an individual permit from the US Army Corps of Engineers is required under the SPGP19 process.

Policy: Docks, bulkheads, and marinas shall be permitted in areas where outstandingly remarkable resources are not adversely affected and as long as their construction does not negatively impact the scenic and recreational qualities of the river corridor.

Recommended Action: In order to conform to the NJDEP's Strategic Plan, the following materials are recommended by the NJ Division of Fish and Wildlife (DFW) to be used in the construction of bulkheads and docks:

- Bulkheads: The replacement of bulkheads should be with metal (aluminum) or vinyl when a hard structure is necessary. If any piling is necessary, the DFW recommends that the piling be plastic encased, impregnated or solid. In addition to this recommendation, the use of soil bioengineered bank stabilization systems is recommended by the National Park Service where feasible for shoreline stabilization.

- Docks and Piers: The DFW recommends the use of a lumber substitute or aluminum for the construction of all non-structural members. Aluminum is available for all structural members.

Note: The use of lumber substitutes and aluminum, as well as soil bioengineered systems would reduce the amount of heavy metals presently entering the ecosystem. New advances in materials offer products that are manufactured from wood waste and reclaimed plastics. They do not degrade in fresh or salt water, are solvent resistant, hold up in temperature extremes, do not rot, splinter, or decompose, require no sealer and they outlast traditional wood products.

Recommended Action: The NJDEP, the US Army Corps of Engineers and the National Park Service need to educate the public on the permitting process for construction projects in the river corridor.

Recommended Action: Encourage public and private marinas, yacht clubs, fuel docks or boat yards which cater to recreational boating to provide pump-out facilities for boats that have on-board sewage facilities. Encourage these facilities to apply for a Clean Vessel Program grant (administered by NJDEP) to construct, renovate, operate, and maintain pumpout and dump stations, thus reducing the impact of effluent discharge into aquatic environments.

Recommended Action: Create a "No Discharge Zone" for the Maurice River corridor.

Recommended Action: Encourage marinas to offer containment areas for boat maintenance activities such as bottom scraping and painting. Containment areas will prevent localized accumulation of paint fragments containing potentially hazardous materials from entering the aquatic food chain.

Recommended Action: Evaluate the impact that the proliferation of docks may have on the river corridor, including impacts on non-motorized recreationists, and the scenic and natural qualities of the river.

Recommended Action: The National Park Service should continue to review dock designs to identify any potential impacts on outstandingly remarkable resources. In addition, the NPS must continue to work with other state and local organizations to make sure that structures are appropriate for a river designated into the National Wild and Scenic Rivers system.

(7) Dredging and Shoaling

Policy: Limited dredging may be considered on sections of the designated corridor where no adverse effects to natural, cultural, scenic, or recreational resources will occur and when appropriate locations of dredge spoils are identified.

Recommended Action: Consideration will be given to maintenance dredging for private and commercial docks on a case-by-case basis.

(8) Flora Management

Policy*:* Proper steps to protect river resources from the negative impacts of invasive species of flora will be supported

Recommended Action: The negative impacts of invasive species should be monitored and addressed for proper control.

(9) Forest Management

Policy**:** Commercial forestry which maximizes forest land values and provides for the long-term economic and environmental integrity of the Pinelands areas, as well as other areas within the designated corridor, will be encouraged.

Recommended Action: For the protection of the integrity of the Pinelands forests, forest management must be consistent with the Pinelands Comprehensive Management Plan, specifically Part IV, Sections 7:50-6:47.

Recommended Action: Development of an overall Forest Management Plan for the Maurice River watershed should be encouraged.

(10) Hunting

Policy: Hunting will be conducted in appropriate areas utilizing safe hunting practices

Recommended Action: Reinforce existing hunting regulations in the river corridor.

(11) Identification of Critical Areas Needing Protection

Policy: Areas with critical resources shall be protected throughout the designated river corridor and local river conservation zones.

Recommended Action: Municipalities need to make sure that critical areas needing protection are identified.

Recommended Action: Once critical areas are identified, consideration should be given to the purchase of conservation easements wherever possible to maintain undeveloped waterfront property in its existing state. These are usually negotiated between a private conservation or land trust organization and a private landowner.

Recommended Action: Acquisition of key areas by private conservation groups or appropriate public agencies should be considered as management alternatives for the protection of valuable fish and wildlife habitat.

(12) Natural and Historical Resources

Policy: Critical resources will be protected within the federal boundary and within River Conservation Zones in the Maurice River corridor.

Recommended Action: Upland habitats will be protected to the maximum extent possible to assure the protection of flora and fauna, whether endangered or not.

Recommended Action: Projects outside of the designated corridor will be reviewed to determine if any negative impacts occur within the designated corridor.

Recommended Action: Continue to work with The Nature Conservancy, The Natural Lands trust, Inc. and other appropriate organizations to purchase easements wherever possible to maintain undeveloped waterfront property, protect scenic vistas, and threatened resources.

(13) New River/Stream Crossings

Policy: The integrity of the natural, cultural, scenic or recreational resource values will be maintained throughout the designated river corridor and established river conservation zones.

Recommended Action: All requests to upgrade and/or to construct new utility lines/roads should be reviewed to assure protection of the outstandingly remarkable resource values of the river corridor. Using existing right-of-way wherever possible should be encouraged.

Recommended Action: NPS will review transportation projects under Section 7(a) of the Wild and Scenic Rivers Act consistent with the Guidelines for Water Resources Projects outlined in *Appendix 8*.

(14) Recreation

Policy: Recreational activities must be consistent with resource protection.

Recommended Action: Recreationists in motorized craft that produce a wake should be confined to the main channel of the Maurice River in compliance with existing state marine laws.

Recommended Action: Enforce existing NJ State Law (Subchapter 4, Watercraft Noise Control, 13:82-4.1) that "No person shall operate…any vessel or watercraft capable of emitting noise totaling in excess of 90dba in or upon the waters of the State".

Recommended Action: Areas of the river corridor where regular strandings occur should be clearly marked for safety purposes and to avoid adverse impacts on the mudflats and marsh areas.

Recommended Action: Recreationists need to be educated about private property and the rights of waterfront property owners.

Recommended Action: The National Park Service has issued a regulation prohibiting the use of personal watercraft in all National Wild and Scenic Rivers that are units of the National Park System. While this rule has universal applicability, a strong case can and will be made for an independent determination as to the appropriateness of this rule in the mainstem of the Maurice River corridor. As a cooperatively managed river, the National Park Service will work with Cumberland County, the State of New Jersey, and the five municipalities to make an appropriate determination regarding implementation of this rule.

Recreational activities that create a wake are already prohibited by state law in the three designated tributaries because these areas do not meet the minimum width criteria. Their pristine nature is also not conducive to intensive active recreational activities.

Recommended Action: Areas of the three tributaries (Menantico & Muskee Creeks and Manumuskin River) specifically identified under Resource Protection Areas should be limited to electric motors only due to their pristine nature and the depth of the water in many areas. Since the NJ Division of Fish and Wildlife already enforces the "electric motors only" policy on the upper Menantico Creek area, extending this policy to include the identified areas is consistent with resource protection & maintaining and improving water quality.

Recommended Action: Work with the NJ Marine Police to enforce existing state laws regarding "No Wake/Idle Speed" areas to assure that motorized recreational activities that cause a wake do not occur in waterways less than 200' wide.

Recommended Action: Use of airboats, hydrofoils, hovercraft and other craft of this type should be prohibited in the tidal marsh and mud flat areas to avoid negative impacts on vegetation, nesting and basking marsh fauna and other resources. Other motorized craft should be permitted to enter the marshes only at low/no wake speeds in water filled areas for fishing and non-intrusive wildlife observation to avoid negative impacts on marsh flora and fauna.

Recommended Action: The practice of prop washing of boat slips should be eliminated.

Recommended Action: Existing laws regulating crab pots and fishnets should be enforced to avoid safety hazards.

(15) Resource Extraction

Policy: Resource extraction activities must not conflict with other values of the Pinelands and not adversely affect long-term ecological values in the river corridor

Recommended Action: Extraction activities in the Pinelands National Reserve must conform to the Pinelands Comprehensive Management Plan, specifically Part VI, 7:50-6:69.

(16) Sand and Gravel Mining

Policy: New sand and gravel mining operations should be considered incompatible uses within the designated corridor and within Local River Conservation Zones.

Recommended Action: Regulation of mining activities is within the purview of municipal resource extraction and zoning ordinances. Municipalities should consider the prohibition of establishing new mining activities within the River Conservation Zone or District.

(17) Streamlining Regulations

The Pinelands Rural Economic Development Pilot Program (in which Maurice River and Buena Vista Townships participated) has just been completed. As a result, the Pinelands Commission is exploring the development of streamlined procedures to review non-residential development in selected areas.

Policy: Streamlined regulations will be supported as long as the integrity of the resource is assured.

Recommended Action: NJDEP, the Pinelands Commission, US Army Corps of Engineers, US Fish and Wildlife Service, and the National Park Service should continue to closely coordinate on permit requests to resolve discrepancies and avoid conflicting guidance. In addition, these agencies should endorse the Comprehensive Management Plan and assure compliance with the CMP and River Conservation Zone requirements when reviewing permits along the Maurice River.

Recommended Action: The NJDEP, USCOE and NPS must educate waterfront property owners about the improved SPGP-19 permit process in national Wild and Scenic River corridors in New Jersey.

(18) Segment Additions:

The designation legislation acknowledged areas of the Maurice River corridor that were eligible for designation pursuant to Public Law 100-33 and were not included in the designation of the Maurice National Scenic and Recreational River. Public Law 103-162 did provide the option of including the lower portion of the Maurice River in Commercial Township within three years of designation (1996). To date, this option has not been pursued by Commercial Township.

Recommended Action: This issue should be revisited by involved parties so that a final determination can be made.

(19) Threatened and Endangered Species Protection

***Policy*:** No development will be carried out unless it is designed to avoid irreversible adverse impacts on habitats that are critical to the survival of any federal or state listed threatened and endangered species.

The Maurice River corridor contains a significant number of state threatened and endangered species. Refer to *Appendix 5* for a listing of Rare Species and Natural Communities presently recorded in the New Jersey Natural Heritage Database for Cumberland County.

There are two key resources that guide protection of threatened and endangered species in the Pinelands: the official State listing of endangered and threatened wildlife produced by the NJ Division of Fish and Wildlife, and the list of threatened and endangered plants from the Pinelands Comprehensive Management Plan. Refer to *Appendix 5* for a listing.

Section 7 of the Endangered Species Act (ESA) states that all federal agencies shall consult with the US Fish and Wildlife Service to insure that any action authorized, funded, permitted, or carried out, is not likely to jeopardize the continued existence of any endangered or threatened species.

Four federally listed species occur within the boundary of the Maurice National Scenic and Recreational River. Pursuant to the ESA, federally listed species are afforded protection from activities that may adversely affect the species. Information on these federally listed species is provided below.

Bald Eagle: Two pairs of federally listed (threatened) bald eagle (Haliaeetus leucocephalus) nest within the boundary of the Maurice National Scenic and Recreational River. A third paid of bald eagles nests approximately four miles from the designated river corridor. Eagles are often attracted to a water body, such as the Delaware River or Maurice River, as they search for food. Eagles are opportunistic feeders and will eat carrion or live prey, including fish, small mammals, and waterfowl, and often roost in dead trees adjacent to water. Therefore, disturbances to mature timber within the river corridor may impact roosting or feeding bald eagles. If any activities proposed for the Maurice National Scenic and Recreational River include disturbance to mature timber, consultation pursuant to Section 7(a)(2) of the ESA may be required to assure that proposed activities do not adversely affect the bald eagle.

Swamp Pink: Several occurrences of swamp pink (Helonias bullata), a federally listed (threatened) plant species, are found within the nationally designated river corridor. Swamp pink is an obligate wetland species that occurs in a variety of palustrine forested wetlands in New Jersey, including forested wetlands bordering meandering streamlets, headwater wetlands, sphagnous Atlantic white cedar (Chamaecyparis thyoides) swamps, and spring seepage areas. Specific hydrologic requirements of swamp pink limit its occurrence within these wetlands to areas with lateral groundwater movement that are perennially saturated, but not inundated, by floodwaters. Threats to swamp pink include the following: loss of habitat due to wetland filling, clearing and draining; degradation of habitat due to sedimentation from off-site construction activities; flooding and erosion due to increased runoff from upstream sites; and, subtle changes in groundwater and surface water hydrology due to adjacent developments. Additionally, stormwater outfalls discharging into wetlands that support swamp pink can increase the frequency, duration, and volume of flooding in these wetlands and adversely affect swamp pink.

Any activities within the river corridor that directly or indirectly affect forested wetland habitats may affect this species. Therefore, if forested wetlands would be directly or indirectly affected, the US Fish and Wildlife Service requests that a qualified botanist conduct a vegetative survey to determine the absence or presence of swamp pink. The results of the survey, including the survey method used and the qualifications of the surveyor, should be forwarded to the US Fish and Wildlife Office for review and to determine if consultation pursuant to Section 7(a) (2) of the ESA is necessary.

Sensitive Joint Vetch: Two occurrences of sensitive joint-vetch (Aeschynomene virginica), a federally listed (threatened) species, are found within the boundary of the Maurice National Scenic and Recreational River corridor. Sensitive joint-vetch is an annual legume that can grow up to six feet tall and produces yellow pea-like flowers. It occurs along segments of river systems that are close enough to the coast to be influenced by tidal action, yet far enough upstream to consist of fresh or slightly brackish water. These freshwater tidal marshes are subjected to a cycle of twice-daily flooding that most plants cannot tolerate.

Any activities within the river corridor that directly or indirectly affect freshwater tidal wetland habitats may affect this species. Therefore, if these areas would be directly or indirectly affected, the US Fish and Wildlife Service requests that a qualified botanist conduct a vegetative survey to determine the absence or presence of sensitive joint-vetch. The results of the survey, including the survey method used and the qualifications of the surveyor, should be forwarded to the US Fish and Wildlife Service office for review and to determine if consultation pursuant to Section 7(a)(2) of the ESA is necessary.

Shortnose Sturgeon: The shortnose sturgeon (Acipenser brevirostrum), a federally listed (endangered) species, is documented to occur in the Delaware River adjacent to the designated river corridor. The shortnose sturgeon is an anadromous fish that was once common; however, over-fishing and increased water pollution have led to drastic reductions in shortnose sturgeon populations. Principal responsibility for threatened and endangered marine species, including the shortnose sturgeon, is vested with the National Marine Fisheries (NMFS).

Except for the aforementioned species, no other federally listed or proposed threatened or endangered flora or fauna are known to occur within the vicinity of the Maurice National Scenic and Recreational River. If additional information on federally listed endangered or threatened species becomes available, this determination may be reconsidered.

The NJ Department of Environmental Protection's *June 1998 draft Strategic Plan* lists a number of goals, milestones and strategies. One specific goal, "The health, diversity and integrity of New Jersey's ecosystems will be restored and sustained," is important to the Maurice River Water Management Area. The following Milestones are specifically listed in the June 1998 draft and, if implemented, will assist in the preservation of critical resources in the Maurice River corridor

Milestone: By 2005, there will be no net loss of wetlands. One of the more important habitats for threatened and endangered species are areas of freshwater wetlands. Aside from the stormwater retention and filtration value that wetlands serve, their contribution to fostering biodiversity is important to the maintenance of healthy ecosystems.

- The Department will target increased compliance monitoring of critical wetland areas, based on their habitat and functional value, for both permitted construction activities and wetland mitigation projects.
- The Department will accelerate the use of credits held by the Wetlands Mitigation Bank to create, enhance or restore freshwater wetlands.
- To minimize impacts of increased impervious cover on the quantity and quality of wetlands, the Department will expand the implementation of stormwater best management practices through partnerships with local and regional agencies, regulatory mechanisms and incentive approaches.

Milestone: By 2005, identification and mapping of the State's critical habitats (for plants and animals) will be completed and available for public use.

- The Department will accelerate its efforts to bring information to decision makers, including local government agencies, to assist them in making well informed decisions regarding land use and natural resources using integrated, geographically based information through the Geographical Information System (GIS).
- The Nongame and Endangered Species program will expand its Landscape Project to identify those habitats, in particular physiographic regions, which are the most critical blocks for preservation of biological diversity.

Milestone: By 2008, one million more acres of open space will be protected.

- Increased emphasis will be placed on those programs that provide technical expertise and assistance to local communities, public agencies, private organizations and nonprofit groups that provide for natural and historic resource stewardship on properties not owned by the State.

By 2008, one million more acres of open space will be protected.

- Through GIS, enhanced understanding of animal and plant species distributions, characteristics and their adaptations to changes in their surroundings will allow the Department to better target acquisitions and improve both land management practices and species management programs.

(20) Water Quality

The following information concerning water quality is excerpted from the *New Jersey 1996 State Water Quality Inventory Report*

Watershed Description

There are about 20 major lakes in the Maurice River Watershed, with Union Lake the largest. The river is tidal below Union Lake. Principal land use in this watershed is agriculture, with much of the area forested. Of the 15 to 20 NJ Pollution Discharge Elimination System Program (NJPDES) permitted discharges in the watershed, most are industrial/commercial. The Maurice watershed is primarily classified FW-2 Nontrout, with some SE-1 and FW-1.

Water Quality Monitoring

No monitoring is performed in the freshwater portions of the Maurice River below Union Lake; however, the quality of the river is suspected to be degraded downstream of the lake. Regional-specific monitoring in the future should focus on this issue. In the lower tidal sections of the Maurice River, bacterial contamination of shellfish growing areas has resulted in these waters being condemned for shellfishing.

The NJDEP has contracted for a *Maurice River Water Quality Monitoring Study*. The objective of this study is to establish waste load allocations for the Millville Sewage Treatment Plant and set up a platform model for future development of watershed TMDL (total maximum daily loads), which considers non-point sources and other safety margin factors as well. The end product of this study will be a calibrated and verified Maurice River Estuary water quality model and a report discussing the effects of the Union Lake Discharge and the impact caused by Millville Sewage Treatment Plant discharges on the Maurice River Estuary water quality.

A schedule to establish Total Maximum Daily Loads for all Water Bodies Listed on New Jersey's 1998 303(d) List Memorandum of Agreement (MOA) was signed by NJDEP and the US Environmental Protection Agency in May 1999. Under this MOA, TMDLs for the Maurice River are required by June 2004. In order to establish TMDLs, water quality must be monitored.

Water Quality Assessment Summary

Water quality conditions are good at Norma and relatively good as monitored near Millville. Nutrients are acceptable at Norma and slightly elevated at Millville. Bacterial quality is slightly elevated at both locations. What is of concern in terms of human health (potability) are the elevated arsenic concentrations recorded at Millville. Current conditions appear to more or less mirror conditions observed between 1986 and 1990.

Biomonitoring

The Maurice River is monitored above Union Lake where it exhibits a mixture of both nonimpaired and moderately impaired communities. Tributaries to the Maurice, both above and below Union Lake, exhibit a similar mixture of nonimpaired and moderately impaired communities.

Point Source Assessment

Current enforcement activities within the Maurice River watershed are limited to one —Shield Alloy. In the lower Maurice River, point source effluents are believed to have led to the impairment of shellfish harvesting waters. In the past, two hazardous waste sites were reported to be contaminating surface waters.

Nonpoint Source Assessment

In the northern-most areas of the Maurice River watershed, tributaries are believed to be receiving storm water runoff. Suspected sources impacting the upper waterways are septic tank leachate, runoff from crop and pasture lands, urban surfaces, road and home construction and road maintenance. The upper Maurice River itself receives both agricultural and suburban nonpoint source pollution from crop production, tree harvesting, road and home construction, road maintenance and road runoff. Additional pollution sources include sludge disposal activities and local landfills. This runoff is suspected to be contributing to a reported general decline in water quality and to fish kills in the upper Maurice River.

Further downstream in the area surrounding Union Lake, runoff is believed to be coming from urban storm sewers, urban surfaces, sludge disposal sites, landfills, hazardous waste sites, and dam construction activities, all of which are estimated to be on the rise. Additional sources reported are surface mining, road maintenance, and housing construction. Below Union Lake, pollution from storm sewers and urban surfaces, while estimated to be on the decline, is believed to have contributed to the impairment of shellfish harvesting areas farther downstream. In this region also, landfills are viewed as a possible source of pollution whose actual impact upon local waters is not yet known .

Other suspected sources of nonpoint pollution are tree harvesting activities, home construction, urban and road surfaces, dredging, and septic systems. Of the two large tributaries to the lower Maurice, Menantico Creek receives occasional runoff from croplands, construction sites, urban surfaces, storm sewers, tree harvesting, as well as from what is estimated to be increasing levels of road construction and maintenance. Manumuskin River is believed to receive pollution in its headwaters from croplands, and is impacted in its mainstem by road construction, road runoff, suburban surface runoff, landfills, and dredging. To the west, a third tributary (Muddy Run) is suspected of experiencing degradation from cropland and pastureland runoff, pollution from road and housing construction sites, surface mining, and sludge disposal

Designated Use Assessment

The Maurice River at Norma and near Millville is considered to be partially meeting the swimmable (primary contact) designated use, based on fecal coliform monitoring.

The Maurice River above Union Lake exhibits a mixture of both full and partial support of the "aquatic life support" designated use. Tributaries to the Maurice, both above and below Union Lake, exhibit a similar mixture of full and partial support of this use. No support is limited to Indian Run in Pittsgrove Township and Blackwater Branch in Franklin Township.

The tidal sections of the Maurice River are condemned for shellfish harvesting. Refer to *Appendix 6* for a Biological Assessment of the Maurice River.

In addition to the above information regarding water quality, the following Milestones and Strategies were excerpted from the NJ Department of Environmental Protection's June 1998 draft Strategic Plan. Implementation of these strategies will have a beneficial effect on the Maurice River corridor and watershed.

Watershed Management will improve protection of New Jersey's surface and ground water resources and provide an integrated approach to solving key water quality and use issues. Through watershed management the Department will work with community watershed associations, farmers, local governments and businesses who live and work in the area to take responsibility for water quality in a holistic fashion. The Department is implementing watershed management based on three principles:

- Geographic focus
- Partnerships with area residents, and
- Continuous water quality improvement based on sound science

The department, in partnership with the residents of each watershed, will assess existing information to identify key issues and problems specific to their watershed management area. The significant causes of water quality problems, including point and nonpoint sources, will be evaluated and opportunities for improvement identified. Strategies to achieve water quality that supports the desired uses of the watershed will be implemented.

Milestone: By 2005, 90% of New Jersey's designated waters will provide shellfish safe to eat.

Currently, 85% of the State's designated waters support shellfish harvesting. In fact, New Jersey is the only coastal state that has consistently been able to open up new areas for shellfishing. Much of this results from the State's comprehensive monitoring efforts and its efforts in enlisting local and federal partners through public education and cooperative agreements.

Watershed efforts will be focused through estuary programs to address combined sewer overflow discharges, failing sewerage infrastructure and septic systems, municipal stormwater, and animal waste runoff.

Milestone: By 2005, 100% of New Jersey's assessed coastal and lake waters will be safe for recreational bathing.

The main strategies to be employed include public education regarding individual behavior and its impact on coastal waters, combined sewer and municipal sewerage facility infrastructure improvements, and programs to address municipal stormwater and animal waste runoff.

Additional information on the assessment of water quality in the overall watershed can be obtained from the following studies:

- *Maurice River Watershed* (May 1984) – Gloucester County Planning Department
- *An Environmental Assessment: Scotland Run Watershed* (August 1999) – Dr. Robert Pultorak, Gloucester County College
- *Known Contaminated Sites in New Jersey*, NJDEP
- *2008 Water Quality Management Plan*: Burlington, Camden, Gloucester Counties, Delaware Valley Regional Planning Commission
- USEPA Web Site (Index of Watershed Indicators)

Water Quality (continued)

Policy: Activities which improve the water quality of the Maurice River and its tributaries will be encouraged.

Recommended Action: Municipalities need to take a greater role in the maintenance and enhancement of water quality in the river, as well as to educate local officials about the effects of their decisions on water quality, e.g., zoning and subdivisions, site development plans, etc.

Recommended Action: Promote the NJDEP Water Watch Program which encourages local groups in the state to adopt a stream and undertake such activities as monitoring polluters, acting as watchdog groups, picking up litter, etc.

Recommended Action: NJDEP's water quality protection efforts need to focus on nonpoint sources of pollution as a result of human activities which are a major cause of water quality degradation in the State (1994 NJ State Water Quality Inventory Report). Pollutants of concern from these nonpoint sources include nutrients, pathogens, hydrocarbons and trace metals. Inputs may include residential and industrial runoff, agriculture runoff, faulty septic systems, groundwater inflow, riverine sediments, estuarine bottom sediments, atmospheric deposition, stormwater collection and discharge systems, and other point sources for marinas and boats. Consideration should also be given to undertaking a comprehensive study to identify sources of point and nonpoint discharges that impact water quality and to recommend methods of remediation.

Recommended Action: Develop a watershed management plan for the Maurice River consistent with the NJDEP's Watershed Management Framework and the NJDEP June 1998 draft Strategic Plan with assistance from Soil Conservation Districts. See *Map #4* for a listing of NJ Watershed Management Areas. Technical assistance for plan development for a variety of purposes is available from the USDA Natural Resources Conservation Service and the NJDEP.

Recommended Action: Enforce existing state laws prohibiting intensive motorized recreation use in the three designated tributaries which are less than 200' wide. Research has indicated that the use of personal watercraft and other types of motors produce a degradation of water quality. Recommend the use of electric motors only in the Menantico and Muskee Creeks and the Manumuskin River to maintain and improve water quality.

(21) Water Supply/Withdrawal

The Maurice River Watershed is described as part of Planning Area #21 in the NJ Department of Environmental Protection's publication *Water For the 21st Century. The Vital Resource - NJ Statewide Water Supply Plan.* The following information was excerpted from that document.

> The watershed receives its water from ground and surface supplies; however, the Maurice River watershed receives nearly all of its average 63MGD (million gallons per day) withdrawal from ground water supplies. Other than industrial use, the majority of surface water used in the watershed is stipulated withdrawals for agricultural users. The majority of ground water withdrawn is from the unconfined Kirkwood-Cohansey aquifer system.
>
> The Maurice River Watershed is estimated to be in deficit because there is no surface water storage (and therefore no safe yield) and because ground water use exceeds the

estimated total available ground water supply of 54 MGD. Groundwater supplies in the adjacent planning area that are potential water sources to meet needs in the Maurice River watershed may not be readily accessible because of their location in the Pinelands, their susceptibility to saltwater intrusion or their location in a Water Supply Critical Area. In addition, the eastern portion of the Maurice River watershed includes a part of the NJ Pinelands and the southern portion of the area has extensive coastal wetlands, which could limit the potential for unconfined aquifer use.

Recognizing the potential for water supply concerns in the Maurice River watershed, the NJ Department of Environmental Protection initiated studies through the US Geological Service to analyze water resources in an adjacent planning area that will complement and be linked to existing studies in the Maurice River watershed planning area. A ground water resource assessment already exists for the upper Maurice River watershed and is being completed in other portions.

Policy: Water uses in the Maurice River Watershed will be consistent with overall efforts to assure long term preservation of critical resources

Recommended Action: The NJDEP is encouraged to involve the counties, municipalities and the Pinelands Commission in all aspects of planning and decision-making in the Maurice River watershed.

(22) Wildlife Management

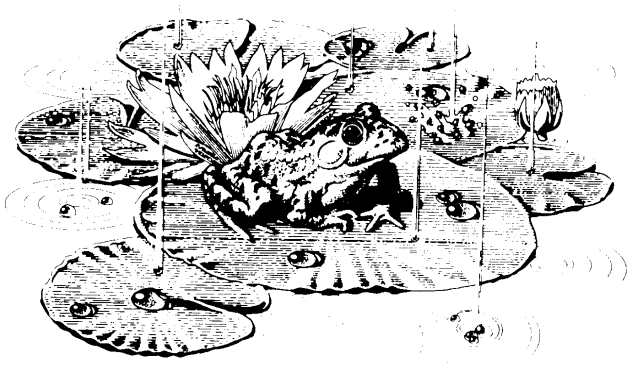
Policy: Encourage the acquisition by state and local governments, as well as nonprofit conservation organizations, of parcels that protect and provide linkages for wildlife habitat areas

Recommended Action: Continue to use the Natural Lands Trust, Inc.'s project to identify potential conservation easements in the Maurice River corridor.

The NJ Division of Fish and Wildlife has expressed concerns about the affect resident Canada geese are having on the growing of wild rice in the river corridor. The Division's Waterfowl Ecology Section is presently studying the problem. The resident goose segment of this population appears to be grazing this plant and greatly reducing its potential to provide food and cover.

Recommended Action: Continuation of NJ Division of Fish and Wildlife's research and study of resident Canada geese and the development of a management plan to address related problems.

Recommended Action: Work with appropriate agencies to identify the occasional need for wildlife management and control.



B. RESOURCE PROTECTION AREAS

The two protection areas outlined below and depicted on *Map #10* follow the scenic and recreational boundaries outlined in the designation legislation and also take into consideration the laws outlined in the NJ State Police Boating Safety booklet regarding "no wake" areas in waterways less than 200' wide.

1. Resource Protection Area #1 —

Scenic and Recreational Areas available for both motorized and non-motorized recreational activities (Waterways over 200' wide)

Areas of the Maurice River corridor designated as "scenic" will be protected from any development or recreational activities that may cause a negative impact on the resources for which the river was designated, including the scenic viewshed. The "scenic" designation was permitted due to the limited amount of development and access present and the fact that the surrounding area is in a primarily natural state. Appropriate recreational activities are acceptable in scenic areas as long as negative impact to outstandingly remarkable resources does not occur.

Areas of the Maurice River corridor designated as "recreational" also contain critical habitat areas and endangered vegetation. The recreational designation recognizes a certain level of existing and limited future development. The scenic and recreational areas depicted in Map # 10 that are wider than the 200' "no wake" zone required by the State of New Jersey can accommodate appropriate motorized recreational activities as long as identified resources are not adversely affected. The only area of the river corridor wider than the 200' requirement is on the mainstem of the Maurice River. All tributaries are less than the 200' requirement for intensive motorized activities.

2. Resource Protection Area 2 —

Scenic and Recreational Areas for Non-motorized Recreational Activities only (less than 200' wide)

This area of the designated river corridor includes both scenic and recreationally designated areas and consists of waterways less than 200' wide. Based on NJ State law, these are "No Wake/Idle Speed areas for transport and boating activities that do not create a wake. All three designated tributaries of the Maurice River corridor; namely, the Menantico and Muskee Creeks and the Manumuskin River are primarily less than 200' wide.

Given the need to maintain and improve water quality of the three tributaries and the fact that they are less than 200' wide, intensive recreational activities, such as: waterskiing, use of personal watercraft, tubing with motorized boats, etc., are already prohibited by NJ State law.

In addition, given the pristine nature of the areas specifically outlined below and the outstandingly remarkable resources that have been identified, it is recommended that motorized recreational activities be limited to those craft with electric motors only in those specified sections. The electric motor policy would only exist for the sections of the tributaries outlined below. All legal activities currently permitted along these waterways (hunting, fishing, trapping, etc) will still remain available. All other areas of the tributaries would continue to be available to motorized craft as long as the "No Wake/Idle Speed" policy is adhered to. The NJ State Wildlife Management Area along Menantico Creek already enforces an electric motor only policy on their management portion.

The following areas of the three tributaries have been specifically identified as areas where an electric motor only policy should be proposed and enforced. Once the policy is established (after following appropriate procedures established by the NJDEP and NJ Marine Police), the areas of the tributaries should be properly and clearly marked so that boaters are aware of the policy.

VI. Resource Management Issues, Goals & Prescriptions

Railroad bridge over the Menantico Creek

a. Menantico Creek

From the Route 55 bridge to the base of the impoundment at Menantico Lake

b. Muskee Creek

From its confluence with the Maurice River to the PA Reading Seashore Line Railroad bridge

c. Manumuskin River

From the railroad tracks to the headwaters near Route 557

TABLE # 2 RESOURCE PROTECTION AREAS

	Recreational & Scenic Areas for both motorized and non-motorized activities (less than 200' wide)	**Recreational & Scenic Areas for non-intensive recreational use (less than 200' wide)**
Desired Future Condition	Natural conditions and processes, ensure resource protection. Scenic areas remain as is, very limited access is available and recommended	Natural conditions and processes, ensure resource protection. Scenic areas remain as is, very limited access is available and no additional access is recommended
Desired Visitor Condition	Recreational use in appropriate areas	Limited use as appropriate
Management Actions	Managed for resource protection & visitor safety - provide minimal add'l public access, as appropriate Scenic areas will be managed for resource protection	Managed for resource protection & non-intensive recreation use - enforce existing regulations banning intensive motorized recreational activities - No additional public access - Restrict identified areas to electric motors only Scenic areas will be managed for resource protection
Kinds & Levels of Visitor Use	Visitor use acceptable as long as resource degradation does not occur. - all types of recreational activities as long as resource degradation does not occur.	Limit recreational activities based on existing NJ State law, size of waterway, existence of outstandingly remarkable resources and need to protect and improve water quality
Appropriate Kinds & Levels of Development	Limited. Recreational designation allows for some development. Scenic designation is based on minimal development.	None recommended. Areas are primarily scenic with limited recreational use on the water. Use of electric motors only in identified areas.

TABLE #3 NATURAL/CULTURAL RESOURCE MANAGEMENT ISSUES, GOALS & PRESCRIPTIONS

(Note: Partners listed are suggestions only and are not limited to only those listed)

MANAGEMENT MISSION, GOALS, & OBJECTIVES	RESOURCE MGT. TOPICS/ISSUES	RECOMMENDED ACTIONS*	POTENTIAL PARTNERS
Primary Mission: To preserve the Maurice River and its tributaries in free-flowing condition and assure the protection of significant and outstandingly remarkable resources. **Natural Resource Goals & Objectives:** • Foster the protection and enhancement of the natural, cultural and recreational resources of the rivers and their adjacent lands for future generations. • Maintain the natural, cultural, scenic and/or recreational resource values throughout the designated corridor. • Communicate the sense of fragility of river resources to residents and visitors. • Provide quality recreation opportunities while protecting significant resources.	Air & Noise Pollution	Local municipalities should enforce existing noise ordinances or develop ones where they do not exist.	→ Municipalities
		Enforce existing NJ State Law regarding vessel or watercraft emitting noise in excess of 90dba.	→ NJ Marine Police
	Carrying Capacity	Enforce existing state laws. Recreational boaters should be directed to specific areas of the Maurice River where the resource can safely accommodate use. Intensive recreational boating use is prohibited in all three tributaries because of width and pristine nature. Electric motors only in identified Resource Protection Areas.	→ NJ State Marine Police → Municipalities → Coast Guard
		No additional launching sites are recommended in the designated tributaries. Additional launching sites on the mainstem should be carefully reviewed.	→ National Park Service (NPS) → NJDEP; Pinelands Comm. → Cumberland County → Municipalities
	Communication Towers	Any development that negatively impacts either the scenic or recreational qualities of the corridor should be prohibited. Placement of cell/radio towers within the federal boundary or local river conservation zones should be considered an incompatible use.	→ NPS → Municipalities → Cumberland County → Citizens United…
		Pinelands Commission and NJDEP must be consulted before making decisions concerning cell tower placement w/in federal boundary	→ NPS → Municipalities → Counties → NJDEP & Pinelands Comm.
	Commercial Use of the River Bottom	Strong recommendations for mitigating adverse impacts from proposed actions when reviewing and commenting on projects requiring state permits must be made.	→ Bureau of Shellfisheries → NJDEP

TABLE #3 NATURAL/CULTURAL RESOURCE MANAGEMENT ISSUES, GOALS & PRESCRIPTIONS

(Note: Partners listed are suggestions only and are not limited to only those listed)

MANAGEMENT MISSION, GOALS, & OBJECTIVES	RESOURCE MGT. TOPICS/ISSUES	RECOMMENDED ACTIONS*	POTENTIAL PARTNERS
	Cultural Resources	Provide guidance to local municipalities about sources of information such as report repositories and local experts to guide decision-making.	→ NJ Historic Pres. Office → Pinelands Commission
	Docks, Bulkheads & Marinas	The replacement of bulkheads should be metal (Aluminum) or vinyl when a hard structure is necessary. If any piling is necessary, the piling should be plastic encased, impregnated or solid.	→ NJ Div. Of Fish & Wildlife → NJDEP → National Park Service → USCOE
		The use of soil bioengineered bank stabilization systems should be encouraged for shoreline stabilization wherever feasible.	→ NJDEP → National Park Service → USCOE & USF&WS
		Lumber substitutes or aluminum should be used for docks and piers for the construction of non-structural members. Aluminum is available for all structural members.	→ NJDEP; Division of Fish and Game → NPS; USCOE
		Docks, bulkheads and marinas should be permitted in areas where significant resources are not adversely affected and as long as their construction does not negatively impacted designated qualities	→ NPS & USCOE → NJDEP; Pinelands Comm. → Cumberland County → Municipalities
		Educate the public on the permitting process for construction projects in the river corridor	→ NJDEP & USCOE → Counties → Municipalities → National Park Service
		Encourage public & private marinas, yachts clubs, fuel docks, etc. to provide pump-out facilities. Encourage these facilities to apply for a Clean Vessel Program grant.	→ Municipalities → USCOE, NPS → NJDEP → USF&WS → Citizens United
		Create a "No Discharge Zone" for the Maurice River corridor.	→ NJDEP → USF&WS & NPS → Counties

TABLE #3 NATURAL/CULTURAL RESOURCE MANAGEMENT ISSUES, GOALS & PRESCRIPTIONS

(Note: Partners listed are suggestions only and are not limited to only those listed)

MANAGEMENT MISSION, GOALS, & OBJECTIVES	RESOURCE MGT. TOPICS/ISSUES	RECOMMENDED ACTIONS*	POTENTIAL PARTNERS
	RESOURCE MGT. TOPICS/ISSUES	Encourage marinas to offer containment areas for boat maintenance activities such as bottom scraping and painting.	→ Local marinas → Cumberland County → NJDEP → National Park Service → Municipalities
		Evaluate the impact that the proliferation of docks may have on the river corridor.	→ USCOE → NJDEP → NPS
		NPS should continue to review dock designs to identify potential impacts on resources and work with NJDEP and USCOE to assure that structures are appropriate.	→ NPS & USCOE → NJDEP → Municipalities → Cumberland County
	Dredging	Limited maintenance dredging may be considered on sections where no adverse effects to natural, cultural, scenic or recreational resources will occur & when appropriate locations of dredge spoils are identified.	→ NPS, USCOE, & USFWS → NJDEP → Counties & Municipalities → Pinelands Commission
		The negative impacts of invasive species should be monitored and addressed for proper control.	→ Same As Above
	Flora Management Forest Management	For the integrity of Pinelands forests, forest management must be consistent with the Pinelands CMP, specifically Part IV, Sections 7:50-6:47	→ Pinelands Commission → NJDEP → Municipalities & Counties → National Park Service
		Develop an overall Forest Management Plan for the Maurice River Watershed.	→ Same as Above
	Hunting	Reinforce existing hunting regulations in the river corridor.	→ NJ Div. Of Fish & Wildlife

TABLE #3 NATURAL/CULTURAL RESOURCE MANAGEMENT ISSUES, GOALS & PRESCRIPTIONS

(Note: Partners listed are suggestions only and are not limited to only those listed)

MANAGEMENT MISSION, GOALS, & OBJECTIVES	RESOURCE MGT. TOPICS/ISSUES	RECOMMENDED ACTIONS*	POTENTIAL PARTNERS
	Identification of Critical Areas Needing Protection	Municipalities need to make sure that critical areas needing protection are identified.	→ Municipalities → NJDEP; Pinelands Comm. → Non-profit organizations → Cumberland County
		Consideration should be given to the use of conservation easements wherever possible to maintain undeveloped waterfront property.	→ Same as above
		Acquisition of key areas by private conservation groups or appropriate public agencies should be considered.	→ Same as above
	Natural and Historical Resources	Protect upland habitats to the maximum extent possible to assure the protection of flora, fauna, whether endangered or not.	→ USF&WS, NPS → NJDEP → Municipalities → Cumberland County → Nonprofit organizations
		Review projects outside of the designated corridor to determine if any negative impacts occur within the designated corridor.	→ Same As Above
		Continue to work with nonprofit organizations to purchase easements wherever possible to maintain undeveloped waterfront property and protect scenic vistas and threatened resources.	→ Same As Above
	New River/Stream Crossings	All requests to upgrade and/or construct new utility lines/roads should be reviewed to assure protection of resource values. Use existing rights-of-way wherever possible.	→ NPS → Nonprofit organizations → Cumberland County → Municipalities → Pinelands Commission → NJDEP → Citizens United..
		Review all transportation projects consistent with the Guidelines for Water Resource Projects outlined in *Appendix 8*.	→ NPS → Municipalities → Cumberland county → Pinelands Commission & NJDEP

Recreationists in motorized craft that produce a

TABLE #3 NATURAL/CULTURAL RESOURCE MANAGEMENT ISSUES, GOALS & PRESCRIPTIONS

(Note: Partners listed are suggestions only and are not limited to only those listed)

MANAGEMENT MISSION, GOALS, & OBJECTIVES	RESOURCE MGT. TOPICS/ISSUES	RECOMMENDED ACTIONS*	POTENTIAL PARTNERS
	Recreation	wake should be confined to the main channel of the river in compliance with existing state marine laws.	→ Municipalities → Cumberland County → National Park Service → US Coast Guard → NJ Marine Police
		Enforce existing NJ State Law regarding vessel or watercraft emitting noise in excess of 90dba.	→ NJ Marine Police
		Areas of the river where regular strandings occur should be clearly marked for safety purposes and to avoid adverse impacts on mudflats and marsh areas	→ NJ Marine Police
		Educate recreationists/visitors about private property and the rights of waterfront property owners.	→ Marinas → National Park Service → Citizens United → Cumberland County
		Determine the appropriateness of personal watercraft on the Maurice River based on the NPS regulation prohibiting such use in National Wild and Scenic Rivers. Personal watercraft are already prohibited in tributaries based on NJ Law.	→ Citizens United → Pinelands Commission → NJDEP → Municipalities → Cumberland County → National Park Service
		Enforce an "electric motor only" policy on specifically identified Resource Protection Areas of the Menantico & Muskee Creeks & Manumuskin River.	→ NJDEP/Fish & Game → NJ Marine Police → NPS → Municipalities → NJDEP/Fish & Game
		Work with NJ Marine Police to enforce state laws regarding "No Wake/Idle Speed" areas to assure that motorized craft that create a wake do not occur in waterways less than 200' wide.	→ NJ Marine Police → NPS → Cumberland County → Citizens United

TABLE #3 NATURAL/CULTURAL RESOURCE MANAGEMENT ISSUES, GOALS & PRESCRIPTIONS

(Note: Partners listed are suggestions only and are not limited to only those listed)

MANAGEMENT MISSION, GOALS, & OBJECTIVES	RESOURCE MGT. TOPICS/ISSUES	RECOMMENDED ACTIONS*	POTENTIAL PARTNERS
		Use of airboats, hydrofoils, hovercraft and other craft of this type should be prohibited in the tidal marsh and mud flat areas to avoid negative impacts on vegetation, marsh fauna and other resources. Other motorized craft should be permitted to enter the marshes only at low/no wake speeds in water filled areas to avoid negative impacts on marsh flora and fauna.	→ NJ Marine Police → US Coast Guard → NPS → Cumberland County → Citizens United → Municipalities
		Eliminate the practice of prop washing of boat slips	→ US Coast Guard → NJ Marine Police
		Enforce existing laws regulating crab pots and fish nets to avoid safety hazards	→ Municipalities → Marinas → NJDEP
	Resource Extraction	Extraction activities in the Pinelands National Reserve must conform to the Pinelands CMP, specifically Part VI, 7:50-6:69.	→ Pinelands Commission → NJDEP → Municipalities → Cumberland County → National Park Service
	Sand and Gravel Mining	Regulation of mining activities is within the purview of municipal resource extraction and zoning ordinances. Municipalities should consider the prohibition of establishing new mining activities within the River Conservation Zone or District.	→ Municipalities → National Park Service → Cumberland County → NJDEP → Pinelands Commission
	Streamline Regulations	Federal & State agencies need to continue to closely coordinate on permit requests to resolve discrepancies and avoid conflicting guidance.	→ NPS, USCOE, USF&WS → NJDEP; Pinelands Comm. → Cumberland County
		Educate waterfront property owners about the revised SPGP-19 permit process for NJ Wild and Scenic Rivers.	→ NPS, USCOE, & USFWS → NJDEP

TABLE #3 NATURAL/CULTURAL RESOURCE MANAGEMENT ISSUES, GOALS & PRESCRIPTIONS

(Note: Partners listed are suggestions only and are not limited to only those listed)

MANAGEMENT MISSION, GOALS, & OBJECTIVES	RESOURCE MGT. TOPICS/ISSUES	RECOMMENDED ACTIONS*	POTENTIAL PARTNERS
	Segment Additions	The issue of adding the lower Maurice River to the designation should be revisited by involved parties so that a final determination can be made.	→ NPS → Commercial Township → Cumberland County → Citizens United…
	Threatened and Endangered Federal and State Species	Make sure that all development in the designated corridor is designed to avoid irreversible adverse impacts on habitats critical to the survival of federal or state threatened and endangered species.	→ USFWS, NPS &USCOE → NJDEP → Pinelands Commission → Municipalities → Cumberland County
		Identify and protect any known perching and loafing trees for the bald eagle. Establish a buffer zone (min. 1,320 ft.) around trees. Clearing should not be permitted.	→ NPS & USF&WS → NJDEP → Municipalities → NJ Fish & Game
		The Shortnose Sturgeon needs to be studied to determine its present status in the Maurice River corridor.	→ USF&WS → National Park Service
		Survey and evaluate any proposed disturbance to areas where Sensitive Joint Vetch, NJ Rush, and Chafseed occur.	→ USF&WS → National Park Service
		A survey by a qualified biologist will be required to determine if any proposed disturbances that alters hydrology or impacts forested or scrub/ shrub wetlands where Swamp Pink is present and could be negatively affected.	→ USFWS → NJDEP → NJ Fish & Wildlife → Pinelands Commission
		Further study of the Scarlet Snake species to determine its location and behavior should be undertaken.	→ Same as Above

TABLE #3 NATURAL/CULTURAL RESOURCE MANAGEMENT ISSUES, GOALS & PRESCRIPTIONS

(Note: Partners listed are suggestions only and are not limited to only those listed)

MANAGEMENT MISSION, GOALS, & OBJECTIVES	RESOURCE MGT. TOPICS/ISSUES	RECOMMENDED ACTIONS*	
		Followup on the Milestones listed in the NJDEP's June 1998 draft Strategic Plan; namely, - target increased compliance monitoring of critical wetland areas, based on their habitat and functional value - accelerate the use of credits held by the Wetlands Mitigation Bank to create, enhance or restore freshwater wetlands. - Expand the implementation of stormwater best management practices through partnerships.	→ NJDEP → NPS &USFWS → Counties → Municipalities → Non-profit Organizations
		- Identification & mapping of critical habitats (for plants & animals) to be completed by 2005.	→ Same as Above
		- Expand the Landscape Project of the Nongame & Endangered Species program to identify habitats which are most critical for preservation of biological diversity.	→ Same as Above
		- Provide technical assistance to appropriate partners that provide for natural and historic resource stewardship on properties not owned by the State.	→ Same As Above
		- Use the State's GIS to gain an enhanced understanding of animal and plant species distributions.	→ Same As Above
	Water Quality	NJDEP should follow-up on the recommendations contained in the 1996 State Water Quality Inventory	→ NJDEP → Counties → NPS → Municipalities → Soil Conservation Districts
		Regional specific monitoring in the future should focus on the freshwater portions of the Maurice River below Union Lake.	→Same as Above

TABLE #3 NATURAL/CULTURAL RESOURCE MANAGEMENT ISSUES, GOALS & PRESCRIPTIONS

(Note: Partners listed are suggestions only and are not limited to only those listed)

MANAGEMENT MISSION, GOALS, & OBJECTIVES	RESOURCE MGT. TOPICS/ISSUES	RECOMMENDED ACTIONS*	POTENTIAL PARTNERS
		Municipalities need to take a greater role in the maintenance and enhancement of water quality in the river, as well as educate local officials about effects of their decisions.	→ Municipalities → NPS → NJDEP; Pinelands Comm.
		Promote the NJDEP Water Watch Program	→ Municipalities → NJDEP → USGS → Pinelands Commission
		Water quality protection efforts need to focus on nonpoint sources as a result of human activities.	→ NJDEP → NPS → Pinelands Commission
		Develop a Watershed Management Plan consistent with NJDEP's Watershed Management Framework and w/assistance from the appropriate Soil Conservation Districts.	→ NJDEP → USEPA → Pinelands Commission → Cumberland County → NPS
		Followup on the Milestones and Strategies contained in the NJDEP's June 1998 Draft Strategic Plan; namely, - By 2005, 90% of NJ's designated waters will provide shellfish safe to eat - By 2005, 100% of New Jersey's assessed coastal and lake waters will be safe for recreational bathing.	→ NJDEP → USFWS → Municipalities → Counties
		Enforce existing state laws prohibiting intensive motorized recreation use in designated tributaries which are less than 200' wide. Enforce the use of electric motors only policy in identified areas.	→ NPS → NJ Marine Police → Municipalities → Citizens United… → Cumberland County
	Water Supply/Withdrawal	NJDEP is encouraged to involve partners in all aspects of planning and decision-making in the Maurice River Watershed.	→ NJDEP, Pinelands Comm. → NPS → Cumberland County → Municipalities → Non-profit organizations

TABLE #3 NATURAL/CULTURAL RESOURCE MANAGEMENT ISSUES, GOALS & PRESCRIPTIONS

(Note: Partners listed are suggestions only and are not limited to only those listed)

MANAGEMENT MISSION, GOALS, & OBJECTIVES	RESOURCE MGT. TOPICS/ISSUES	RECOMMENDED ACTIONS*	POTENTIAL PARTNERS
	Wildlife Management	Encourage the acquisition by state & local governments, as well as nonprofit conservation organizations, of parcels that protect and provide linkages for wildlife habitat areas.	→ USF&WS → NJDEP → Nonprofit organizations
		Continue to use the Natural Lands Trust, Inc.'s project which identifies potential conservation easements in the river corridor.	→ NPS → Natural Lands Trust, Inc. → The Nature Conservancy
		Research and prepare a management plan to address the growing issue of resident Canada geese in the river corridor and watershed.	→ NJ Division of Fish & Game → NPS → Nonprofit organizations → Pinelands Commission → Municipalities → Cumberland County

VII. Visitor Management & Interpretation Services

A. BACKGROUND

The proposals for interpretation contained in this document are one part of the comprehensive management planning effort. They emerged from a series of working meetings and attended by local representatives and experienced interpretive professionals. They rest upon the premise of local endorsement and draw heavily upon suggestions made in existing planning documents and ideas proposed by organizations already deeply involved in interpreting area resources. By encouraging cooperative and complementary action they attempt to maximize limited resources.

Although the "Maurice River & Its Tributaries Final Study Report" prepared by the National Park Service focused on a rather narrowly defined corridor, the interpretive proposals described in the pages that follow are more holistic. Interpretation, by definition, explains relationships. An ideal gateway to river resources may be located beyond the technical boundaries of official river designation. So, while each interpretive proposal will have a direct link to the river system, a story that begins on the banks of the Maurice River might be incomplete without reference to other watershed resources. The proposals will embrace logical ties between the river and both upland and bay. To be well told, interpretive stories might follow oysters to market, sand into the glass house, and migrating birds to Central America.

B. SIGNIFICANCE

In 1993, Congress concluded that a significant portion of the Maurice River and its tributaries (the Manumuskin, Menantico, and Muskee) met the definition of a wild and scenic river. To qualify, the river had to be "free-flowing [with] outstandingly remarkable natural, cultural, scenic, and recreational features."

As described in the Final Study Report prepared by the National Park Service, these features capture the regional as well as the hemispheric and global significance of the river system:

1. The Maurice River system is internationally recognized for its biological importance.

The Maurice and Manumuskin Rivers form the southwestern boundary of the Pinelands National Reserve and serve as a link between the Pinelands (an International Biosphere Reserve) and the Delaware Bay (recognized as nationally important by the National Estuary Program). Area wetlands received global recognition via the Ramsar Convention (the Convention of Wetlands of International Significance).

What biological aspects of the river system make it so renowned?

- The biological integrity of the system supports threatened and endangered species. It helps to sustain the oyster, crab, and fin-fish industries and could be instrumental to the recovery of fish species (shortnose sturgeon & striped bass) now in decline. The Manumuskin supports perhaps 1/3 of the world's population of sensitive joint vetch as well as the rare Parker's pipewort, a sedge (*Carex barrattii)*, and a bonset (*Eupatorium resinosum)*.

Oyster boat

- The diversity of reptile and amphibian species located in the watershed increases the area's scientific potential as a monitoring and indicator site.

- The system draws from and contributes to the massive (17 trillion gallon) Kirkwood-Cohansey aquifer that lies under the region's sandy substrate and provides clean water to the residents of South Jersey.
- Located along the Atlantic flyway, the river system and the Delaware Estuary provide critical migration-related habitat, including extensive stands of wild rice. Migrating shorebirds, songbirds, raptors, rails, and waterfowl as well as Monarch butterflies and fish all depend upon river resources at some point in the calendar year.

2. Much of the region's rich history survives.

The river has traditionally supported many nature-dependent occupations (hunting, trapping, fishing, shipping, oyster harvesting, and salt hay farming) and several industries closely tied to natural resources (iron making, glass making, shipbuilding).

Perhaps more noteworthy, the cultural legacy of these nature-based livelihoods remains alive and very much a contemporary aspect of corridor life. The fact that this is still a "working river" corridor is reflected in both the built environment (the villages along the riverbanks) and the lifestyle of the residents (many still make a living from natural, river basin resources).

C. Audiences

Interpretive programming should be designed to reach out to and meet the needs of both existing and potential audiences. That may mean retaining or improving currently offered programs (they apparently have attracting power) while carefully expanding into new areas that target different groups.

1. Existing

There is little scientific data on who currently visits the watershed. Impressions are primarily anecdotal:

- Cumberland County's "Ecotourism Plan" describes the current level of tourist investment throughout the county as "modest," particularly in comparison to spending and visitation elsewhere in the state.
- The Pinelands Commission recently completed a 2-year pilot program to examine economic development opportunities in some of the more rural Pinelands communities, including Maurice River Township in partnership with Dennis Township in Cape May County. Opportunities identified through the pilot program matched local interests and needs with Pinelands requirements for resource protection. The key recommendation resulting from this program was to develop a comprehensive ecotourism strategy for the region. The associated implementation strategy identified action items in the areas of staffing, planning, infrastructure, marketing, site-specific development, targeted new uses, education, partnerships, and events.
- The visitor profile included in the "Draft Interpretive Plan" for the New Jersey Coastal Heritage Trail Route (NJCHTR) is instructive, but describes only one segment of the river's audience.
- According to the plan, visitors are drawn from white, urban, and middle class populations with an educational background that includes some college or technical education beyond the high school level. They come in family groups, often with small children. Senior citizens and couples are more common during the school year. About half of the visitors live in NJ; others come from within the Mid-Atlantic region. Many visitors to the trail are on a "shore" vacation.

- Wheaton Village in Millville currently attracts the most diverse and largest number of on-site visitors (over 100,000 annually) to the watershed. It also offers school programs with special emphasis on the 4th grade.
- Certain specialized users are already important to the region. Use by these groups is largely determined by season:

  Birders (Spring and Fall migrations)

  Recreational boaters (Summer)

  Anglers (April - October)

  Hunters (September - February)

When considering programming for these groups, it is important to remember that many boaters, anglers, and hunters do not match the NJCHTR visitor profile described above. In fact they are not "shore" vacationers and, in many cases, are blue collar.

2. Potential

It should come as no surprise that there are a variety of opinions about the watershed's future vis a vis increased visitation and interpretation. Yet most of the partners involved in the design of these interpretive proposals found the following common ground:

- There are many opportunities to inform local residents about the cultural and natural history of the watershed. Programs should be designed to reach out to civic groups and business leaders, to local school children, to area newcomers.
- River resources could be overwhelmed. Ill-planned increases in use could destroy the very things that make the watershed special. So, interpretive programming should encourage participation by those visitors, vendors, and resource managers most likely to possess a willingness to respect watershed resources. Visitors who enjoy looking for antiques, for example, might appreciate the sense of past possessed by many watershed villages. Or members of environmental or conservation groups might be more likely to understand and accept use restrictions in sensitive habitats.

Ill-planned increases in use could destroy the very things that make the watershed special.

- Because the Maurice River lies along a major transportation corridor between Philadelphia and the Jersey Shore, and because it is so close to large population centers, some level of urban visitation is inevitable. Interpretation should help to actively manage the watershed experience of these potential users. It can, and should, address questions like:

  What programs might be appropriate for those who pass through the watershed, stop at corridor attractions like Wheaton Village, or even undertake a mini-junket from their vacation home-base?

  Should the horizons of those already interested in history or nature (many visitors to Cape May, for example) be expanded to include the rivers' resources?

  How can the few existing access points be improved to meet interpretive needs and still protect river resources? Are additional access points needed?

  How can visitors be directed to less sensitive areas, concentrated in areas with infrastructure (for events like Bay Days, perhaps, or facilities like Wheaton Village), or controlled via organized tours, trips, etc.?

- Two conditions point toward the development of additional hike/bike trails that intersect with the river at carefully chosen and well designed access points—the area is flat and highway access between the river and land is often non-existent.
- Not everyone who "uses" an area and benefits from interpretive programming actually visits the resource. Some interpretive media (audio visual programs, publications, lesson plans, etc.) are portable and can be used effectively off-site. These programs can be particularly valuable when over-use is a threat and can be used to influence pre-visit behavior in positive ways.
- Watershed resources offer different rewards at different times of the year. Recreational use is already determined by season (see "specialized users" above). With proper planning and publicity, seasonal use might help distribute visitation, direct visitation of selected sites, and avoid damaging impact.

D. Interpretive Goals and Issues

Interpretive programming must address the following issues, answering the implied questions:

1. Planning History

The planning history of the Maurice River has already explored many questions relevant to interpretation (themes, visitation, and existing resources). This is an advantage that was not overlooked; xisting plans were thoroughly reviewed and evaluated for useful information.

Because there is a long history of planning, there is understandable interest in concrete action. Implementation should proceed along multiple parallel tracks—one track will lead to short term, quickly achievable programming while the others will point toward long term, ideal goals. Residents must see progress within the span of months even as they are asked to help shape a vision that may not be realized for years. Proposals will sometimes be very specific and yet at other times simply suggest general direction.

2. The Visitor Experiences

The types of visitor experiences proposed and the programming that results will help determine the nature of future development. This approach will help partners focus limited resources on agreed upon interpretive goals. It can use interpretive development to promote appropriate economic opportunity, i.e., programming that also helps to protect the river resources.

3. Visitor Impact and Role

Both the impact of visitation on sensitive resources and the role that tourism can play in a sustained, healthy local economy must be considered. Application of the principles of ecotourism are essential to the long term success of interpretation along the Maurice River. Interpretation should explore not only content but address responsible stewardship. It is important to discuss both how to experience the area as well as what to develop for public use. In fact, it is critical to consider how much use the river can sustain and still retain those qualities that make it special.

4. Values

The environmental, historical, and cultural values of the river may not be readily apparent to many visitors, particularly visitors from urban areas. River resources often have subtle significance that interpretation can reveal. To what extent should programming reach out to these audiences? What types of programs might be effective? Is there a role for off-site programming?

5. Interpretive connections

Interpretive connectionsneed to be made between the natural and the historical/cultural/recreational resources along the river. Although different audiences might be attracted to different resources, the river ecosystem will benefit from a holistic interpretive approach that explains how natural and human activities are interdependent.

6. Access

Access between land routes and the river is now limited. In other words, it is hard to get visitors from their cars to the river. Conversely, there are few places where visitors on the river can dock and explore land-based resources.

7. Expertise

Any interpretive proposals must take into account the varied levels of interpretive expertise of existing and potential partners. Delivery of quality interpretation may require on-going attention to staff training and media selection, preparation, installation, and maintenance.

8. Collaboration & Coordination

The number and diversity of likely partners means that collaboration could be very productive if strategies of cooperation can be designed.

Similarly, several different types of interpretive facilities (orientation, interpretive, research, natural, historical/cultural) exist or have been proposed by various organizations (Cumberland County, State Division of Fish & Wildlife, Pinelands, NJCHTR, etc.). Coordination is important. New facilities and additional interpretive efforts need to be considered with care. Strategies should seek to ensure long term viability and minimize duplication of effort.

9. Local Commitment

Local commitment to and investment in interpretive programming is crucial. Local partners must be invited to participate in interpretive workshops. Interpretive proposals must respect home rule, municipal choice, and private property rights. Interpretive programming should reflect and help retain local character. In fact, some programming might be specifically designed to help local audiences fully appreciate, understand, and protect river resources, for example, local municipalities might be encouraged to enhance or create new park and recreational facilities for local residents.

E. Stories

While interpretive programming could touch upon any number of stories related to the resources along the Maurice River, focus increases effectiveness. When we identify and concentrate on the most important stories, we are sure to communicate the essence of the river system. When we link stories to resources that survive, to resources that visitors can see, we fashion tangible experiences that will be remembered, appreciated, and preserved.

Several existing documents identified interpretive themes that might be applicable to the significant resources of the watershed. To arrive at the following four stories, workshop participants not only considered those themes, they also assumed the role of newcomers to the river and its resources and mentally completed the following sentence, “After learning more about the Maurice River, I now realize how important _____ was/is to the area.”

1. The Influence of Water

Early industries depended on river water channeled into swiftly flowing mill races. Some residents built dikes so they could farm the often soggy lands close to the river.Many others worked in maritime occupations. Shipping provided markets for local products. Villages developed near the dock and wharf. The fortunes of countless families revolved around the vagaries of the sea and the plenty of its denizens.

But the influence of the river, the bay, and the watershed's natural resources should not be discussed in the past tense. Recreational boating remains an important component of the area's lifestyle and economy. Fishing, hunting, crabbing, trapping, and farming still occur extensively and those involved can tell their own often engaging stories. Water is still important. It still influences life along the Maurice. Both the past and the present still can be clarified by looking through a liquid prism.

The Maurice River, its tributaries, and the bay beyond not only shaped the lifestyle and livelihood of the region's inhabitants in the past, they continue to support the region's economy and the lifestyle of many of today's corridor residents.

2. The Survival of Biological Integrity

The huge, unspoiled Kirkwood-Cohansey aquifer underlies most of the region. The rivers and associated wetlands serve as nurseries for ocean-going species. They offer food and habitat for both resident and migrating species; annually, huge flocks of migratory birds alight within the watershed to enjoy, if only briefly, the area's natural bounty. Numerous rare, threatened, or endangered species as well as an unusual diversity of non-threatened species live within the watershed. The Pinelands are recognized as an International Biosphere Reserve. The Delaware Estuary is included in the national estuary program. Area wetlands possess "international significance" (Ramsar Convention). And, of course, much of the river system is included in the National Wild and Scenic Rivers Program.

Because this biological treasure trove lies so close to large concentrations of population, the survival of the area's natural integrity and efforts to provide continued stewardship both are important stories.

In many places throughout the watershed, Nature displays its best and wildest qualities.

3. The Impacts of Change

Once, stagecoaches, schooners, and steam locomotives connected vibrant, bustling watershed villages to the outside world. Throughout the countryside, agricultural entrepreneurs erected dikes to control the river's tidal flow. Marshland became farmland.

But, with Millville as the exception, 19th and early 20th century growth could not be sustained. Visitors to Port Elizabeth, Mauricetown, Dorchester, Leesburg, and Port Norris find a surprising absence of "modern" intrusions in once busy regional centers of commerce and industry. Village landscapes evoke the past rather than portend the future. Even in the countryside, farmers abandoned the constant struggle to maintain the dikes and the marsh has returned.

What happened? hy are there so few contemporary intrusions? In a world filled with new demands for change, what lessons does the watershed teach about the long-term value of progress, heritage, and nature?

Change in the watershed has not been a continual upward spiral.

4. The Long Tradition of Glass Making

The availability of fine, silica sand began a long tradition of glass making in the region. Sand mining and glass production both continue as significant contemporary industries affecting the local economy and the watershed landscape.

The region's entire glass making industry emerged because of and still depends upon the sandy deposits found throughout the watershed.

F. Desired Experiences

In addition to the stories communicated during the visit and the issues addressed by interpretation, it is important to think about the nature of the visit itself. How do we hope visitors will feel, what impressions will emerge, and what can we do to provide an enjoyable AND a meaningful visit?

To complete this section, workshop participants considered the following questions:

If you could list three things that you think every visitor should experience while visiting the river, what would they be? Think about experiences that trigger emotions and impressions, not just those that inform via facts and information. What emotions might you want to elicit?

Assume you are a life-long resident, what would you most like visitors to understand about the Maurice River?

Based on responses, interpretive programming should offer audiences...

...effective orientation to the area. Visitors should be fully informed of area programs, facilities, and services as well as safety concerns and environmental sensitivities.

...an opportunity to experience the solitude that is so much a part of many river landscapes. The Maurice River can be a place to find peace of mind.

...a sense of the fragility of river resources. All who come into contact with the river must share the sense of respect that has allowed humans to continue to live from nature without irreparably upsetting its delicate balance.

...a chance to experience the river itself.

...a multi-sensory experience. Audiences should be encouraged to use each of their senses to experience river resources and discover the variety of ways that it is special.

...a sense of sincere welcome that will lead to respect for local property rights and a willingness to see the river through the eyes of residents. Visitors must understand that they are guests.

...a good time. They should have fun, stay overnight, enjoy county attractions, and come back for another visit.

...an appreciation of the interconnectedness of the river and the "outside" world. Both visitors and residents need to understand that river resources do not exist in isolation. Natural and cultural links to the region and even the hemisphere exist. The goal is to explain the nature of interdependence and exploit it in positive ways. An experience with the river, for example, should nurture stewardship.

...a sense of the area's history, of the people who settled here, of the influences that changed both village and rural landscapes, of the cultural legacies that survive.

In order to design a positive experience, participants also answered two questions that focused on what to avoid.

What are the most pressing problems that stand in the way of a memorable river experience?

When you think about visitors, what are you most concerned about them doing?

Based on participant responses, interpretive programming should...

...look for ways to minimize overuse. Litter, noise, misuse of private property, damage to resources all concerned participants.

...address the current lack of well designed facilities and programs. Interpretation should direct use. Sensitive areas should be shielded. Use should be diffused where appropriate. New facilities and programs should be developed where impact can be minimized.

...create advocates for both resource protection and responsible tourism. Visitors should leave with

a positive impression AND with a resource-sensitive attitude.

Developed independently, many of these experiences parallel the "Ten Commandments of Eco-Tourism" prepared by the American Society of Travel Agents (see Appendix 9).

G. Existing Facilities and Programs

In order to move forward, we need to know where we are. This section will provide brief descriptions of programs and facilities that already exist in the river watershed (not solely within the designated corridor).

1. River Experiences

The Delaware Bay Schooner Project (in Bivalve) offers educational sails on the restored schooner, "A.J. Meerwald."

The Fowser Road boat ramp in Millville is one of the few existing public access points on the river.

There are over a dozen marinas along the Maurice River, including sites at Matts Landing (a favorite spot for crabbing), the Port Norris/Bivalve/Shellpile area, Leesburg, Dorchester, and Port Elizabeth.

Canoes can be rented in Newfield.

2. Nature Preserves

Willow Grove Lake, at the northern end of the Maurice River, is managed by The Nature Conservancy. Facilities and interpretation are currently very limited.

Maurice River Natural Area is a 117-acre tract administered by the Vineland Environmental Commission. The commission also administers the 56+ acre Bennett's Mill Natural Area, the Willow Oak Natural Area, and is seeking permission to administer a 259 acre tract along Union Road and the Manumuskin River.

West Side Park is primarily a recreational area but includes a 25 acre natural preserve administered by the Vineland Recreation Commission.

Natural Lands Trust's Peek Preserve is a 252 acre private preserve open to the public. It is located on Delsea Drive in south Millville just below Fowser Road boat ramp. Visitors can see a section of pine barrens, a red maple/white cedar swamp, and wild rice marshes on the river. Plans are underway to construct a small parking area, trail system, observation platform, and floating dock to provide better access to the preserve for school groups and eco-tourists.

The state-operated Union Lake Wildlife Management Area covers 4,677 acres and includes a boat ramp. The lake itself, at 898 acres, is the largest lake in NJ and is a popular fishing spot.

Edward G. Bevan Wildlife Management Area (state-operated) includes over 12,000 acres. Primary activities include dog training, hunter education, fishing, and hunting.

Heislerville Wildlife Management Area (state-operated) covers 5,700 acres of uplands, impoundments, and tidal salt marsh. It includes sections of a working farm once owned by the Cadwalader family of Philadelphia. Produce was shipped via railroad to urban markets.

Thompsons Beach and over 20,000 acres of wetlands and upland buffer are included in PSE&G's (a utility company) Estuary Enhancement Program. The Nature Conservancy will administer public access and programming for this area. Limited parking, trails, boat ramps, and bird watching platforms are planned.

The 8,540 acre Egg Island/Berrytown Wildlife Management Area (state-operated) includes tidal marsh and some upland habitat. Recreational activities currently include waterfowl hunting, crabbing, fishing, and birding.

Peaslee Wildlife Management Area (state-operated) includes 17,988 acres bounded on the west by the Manumuskin.

The Nature Conservancy maintains Camp Hollybrook, an old YMCA camp, and the Manumuskin River Preserve. The property includes the site of Fries Mill (a grist mill) and the abandoned Simon Shaw House. Once a sand and gravel mining site, the preserve contains significant numbers of rare New Jersey species. Several miles of river front include excellent examples of tidal marsh.

Menantico Ponds Wildlife Management Area (state-operated) is accessible via unimproved road. It includes a 295 acre tract of sand ponds and is used by anglers (there is a boat ramp).

3. Museums & Historic Sites

The Maritime Traditions of the Delaware Bay Museum (in Port Norris) is open on weekend afternoons from April to October. Operated by the Delaware Bay Schooner Project, the museum exhibits a variety of maritime objects.

Restoration of the schooner "Ada C. Lore" is underway in Bivalve.

The Mauricetown Historical Society operates a museum and research library in the Edward Compton House. Visits are arranged by appointment. The Society also sponsors an annual Christmas Candlelight Tour.

East Point Lighthouse is now cared for by the Maurice River Historical Society and is scheduled for restoration. Its location offers views of both bay and river. Actual admission to the lighthouse itself is extremely limited.

Wheaton Village offers several different experiences. Glass artists are at work in the T.C. Wheaton Glass Factory. The Museum of American Glass is one of the finest collections of American glass and includes over 7,500 objects. Along Arts and Crafts Row visitors can see demonstrations of regional New Jersey crafts. The Down Jersey Folklife Center focuses on local traditions via exhibits, educational programs, and concerts. It also collects archival materials, including audio and video tapes, photographs and slides, printed materials, and craft products. Annual events focus on dolls, antiques, vintage cars, fire apparatus, and Christmas. Wheaton Village is open daily from April to December and from Wednesday through Sunday in January, February, and March.

The Millville Historical Society offers limited tours of the Union House overlooking Union Lake and is currently restoring the Baracka-Dunn House, constructed in 1797. There is an aviation museum at the Millville Airport, built as a pilot training facility during WWII.

The Burcham Farm is the last diked farm along the Maurice River. It is privately owned and not open to the public.

Privately owned Manumuskin Manor dates to the early 19th century. Wesley Budd, owner of a local iron furnace, built the house.

Literature for Camp Cedar Knoll, a 45 acre church camp, identifies it as stop on the Underground Railroad. One of the camp buildings was a military barracks used in Atlantic City during WWII but moved to its current location.

Schooner Landing marks the site where iron ore was transferred from sailing vessels to wagons for the last leg of the trip to the Cumberland Furnace.

4. Cities and Villages

Millville contains three historic districts that include over 500 structures. They represent a mixture of residential, commercial, civic, industrial, and maritime buildings. A walking tour brochure exists for downtown.

Bricksboro founder, Joshua Brick, owned a shipyard there in the early 19th century.

Although earlier settlers lived in the area, Mauricetown, located on a protected river harbor, reached its zenith in the early 19th century. Timber and produce flowed to urban markets via the town's wharves. Shipyards produced sailing vessels for the coastal trade and oystering. Although the commercial waterfront has changed, the residential architecture that developed is largely still in place, occupied by residents and a few antique shops and bed and breakfasts. The spire of the Methodist Church dominates the skyline. A small park and a section of a 19th century steel truss bridge line the river. A walking tour of the village has been prepared.

Mauricetown skyline

Dorchester also developed as a shipbuilding village. Unlike Mauricetown, Dorchester retains a link to its maritime heritage via the Dorchester Shipyards.

The Lee brothers' shipyard established Leesburg's best known industry. During WWII, the Delaware Bay Shipyard built wooden mine sweepers in a complex of buildings now owned by Whibco, a sand mining company that can trace its own history to 1841. Whibco is interested in participating in interpretive programs on both shipbuilding and sand mining.

Heislerville originated as a crossroads town with services supporting local farmers.

The Town of Maurice River presents an interesting case study in change. Once the site of several large packing houses, Maurice River was primarily an African-American community. Erosion and demolition have left virtually no surviving resources.

Port Norris originally served as a crossroads town. After the Civil War, and particularly after the arrival of the railroad (1872), oystering changed the local economy and provided employment for as many as 3,000 workers. Port Norris became the "principal oystering port in the Delaware Bay." With the collapse of the oyster industry, Port Norris entered a period of economic dislocation and transition.

Bivalve & Shellpile, together with the river front at Port Norris, still convey the maritime orientation of the area.

Once a promising industrial center, Port Elizabeth failed to sustain either the iron or glass industries for which it was once well-known. The town was named for Quaker founder, Elizabeth Clark Body. It also functioned as a federally designated "port of delivery."

5. Special Events

The Delaware Bay Schooner Project sponsors an annual Bay Day festival in Port Norris.

Mauricetown hosts antique shows and a Christmas candlelight tour.

Commercial Township sponsors several seafood festivals in Mauricetown.

Volunteer fire companies in several of the towns host dinners that often feature seafood.

Millville sponsors a river race.

There is an annual weakfish tournament.

East Point Lighthouse holds an annual open house.

The Upper Maurice River Watershed Association and other groups sponsor a Water Fest for area residents.

6. Research

Rutgers University operates the Haskin Shellfish Research Laboratory in Bivalve. On-going research focuses on oyster farming and threats to the oyster population. In addition, research programs for watersheds in New Jersey are also conducted at Cumberland County College, Richard Stockton College of NJ, Rowan University, and Gloucester County College.

7. Signs

The New Jersey Coastal Heritage Trail Route has developed wayside exhibits that help to orient visitors and introduce them to the trail route's five themes. These exhibits are located at designated route sites, East Point Lighthouse, for example.

At several locations, where well-traveled highways cross the Maurice or one of the tributaries, there are signs indicating that the river (creek) is included in the National Wild & Scenic Rivers System.

Interpretive signs are planned for the Fowser Road site and for Mauricetown, as well as at the Peek and Manumuskin Preserves. Signs on the river directing motorized recreational activities to appropriate areas are needed to both educate recreationists and preserve the integrity of the Maurice River and its three designated tributaries.

NJDEP and NJDOT watershed boundary signs also provide additional information and education for residents and visitors.

8. Publications

A new brochure for the Maurice National Scenic and Recreational River was recently published which directs visitors to a variety of historical, cultural, and recreational areas in the Maurice River region.

The brochure developed by the New Jersey Coastal Heritage Trail Route provides a map of the trail area, including the location of the Maurice River, and introduces readers to the five trail themes.

"Marinas in Cumberland County" is available from the county Department of Planning and Development.

The New Jersey Division of Fish & Wildlife offers a guide to hunting and fishing on state land.

A "Birding Guide to Cumberland County, NJ" provides directions to and describes many of the river corridor's natural preserves. A cooperative venture, the guide is available from the county.

The Township of Commercial has prepared and distributes an "Eco-Tourism Guide."

One Space, Many Places: Folklife and Land Use in New Jersey's Pinelands National Reserve (American Folklife Center, Library of Congress) includes field research completed in Dorchester, Port Elizabeth, and Port Norris.

South Jersey Magazine, published since 1972 in Millville, contains many relevant articles including an 8-part series on the oyster industry.

Other publications or maps which provide information on the watershed include *Delaware and New*

Jersey Outdoor Adventures: Around the Delaware River and Bay; New Jersey's Wild Places and Open Spaces; and *Coastal Ecotourism Guide: Southern New Jersey.*

The NJ Fish and Wildlife Digest provides information on trout stocked waters, regulations, and health advisories.

9. Audio Visual Programs

There are several websites related to the Maurice River:

www.igc.apc.org/mauriceriver
www.nps.gov (for both Maurice River and NJCHTR)
www.hsrl.rutgers.eduwww.wheatonvillage.org
www.state.nj.us/pinelands

The Down Jersey Folklife Center has numerous field tapes with interviews and demonstrations by local residents. Particularly, a 1994 tape of Tom Brown, resident, poet, hunter, trapper and a 1992 tape on sheep-shearing at the Burcham Farm that also includes a walking tour of the farm's dikes by owners Janice and Jeannette Burcham.

In 1997, Citizens United to Protect the Maurice River and Its Tributaries (CU), New Jersey Network (NJN), and the NPS cooperated to produce a video, "Down Jersey," that introduces the viewer to South Jersey bayshore landscapes and resources. Other NJN programs include: "Schooners on the Bay" (1984), covering the oyster industry and boat-building along the Maurice River; "Discover New Jersey" (1996), featuring the Delaware Bay Schooner Project, glass-blowing at Wheaton Village, and the Down Jersey Folklife Center.

10. Educational Materials for Schools

The Pinelands Commission has an active educational outreach program.

Citizens United to Protect the Maurice River…Inc. offers slide shows about the river and wetlands to schools and civic groups and has produced an environmental education program which accompanies the "Down Jersey" video which is being made available to interested schools in the south Jersey area..

Project Schooner has an active and successful outreach program for area schools.

Wheaton Village offers school programs (see above).

In cooperation with Gloucester County College, the Gloucester County Planning Division has developed and implemented a K through 12 water resources curriculum for the various school districts within the County. A water resources video has also been produced in cooperation with the College.

11. Miscellaneous Interpretive Materials

Passing It On: Folk Artists and Education in Cumberland County, New Jersey by Rita Zorn Moonsammy is an account of folk artist residencies in local schools. Port Norris residents represent maritime occupations.

A special issue of *New Jersey Folklore Society Review* (Vol. XI, No. 1-2, Spring-Fall 1990) includes the article, "Using Oral History and Folklore in the Classroom."

H. Interpretive Proposals

The proposals that follow emerged from two workshops, one attended by several interpreters who have significant experience with similar resources and the other composed of local river stakeholders. They are specifically designed to achieve the "desired experiences" identified above. Included are new ideas as well as many suggestions already contained in existing documents.

1. General Comments

In addition to the many specific interpretive proposals that follow, there are several basic conditions that must be given priority attention.

a. Coordination of On-going Activities

One way to protect fragile river resources is to coordinate interpretive development. There should be no more access points for the river than necessary, but no less. There should be trails to access points that interpret important river resources, but not one wetland should be unnecessarily spanned by a boardwalk. There should be enough signs along highways to keep visitors from becoming lost, but not so many that they intrude on the rural landscape.

Exactly how this necessary coordination will be achieved and how momentum for change will be built and then sustained, requires immediate agreement. Workshop participants recommend that:

- To facilitate the decision-making process, the NPS should sponsor resource management studies to determine river carrying capacities.
- Cumberland County should proceed with plans to complete a marketing study of local tourism potential. The information gathered by this study should be used in conjunction with the proposals suggested in this document to develop a promotional strategy.
- Finally, the County should continue to convene its Tourism Advisory Council. This group could serve an important forum for the discussion and resolution of tourism policy. It might also serve as the catalyst for program implementation, recruiting additional river partners as necessary perhaps via sub-committees focused on ecotourism, interpretation, etc. And it might provide the coordination of effort that is so critical to both the thoughtful use of limited resources and the protection of river resources.

b. Support for Existing Programs

There are already excellent interpretive programs in place (see "Existing Facilities" above).

- Given finite financial and human resources, these programs should be supported as far as the mission statements of sponsoring organizations will allow before other, potentially competing, programming is initiated.

c. Training

Local businesses have varied experience with tourism and river stakeholders have different levels of experience with interpretation. In order to provide quality services and ensure programming that meets the highest standards, the following types of training should be provided:

- Staff of appropriate local businesses and tourist-related agencies should be encouraged to attend "hospitality" training offered by a local school or college.
- Interpretive and resource protection training should be offered by a local college with technical assistance from the NPS.

d. River Access, River Protection, River Fragility

Because there are few public places to embark on a trip along the river, it is not easy to offer visitors a first-hand experience (see "Desired Experiences" above). Nor is it easy to see the river from land; a very limited number of river viewing areas exist. If the river continues to be largely "invisible," interpretation necessarily will be limited and support for preservation difficult to nurture. The question becomes how to increase "access" to the river and the river's significance without sacrificing the special qualities that an isolated river possesses.

- Although many of the interpretive proposals that follow attempt to wrestle with this dilemma, each appropriate opportunity should be used to communicate concern over the fragility of river resources and the potential for both overuse and misuse. These messages must be incorporated into all interpretive programming.

e. Accessibility

Compliance with the provisions of the Americans with Disabilities Act (ADA) is required, not discretionary. This is best and most cost effectively achieved as new programming is planned (see *Appendix 9* for guidelines on achieving programmatic accessibility).

- Each new interpretive proposal will be reviewed for ADA compliance and, where necessary, adjustments made before implementation.

2. Specific Proposals

The proposals that follow are organized by type of activity. A brief narrative explains why an activity is proposed but each specific suggestion is marked by a bullet.

a. Welcome Center & Interpretive Facilities

Existing documents suggest all sorts of welcome centers and interpretive facilities. Some proposals suggest a single structure that will offer both orientation and interpretation; other proposals are more single-minded, stressing either information or interpretation.

This document defines a welcome center as a facility that will function as a gateway to the river. It is a place for visitors to begin their river experience. They will receive orientation materials and when they leave be able to engage in activities and find services that suit their needs. While there may be some limited and general introduction to the themes of the river and some explanation of conservation issues, information, not interpretation, will be the primary objective.

A welcome center does not necessarily require immediate proximity to the river to be effective. What it does require is convenient access for targeted audiences (see "Audiences" above).

An interpretive facility, on the other hand, exists to explore a river theme(s) and promote river stewardship. While information about other attractions and services will be available to answer visitor questions, orientation is a peripheral function. The facility's effectiveness is increased by actual contact with river resources, either the natural environment or historical artifacts and structures.

As used here, such a facility is an enclosed, staffed building, not an open kiosk at a trailhead. Museums, nature centers, historic houses, etc. are obvious examples of interpretive facilities.

The reality is that both welcome centers and interpretive facilities require substantial up front investment for building construction/rehabilitation and programming. Once completed, they are expensive to operate and require long-term commitment.

Obviously both types of facilities also can have considerable impact on the resource. If located close to the river, a large attractive facility with popular interpretive programming and useful services could lead to overuse and resource degradation. If several smaller facilities are developed, they could divide limited visitation and be cost ineffective.

After considering the implications of the existing welcome center/interpretive facility strategies, workshop participants recommend that:

- The number of additional facilities should be limited—perhaps one welcome center and one interpretive facility that covers all identified themes (see "Stories" above).

The draft June 1998 Strategic Plan for the NJ Department of Environmental Protection lists a major milestone for the Maurice River area. Specifically, the Milestone states that "Every year the State will increase the number and quality of recreation facilities and interpretive programs offered." One action under this milestone is: "A new interpretive center on the Maurice River will be created to showcase the unique natural resources and wildlife of southern New Jersey."

Whatever types of facilities are decided by Cumberland County and the municipalities, exactly where these facilities are located and how they should be funded and sustained, remains a crucial decision that might be resolved by asking that:

- All proposals for such facilities be presented to the Tourism Advisory Council for consideration. The Council will pay particular attention to proposals that avoid negative impact on river resources and residents and offer a sustainable plan for long-term management perhaps via cooperation among river groups and agencies. After thorough review, the Council will hold a future public meeting to present and discuss its recommendations.

As indicated above, in lieu of substantial and costly additional development, existing facilities (for example, Wheaton Village, the Schooner Project and Maritime Traditions Museum, nature centers, etc.) should be supported and their capability to provide enhanced orientation and/or river interpretation increased.

- Each potential river partner should be asked to review this document and if interested in receiving additional support, present proposals to the Tourism Advisory Council.

In addition to physical orientation, continual attention needs to be paid to electronic orientation.

- Traveler's Information Stations (TIS) are a proven strategy for providing information to visitors traveling by auto. These short-range radio transmitters could be installed at selected locations throughout the watershed. Initially the message would introduce travelers to the significance of the river and invite them to stop at an existing facility like Wheaton Village. There, if support materials like brochures, maps, or interactive orientation are provided, they could get more information on river resources and programming. When and if new facilities are completed, the TIS message could be changed to redirect drivers to the new locations.

Increasingly, visitors and residents will gather more and more information via Internet.

- While the river has websites (see "Existing Facilities" above), there must be a strategy to keep them up to date and useful (see "Coordinated Activities" above).

b. Educational Programming

Materials must be developed to integrate the river into the lives of all residents

While school children are among the river's most important audiences, local adult residents should be enticed to learn more about the river as well (see "Audiences" above) and how to help in long-term protection. Materials must be developed to integrate the river into the lives of all residents, materials that will help them to appreciate the contribution that the river can make to the quality of life.

To enhance environmental education in Gloucester County, the Gloucester County Planning Division has sponsored environmental workshops at Gloucester County College. In cooperation with NJDEP, the Planning Division has sponsored workshops on freshwater wetlands and the NJDEP Best Management Practices Manual for planning boards, environmental commissions, residents, and elected officials.

In cooperation with Rowan University, the Gloucester County Planning Division developed a Public Relations Plan for the Alcyon Lake Watershed. The Plan was developed as part of a class project by the Communi-Care-PRaction Team. The Plan provides the framework for a plan of action to inform residents about the impact of nonpoint sources of pollution on water quality. With technical assistance and information provided by the Planning Division, graduate students from Rowan University have developed and implemented projects on Protecting our Water Resources: A Public Education Program for Municipal Officials and An Enrichment Unit on Local Water Resources and Water Conservation to Supplement Eight Grade Earth Science Curriculum.

Citizens United to Protect the Maurice River and Its Tributaries, Inc. have also developed an environmental education curriculum called "Down Jersey" that is being implemented in interested schools in the South Jersey area.

Existing river-related school programming can be enhanced by:

- Supporting and expanding the role of the teacher advisory group that is now working with Citizens United. (see "Existing Facilities" above). This advisory group will help to define needed materials, help to develop effective materials, and serve as advocates for integration of river materials into local schools.
- Locating and reviewing existing educational materials related to river stories, water quality, etc. (see "Stories" above) and adapting any that are relevant. The teacher advisory group could be useful here as well.
- Contacting local school officials and curriculum supervisors, sharing newly produced materials, and asking that they officially be endorsed for local use.
- Offering workshops designed to help teachers use the river as a teaching tool.
- Recruiting local sponsors who will agree to fund new materials.
- Investigating how to circulate educational materials via Internet.
- Recruiting college professors and students who will help develop and field test new materials.

Adult education can be enhanced by:

- Developing a brochure to educate waterfront property owners and local residents about how the activities they undertake on their properties affect the river and watershed. This brochure could also include information on the federal/state permitting process and local river conservation plans. Prevention through awareness would help limit activities that have a negative impact in the river corridor.

- Incorporating river conservation messages into activities provided at special events (see "Special Events" below).
- Preparing Public Service Announcements with river conservation messages and convincing area media to air them.
- Providing river conservation messages to river users at marinas, trail heads, boat ramps, etc. (see "Publications" and "Signs" below).
- Creating a speaker's bureau and offering talks to local civic groups.
- Supporting the efforts of The Nature Conservancy and Natural Lands Trust to provide property owners with land stewardship information and technical assistance and recognize those who participate.
- Encouraging local schools, colleges, and organizations to offer training in traditional river skills (see "Traditional Skills" below).

c. Hiking & Nature Trails

Hiking trails might appear relatively easy to plan but they are not. Most hiking trails must be created and then maintained. In many cases, they provide access to sensitive resources. Parking at trail heads is necessary and must be carefully designed.

Existing plans (see "Existing Facilities") indicate that several organizations have or are planning hiking or nature trails. However, before additional hiking and nature trails are constructed there should be:

- A coordinated effort to develop a riverwide system of complementary trails based on a survey of river resources and sensitive conditions. A single riverwide plan would avoid duplication of effort and costly construction of similar rather than complementary facilities.

As trails are proposed, plans must include provisions for:

- Parking for cars and bikes at trail heads.
- Both construction and maintenance of trails and trail markers.Development of interpretive media (a brochure with map and/or wayside exhibits at the trail head or along the trail) that address river themes (see "Stories" above).

d. Mood & Thematic Publications

Well-designed, colorful publications can capture the essence of a resource and deliver conservation messages with considerable punch. When these publications are offered as sales items, they have the added advantage of spreading the river's story more broadly. Not only can they can serve as attractive "souvenirs," they have considerable educational potential. Because they have the ability to support detailed presentation of information, new publications should reflect river themes (see "Stories" above).

Although less expensive than AV, publications (particularly full-color items) still can be costly. So planning should involve:

- A realistic assessment of audience and sales potential.
- A well-conceived marketing strategy.

- And then a survey to compile a list of all existing publications and match the list to river themes (see "Stories" above) and potential audiences (see "Audiences" above).

Depending on what already exists, the following types of publications should be considered:

- An NPS-produced "unigrid" brochure for the river. This type of folder existed in the past but needs to be updated to reflect river themes, conservation messages, and current conditions before it is reprinted.
- A picture book that captures the visual essence of the watershed. If this book combines both natural and historical themes, it will have the broadest appeal and highest sales potential and certainly will carry the most potential for interpretive impact.

  There are several ways to produce this publication:

  (1) A river stakeholder, or coalition of groups, could sponsor a photo contest and then publish the most notable entries.

  (2) A college or local high school could produce the book as a spin-off of curricular offerings.

  (3) Corporate sponsors could underwrite production costs.

  (4) A private publisher could be encouraged to undertake production given stakeholder support with photos and text.

  There are three less expensive types of publications that will achieve some, although not all, of the same objectives of a picture book. hey might be considered as alternatives to a picture book or as additional projects.

  (1) A calendar would feature 12+ photos of the watershed. Each would be accompanied by interpretive text. This calendar might be sponsored and distributed by local corporations and/or sold as a fund-raiser.

  (4) A commercial company might be convinced to produce and sell high-quality picture postcards.

  (3) A local historical society or college might produce a history of the watershed based on oral histories and the photographic record. Or existing publications might be adapted for sale (see "Existing Facilities" above).

e. Publications for Targeted Audiences

In addition to mood or thematic publication, there are several printed items that would appeal to specific targeted audiences (see "Audiences" above). Tour brochures for hiking, biking, and driving tours will be discussed below as projects for the future, but publications for two other groups (birders and boaters) should be given high priority:

(1) Because the natural resources of the river provide ample opportunities for bird watching, the birding guide that already exists should be made more widely available. By adding a color cover and with only minor changes to the interior (addition of river conservation messages, updated information, and perhaps other graphics), the guide could be converted to a sales item. As a sales item, it could be sold in markets outside the county (specifically in Cape May where there are significant numbers of bird watchers) and fund itself. The initial cost of printing could be covered by a local sponsor.

- Boat traffic on the river increases in the summer months. Responsible use of river resources should be a prime goal. A user-friendly brochure with tips on preserving river resources should be developed for distribution at river access points. Initially, the brochure could be produced in limited quantities using desk-top technology. If successful, a sponsor or sponsors could be recruited based on demonstrated success.

  Or, as an alternative, a river stakeholder might choose to research distribution of an item like a trash bag with a pre-printed message. The carry-in/carry-out concept is widely used by land-based parks and could be expanded to water use. Bags would be distributed to river users free of charge before leaving land.

- The interpretive proposals included in this document should be shared with local governments, tourist boards, or organizations promoting ecotourism so they can stress the same themes (see "Stories" above) in their publications and encourage the same objectives.

- One final note about publications—commercial establishments could be encouraged to advertise on any appropriate brochures.

f. Highway Signs & Wayside Exhibits

Right now it is easy for visitors to become lost trying to get from place to place along the river. Any effort to improve interpretation for either existing or potential audiences must begin with improved signs.

A signage program is in the early stages of development as part of the Pinelands Interpretive Program, a partnership with the National Park Service and the NJ Department of Environmental Protection. This effort is focusing on municipalities that participated in a pilot program and may ultimately entail the design and placement of highway signs in Maurice River Township.

Once visitors arrive at a river attraction, there also must be interpretive programming that explains the river's significance, themes, and fragile nature (see "Significance" and "Stories" above). At several river locations, wayside exhibits (exterior, all weather signs with text and illustrations) have already been installed or are being planned.

Effective use of signs and waysides should begin with:

- A project that examines how to coordinate the highway signs and waysides of the various agencies and organizations (the Pinelands and NJCHTR, for example) and minimizes travel confusion.

- Creation of planning and production guidelines for both highway signs and waysides. Existing designs should be reviewed and, if appropriate, made available to all stakeholders for use as new sites come on line.

- Preparation of a riverwide plan that shows the best locations for waysides addressing both natural and cultural topics and that explores any issues of public access. This plan would be based on the "Resource Report" prepared for the NPS by Joseph Mathews. For practicality, this plan should be divided into at least two implementation phases.

g. Historical Structures, Museums, & Villages

Restoration or re-creation of several historic river resources (the East Point Lighthouse, the schooner "Ada C. Lore," the Baracka-Dunn House, a fishing village in Port Norris, and restoration of historic buildings at the Whibco property near Dorchester) is either underway or under discussion (see "Existing Facilities" above and *Appendix 2)*. Each project supports one or more of the river themes (see "Stories" above).

Similarly, the river's historic villages are certainly among the most obvious places to provide services for visitors (see "Bike Tours" and "Driving Tours" below). Some villages have or are considering walking tours and they offer the best places to interpret thoroughly the "Impacts of Change" theme (see "Stories" above). In some cases, their antique shops and bed and breakfasts already appeal to targeted audiences (see "Audiences" above).

Clearly many of these history-related projects require long-term planning and considerable fund raising. In the interim, they could be supported and encouraged by:

- Including these properties in appropriate thematic bike, hike, and driving tour brochures (see below).
- Providing standard sign designs for exterior interpretation (see "Signs" above).
- Offering fundraising assistance (Cumberland County).
- Offering assistance in seeking financial backing for businesses and developing planning and zoning guidelines (Cumberland County).
- Offering technical assistance in restoration, historic district designation, and development of interpretive programming, including preparation of walking tour maps and brochures, waysides, etc. (the NPS).

East Point Lighthouse

h. Folklife & Traditional Skills

Many of the skills traditionally practiced by river residents are now endangered. Called into other occupations to make a living, residents may choose not to learn how to farm the marsh and harvest salt hay, shuck an oyster, carve a decoy, design a quilt, blow a glass goblet, push a rail bird, trap a muskrat, caulk a schooner, etc. While special events can help to raise the profile of some of these skills, more is needed if they are to survive. Specifically:

- Existing folklife or new college programs should be encouraged to capture traditional skills on video. These videos can then be used to develop interpretive and educational programming. A limited number of videos might even be produced as sales items.
- Existing photo collections and oral histories should be cataloged for easy use and access.
- Wherever feasible, local organizations should sponsor regular skill demonstrations and provide outlets for items produced. These events would create a demand for practitioners of crafts and increase familiarity of folklife. Sales would not only provide income but, to the extent that they occur in outside markets (Cape May or even on the Internet, for example), expand knowledge of river resources and river stories.
- Local colleges should join with folklife programs to offer "training" in traditional skills (see "Educational Programming" above).

- Stakeholders need to recognize and respect the continued value of landscapes upon which these traditional skills depended. For example, at least one stakeholder should accept the challenge of preserving and interpreting salt hay farming.

i. Organized Water Trips

Several of the desired experiences identified above depend upon managed visitation. Solitude, for example, can only be achieved if the setting allows. Nothing can substitute for an actual river experience where each of the senses can be engaged. But because sections of the river are fragile and easily damaged by overuse, control of use, particularly along the tributaries, can be extremely important.

There are, however, other sections of the river that have been used more intensively by humans for generations. Along these sections, less quietude is expected. In fact, human interaction with nature is the story. And, as years of planning indicate, no single level of use and regulation should be imposed upon the entire river system.

These different river conditions support the following proposals:

- Design and offer , kayak, and/or float trips along the river.

  Each of these trips would begin at a controlled access point. Targeted audiences (particularly nature and museum organizations, history groups, conservation groups, educational groups, scout groups, etc.) would be invited to participate. Sponsors could include any number of existing groups already involved in river interpretation or conservation. Interpretation, focusing on identified river themes (see "Stories" above), would be integrated into the trips. There would be a fee and income would be re-invested in river-related projects.

In order to limit environmental impact and yet encourage economic benefit, the trips should begin and end at more developed points along the river. A commercial livery might be granted the contract to supply equipment. Trained local guides might be hired to assist with interpretation (see "Training" above).

- Along more heavily used sections of the river, there is the potential to develop commercial boat trips for larger numbers of visitors. Using a boat design indigenous to the region, scheduled trips could leave from Port Norris or Millville, for example, for a trip along the river. Interpretation of the maritime industries would be an important part of this trip but river ecology would be included as well.

  A midway stop could give passengers a chance to stretch their legs, see a river town or museum, and spend a little money before returning.

j. Rental Boats

Although there are several marinas along the river, the overwhelming majority do not rent boats. Obviously this makes it difficult for non-residents to actually experience the river (see "Desired Experiences" above). Stakeholders should discuss whether to support additional boat rentals. Possible actions include:

- A limited rental program sponsored by a conservation group.
- A permitting process for commercial liveries that would address issues of river management and access and require renters to receive basic river protection messages (see "Coordination" above).
- A marina association that would develop promotional and river protection materials.

k. Bike Routes

Access between land and water is limited. But development of additional routes for cyclists can be accomplished with minimal intrusion. The flat terrain along and adjacent to the river lends itself to these types of routes. Perhaps the number of area bicycle groups.reflects these favorable conditions. Certainly, rural roads like those in the area have successfully been used for bike trails in other localities.

This relatively low impact use does carry commercial value when cyclists stop along the route for rest, refreshment, and even repairs and equipment.

New bike routes will require:

- A survey of possible road routes by experienced cyclists. This survey should consider road condition, road safety, route length, and facilities. To be effective as an interpretive program, it also must be planned to reflect the river themes (see "Stories" above). There must be visual and physical access to the river (see "Desired Experiences" above).
- Route signs or markers, distinctive in design, but coordinated with other road signs.
- A route map and brochure. The brochure could include advertisements or sponsorships to pay for the cost of printing.
- Interpretation, either in the brochure or along the route (signs, attractions, etc.), that will address river themes (see "Stories" and "Signs" above).
- Support facilities (rest rooms, rest stops with water and seating, bike repair shop, etc.) as defined during route planning by cycling groups.

(l) Driving Tours

While it is important to provide opportunities to leave the auto behind and see the river by boat, bike, or shoe leather, driving tours also serve a purpose. Potential audiences include not only local residents and environmental groups but also urban visitors who might be recruited as river advocates.

Carefully planned driving tours will direct visitation to less sensitive areas. In addition, they are a proven way to communicate area themes. By and large, like bicycle routes, they make use of existing infrastructure and require minimal investment in development.

Work has begun on one of the key components of the ecotourism strategy for the Pinelands; namely, the designation of a scenic byway. Based on preliminary discussions, a potential route would run from Port Elizabeth to Dennis Township via Delsea Drive or Belleplain State Forest, before turning north to other portions of the Pinelands. In addition to the main route, the byway may include spurs to other nearby destinations. This concept has been enthusiastically endorsed by the municipalities along the route, and the Pinelands Commission is working with them to pursue state-level designation through the New Jersey Department of Transportation (with an ultimate goal of federal designation).

Driving tours do require three things to succeed: signs, maps/brochures, and an interpretive raison d'être.

- Signs must be planned, produced, installed, and maintained. Along the river, coordination is needed to make sure that signs from other programs (Pinelands, NJCHTR, Watchable Wildlife, conservation groups, local governments, etc.) do

not cause confusion (see "Coordinated Activities" and "Signs" above).

- Brochures/maps must be planned, designed, printed, distributed, and restocked. Often it is easiest to produce an initial supply of driving tour maps and brochures. But how will they be reprinted after the first supply is distributed? Some areas have sponsors, some depend upon local governments or tourist bureaus, and others offer the tour brochures as sales items.
- Visitors will follow the route only if they enjoy the trip and learn something. The best way to accomplish both goals is to apply interpretive principles. There should be a story line (see "Stories" above) to follow. Written materials should be engaging and easy to read.

A single tour, based on one of the river's themes should be developed as a prototype. If successful, additional tours can be produced.

- Some areas have developed audio tape tours and made the tapes available for sale. Initially, the demand for this type of program for the river seems limited. Once demand increases, it might be considered. Certainly, if commercial vendors wish to produce such a program, they should be encouraged.

m. Audio Visual, Video, and Electronic Programming

Although there can be no completely acceptable substitute for an actual river experience, audio visual programming can be very effective in mood setting. A well produced video or sound/slide presentation can elicit deep emotions. It can show even the most fragile aspects of the resource. Reinforced by music, it can capture each of the river's seasons and moods. AV programs are portable and can be used in a variety of settings, in home or school. They can encourage a sense of local pride and yet convince visitors who may never actually come to the river of the importance of a previously unknown resource (see "Audiences" above). Finally, AV can provide effective orientation when staffing is limited.

The advantages of AV programming do not come without cost. Unfortunately, AV programming can be expensive to produce and equipment troublesome to maintain. Given the high cost of AV production, efforts should concentrate on:

- Developing a 15-20 minute video specifically on the river. The program's tone will be relaxing. It should slow down the pulse rate, offer a sense of escape, and still accomplish several objectives. It should:

  (a) Capture the river's special characteristics and moods.

  (b) Portray the river's rich natural and cultural history and provide regional context.

  (c) Help viewers experience the river in appropriate and non-destructive ways.

  (d) Build advocacy for river preservation and protection.

  Production strategies include:

  (a) Soliciting corporate or government funds

  (b) Approaching New Jersey Network.

  (c) Recouping production investment via sales.

  (d) Approaching a local college with a video studio and communications department.

- Developing educational materials that will complement this river video. The grade level(s) of these materials would be planned via involvement of local teachers (see "Educational Programming" above).

- Incorporating closed captioning in the video's production costs. (see "Accessibility" above).
- Investigating orientation software and developing program-ming that could be installed in any existing welcome facility that is willing to participate (for example: Bridgeton, Wheaton Village, Cape May, Pinelands, etc.).

n. Special Events

Special events serve an important function. They highlight local history and local natural resources. They bring residents and regional visitors together for a common celebration of a resource or life style. And while they attract large numbers of visitors, if the events are well planned, they are held in an area that can sustain intense use without resource damage. In short, they are an effective way to have an impact on large numbers of people in a celebratory atmosphere that does little damage to the resource. Because of these advantages, river stakeholders should:

- Continue to support existing special events like Bay Day.
- Search for sponsors for other theme-related events.
- Search for sponsors for events related to proposed interpretive activities—a bicycle rally, for example.
- Prepare an annual or seasonal calendar of events and distribute it to welcome centers along major South Jersey highways, Wheaton Village, Cape May, state parks in the Pinelands, etc.

o. Recruit New Partners or Expand the Role of Existing Stakeholders

While there are many groups already involved in river interpretation and preservation, there remain important tasks that need attention. Partners need to be recruited to assist with as many of the proposals listed above as possible. In addition, help is needed to:

- Prepare a resource list of agencies and individuals with knowledge of the river and river resources and keep it up to date. If necessary, this task could be divided among two stakeholders. One would compile a natural list and the other a cultural/historical list.
- Prepare a list of funding sources and distribute it to other stakeholders on a regular basis.
- Sponsor river clean-ups. Perhaps there is a link to existing recycling efforts?
- Adopt a trail or sponsor tours, special events, publications, or interpretive media. This might be an excellent way to increase local involvement by civic and business groups (see "Audiences" above) and expand their appreciation of river resources .

In addition, the roles of several partners might be enhanced via mutual agreement:

- Rutgers' Haskins Shellfish Research Laboratory, with its accessible location, modern facility, storehouse of knowledge, and cadre of potential student assistants seems to have much to offer river stakeholders.

As already indicated above, there are potential opportunities for South Jersey colleges to become involved in hospitality training and traditional skills instruction.

- There have been many references to Wheaton Village. Obviously, they need to review proposals and indicate how they can and cannot help and what level of support might be needed for them to take on additional interpretive responsibilities.
- Similarly, dialogue with Project Schooner seems not only appropriate but essential to coordinated and mutually beneficial activities.
- And links with the NJCHTR and the Pinelands interpretive program should be explored.

I. Cost Estimates

Although each interpretive recommendation in this plan contains details that still must to be determined, rough cost estimates based on likely possibilities can still help the decision-making and certainly the fund-raising processes.

Traveler's Information Station (short-range radio transmitter)

Cost of initial equipment	
Typical cost of installation	
Preparation of message	
	Staff time

Interior exhibits, per square foot without design

Assuming no artifacts (orientation, photos, etc.)	$ 200
Assuming moderate number of artifacts	250
Assuming considerable density of artifacts	300
Design	40

Staffing costs for visitor contact station or interpretive facility, assuming 7 day operation with one, on-duty paid employee each day

Salary and benefits for 1.6 work year	$48,000

Construction of new welcome center or visitor facility

Costs could range from $200 to $225 per square foot

Preparation of a 15 second Public Service Announcement

Costs could range from donated time to $15,000

Trailhead panels

$10,000-15,000 including design and text

Trailhead parking, crushed stone (oyster shell)

$3-5 per square foot

Road markers

$100-200 per unit

Interpretive trail signs

$4,000-6,000 including design and text

Brochures

***Self-guided trail**, 2-color, 2 sides, 4 horizontal panels each 4" X 9"*
Unfolded size = 9" X 16"

For 1,000 copies, $400
For additional hundreds, $70

Driving tour, 2-color, 2 sides, 8 panels each 4" X 9" Unfolded = 18" X 16"

For 5,000 copies, $1,600-2,000

For additional hundreds, $100

Calendar of events, 3-color, 2 sides, 3 panels each 4" X 9"
Unfolded = 9" X 12"

For 10,000 copies, $9,000
For additional thousands, $900

Picture book, 9" X 12," full color, 48 pages

1,000 copies, $9,000
For additional thousands, $1,000
Design, $10,000-12,000

Calendar, 12 color photos with text plus cover

For 1,000 copies, $5,000
For additional hundreds, $500
Design, $2,000

Post cards

For 5,000, $1,000
For additional thousands, $200

Cloth carry-in/carry-out bags with interpretive message

For 5,000, $25,000
For additional thousands, $5,000

River history, 64 pages, 5 3/4" X 8 1/4", color cover, one color signature on the inside (8 pages), sewn binding or equivalent

For 1,000 copies, $15,000
For additional hundreds, $1,500
Design, $10,000-12,000
Text, $2,000-4,000

Auto driving tour, 80 minute cassette or CD with map insert

Preparation and production, $80,000 up
Additional tapes, 50 cents each

Video program, 15-20 minutes, close captioned

$15,000-20,000

Orientation software for accessing area information

Software, $10,000-15,000
Hardware, per installation, $2,000-7,500

TABLE 4: VISITOR MANAGEMENT & INTERPRETATION STRATEGIES

(The actions and partners listed are not comprehensive)

VISITOR MANAGEMENT/SERVICES GOALS AND OBJECTIVES	VISITOR SERVICES TOPICS/ISSUES	RECOMMENDED ACTIONS*	POTENTIAL PARTNERS
Primary Mission: To preserve the Maurice River and its tributaries in free-flowing condition and assure the protection of significant and outstandingly remarkable resources. **Visitor Service Goals & Objectives:** • Foster the protection and enhancement of the natural, cultural and recreational resources of the rivers and their adjacent lands for future generations. • Create advocates for both resource protection and responsible tourism through interpretation and education. • Provide recreation opportunities and visitor services in appropriate areas of the river corridor. • Communicate the fragility of the area and the need for respect of the invaluable natural, cultural and historic resources, as well as private property owners.	Coordination of On-going Activities	Proceed with plans to complete a marketing study of local tourism potential to assist in the development of a promotional strategy.	→ Cumberland Co → National Park Service NJCHTR → Municipalities
		Cumberland County should continue to work with the County Tourism Advisory Council which could serve as the forum for discussion and resolution of tourism policy and possibly serve as a catalyst for coordinating efforts in the river corridor.	→ Cumberland County
	Support for Existing Programs	Continue to use already excellent interpretive programs in place before other potentially competing programming is initiated.	→ Cumberland County → Municipalities → National Park Service, NJCHTR
	Training	Encourage staff of appropriate local businesses and tourist-related agencies to attend "hospitality" training offered by a local school or college.	→ Local College/School → Municipalities → Chambers of Commerce → Cumberland County
		Interpretive and resource protection training should be offered by a local college.	→ Same as above under Training
	Welcome Center/Interp. Facilities	Limit the number of additional facilities and work with the County Tourism Advisory Council to avoid negative impacts on river resources and to develop a sustainable plan for long-term management.	→ Chambers of Commerce → Cumberland County → Municipalities → Citizens United… → Pinelands Commission → National Park Service
		Use existing facilities to support visitor orientation and/or river interpretation whenever possible.	→ Private & Non-profit orgs. → Cumberland County → Municipalities → Citizens United… → National Park Service
		Followup on NJDEP 1998 Strategic Plan recommen-	

TABLE 4: VISITOR MANAGEMENT & INTERPRETATION STRATEGIES

T (The actions and partners listed are not comprehensive)

VISITOR MANAGEMENT/SERVICES GOALS AND OBJECTIVES	VISITOR SERVICES TOPICS/ISSUES	RECOMMENDED PARTNERS	
		dation to create a new interpretive center on the Maurice River to showcase unique natural resources & wildlife	→ NJDEP → Municipalities → Counties → NPS
		Coordinate websites that are available for the Maurice River area and investigate how to circulate educational materials via the Internet.	→ National Park Service → Citizens United… → Cumberland County
		Support & expand the role of the teacher advisory group that is now working w/Citizens United.	→ Citizens United… → Cumberland County → Municipalities → National Park Service
		Locate and review existing educational materials related to river stories, water quality, etc. & adapt any that are relevant.	→ Teacher Advisory Group → Citizens United… → National Park Service → Cumberland County
		Contact local school officials & share newly produced materials and seek endorsement. Offer workshops designed to help teachers use the river as a teaching tool.	→ Same As above
		Recruit local sponsors who will agree to fund new material as well as college professors & students who may help develop and field test new materials.	→ Cumberland County → Citizens United… → Municipalities
		Spread conservation messages at special events, marinas, trail heads, and boat ramps, as well as through Public Service Announcements.	→ Cumberland County → Citizens United…. → National Park Service → Municipalities
		Create a Speaker's Bureau and offer talks to local	→ Non-profit & profit orgs.

TABLE 4: VISITOR MANAGEMENT & INTERPRETATION STRATEGIES

T (The actions and partners listed are not comprehensive)

VISITOR MANAGEMENT/SERVICES GOALS AND OBJECTIVES	VISITOR SERVICES TOPICS/ISSUES	RECOMMENDED PARTNERS	POTENTIAL PARTNERS
		civic groups.	→ Citizens United… → Cumberland County → National Park Service → Pinelands Comm.
		Continue to support non-profit organizations to provide property owners w/land stewardship info and technical assistance.	→ National Park Service → Non-profit orgs. → Cumberland County
	Hiking & Nature Trails	Develop a plan for a riverwide system of complementary trails based on a survey of river resources and sensitive conditions, including info on appropriate amenities; ie, parking, maintenance, signage, etc.	→ Cumberland county → National Park Service
	Publications	Produce an NPS Unigrid brochure for the Maurice River	→ National Park Service → Cumberland County → Citizens United → Municipalities
		Assess audiences and market for any publications being considered. Survey existing materials.	→ National Park Service → Cumberland County
		Develop as appropriate a number of publications; i.e., river calendar, picture book, river history book, etc.	→ National Park Service → Cumberland County → Interested Organizations
	Signs	Coordinate directional and highway signs and wayside exhibits of various agencies & organizations to aid/educate visitors.	→ NPS & NJCTR → Cumberland County → Pinelands Comm. & NJDEP → Municipalities
		Creation of planning & production guidelines for both highway signs and wayside exhibits.	→ Same as Above
		Preparation of a riverwide plan that shows the best locations for waysides addressing both natural and cultural topics.	→ National Park Service → Cumberland County → NJCHTR → Pinelands Commission → Municipalities

TABLE 4: VISITOR MANAGEMENT & INTERPRETATION STRATEGIES

T (The actions and partners listed are not comprehensive)

VISITOR MANAGEMENT/SERVICES GOALS AND OBJECTIVES	VISITOR SERVICES TOPICS/ISSUES	RECOMMENDED PARTNERS	POTENTIAL PARTNERS
		Work with NJ Marine Police to place signs on the river to direct recreationists to appropriate areas.	→ NPS → Cumberland County → Municipalities → NJ Marine Police & Coast Guard
	Historical Structures, Museums & Villages	Include existing resources into appropriate thematic brochures and incorporate these resources into any sign plan developed.	→ National Park Service → Cumberland County → Citizens United → Interested Private & non-profit organizations
		Offer technical assistance in restoration, historic district designation, and development of interpretive programming, including preparation of walking tour maps and brochures, waysides, etc.	→ National Park Service → Cumberland county → NJDEP; Pinelands Comm.
	Folklife & Traditional Skills	Document traditional skills on video & photos and sponsor skill demonstrations.	→ Chambers of Commerce → Cumberland County → Citizens United…
	Water Trips, Boat Rentals	Local colleges should join w/folklife programs to offer "training" in traditional skills.	→ Local colleges & entrepreneurs → Chambers of commerce
		Design & offer canoe, kayak, and/or float trips beginning at controlled access points for targeted audiences involv-ing interpretation and/or conser-vation themes.	→ Local businesses → Non-profit organizations
		Along more heavily used sections of the river, develop commercial boat trips inter-preting the maritime industries and ecology.	→ Local businesses → Non-profit organizations
		Since there are very few places that rent boats along the river, consideration should be given to develop-ing a limited rental program sponsored by a conser-vation group.	→ Local businesses → Non-profit organizations
		Consideration should be given to developing a	

TABLE 4: VISITOR MANAGEMENT & INTERPRETATION STRATEGIES

T (The actions and partners listed are not comprehensive)

VISITOR MANAGEMENT/SERVICES GOALS AND OBJECTIVES	VISITOR SERVICES TOPICS/ISSUES	RECOMMENDED PARTNERS	POTENTIAL PARTNERS
* *This list does not represent all the possible actions that may be undertaken in the Maurice River region, nor is the list of possible partners comprehensive.*		permitting process for commercial liveries that would address issues of river management and access and require renters to receive basic river protection message(s).	→ Municipalities → Cumberland County → Non-profit organizations
	Bike Routes	Development of additional routes for cyclists can be accomplished w/minimal intrusion. A survey of possible road routes by experienced cyclists should be considered, along w/route signs or markers, distinctive in design, but coordinated with other road signs. Route maps, brochures, interpretation needs and support facilities must also be considered.	→ Cumberland County → Chambers of Commerce → Municipalities → National Park Service → NJDOT → NJCHTR
	Driving Tours	Consideration should be given to carefully planned driving tours which direct visitation to less sensitive areas. Signs, brochures & maps and developing other support for driving tours must be considered.	→ Cumberland County → Chambers of Commerce → Municipalities → NJ DOT → NJCHTR → Pinelands Commission
	Audio Visual, Video & Electronic Programming	Develop audio visual programming and accompanying educational materials that capture the river's special characteristics & moods.	→ Cumberland County → Chambers of Commerce → Municipalities → Citizens United → National Park Service
	Special Events	Support existing special events, like Bay Day and search for sponsors for other theme-related events.	→ Cumberland County → National Park Service → NJCHTR → Citizens United → Municipaliies
	Recruit New Partners or Expand the Role of Existing Stakeholders	Partners need to be recruited to assist with the development of Interpretive proposals and conservation efforts.	→ Cumberland County → National Park Service → NJCHTR → Citizens United → Pinelands Commission

A. Cover Sheet

List of Responsible Agencies

Municipalities	Atlantic County
Buena Vista Township	Citizens United to Protect the Maurice River and Its Tributaries, Inc.
Commercial Township	Cumberland County
Maurice River Township	National Park Service
City of Millville	NJ Dept. of Environmental Protection
City of Vineland	NJ Pinelands Commission
	US Army Corps of Engineers
	US Department of Agriculture
	US Fish and Wildlife Service

Title and Location of Proposed Action: Maurice National Scenic and Recreational River
35.4 river miles through Atlantic and Cumberland Counties in New Jersey

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Abstract: This Environmental Impact Statement was prepared as part of the Comprehensive Management Planning (CMP) process for the Maurice National Scenic and Recreational River. The CMP establishes the basic philosophy of resource protection and contains recommendations that will have positive, beneficial effects on the resources that exist within the 35.4-mile river corridor. Alternatives were considered for long-term management, with the No Action alternative as the preferred option.

B. Summary

The Maurice National Scenic and Recreational River (NS&RR) became a unit of the National Park System when it was included in the National Wild and Scenic Rivers System in 1993. The Maurice River corridor is a partnership unit of the National Park System managed by the National Park Service and the five municipalities through which it passes, the State of New Jersey in wildlife management areas and areas located within the Pinelands National Reserve and Cumberland County. The National Park Service's role is to work with its partners in managing the Maurice River through the use of cooperative agreements. One of the special mandates followed throughout the designation and follow up planning processes was that the National Park Service would not identify and acquire land for its direct ownership, nor would the National Park Service have a direct and visible presence in the river corridor.

Approximately 50 percent of the designated Maurice River corridor is located within the Pinelands National Reserve. The Pinelands Comprehensive Management Plan and Environmental Impact Statement approved by the Secretary of the Interior applies to the state designated Pinelands Area only and is incorporated by reference into this document. In addition, there are six state-owned properties that the NJ Division of Fish, Game and Wildlife manages in the river corridor. There are also approximately 10,000 acres of land owned and managed by non-profit organizations for preservation and conservation purposes.

The Comprehensive Management Plan for the Maurice National Scenic and Recreational River is a conceptual document that establishes the basic philosophy of resource protection and provides a rationale for making management decisions that affect those resources and the visitor experience of the resources.

The National Park Service, in partnership with Cumberland County, municipalities, Citizens United to Protect the Maurice River, Inc. and others worked together to identify issues and possible solutions for cooperatively managing the river corridor. As part of that process a Memorandum of Understanding (MOA) was signed in 1994 which outlined roles and responsibilities of involved partners. The MOA served as an excellent model for framing the ongoing cooperation that has been occurring on the Maurice National Scenic and Recreational River. As part of the MOA process, Cumberland County was clearly identified as the leading organization to directly work with the National Park Service and municipalities to solve issues and assure the long-term preservation of the designated corridor.

Three management alternatives were identified and discussed prior to the designation process. The alternatives considered in this document are in keeping with the decisions outlined in the 1994 Memorandum of Understanding between the National Park Service, Cumberland County and the five municipalities. The No Action alternative (Preferred) maintains the status quo with Cumberland County continuing its role as primary facilitator assuring long term preservation of the Maurice River corridor.

The Maurice NS&RR Comprehensive Management Plan is a resource protection document. The recommendations it contains will have positive effects on the resources in the river corridor. No negative environmental concerns are anticipated as a result of this plan.

C. Purpose and Need for Action

1. Purpose

The purpose of the Environmental Impact Statement is to provide a basis for the National Park Service and its partners to determine the environmental impact of various long-term management approaches. This EIS provides information on the selection of the preferred long-term management strategy to implement the findings of the Comprehensive Management Plan for the Maurice National Scenic and Recreational River and provide adequate protection for the 35.4-mile river corridor.

Through Public Law 103-162, passed on December 1, 1993, Congress amended Section 3(a) of the Wild and Scenic Rivers Act (16 U.S.C. 1274(a)) for the purpose of designating 35.4 miles of the Maurice River and its tributaries as components of the National Wild and Scenic Rivers System. This designation included 10.5 miles of the Maurice River, 7.9 miles on the Menantico Creek, 14.3 miles of the Manumuskin River, and 2.7 miles of Muskee Creek. Approximately 29 miles of the Maurice River system is designated as "scenic" because of its relatively undisturbed and undeveloped state.

Section 3 of the designation legislation specifically states that the Secretary of the Interior shall manage the river segments designated as components of the National Wild and Scenic Rivers System by this Act through cooperative agreements with the political jurisdictions within which such segments pass… and in consultation with such jurisdictions, except that publicly-owned lands within the boundaries of such segments shall continue to be managed by the agency having jurisdiction over such lands.

Simply stated, responsibility for long term management and protection of the Maurice National Scenic and Recreational River is shared among five municipalities, two counties, the State of New Jersey and the National Park Service.

2. Overview of the Wild and Scenic Rivers Act and Designation Legislation

The Wild and Scenic Rivers Act, passed in 1968 (Public Law 90-542, as amended) establishes a framework whereby the nation's outstanding rivers and streams may be permanently protected for the benefit and enjoyment of present and future generations. Congress declared that "the established national policy of dam and other construction…needs to be complemented by a policy that would preserve other selected rivers, or sections thereof, in their free-flowing condition to protect the water quality of such rivers and to fulfill other vital national conservation purposes. These selected rivers collectively form the National Wild and Scenic Rivers System.

3. Need

Public Law 103-162 (designation legislation) authorized the Secretary of the Interior to administer the Maurice National Scenic and Recreational River. However, it is also quite clear in the designation legislation that the 35.4-mile river corridor is to be cooperatively managed by the five municipalities through which the river flows, as well as the State of New Jersey in areas under its jurisdiction and Atlantic and Cumberland Counties. National Park Service is limited by legislation to working with partners through cooperative agreements and providing technical assistance, where appropriate.

All five municipalities developed Local River Management Plans and four established River Conservation Zones or Districts within their portion of the Maurice River corridor to provide further protection beyond the federal boundary. Buena Vista Township is in compliance with the Pinelands Comprehensive Management Plan which endorses even stricter protection mechanisms along the river corridor. Municipal zoning ordinances identified key land use measures that would protect and enhance the valuable natural resources of the River Conservation Zone. Compatible and prohibited uses were identified and buffers and setbacks were recommended. The National Park Service has determined that all five municipalities have adopted zoning ordinances protecting the river corridor that conform with the purposes of Public Law 90-542, as amended, as required by Section 6(c). These local zoning ordinances form the basic protection of the Maurice National Scenic and Recreational River corridor.

The Comprehensive Management Plan takes a broad look at why the river was included in the National Wild and Scenic Rivers System, what resource conditions and experiences should exist there, and then focuses on how those conditions could best be achieved. The Comprehensive Management Plan defines the purpose and significance of the corridor, identifies goals, provides management direction and serves as the foundation to guide and coordinate all subsequent management decision making. The CMP crosses political boundaries and creates a partnership with municipalities, Cumberland County, the State of New Jersey, the National Park Service and other federal, state and local organizations to provide collective oversight for river-wide issues and management needs.

D. Proposed Action and Alternatives

Throughout the study and designation processes management structures that would provide long-term protection for the Maurice River were considered. The management framework selected must be capable of implementing the recommendations contained in the Comprehensive Management Plan and coordinating among competing interests, always keeping in mind resource protection.

Several alternatives for a management framework were discussed. The alternatives considered include: Continuing Existing Trends (No Action); Creation of a River Management Council under Cumberland County government; and Increased NPS Management.

1. Features Common To All Alternatives

The following regulatory authorities were a common thread considered in each management alternative.

a. Water Resource Authorities

Because the river was added to the National Wild and Scenic River System, federal funding and permits cannot be issued for dams, diversions, or other actions within the established federal boundary. This authority also applies to actions above and below the designated segments of the river and on tributaries if the action would have an adverse effect on the designated segment of the river.

Under all management alternatives, the National Park Service would continue to review US Army Corps of Engineers (USCOE) permits for water resource projects affecting the scenic and recreational river. In general, the US Army Corps of Engineers has jurisdiction over all construction activities in tidal and/or navigable waters, including adjacent wetlands shoreward to the mean high water line. In other areas such as non-tidal waterways, adjacent wetlands, isolated wetlands, forested wetlands and lakes, the USCOE has regulatory authority over the discharge of dredged or fill material. Permits are required for activities such as: bulkheads, piers, boathouses, pilings, excavation and dredging, filling and depositing dredged materials in waters and wetlands, and overhead and underwater transmission lines, cables and pipes. The Corps of Engineers issues permits to individuals and government agencies for construction projects.

In addition, the NJ Department of Environmental Protection under the Coastal Area Facilities Review Act (N.J.S.A. 13:13-1 to 13:19-21 et seq.) and the Freshwater Wetlands Protection Act of 1987 (N.J.S.A. 13:9B-1 to 13:9B-23 et seq) has authority to review requests for permits in coastal areas and beyond tidal waters.

Under each Management Alternative, the National Park Service would continue to be involved in these review processes as they relate to the Maurice National Scenic and Recreational River.

b. Local Zoning Authority

In July 1991 Cumberland County produced "Local River Management Plan For the Maurice River And Its Tributaries" which was distributed to all municipalities in the designated corridor. The purpose of this document was to provide a framework for the development of individual Local River Management Plans which would establish local river management boundaries, appropriate zoning, implement best management practices, and identify critical areas to be protected, to assure the long term preservation of the river corridor.

Since the National Park Service has no legal authority to regulate zoning along the Maurice River corridor, preservation is dependent upon the enforcement of local zoning ordinances and Local River Management Plans. All of the management alternatives considered recognized that primary river corridor protection rests with municipal zoning and compliance with the Pinelands Comprehensive Management Plan, where appropriate.

c. Threatened and Endangered Species

The US Fish & Wildlife Service (USF&WS) oversees protection of plant and animal species federally listed as threatened or endangered. Several species are found in the designated area.

The USF&WS reviews actions by federal agencies, including the National Park Service, for compliance with the law, and the USF&WS continues to have monitoring and enforcement authority. The National Park Service gives equivalent consideration to state listed protected species. *Appendix 5* lists federal and state threatened and endangered species in New Jersey.

d. State of New Jersey

(1) Pinelands Commission

A basic level of protection is already in existence for the river corridor since approximately 50 percent of it is located within the Pinelands National Reserve, which encompasses the 938,000-acre, state-designated Pinelands Area. The Pinelands Commission has jurisdiction over municipalities located within the Pinelands Area. The master plans and ordinances of these municipalities must be consistent with the Pinelands Comprehensive Management Plan that establishes specific parameters for development. The Pinelands Commission also comments on applications for development in the remainder of the Pinelands National Reserve.

(2) NJ Dept. of Environmental Protection (NJDEP)

The NJ DEP is responsible for the Coastal Area Facilities Review Act (CAFRA) and the Freshwater Wetlands Protection Act. Approximately 30 percent of the Maurice River corridor is within the jurisdiction of CAFRA. See Map #10 for a delineation of CAFRA and Pinelands areas.

The NJ DEP has also embarked on a new watershed management initiative producing a draft "Statewide Watershed Management Framework Document". The Maurice River Watershed was identified as Watershed Management Area #17 (WMA #17).

2. Management Alternatives Considered

During the environmental review and planning processes, three management alternatives were considered. They were:

Continue Existing Trends (No Action)
Establish a River Council under Cumberland County management
More direct NPS Management

a. Alternative I. Continue Existing Trends (No Action)

Preferred Alternative

The National Environmental Policy Act requires consideration of no action along with action alternatives. No action is analyzed and used as a baseline for comparison with the effects of the action alternatives. Under Alternative I it is assumed that local, state, and federal government authorities would continue to function in the same manner as currently exists. This process has been quite effective since the 1993 designation.

(1) Cumberland County

At present, Cumberland County successfully provides local leadership in the Maurice River corridor, coordinating among the five municipalities. The County's role and responsibilities were clearly defined in the 1994 Memorandum of Understanding signed by all partners and continue today. They are:

- Cumberland County will act as a coordinator and advisor of municipal, state, and federal actions. The County will provide an appropriate forum for the resolution of differences should they arise regarding interpretation and implementation of the Comprehensive Management Plan. It will reinforce the role of the local governments as the primary agents for implementing local Management Plans. The County will:

(a) provide technical assistance to, coordinate with, and resolve differences among the municipalities regarding implementation of the Comprehensive Management Plan.

(b) Work with citizens, businesses, and municipalities to develop an education program on sensitive use of the river corridor.

(c) Promote conservation in conjunction with its municipalities to develop objectives that provide both for natural and cultural resource preservation, enhancement of the local economy, and the continuation of traditional and compatible uses of the waterways and their environs.

(d) Beginning on December 1, 1995 and every two years thereafter, the County will provide to the NPS a status report on the local management effort. This information will be included into the National Park Service's biennial report on the status of the Maurice NS&RR which is a requirement of the designation legislation.

(e) Provide an assessment of the facility needs in the region in conjunction with its municipalities and NPS, such as welcome centers, maritime and interpretive museums, public parks, recreation areas, and other facilities.

Since the MOU signing, the County assumed responsibility for monitoring compliance with Local River Management Plans, keeping in touch with municipalities to assure consistent application of zoning ordinances in the river management boundary. The County has also prepared three biennial reports discussing progress, as well as issues affecting long term protection of the Maurice River corridor. The County's *1995 Ecotourism Plan* addressed facility needs in the river corridor.

(2) National Park Service

The National Park Service will serve as the key federal representative in implementation of the CMP and will represent the Secretary of the Interior in reviewing federal water resource projects as required by Section 7(a) of the Wild and Scenic Rivers Act. The NPS will review any proposed water resources project that requires federal assistance through permits, licenses, funding, or other action encroaching on or directly affecting any designated segment of the Maurice National Scenic and Recreational River. During its review, NPS will evaluate each proposed project in terms of its potential impact upon the CMP's objectives and standards and on the designated area's outstandingly remarkable resources using the Guidelines outlined in *Appendix 8*.

The NPS role as specified in the signed 1994 Memorandum of Understanding and which continues today is as follows:

(a) The NPS agrees to work cooperatively to ensure that the Comprehensive Management Plan is implemented fairly and equitably. In addition, the NPS appreciates that there are many interests in the Maurice River watershed and that the management of the designated area requires sensitivity to these many interests;

(b) The NPS recognizes that the primary role of federal agencies in management of the designated river segments is limited to those projects that require federal funding, licensing, or permitting. The NPS will rely on the County and local governments to implement the management plans in ways that will not threaten the resource values of the designated areas;

(c) NPS recognizes that the local governments, through their planning and zoning authority shall administer the river management plans within their jurisdiction on a day-to-day basis and that the local governments shall grant the necessary zoning, subdivision and site plan approvals in accordance with the river management plans;

(d) NPS agrees to work as a partner with local governments to solve problems and resolve issues regarding the conservation and development of these waterways. This means that any federal action taken will be done in consultation with local governments; and,

(e) NPS will work with the State of New Jersey to streamline the federal and state regulatory processes in the designated area.

The National Park Service will work closely with Cumberland County to assure that municipalities are in compliance with Local River Management Plans and that proper implementation of local plans protects the values for which the river segments were designated into the national system. The National Park Service has been charged by Congress to review Local River Management Plans every two years and to determine if any deviation from these plans resulted in the diminution of the values for which the river segment concerned was designated.

(3) Staffing/Funding

This alternative will require the least amount of NPS operating funds. Cumberland County will continue to be the leading local organization working directly with the National Park Service. The National Park Service will work with local entities through cooperative agreements and provide technical and financial support as needed. The County will work with the National Park Service, the five municipalities and other organizations to determine funding priorities and actions to be undertaken in any given year. The annual operating budget requested includes NPS costs as well as additional funds to enter into cooperative agreements to undertake specific actions identified in the Comprehensive Management Plan.

(a) Staffing Needs

One part-time NPS planner would be needed to complete the responsibilities for managing the Maurice River corridor as a unit of the National Park System.

(b) Costs

The initial annual NPS operating budget for the No Action alternative would be as follows:

Salary, benefits & travel for part-time NPS Planner	$ 60,000
Meet ongoing federal obligations to address resource protection & education through Cooperative Agreements	100,000
Implement Interpretive Concepts	35,000
Develop Information & Educational Brochures	15,000
TOTAL	**$210,000**

(c) Resource Management
General land management would continue with local and state government agencies. The County would continue to provide the link, binding all partners together to address issues that cross political boundaries. All partners would be involved in implementing the Comprehensive Management Plan.

The National Park Service would not own land, nor have the authority to regulate land practices, except as related to Section 7(a) review of proposed federal actions within the federal boundary under the National Wild and Scenic Rivers Act.

(d) Visitor Use and Management
Through the Interpretive Planning process outlined in Section VII, information needs and visitor services were identified. The National Park Service will work with all partners to undertake identified initiatives.

(e) Law Enforcement and Emergency Services
Law enforcement and emergency services remain the responsibilities of local and state government agencies. The National Park Service will work with Cumberland County and appropriate organizations to provide consistent application of regulations and procedures.

(f) Maintenance
Access sites would continue to be maintained by existing agencies.

Analysis

Cumberland County emerged as the local leader during the study and designation phase of the Maurice River and this leadership role continued after designation in the same capacity. Important to designation and afterwards was the need to have primary preservation of the river corridor continue at the local level. The public involved throughout the planning processes continued to support the County's role in the Maurice River corridor.

Specific roles and responsibilities were outlined in a 1994 Memorandum of Understanding signed by all partners and witnessed by Vice President Al Gore. This MOA served as an excellent model for framing the ongoing cooperation that exists today in the river corridor. Cumberland County has established itself as a mediator and facilitator working among the municipalities and National Park Service to resolve issues and plan for the future of the Maurice River watershed. The Maurice National Scenic and Recreational River has proven to be a successful partnership river primarily due to the role Cumberland County has played in the process. Additional funding provided through this alternative will enable the County and the National Park Service to provide the education and resource protection that is needed for long-term sustainability.

b. Alternative II: Establish a River Management Council with Cumberland County as the Lead Organization

This management alternative would create an independent Maurice River Management Council with IRS non-profit 501(c)(3) status. Cumberland County would be the lead organization with National Park Service providing technical and financial assistance.

Local River Management Plans and the Comprehensive Management Plan would be the basis for decision-making. NPS would have a strong partnership with the Council and assist in implementing visitor service initiatives, education and oversight as recommended by the Council. NPS involvement would be through the use of cooperative agreements and be consistent over time. Bylaws and procedures in conformance with state and federal laws would be devel-

oped. The Council would enter into a cooperative agreement with the National Park Service and would refine needs and seek partnerships with landowners, businesses, and local, state and federal agencies to implement the Comprehensive Management Plan. The Council could also hire a staff. Funding partnerships with other state, local and non-profit organizations would be established to accomplish special initiatives.

(1) Role of the Maurice National Scenic and Recreational River Management Council

Success of the River Management Council would be dependent upon the direct partnership of local elected officials and other partners. Functions of the Council could include, but not be limited to:

- Develop policies that promote long term preservation of the river corridor
- Coordinate management of the river and river corridor with responsible agencies
- Provide a forum or mediating body for issues/conflicts
- Work with landowners and provide education and technical assistance to promote Best Management Practices
- Coordinate law enforcement, public access sites, visitor use levels and other operational functions.
- Design educational programs for the public

(2) National Park Service Role

The National Park Service's role under this Management Alternative would include, but not necessarily be limited to:

- Technical Review of Section 7(a) permits
- Provide financial assistance to support the Council
- Answer public inquiries
- Develop appropriate resource management plans with other state and federal organizations
- Provide technical and financial assistance to municipalities through cooperative agreements
- Develop informational brochures
- Work with land conservation organizations to assist the Council as appropriate
- Prepare biennial reports with local input

(1) Staffing/Funding

Organizing and formally establishing the Maurice River Management Council would initially require an extensive amount of time. The National Park Service would continue to be the lead federal advisory agency to the Council and would provide technical and financial support to assist in implementing recommendations of the Comprehensive Management Plan, as appropriate. Cooperative agreements would be used as a vehicle to implement long term protection and education initiatives and assist the Council in its operation.

Each year's funding needs would be discussed among Council members and priorities set with National Park Service input. Funding is contingent upon congressional appropriations. The Council could fund some activities through cost-share grants or agreements with local and state governments or with private entities. Operational costs include both annual NPS and council costs, as well as additional funds to enter into cooperative agreements to undertaken specific actions identified in the Comprehensive Management Plan

(a) Staffing Needs
One NPS employee would assist in establishing and participating on the Council, provide technical assistance, develop and monitor cooperative agreements, and maintain a long term relationship with all partners. Additional staff may be added over time, as appropriate.

(b) Costs
The initial annual NPS operating budget for Alternative II would be as follows:

Salary, benefits & travel for NPS Planner	$ 85,000
Meet ongoing federal obligations through Cooperative Agreements	100,000
Implement Interpretive Concepts	35,000
Develop Information & Educational brochures	15,000
River Council costs	
- hire 1 part-time person to help establish & work for Council Salary & benefits	25,000
- space rental, equipment, supplies travel, etc.	15,000
TOTAL	**$ 275,000**

(c) Resource Management
General land management would continue with local and state government agencies. The Maurice River Management Council would provide the cohesive link binding all partners together to address issues that cross political boundaries and assist in implementing recommendations in the Comprehensive Management Plan.

The National Park Service would not own land, nor have the authority to regulate land practices, except as related to Section 7(a) review of proposed federal actions within the federal boundary under the National Wild and Scenic Rivers Act.

(d) Visitor Information and Interpretation
Through the Interpretive Planning process outlined in Section VII, information needs and visitor services were identified. The Council would identify areas where visitor services should exist and work with the National Park Service to provide that service.

(e) Law Enforcement and Emergency Services
Law enforcement and emergency services would remain the responsibilities of local and state government agencies. The National Park Service would work with the Council and appropriate organizations to provide consistent application of regulations and procedures.

(f) Maintenance
Access sites would continue to be maintained by existing agencies.

Analysis

This Alternative will produce the same results as Alternative I only with increased expenses and adding another level of bureaucracy. The roles and responsibilities outlined under this Alternative have been successfully undertaken by Cumberland County for the past six+ years. Creating the Maurice River Management Council will not add to the long-term preservation of the designated corridor nor increase the level of municipal involvement that already exists through Cumberland County's efforts.

c. Alternative III. More direct National Park Service Management

This management option suggests a more active role by the National Park Service working in tandem with Cumberland County and working more directly with municipalities to implement the recommendations of the Comprehensive Management Plan. Cooperative Agreements would be used to accomplish most objectives as outlined in the designation legislation, but the NPS would provide direct technical and funding assistance to local entities. The National Park Service would be a very visible partner, becoming more of a driving force for coordination behind initiatives and decision-making. NPS would become the primary coordinating agency among partners continuing to seek input from Cumberland County.

(1) Staffing/Funding

(a) Staffing Needs
Depending on the level of NPS involvement, there could be a number of employees required to implement this Alternative.

(b) Costs
Annual operating cost for Alternative III would be as follows:

Salary, benefits & travel for NPS Planners & Support Staff	$125,000
Meet Ongoing Federal Obligations Through Cooperative Agreements	100,000
Implement Interpretive Concepts	35,000
Develop Information & Educational Brochures	15,000
TOTAL	**$275,000**

(c) Resource Management
General land management would continue with local and state government agencies with more direct NPS involvement when issues arrive. NPS would provide the link binding all partners together to address issues that cross political boundaries.

The National Park Service would not own land nor would it have authority to directly regulate land management practices, except in reviewing section 7(a) water resource permits.

(d) Information and Interpretation
Through the Interpretive Planning process outlined in Section VII, information needs and visitor services were identified. NPS would be a major partner in providing visitor information, interpretive media, and assessing and implementing the long-term visitor service needs for the corridor.

(e) Law Enforcement and Emergency Services
Law enforcement and emergency services would remain the responsibilities of local and state government agencies. The National Park Service would work with the Council and appropriate organizations to provide consistent application of regulations and procedures.

(f) Maintenance

Access sites would continue to be maintained by managing agencies.

Analysis

The Maurice National Scenic and Recreational River is a cooperatively managed river with the foundation for protection at the local level. In this Alternative, NPS would be assuming the role that Cumberland County has successfully played for the past six years. While there is a need for NPS involvement in the designated river corridor, working with local municipalities to solve local issues is a responsibility best provided at the County level with NPS assistance sought when appropriate.

E. Funding Plan

The National Park Service will seek $210,000 through its budgetary process to continue to manage the Maurice NS&RR corridor under the No Action Alternative. At present, very limited funding has been made available for cooperative agreements pending the finalization of this comprehensive management plan. In addition to NPS funds, the NJ Department of Environmental Protection's (NJDEP) Watershed Management Program's financial and technical assistance in the long-term preservation of the Maurice River watershed provides a realistic alternative funding source to ensure the implementation of key recommendations in this plan. Additional funding partners will be pursued to address special initiatives and to support implementation of this plan. The continued assistance of a variety of non-profit land preservation organizations will also contribute to the success of long-term preservation efforts.

F. Period Assessment and Reporting Requirements

The National Park Service and Cumberland County must rely on existing state regulations and enforcement as well as consistent application of local zoning ordinances to assure long-term protection of the river corridor. Cumberland County and Citizens United to Protect The Maurice River and Its Tributaries, Inc. have been diligent in keeping the National Park Service informed about potential projects and requests for zoning variances. Once notified by the County and/or other partners, NPS then provides a written analysis of the proposed project so that a determination can be made as to whether the project may have an adverse affect on outstandingly remarkable resources for which the river was designated. In addition, the National Park Service tracks each state and federal permit reviewed under its Section 7(a) responsibilities. Each permit is analyzed for its potential impact on outstandingly remarkable resource values. A letter is sent to the NJDEP and/or US Army Corps of Engineers stating the assessment of each proposed project along with a recommendation for approval or denial of the permit.

The National Park Service is required by the designation legislation to produce a biennial report to Congress on the status of the Maurice National Scenic and Recreational River. As part of this report, the NPS will include information on:

- Effectiveness of local protection efforts provided by Cumberland County
- Comprehensive Management Plan recommendations and initiatives undertaken in the river corridor and watershed
- Efforts undertaken by state, local and non-profit organizations involved in the designated river corridor and watershed.

Information for the biennial report will be gathered through:

- National Park Service's continued monitoring of local planning and zoning boards to assure compliance with local river management plans;

(continued on page 101)

TABLE 5: SUMMARY OF MANAGEMENT ALTERNATIVES

	ALTERNATIVE I: Continue Existing Trends (No Action)	ALTERNATIVE II: Establish a River Management Council with Cumberland County as Lead Organization	ALTERNATIVE III: More Direct NPS Management
Management Concept	Continue successful management as is with Cumberland County as the lead local organization resolving issues w/NPS input. This alternative is consistent with the 1994 MOU.	Creation of an independent organization securing non-profit status and under the leadership of Cumberland County.	Creates a more visible NPS role establishing more direct links w/municipalities. NPS would be the primary coordinating organization at local level
Staffing/Funding	Requires the least amount of ONPS funding and NPS staff support. Financial assistance through Cooperative Agreements to implement CMP recommendations	Council consists of Cumberland & Atlantic Counties and five municipalities. NPS is a technical and financial supporter of the Council assisting to implement the CMP and local river mgt. plans through Cooperative Agreements	Additional NPS staff would be req'd to implement this Alternative. NPS would: promote river, address visitor service needs; develop info; and become a more active partner in decision making. Coop. Agreements would be used.
Resource Management	Land management would continue w/local & state governments consistent w/Local River Management Plans, CMP and other established protection mechanisms. No NPS acquisition or authority to regulate land practices, except Section 7(a) reviews	Land mgt. would continue w/local & state govts consistent w/Local River Management Plans, CMP and other state/local protection mechanisms. No NPS acquisition or authority to regulate land practices, except Section 7(a) reviews.	Land mgt. would continue with local & state govts. Consistent w/local plans, CMP & other established protect. Mechanisms. NPS would have more direct input into resource issues at the local level. No NPS acquisition or authority to regulate land practices, except Section 7(a) reviews.
Visitor Use and Management	Visitor service needs would be consistent with each Alternative following the recommendations in the Interpretive Planning section and with the County working among municipalities to establish priorities	Visitor service needs would be prioritized by the Council and be consistent w/the recommendations in the Interp. Planning section	Visitor Service needs would be consistent w/the recommendations in the Interp. Planning section. NPS would prioritize actions w/local entities and have a more direct role in implementing those actions.
Law Enforcement	Responsibilities remain with local and state governments	Responsibilities remain w/local and state governments	Responsibilities remain w/local and state governments
Maintenance	Access sites and public areas will continue to be maintained by existing agencies	Access sites and public areas will continue to be maintained by existing agencies	Access sites and public areas will continue to be maintained by existing agencies

TABLE 5: SUMMARY OF MANAGEMENT ALTERNATIVES

	ALTERNATIVE I: Continue Existing Trends (No Action)	ALTERNATIVE II: Establish a River Management Council with Cumberland County as Lead Organization	ALTERNATIVE III: More Direct NPS Management
NPS Role	Reviews Section 7(a) permits and continues to cooperatively work w/Cumberland County to establish the Maurice River as a partnership unit of the National Park System implementing local and state plans as well as the CMP.	Reviews Section 7(a) permits and works cooperatively w/ the Council to establish the Maurice River as a unit of the National Park System. NPS is both a technical and financial advisor to the Council	NPS would undertake resource studies; work w/municipalities to implement local plans and CMP recommendations; provide technical and financial support thru Cooperative Agreements; review Section 7(a) permit applications.
NPS Base Operating Costs	NPS p/t planner $ 60,000 Meet ongoing federal Obligations 100,000 Implement Interp. Concepts 35,000 Dev. Info materials 15,000 **TOTAL $210,000**	NPS f/t Planner (salary, benefits, etc.) $85,000 Meet ongoing federal Obligations $100,000 Implement Interp. Concepts 35,000 Dev. Info materials 15,000 River Council Costs 40,000 TOTAL 275,000	NPS Planners & Support Staff (Salary, etc.) $125,000 Meet ongoing federal Obligations $100,000 Implement Interp. Concepts $ 35,000 Dev. Info. Materials $ 15,000 TOTAL $275,000
Analysis	Cumberland County has successfully functioned as a local leader from the study process to the present. The County resolves issues locally and seeks NPS input and advice. The County also coordinates among local municipalities and other entities to undertake projects benefiting the corridor. This Alternative is consistent with the 1994 MOU.	This Alternative produces the same results as Alternative I only with increased expenses and adding another layer of bureaucracy. The roles & responsibilities in this Alternative have been successfully implemented by Cumberland Co. for the past six years.	Primary mgt.& decision making should remain at local level, not NPS since the river is cooperatively managed. Existing local management under Cumberland County has been successful for six years.

- Information provided through meetings of various partners and projects undertaken;
- Through bi-monthly meetings of Citizen United to Protect the Maurice River and Its Tributaries, Inc.
- Through participation at other non-profit organizations and information received from interested local residents.
- Costs associated with monitoring the effectiveness of protection strategies in the river corridor will be the responsibility of the National Park Service.

G. Affected Environment

1. Regional Setting

In a regional context, the Maurice River and its tributaries function as an important biological link between the Pinelands the Delaware Bay. The rivers drain extensive forest and shrub wetlands. Their shorelines and the shorelines of their smaller tributaries are dominated by woody vegetation that overhangs the banks and shades the water, maintaining low water temperatures, trapping sediment and other pollutants, and delivering fine-to-coarse organic matter to the streams in a manner characteristic of undisturbed riverine systems. One consequence is that very high quality water is delivered to the Delaware Bay by the Maurice River system. This water is critically important to regional oyster, crab, and fin-fish industries. These traditional industries presently have considerable social and economic importance in Cumberland County as they have had for at least five human generations.

It is the overall biological integrity of this river system that makes it important to the natural and cultural resources of the Delaware Estuary. The Delaware Estuary is recognizes as nationally important by the National Estuary Program. The estuary qualifies and has been nominated to the Convention of Wetlands of International Significance, also known as the Ramsar Convention of 1971.

Within the context of the Western Hemisphere, the river corridor functions as a critical migration-related habitat for shorebirds, songbirds, waterfowl, raptors, rails and fish. The important and interrelated factors of water quality and land use, coupled with the area's estuarine nature and geographic location along the Atlantic flyway, have a direct relationship to the health and viability of these animal populations.

2. Resource Information

Cumberland County's heritage is steeped in the history of the Lenape people and the European settlers who came later. Many current residents trace their native American roots to the Lenape nation; a nation that numbered some 6,000 inhabitants at the time of the earliest colonial explorations of the Delaware Bay region.

It was the rich natural resource base of the County that shaped its first European settlements. Villages developed around the fishing, seafaring, and oystering industries. The waterways of the Cohansey and Maurice Rivers provided commerce and trade with cities and other communities in the region and along the east coast. The many deposits of silica sand promoted the development of glass manufacturing in Millville and Bridgeton. Fertile soils and a mild climate enabled the farming industry to develop in Vineland and the rural western parts of the County. Recreational opportunities helped make Fortescue one of southern New Jersey's finest resort communities at the turn of the century.

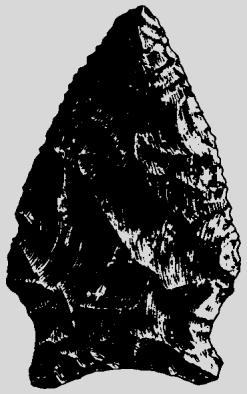
Given its history and geography, it is not surprising that the Maurice River and its tributaries are home to a wide array of natural, cultural, scenic and recreational resources. The presence of these

resources is what made the Maurice River a candidate for designation into the National Wild and Scenic River System. The river corridor is among the most important natural and cultural areas in New Jersey, the Delaware Bay, and the Atlantic flyway. Two publications, the Eligibility and Classification Report and the Priority Resources Report, identify water quality, cultural and historic resources, and plant and animal life as components of the area's exceptional resources.

In order for a river to be found eligible for inclusion in the National Wild and Scenic Rivers System, Congress declared in the Wild and Scenic Rivers Act that rivers must "possess outstandingly remarkable scenic, recreational, geologic, fish and wildlife, historic, cultural, or similar values . . ."

Recognized resources of the Maurice River corridor are as follows:

a. Cultural and Historic Resources



There are many places of cultural and historic importance within the designated river corridor. The Fralinger Farm, on the Maurice River, is the site of a prehistoric Native American settlement eligible for designation as a National Historic Landmark. It had been occupied for over 3,000 years and is one of ten such sites within the corridor listed on the New Jersey State Museum's Site Survey.

Dorchester-Leesburg and Port Elizabeth-Bricksboro are designated Pinelands Villages. The Pinelands Commission identified these villages as potentially eligible for the National Register of Historic Places. The Village of Mauricetown on the west bank of the Maurice River is an old sea captain's village with many fine nineteenth-century homes. Mauricetown was developed around the once thriving oyster industry. This industry helped develop some of the unique folklife of the area, as documented in Pinelands Folklife (Moonsammy and others, 1987). The Maurice River area is highlighted in folklife literature for traditional hunting, trapping, shipping, shipbuilding, fishing, oyster harvesting, and salt hay farming.

Scattered throughout the Maurice River basin on well drained uplands adjacent to rivers are sites containing Indian artifacts. Many of the sites have been studied and documented by a variety of archeologists and amateur collectors. The NJ State Museum records 10 sites within the designated corridor listed on the State Site Inventory. In addition there are numerous unrecorded sites. One of the 10 recorded sites, a large relatively undisturbed concentration of artifacts ranging from 500 to 4000 years ago, is considered to be eligible for the National Register of Historic Places.

The area also encompasses other historic archeological sites and existing buildings which span the range of traditional uses within the pine barrens and the Delaware Bay. These include vestiges of colonial and early American industries such as salt hay farming, saw and grist milling, glass and iron manufacturing and shipping. Current settlements developed around the cordwood and lumber industries, maritime trade, and the shellfishing industries. The lifestyle of many area residents depends upon traditional resource based activities of fishing, hunting, trapping, boating, shipbuilding, and wildlife exploration.

The vast forests of New Jersey served to provide building timber as well as cordwood for export to cities. Sawmills were operated in the designated corridor. Today the sites still exist, although their buildings have disappeared.

Farming in the river area historically depended upon diking the meadowlands using mud, clay, wood, and old boat hulls. There were continuous dikes along the riverbanks to Millville allowing cultivation of food crops and salt hay.

During the beginning of the 19th century, the development of an iron foundry and two glassworks in the river corridor aided the industrial development. Ore was brought in and products of the furnace and forge shipped out from Schooner Landing on Menantico Creek.

Port Elizabeth, established in 1785, was a port of delivery for the US Customs. Port Elizabeth was home for Eagle Glassworks, circa 1799, and Union Glassworks, circa 1810. Both business produced window glass and hollow ware. These sites are considered important historic archaeological resources by the State of New Jersey.

Mauricetown, Dorchester, Leesburg and Port Norris all were first developed for the shipping of cord wood and lumber. Mauricetown became a center for the coastal trade and is noted for its Victorian architecture.

Dorchester and Leesburg became shipbuilding towns. Shipyards also were located at Mauricetown and Port Norris. Between 1831 and 1927, 167 wooden sailing vessels were built.

b. Fauna

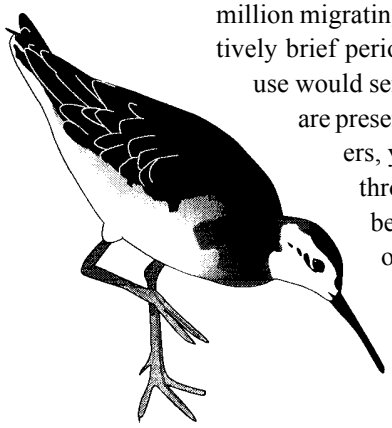
The Maurice River basin contains vast tracts of forest and agricultural land. This combination provides suitable habitat for a variety of animals. Within the designated corridor there are large tracts of state wildlife management areas. The diversity of birdlife of the Maurice River drainage area is unusually rich and well documented. The wild rice wetlands are an important migratory stopover and wintering area for over 13,000 waterfowl.

The following wildlife and wildlife habitats have been described as outstandingly remarkable resources in the river corridor:

bald eagle (Haliaeetus leucocephalus);
peregrine falcon (Falco peregrinus);
black duck (Anas rubripes);
habitat for migrating shorebirds; and
habitat for state-level threatened or endangered reptiles and amphibians.

(1) Birds

The watershed of the Maurice River has for many years been identified by the New Jersey Department of Environmental Protection as one of the last remaining habitats for the bald eagle in the state. The bald eagle is a federally recognized threatened species and is subject to protection under the Endangered Species Act (Public Law 93-205). The U.S. Fish and Wildlife Service and the New Jersey Department of Environmental Protection presently operate an eagle re-introduction program in the river area. The undisturbed riverbanks and associated wetlands within the corridor presently a crucial habitat for eagle hunting, feeding, perching, and roosting. Maintaining this habitat is also critical to meeting reproductive needs, such as the nesting of a future eagle population, if recovery efforts are to be successful.



The designated river corridor plays an irreplaceable global role in supporting over a million migrating shorebirds. Although the shorebirds may only use the area for relatively brief periods during the year, the perturbation of these habitats for shorebird use would seriously jeopardize the viability of entire populations, many of which are presently in serious decline. For example, semi-palmated plovers, dowitchers, yellow legs, least sandpipers, red knots, and ruddy turnstones funnel through the Maurice River corridor in massive numbers as they move between northern tundra wetlands and the grasslands and shorelines of the Llanos of Columbia and Venezuela, the estuaries of Orinoco and Amazon Rivers, the Pantanal of Bolivia and Brazil, and the Pampas and Gran Chaco of Argentina and Paraguay.

An area of wetlands in Maurice River Township, which is dominated by Phragmites, provides a premigratory roosting site for more than 60,000 Purple Martins. After the young have fledged, from July through August, Purple Martins often congregate in distinctive nocturnal roosts. Dense stands of *Phragmites* provide safe places for the birds to roost. These communal assemblages may reach enormous concentrations and are considered a prelude to the martins' fall migration to South America. The martins feed upon the abundance supply of flying insects associated with the river corridor.

The tidal portion of the Maurice River and associated wetlands has been identified as the most important habitat for rails and soras in the Mid-Atlantic region (Dr. Paul Kerlinger, Cape May Bird Observatory, personal communication). As with other migratory birds, because of the lack of human intrusion, high water quality, and geographic location, large proportions of Virginia rail, clapper rail, black rail, and sora populations depend on this area.

Because shorebirds and waterfowl concentrate heavily in this area, it is also important to predators such as the Peregrine falcon, which like the bald eagle is a federally protected species. Peregrine falcons nest in the area, hunting along the river and its associated wetlands. The area is used as a re-introduction, or "hacking", site for the Peregrine. Hawk and falcon numbers along the lower Maurice River during migration periods reach some of the greatest densities observed in the Mid-Atlantic region (Kerlinger, personal communication). Most of these birds come from the northern tundra and migrate to Central and South America where they play important roles in the food chain processes of tropical ecosystems.

Southern New Jersey is renowned for bird-watching opportunities, especially for fall warblers. These and other songbirds crowd into the area before launching long-distance flights to the forests of South America. The habitat they require in South Jersey is primarily that of forest interiors, where they feed on tree scales, mites, beetles, spiders and moths of the forest canopy. Before launching themselves over the Atlantic, they must feed intensively in order to gain enough body fat to sustain their long-distance flights. As they begin grouping together and forming migratory flocks, they must wait for just the right combination of factors to begin their flight. The exact combination of these factors is not well understood, however, it includes weather, the build-up of bird densities, the availability of food needed to reach the right body weight, and possibly proper star and moon configurations (many birds migrate at night). As these birds wait to launch their trans-oceanic flights, they must continue intensive feeding. Thus, they must utilize the large tracts of both bottomland and upland forests within and adjacent to the area. Because of this, the habitats of the Maurice River area are of great importance to songbirds of the Atlantic flyway for short but critical periods of their life cycles.

(2) Amphibians and Reptiles

The Maurice River corridor has been identified as high-quality habitat for at least five amphibian species that are considered threatened at the state level. The scarlet snake (Cemphora coccinea) was also collected from the study area during the Final Study. The finding was a surprise as this may be the only place in New Jersey where this species occurs. Its exact status in the state has yet to be determined, and future work on its distribution and behavior will add significantly to knowledge about this secretive snake. The diversity of reptile and amphibian species is higher in the Maurice River watershed than any other watershed in New Jersey (Priority Resources Report). This diversity is attributed to the excellent water quality, freshwater wetlands, and the

undisturbed nature of the area. Given the present rapid decline in amphibian populations and shrinkage in geographical ranges of many amphibian species world-wide (Blaustein and Wake, 1990), the Maurice River watershed may be important as genetic refuges and as a monitoring and indicator site for amphibians, as well as an area of scientific and educational value in conservation biology.

c. Fisheries

The shortnose sturgeon (Acipenser Brevirostrum), a species considered endangered under the federal Endangered Species Act, historically inhabited the Maurice River. The present status of this fish within the designated corridor is unknown. The Maurice River is one of only three rivers in New Jersey where striped bass (Morone saxatilis) still spawn and over-winter. Striped bass are an important coastal sport and commercial fish that live in salt water during the adult life-stage, but spawn in fresh water and remain there during the juvenile life-stage. Once abundant along the Atlantic coast, in the last fifteen years populations have declined rapidly. Because of its high water quality and production of food organisms, the Maurice River has become an important source for striped bass stock.

d. Flora

Within Cumberland County there are 147 known occurrences of 58 different state-recognized rare plant species. Of these species, 31 are considered endangered by the state. Within the designated area, swamp pink (Helonias bullata) is listed as a threatened plant species by the federal government under the Endangered Species Act. Additionally, sensitive joint vetch (Aeschynomene viginica), New Jersey rush (Juncus caesariensis), and chaffseed (Schwalbea americana) are considered candidates for federal recognition as threatened or endangered species, pending further study. Of these three candidate species, the local occurrence of sensitive joint vetch along the tidal Manumuskin River is particularly important as this is the largest viable population left in the world, probably containing the greatest genetic diversity for this species (Tom Breden, New Jersey Office of Natural Lands Management, personal communication).

The designated river system traverses natural zones of uplands and lowlands. Uplands support two major vegetation associations, pine-oak forest and oak-pine forests. Lowlands support cedar swamps, hardwood swamps, pitch pine lowlands, bogs, inland and coastal marshes.

e. Physiography/Geologic Setting

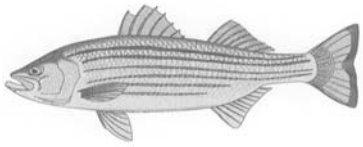
The Maurice River watershed lies within the Embayed Section of the Atlantic Coastal Plain physiographic province. Characteristics of this province are low, flat land areas, extensive wetlands and broad meandering rivers (Fenneman, 1938).

The rivers also flow through the New Jersey Pine Barrens which are characterized by rolling terrain with deep deposits of sandy, droughty soils. The area has no rock outcrops or mountains. The meandering streams and unique vegetation are underlain by a series of unconsolidated layers of sand, clays and marls in the shape of a wedge. Those layers, in turn, rest atop bedrock, which dips gently to the southeast and extends into the submerged Atlantic Continental Shelf.

Vast quantities of water are stored in the extensive sand aquifers of the Cohansey and Kirkwood formations beneath the surface of the Pine Barrens. This reservoir of groundwater is replenished solely by precipitation that percolates through the sandy soil surface. This groundwater resource plays an important role in the Pine Barrens hydrology and ecology.

f. Recreation

Recreational use of the Maurice and Manumuskin Rivers, and the Menantico and Muskee Creeks is primarily water-based. Portions of the rivers are readily accessible by roads which increase and enhance the recreational viability of the area. Extensive recreational fishing for striped bass, large mouth bass and perch exists, with the endangered short-nosed sturgeon intermittently inhabiting the rivers. The Maurice is one of only three rivers in new Jersey where striped bass, (Morone saxatilus) spawn and overwinter. The river corridor is a key nursery and spawning area for most of the recreationally important species of the Bay.



Traditional sports such as hunting, fishing and trapping also play a significant role in the communities. The river corridor serves recreationists from the local area as well as the New York and Delaware Valley metropolitan area.

g. Scenic Qualities

The Maurice River area is a living example of a blend of fragile environmental habitat and historical human development.

The designated sections of the Maurice, Manumuskin, Menantico and Muskee waterways are free of impoundments, diversions and major shoreline modifications. The Manumuskin River is one of two rivers within the Pinelands National Reserve determined to met water quality standards of a pristine, completely undisturbed, natural river system. The Menantico also meets pristine standards in almost all areas.

h. Surface Hydrology

The surface water quality of the Manumuskin and Menantico Rivers has been recognized as outstandingly remarkable. The Maurice River has a drainage area of 386 square miles and meanders south for 50 miles to the Delaware Bay. The river is tidal below Union Lake; Menantico Creek to the railroad trestle at Menantico Pond; and the Manumuskin River to Fries mill and the Railroad Bridge are also tidal.

The Manumuskin is one of two rivers within the Pinelands National Reserve found to meet water quality standards of "pristine: a completely undisturbed natural river system" (page 36, Pinelands Comprehensive Management Plan, 1980). The Menantico Creek meets pristine standards in all areas except total suspended solids, which are the result of natural processes (localized water turbulence and velocity). In addition to the plant species listed above, the river system supports New Jersey's most extensive stand of wild rice, which is critical to migrating and wintering waterfowl.

Because the Pine Barrens streams are so well fed by groundwater, they maintain an even flow year-round tending not to freeze in the winter. Historically they have provided dependable sources of water. The porous nature of the ground in the Pine Barrens makes the groundwater and surface water resources vulnerable to land use disturbances. The Maurice River and its tributaries exhibit a range of water habitats and wetland habitats due to their tidal nature.

Streamflow information for the lower Maurice River is very limited due to its tidal nature. Table 6 contains streamflow data which was excerpted from the U. S. Geological Survey Water-Data Report NJ-93-1 published in 1993, as well as the USGS open-File Report 81-1110 dated January 1982.

i.Pine National Reserve

As stated previously, the Maurice River and its tributaries drain the southwest portion of the Pinelands National Reserve, a 1.1 million acre area established in 1978 because it is in the national interest to protect, preserve and enhance the significant values of areas such as this for future generations.

The area also supports a variety of state-level threatened (T) or endangered (E) wildlife species such as described below. For a more complete listing, refer to *Appendix 5*.

Atlantic sturgeon (Acipenser oxyrhynchus)(T)
Eastern tiger salamander (Ambystoma tigrinum) (E)
Pine Barrens tree frog (Hyla andersonii) (E)
Southern grey tree frog (Hyla chrysoscelis) (E)
Corn snake (Elaphe guttata) (E)
Timber rattlesnake (Crotalus horridus) (E)
Northern pine snake (Pituophis melanoleucus) (T)
Pied-billed grebe (Podilymbus podiceps) (E)
Great blue heron (Ardea herodias) (T)
Black rail (Laterallus jamaicensis) (T)
Cooper's hawk (Accipter cooperii) (E)
Northern harrier (Circus cyaneus) (E)
Red-shouldered hawk (Buteo lineatus) (E)
Upland sandpiper (Bartramia longicauda(E)
Least tern (Sterna albifrons) (E)
Red-headed woodpecker (Melanerpes erythrocephalus) (T)
Barred owl (Strix varia) (T)
Short-eared owl (Asio flammeus) (E)
Sedge wren (Cistothorus platensis) (E)
Grasshopper sparrow (Ammodramus savannarum) (T)

The designated area is believed to support 53 percent of the animal species that the state has recognized as endangered, not including marine mammals. In addition, habitats support 38 percent of the state-recognized threatened animal species.

Measurements of streamflow in New Jersey made at low-flow partial-record stations are given in the following table. Most of these measurements were made during periods of base flow when streamflow is primarily from ground-water storage. These measurements, when correlated with the simultaneous discharge of a nearby stream where continuous records are available, will give a picture of the low-flow potentiality of a stream. The column headed "Period of Record" shows the water years in which measurements were made at the same, or practically the same, site.

TABLE 6: Streamflow Data for the Maurice River Corridor

Maximum Discharge at crest-stage partial-record stations

Station Name & Number	Location and Drainage Area	Period of Record	Water year 1993 maximum Date	Gage Height (ft)	Discharge (ft3/s)	Period of Record Maximum Date	Gage Height(ft)	Discharge (ft3/s)
Menantico Creek (near Millville (01412000)	Cumberland County Hydrologic Unit 02040301	1931-57 1978-84 1985-93	3-18-93	2.55	146	8-20-39	6.21	1,050
Maurice River at Sharp Street at Millville, NJ (01411880)	Cumberland County Hydrologic Unit 02040206 at bridge on Sharp Street	1973-76 1988-93	10-29-92 12-03-92 2-03-93 5-17-93		120 199 168 314			

01412100 Manumuskin River near Manumuskin, NJ

Location: Cumberland County at Bridge on Light-Duty Road, 1.1 miles north of Manumuskin
Drainage Area — 32.1 square miles
Station Type — Low Flow Partial Record Station
Remarks: — Low-Flow frequency estimates based on correlations with gaging stations 01409500, 01411000 and 01411500. Correlations rated excellent.

Low-Flow Frequency — Period 1964-71

Period of Consecutive Days	Average Annual Minimum Discharge in Cu FT/S (CU M/S) for Indicated Recurrence Intervals 2 Years	10 Years
7	13 (0.37)	9.5 (0.27)

(continued)

TABLE 6 (continued)

0141200 Menantico Creek Near Millville, NJ

Location: Cumberland County on right bank of upstream side of Millville-Milmay Highway Bridge

Drainage Area: — 22.3 square miles

Station Type - Continuous Record Gaging Station

Average Discharge — 37.4 CY ft/s (1.06 cu M/S

Daily Discharge Extremes - Maximum 847 CU Ft/s (24.0 CU M/S)
Minimum 1.4 CU Ft/s (0.04 CY M/S)

Low-Flow Frequency — Period 1933-57

Period of Consecutive Days	Average Annual Minimum Discharge in CU Ft/S (CU M/S) For Indicated Recurrence Intervals			
	2 Years	5 Years	10 Years	20 Years
3	9.4 (0.27)	5.5 (0.16)	3.9 (0.11)	2.8 (0.08)
7	13 (0.37)	9.0 (0.25)	7.3 (0.21)	6.0 (0.17)
30	18 (0.51)	14 (0.40)	13 (0.37)	12 (0.34)
90	23 (0.65)	18 (0.51)	16 (0.45)	14 (0.40

H. Impacts

The major action of this Comprehensive Management Plan is to provide a framework for future decision making and to continue the existing management roles as established in the 1994 Memorandum of Understanding. This plan recommends the "Continuation of Existing Trends" Alternative (or No Action) to assure the long term preservation of the cooperatively managed Maurice National Scenic and Recreational River. Since designation, Cumberland County has successfully managed the Maurice River corridor at the local level. It is anticipated that the recommendations contained in this document are for the primary purpose of preserving and protecting the designated river corridor and thus will have positive impacts. It is not anticipated that any aspect of the environment will be negatively affected or impacted by the adoption of the Comprehensive Management Plan.

The alternatives considered as part of the Comprehensive Management Planning process are for long term management purposes that would prevent negative impacts and assure compliance with established local zoning ordinances, the Pinelands Comprehensive Management Plan, and appropriate state and federal laws. The actions for resource protection and visitor services contained in this CMP are recommendations and, if implemented, would have a positive effect on the resources within the designated river corridor.

I. Consultation and Coordination

1. History of Public Involvement

It is important to recognize that this Comprehensive Management Plan is a compilation of various studies and reports prepared by a number of organizations and individuals during the study process and after designation. A number of strategies were used to secure public input into the Local Management Planning process, development of the Cumberland County Ecotourism Plan, and this document as well. Workshops which involved many different public interests, as well as presentations to a wide range of interest groups and organizations. This process has been ongoing since an initial 1993 workshop. Workshops were also held in 1997 to secure input into the Comprehensive Management Planning process for the specific purpose of identifying issues and how best to accommodate visitors while promoting resource protection in the river corridor.

2. List of Preparers

The following individuals provided input into the preparation of the Comprehensive Management Plan and the Environmental Impact Statement:

National Park Service
Mary Vavra, Program Manager for the Maurice National Scenic and Recreational River
Steve Smith, Outdoor Recreation Planner

Cumberland County
Steve Kehs, Director, Cumberland County Department of Planning and Development

Heritage Partners Consulting Firm
Ron Thomson, Interpretive Planner

Citizens United to Protect the Maurice River and Its Tributaries, Inc.
Jane Galetto, President
Berwyn Kirby, Vice President

3. List of Recipients

The following individuals, organizations and/or agencies received a copy of this draft and have been given the opportunity to review and comment:

Counties
Atlantic County Planning Office
Cumberland County Dept. of Planning & Development
Gloucester County Public Works Department - Planning Division

Federal Agencies
Congressional Offices
Senator Robert Torricelli
Senator Frank Lautenberg
Congressman Frank LoBiondo

National Park Service
Janet Wolf, NJ Coastal Heritage Trail

US Army Corps of Engineers
Sam Reynolds, Regulatory Branch

US Department of Agriculture

Greg Westfall, Natural Resources Conservation Service
US Environmental Protection Agency
Kathy Callahan, Director of Water Division, Region III
Bob Dieterich, Place-Based Detection Branch - Region III

US Fish and Wildlife Service
Eric Schrading, Pleasantville, NJ Field Office
Paul Steblein, NJ Coastal Refuges

Local Municipalities
Buena Vista Township
Commercial Township
Maurice River Township
City of Millville
City of Vineland

Non-profit Organizations
Citizens United to Protect the Maurice River & Its Tributaries, Inc.
Clean Ocean Action
Delaware Bay Schooner Project
Delaware Estuary Program
Haskin Shellfish Research Laboratory (Rutgers University)
Mauricetown Historical Society
Maurice River Historical Society
Maurice River Village Preservation Association
Millville Historical Society
National Parks and Conservation Association
Natural Lands Trust, Inc.
Pinelands Preservation Alliance
The Nature Conservancy
Vineland Historical and Antiquarian Society
Water Watch International
Wheaton Village & Down Jersey Folklife Center
WHIBCO

Soil Conservation Districts

Victor DeVasto, District Manager, Gloucester County Soil Conservation District
Stephen Quesenberry, RCD Coordinator, South Jersey Resource Conservation and Development Council

State Agencies

NJ Department of Environmental Protection

Millie DeFeo, Land and Water Planning
Ruth Ehinger, Manager, Bureau of Coastal Regulations
Dorina Frizzera, Office of Environmental Planning
Jim Hall, State Historic Preservation Office
Terry Karschner, Historic Preservation Specialist, Division of Parks & Forestry
Joseph Kocy, Office of Environmental Planning
Beverly Mazzella, State of NJ Natural Lands Trust
Bob McDowell, Director, NJ Division of Fish & Wildlife
Dave Rosenblatt, Watershed Management Office
Celeste Tracy, Office of Natural Lands Management
Steve Whiting, Coastal Land Planning

NJ Department of Transportation

Joanne Szcech, Office of Project Management

NJ Pinelands Commission

Larry Liggett

4. Response to Comments

Comments received on the draft Comprehensive Management Plan and Environmental Impact Statement are incorporated into the final plan where appropriate. There were 11written comments received, copies of which are included as *Appendix 11*.

Maurice River- Buckshutem

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Charles T. Roman and Ralph E. Good; Center for Coastal and Environmental Studies; Division of Pinelands Research; June 1983

K. Glossary of Terms

Agricultural Use: A use involving the production, keeping, or maintenance for sale, lease or personal use plants and animals useful to man, including but not limited to forages, grain and seed crops, dairy animals, poultry, beef, sheep, horses, pigs, bees, fur animals, trees, food of all kinds, vegetables, nurseries, and land devoted to soil conservation or forestry management programs.

Best Management Practices: A practice or combination of practices for preventing or reducing diffuse or nonpoint source pollution to a level compatible with water quality goals.

Boundary: A map line that defines the area of national interest in the Maurice National Scenic and Recreational River corridor. The area to be protected through local laws, plans and ordinances, and the use of other existing laws.

Classification: Under the Wild & Scenic Rivers Act, a system for assessing existing development levels and for directing future management; the classifications for the Maurice River are recreational and scenic.

Commercial Development: Any use, except home occupations, involving the offer for sale, rental or distribution of goods, services, or commodities; or the provision of recreational facilities or activities for a fee, but not including the manufacture of goods or commodities.

Conditional Use: A use generally appropriate for a zoning district but permitted only after review by local officials and with the possible attachment of conditions pursuant to criteria set forth in the zoning ordinance for this class of use.

Conservation Easement: A flexible legal instrument that protects land while leaving it in private ownership. The easement, a legal document, guides future uses of a property regardless of ownership. A landowner generally donates the easement to a qualified conservation organization or government agency that in turn ensures that the conditions of the easement are met over time.

Critical Habitat: That area of land or water that is crucial to the survival of either a plant or animal species.

Cultural Resources: Tangible and intangible features, animate or inanimate, that provide information about a cultural system; this may include human history, archaeological sites, industrial remnants, architectural features, and historic districts.

Easement: A partial interest in land.

Endangered Species: Any species that is in danger of extinction throughout all or a significant portion of its range

Fee title Acquisition: Outright purchase of a property.

Fish and Wildlife Management: The management of the characteristics and interactions of fish and wildlife populations and their habitats in order to promote, protect or enhance the ecological integrity of those populations.

Floodplain: The channel of a natural stream and the relatively flat area adjoining the channel, which has been or which may be covered by flood water, including, at a minimum, those areas designated by the Federal Flood Insurance Administration and/or the Federal Emergency Management Agency as "flood hazard areas."

Forestry: The management, including growing or harvesting, of a forest, woodland or plantation, including the construction, alteration or maintenance of woods roads and landings and related research and educational activities.

Free-Flowing: First and most important eligibility criterion in the Wild and Scenic Rivers Act is that a river be free-flowing. Applied to any river, or section of river, means existing or flowing in a natural condition without impoundment, diversion, straightening, riprapping, or other modification of the waterway.

High Water Line: The line on the shore to which high tide rises under normal weather conditions. High water line is generally computed as a mean or average high tide and not as extreme height of water.

Historic District: A geographically definable area, urban or rural, that possesses a significant concentration, linkage or continuity of sites, buildings, structures or objects united historically by past events, aesthetically by plan, or physically by development.

Impervious Surface: Any material, which prevents the absorption of stormwater into previously undeveloped land.

Impoundments: Any body of water located on a tributary, brook, stream, kill or river formed by a new manmade structure within the boundary of the designated river; this does not include structures for fishery management such as eel weirs, or small agricultural ponds not on tributaries.

Interpretive Program: A program designed to develop a visitor's interest in, and enjoyment and understanding of, an area by describing and explaining its characteristics and their interrelationships.

Jurisdiction: The limits or territory within which authority may be exercised.

Jurisdictional Wetland: An area defined as a wetland under the methodology established by the Federal Interagency Committee for Wetland Delineation in the handbook "Federal Manual for Identifying and Delineating Jurisdictional Wetlands" (Manual). In general, the three technical criteria established in the manual for defining wetlands are that the site must possess hydrophytic vegetation, hydric soils, and wetland hydrology, the driving force creating wetlands.

Landfill: A site where trash or refuse, including toxic or radioactive waste, is buried as part of a public or private business operation.

Lot Coverage: That portion or percentage of the lot area, which is covered by buildings, pavement or other impervious surfaces (also known as building coverage).

Lot: A parcel of land designated by metes and bounds, registered land survey, auditor's plot or other accepted means; and separated from other parcels or portions by the description for the purpose of sale, lease, or separation of the parcel or portion.

Mean High Water Line: A mean is the middle of two extremes. The mean high water line is the mean of all high water lines.

Natural Cover: Natural vegetation including trees, shrubs, or other plants which help to keep soil from being washed or blown away.

Outstandingly Remarkable Resource Values Scenic, recreational, geologic, fish and wildlife, historic,cultural or other similar values in a river corridor based on the professional judgement of the Maurice River Study Team.

Overlay District: A zoning district which overlays other zoning districts (the requirements of which are applicable to any lot) and imposes additional requirements without changing any normally applicable requirements within those districts.

Perennial Stream: A stream that flows during all seasons.

Population Density: The number of families, individual dwelling units or principal structures per unit of land.

Public Access Area: A publicly owned area where the general public can gain access to the water. Facilities at these areas may include parking lot, map of the facility, comfort station, public telephone, trash containers, boat-launching area, and limited picnicking sites.

Public Facility: A facility operated by a unit of government.

Recreational Designation: Those rivers or sections of rivers that are

readily accessible by road or railroad, that may have some development along their shorelines and that may have undergone some impoundment or other diversion in the past.

Riparian Zone: The bed of a stream, its banks, and that adjacent land area vegetated by species that are well adapted to period flooding.

Riparian Forest Buffer: A forested area situated between a stream and an adjacent land use which is managed to help maintain the hydrology and ecology of stream channels and shorelines; prevent or reduce upland sources of pollution from reaching surface waters by trapping, filtering, and converting sediments, nutrients and chemicals; and protect fish and wildlife by supplying food, cover and shade.

Scenic Designation: Those rivers or sections of rivers that are free of impoundments with shorelines or watershed still largely primitive and largely undeveloped but accessible in places by roads.

Scenic Easement: A strip of land dedicated by easement or covenant on a deed to remain in a natural and protected state.

Selective Cutting: The removal of single scattered trees.

Setback: The minimum horizontal distance between a structure and the normal high water level or between a structure and a road or highway.

Sewage System: Any system for the collection, treatment and dispersion of sewage, including but not limited to septic tanks, soil-absorption systems and drain fields.

Significant Cultural Site: Any archaeological or historical site, standing structure, or any other property that:

1. is listed on the Nat'l Register of Historic Places;
2. is listed on the State Register of Historic Sites;
3. is determined to be an unplatted cemetery; or
4. is determined to meet the qualifications for listing on the National Register of Historic Places or the State Register of Historic Sites after review by the appropriate state agency.

Steep Slope: Lands having average slopes of 20 percent or more, as measured over horizontal distances of 50 feet or more.

Stewardship: An individual's responsible management of his or her land or property with proper regard to the conservation of the scenery and the natural, historic, and wildlife values that said property possesses.

Stream Corridor: The Maurice River, its tributaries and their immediate

environments, including adjacent land areas.

Stream Discharge: The discharge of treated or untreated effluent to a stream.

Stream Rest Stop: An area reached by watercraft where people in that watercraft canstop and rest. Facilities at these areas may include a map of the facility, comfort station and trash containers.

Structure: Any building, sign, or appurtenances to the sign or building; except aerial or under ground utility lines, such as sewer, electric, telephone, telegraph or gas lines, including towers, poles and other supporting appurtenances.

Terminal Boundary: For the purposes of this Comprehensive Management Plan, the boundary at either the upper or lower end of the designated Maurice River corridor.

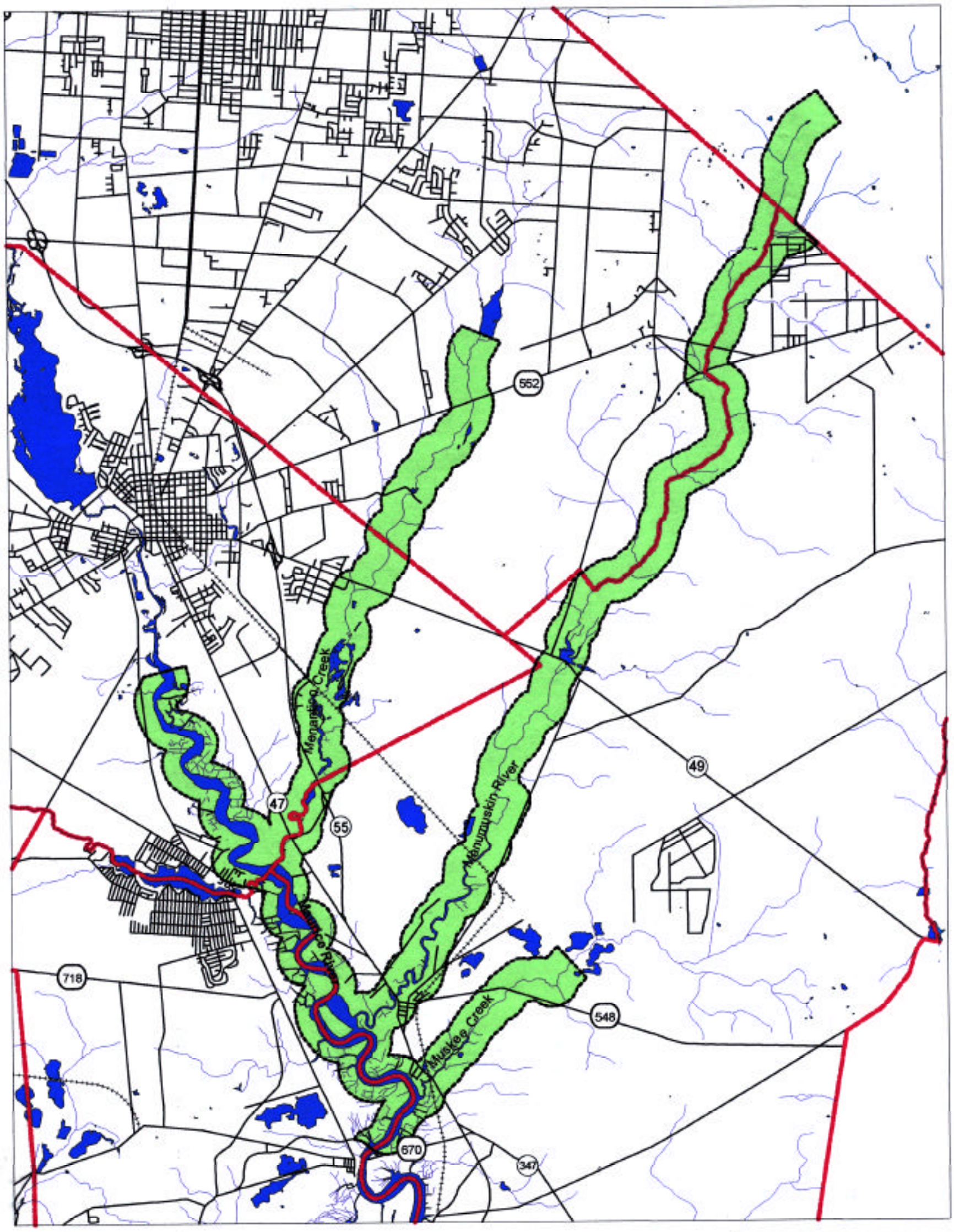
Threatened Species: Any species that is likely to become an Endangered species within the forseeable future throughout all or a significant portion of its range.

Wetlands: Lands transitional between terrestrial and aquatic systems, where the water table is usually at or near the surface, or the land use covered by shallow water. For purposes of this definition, wetlands must have the following three attributes:

1. a predominance of hydric soils.
2. Inundation or saturation by surface or ground water at a frequency and duration sufficient to support a prevalence of hydrophytic vegetation typically adapted for life in saturated soil conditions; and
3. Ability under normal circumstances to support a prevalence of such vegetation.

Federal Boundary

Maurice National Scenic and Recreational River



Location Map

N

1 0 1 2 3 Miles

Legend

- Maurice National Scenic & Recreation Corridor
- Water
- Roads
- Railroads
- Municipal Limits

NOTE:
This map includes NJDEP digital data but this secondary product has not been reviewed by NJDEP and is not state authorized.

Cumberland County GIS
Dept. of Planning & Development
800 East Commerce St.
Bridgeton, NJ 08302
Tel. 856-453-2175 Fax 856-453-9138

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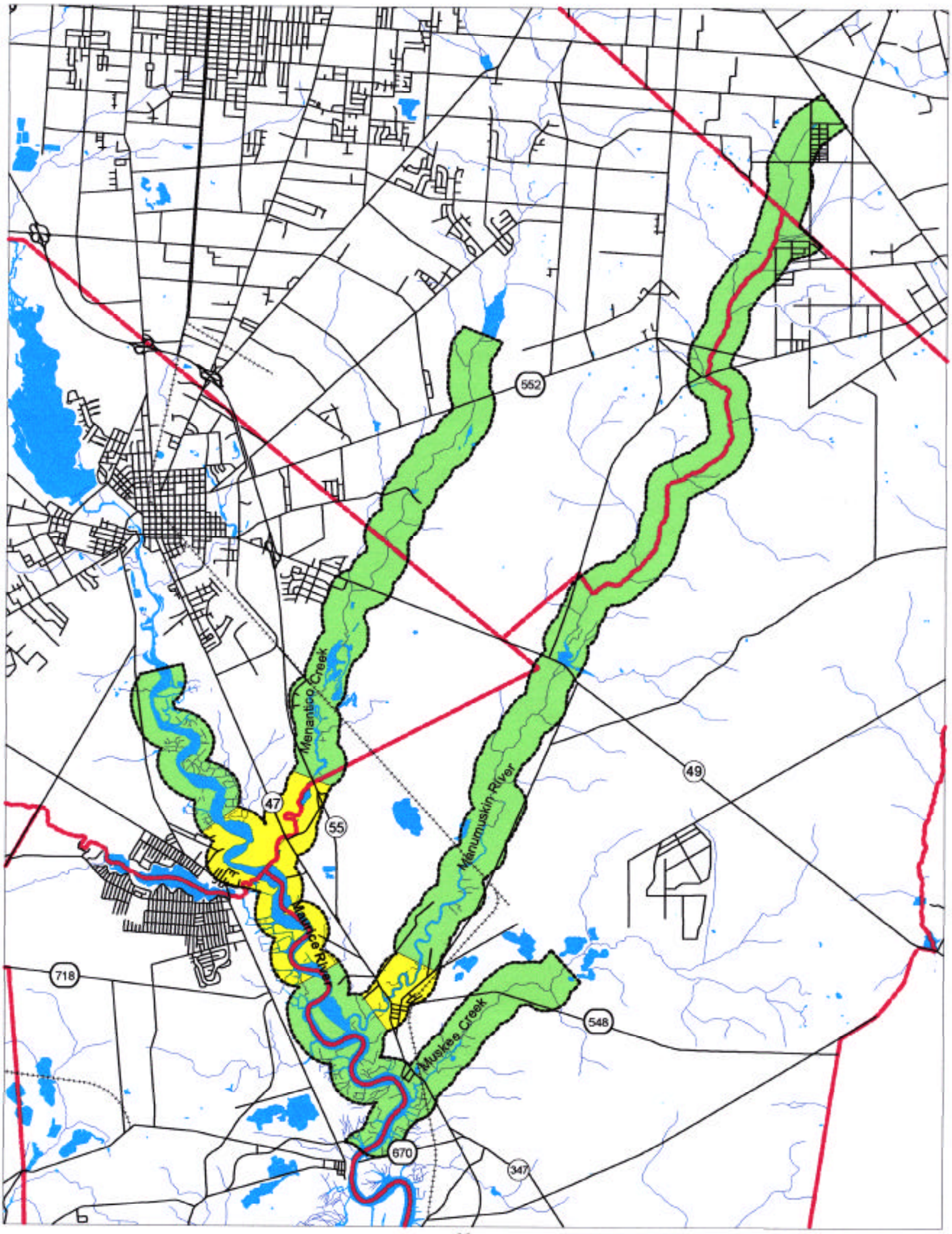
MAP 1

Designated Scenic and Recreational Areas

Maurice National Scenic and Recreational River



Location Map

N

1 0 1 2 3 Miles

NOTE:
This map includes NJDEP digital data but this secondary product has not been reviewed by NJDEP and is not state authorized.

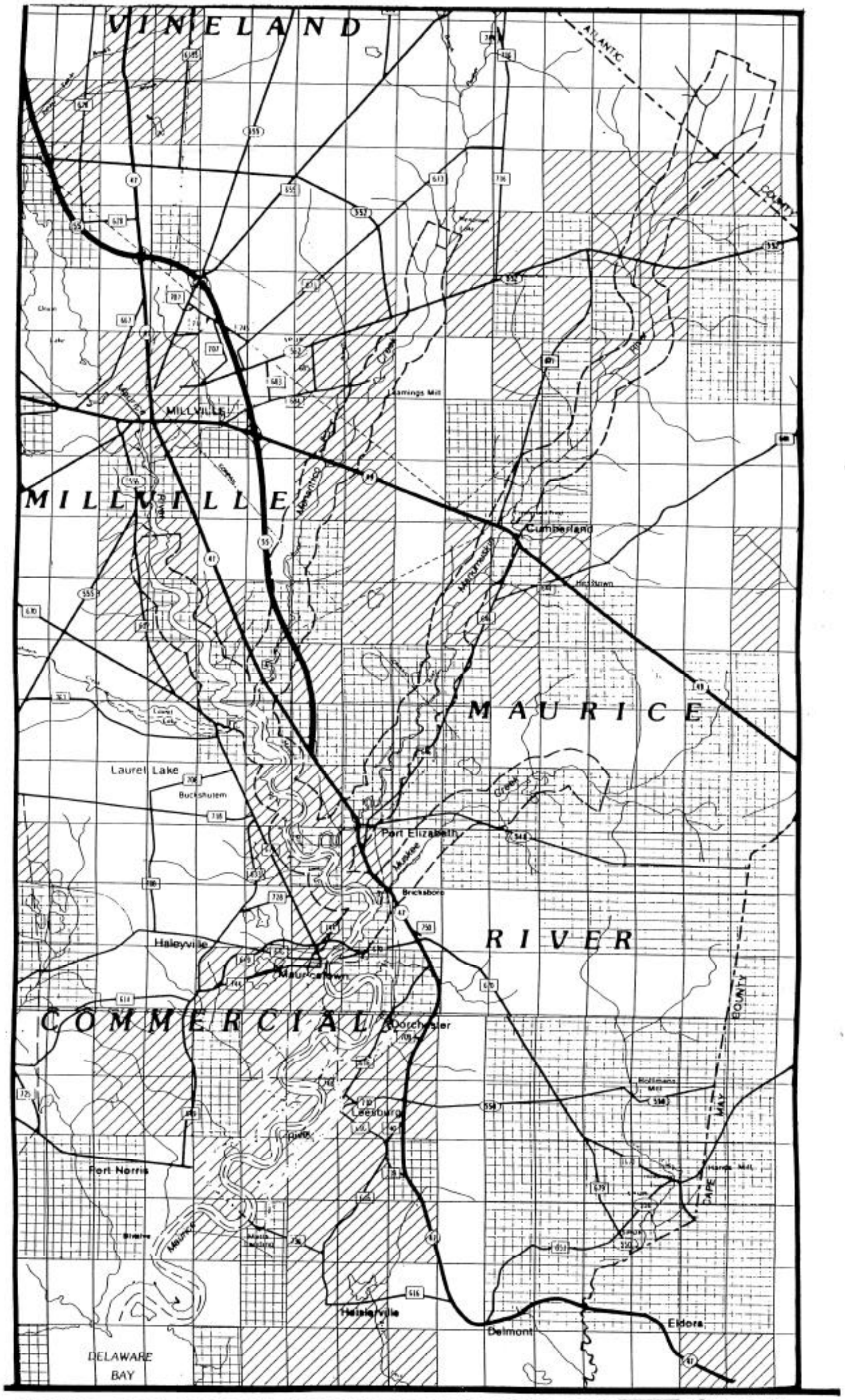
Legend

- Scenic Designation
- Recreational Designation
- Water
- Roads
- Railroads
- Maurice National Scenic & Recreation Coordior
- Municipal Limits

Cumberland County GIS
Dept. of Planning & Development
800 East Commerce St.
Bridgeton, NJ 08302
Tel. 856-453-2175 Fax 856-453-9138

m.mrseg1 - 1/12/01

MAP 2



GENERALIZED LOCATION OF RARE AND ENDANGERED SPECIES
Maurice National Scenic and Recreational River

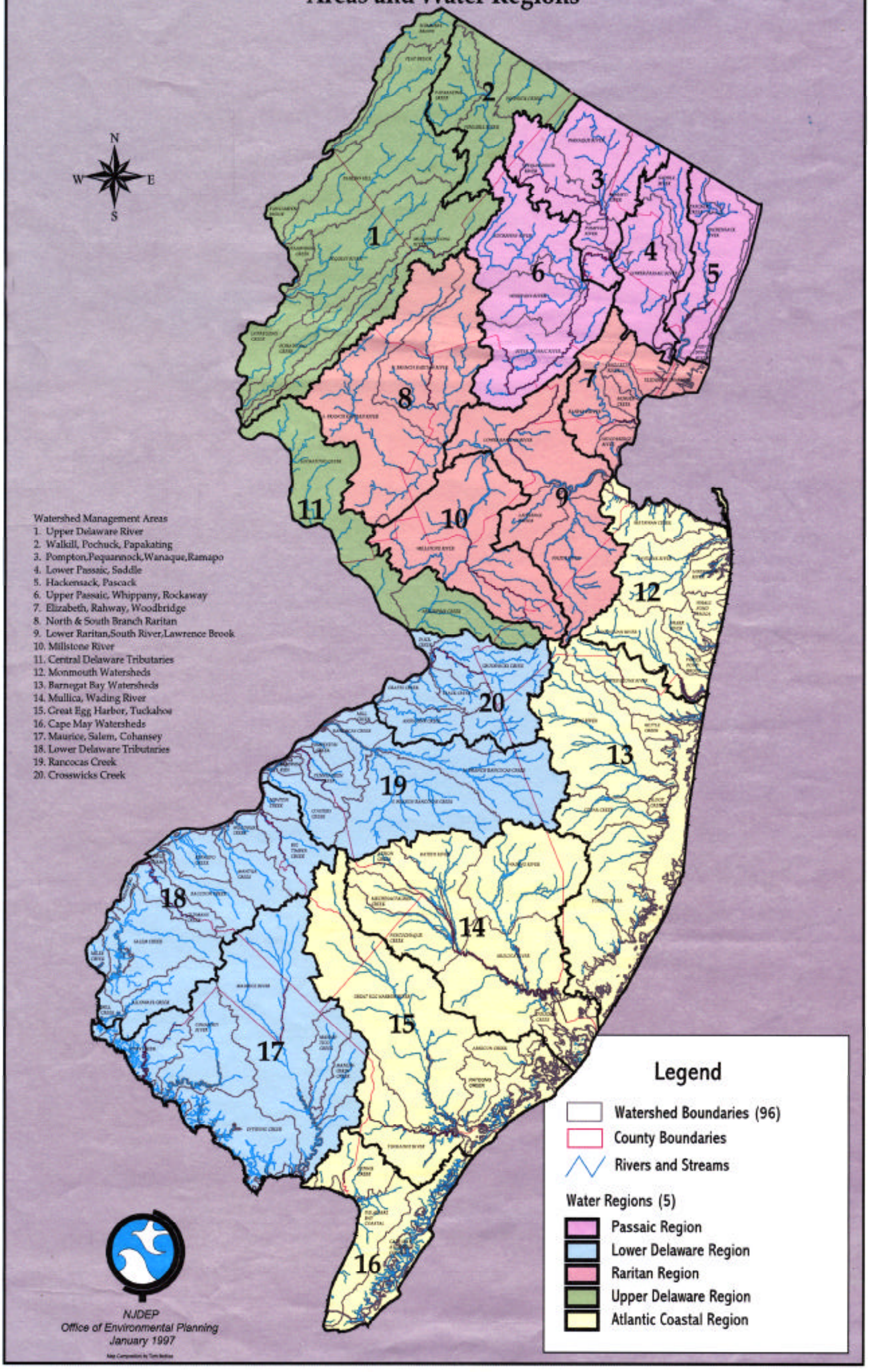
LEGEND

Designated Maurice River Corridor
Documentation location known within 1.5 miles
Documentation location known precisely

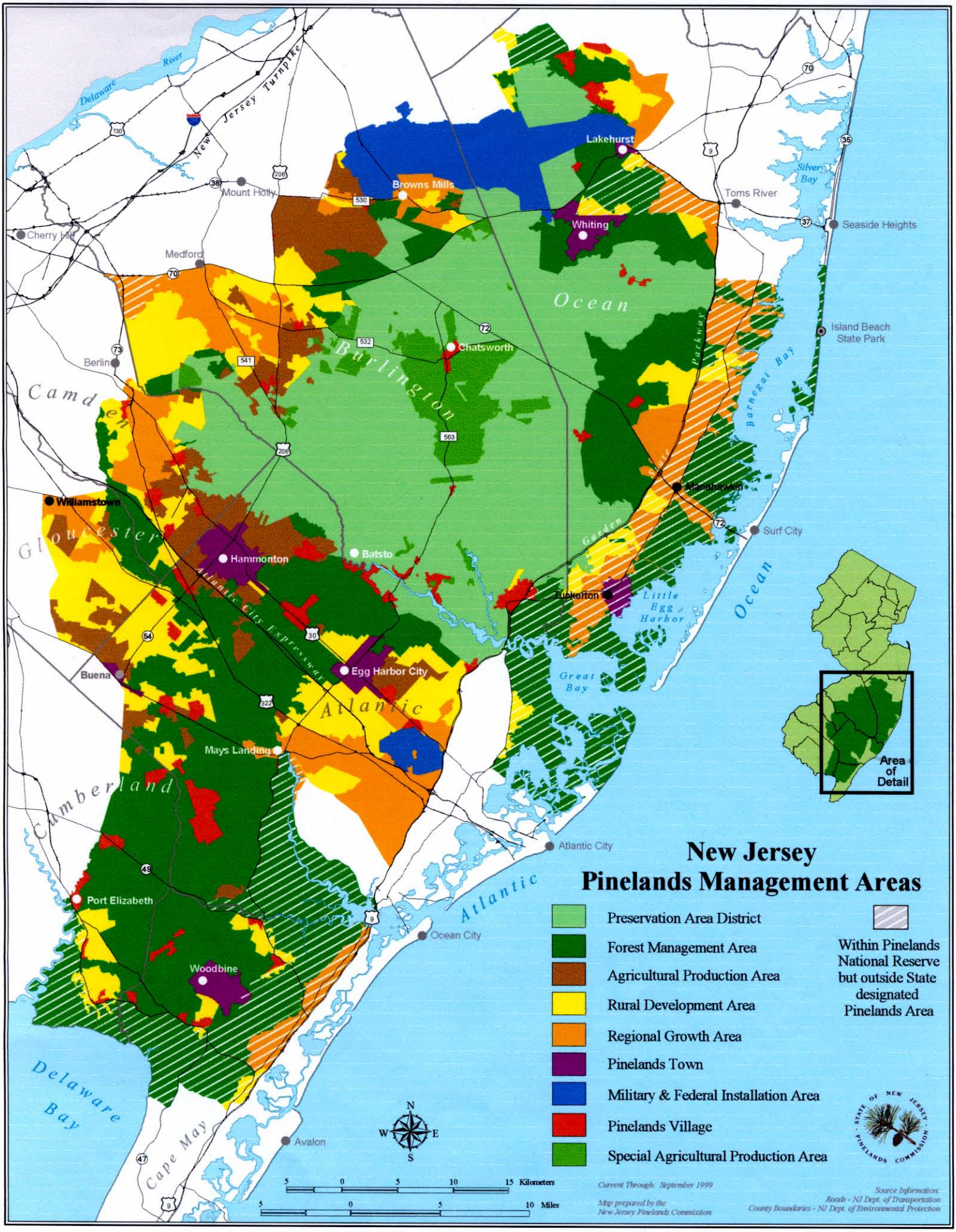
N

MAP 3

Figure 2:
New Jersey's Watersheds, Watershed Management Areas and Water Regions



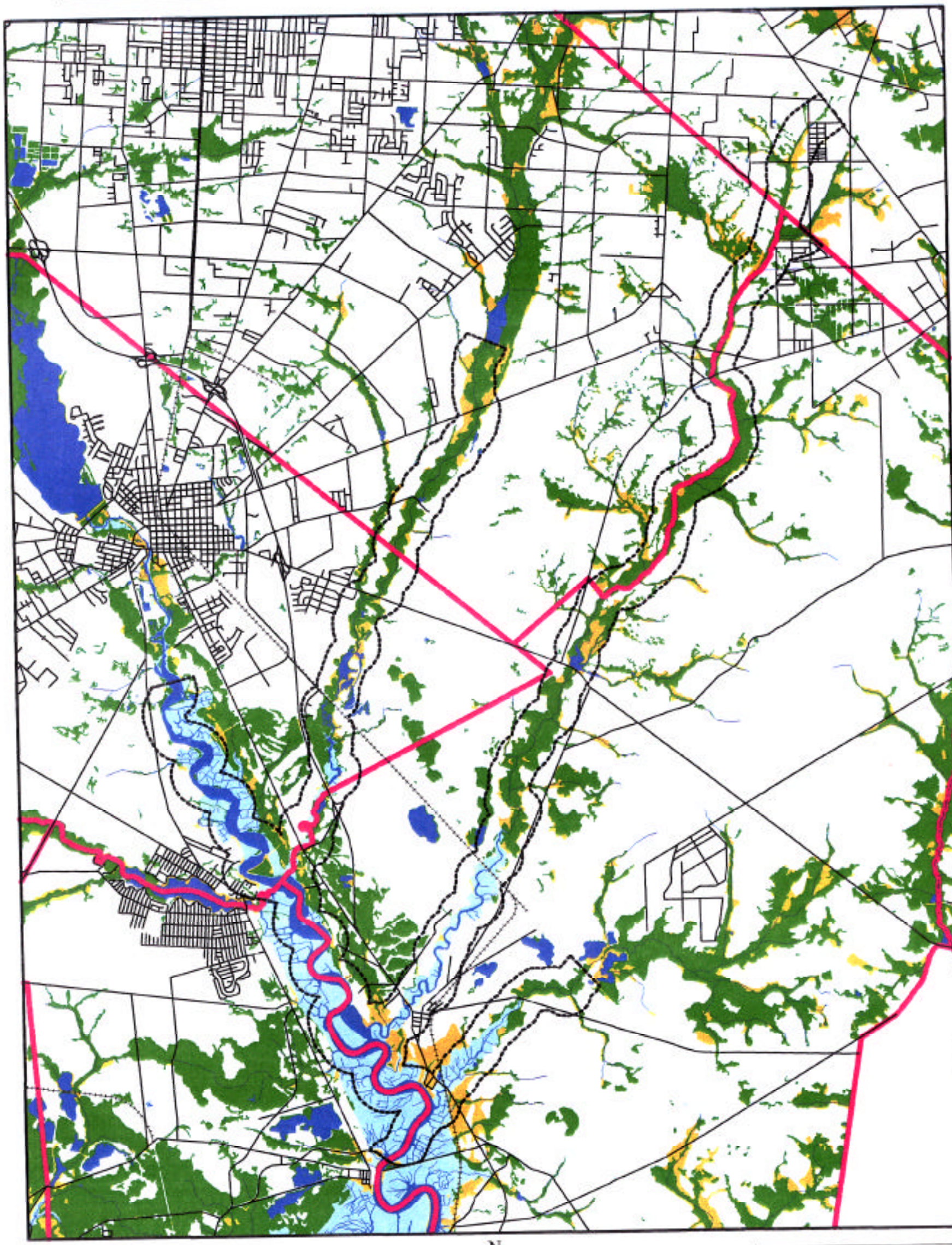
MAP 4


Delaware River
New Jersey Turnpike
Lakehurst
Browns Mills
Mount Holly
Toms River
Silver Bay
Seaside Heights
Whiting
Cherry Hill
Medford
Ocean
Island Beach State Park
Chatsworth
Berlin
Camden
Burlington
Barnegat Bay
Parkway
Manahawkin
Williamstown
Gloucester
Surf City
Hammonton
Batsto
Garden State
Tuckerton
Little Egg Harbor
Ocean
Atlantic City Expressway
Egg Harbor City
Great Bay
Buena
Atlantic
Mays Landing
Cumberland
Atlantic City
Port Elizabeth
Ocean City
Woodbine
Delaware Bay
Cape May
Avalon
Area of Detail
New Jersey
Pinelands Management Areas
Preservation Area District
Forest Management Area
Agricultural Production Area
Rural Development Area
Regional Growth Area
Pinelands Town
Military & Federal Installation Area
Pinelands Village
Special Agricultural Production Area
Within Pinelands National Reserve but outside State designated Pinelands Area
N
W
E
S
5 0 5 10 15 Kilometers
5 0 5 10 Miles
Current Through: September 1999
Map prepared by the New Jersey Pinelands Commission
Source Information:
Roads - NJ Dept. of Transportation
County Boundaries - NJ Dept. of Environmental Protection
STATE OF NEW JERSEY · PINELANDS COMMISSION ·

MAP 5

Generalized Wetlands and Flood Hazard Areas

Maurice National Scenic and Recreational River



Location Map

N

1 0 1 2 3 4 5 Miles

NOTE:
This map includes NJDEP digital data but this secondary product has not been reviewed by NJDEP and is not state authorized.

Legend

- Freshwater Wetlands
- Tidal Wetlands
- Flood Hazard Areas
- Water
- Roads
- Railroads
- Maurice River Wild & Scenic Corridor
- Municipal Limits

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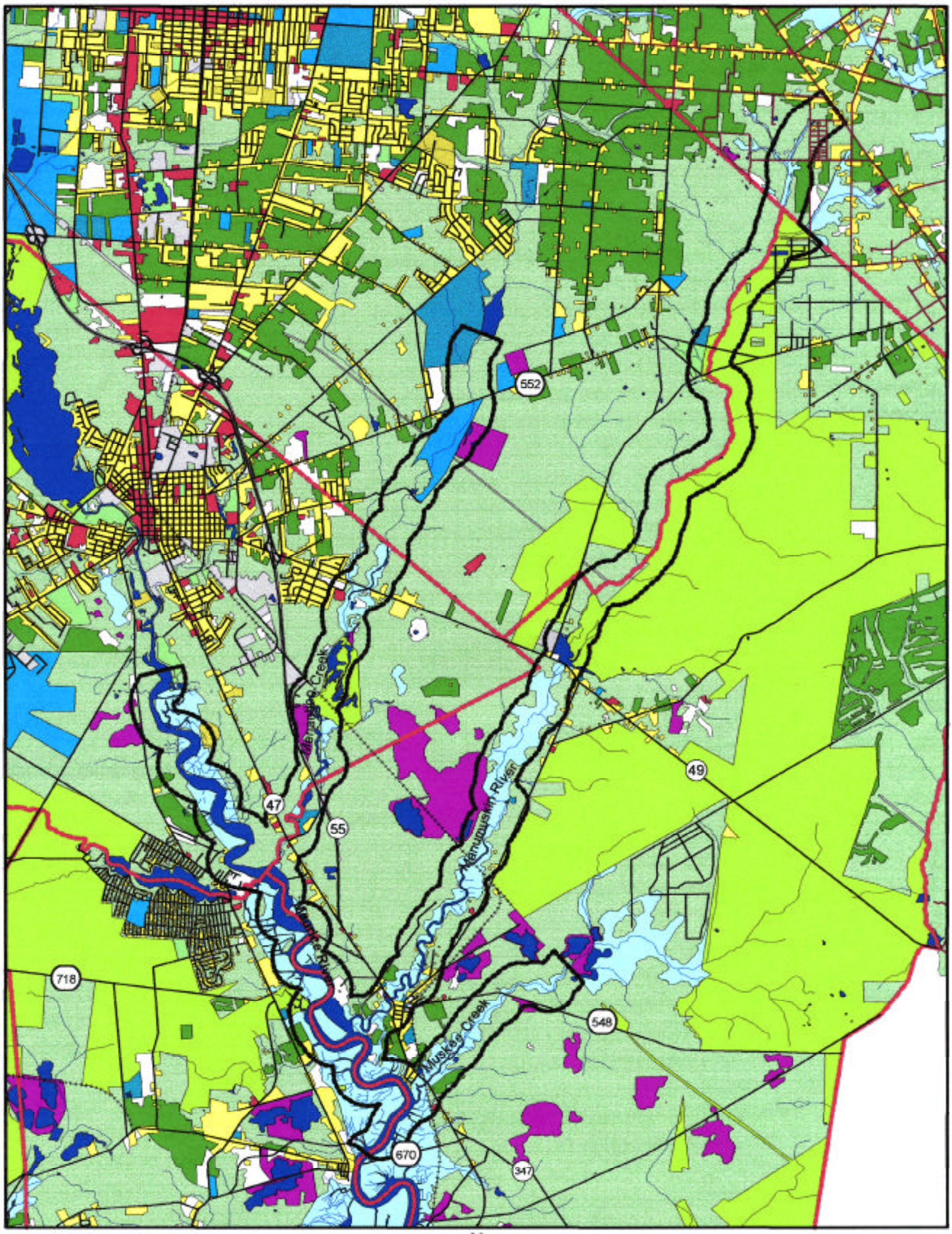
MAP 6

Generalized Land Use

Maurice National Scenic and Recreational River



N

1 0 1 2 3 Miles

Legend

Commercial
Industrial
Medium Density Residential
Low Density Residential
Public Land
Quasipublic Land
Parks & Playgrounds
Agriculture
Extractive - Sand & Gravel
State Owned Open Space
Wetlands
Woodlands
Vacant & Misc. Land
Water
Maurice National Scenic & Recreation Corridor
Roads
Railroads
Municipal Limits

Location Map

NOTE:
This map includes NJDEP digital data but this secondary product has not been reviewed by NJDEP and is not state authorized.

Cumberland County GIS
Dept. of Planning & Development
800 East Commerce St
Bridgeton, NJ 08302
Tel. 856-453-2175 Fax 856-453-9138

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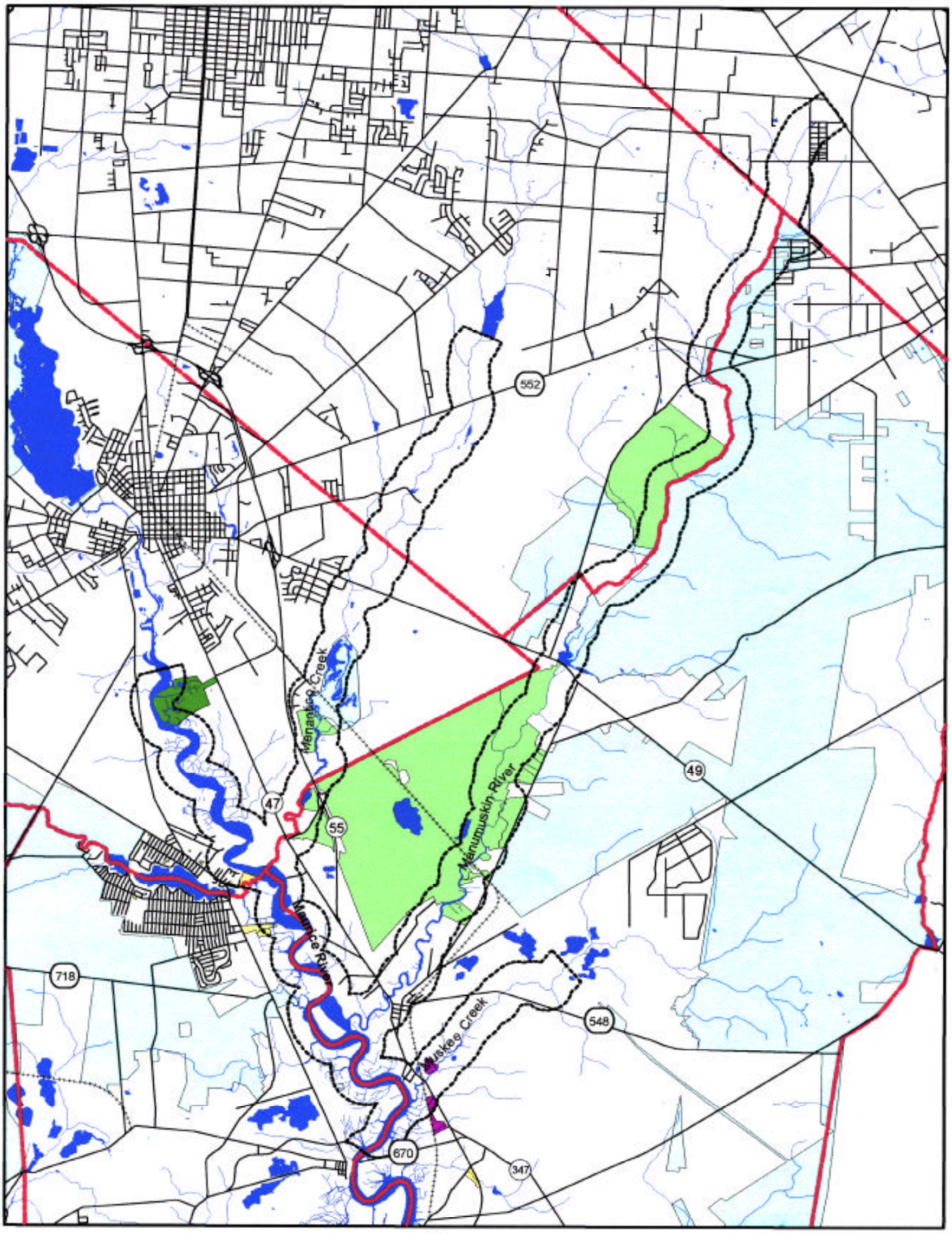
MAP 7

Protected Open Space

Maurice National Scenic and Recreational River



Location Map

N

1 0 1 2 3 Miles

Legend

Protected Open Space
- New Jersey Conservation Foundation
- Nature Conservancy
- Natural Lands Trust
- PSE&G
- State Wildlife Management Areas
- Water
- Roads
- Railroads
- Maurice National Scenic & Recreation Corridor
- Municipal Lands

NOTE:
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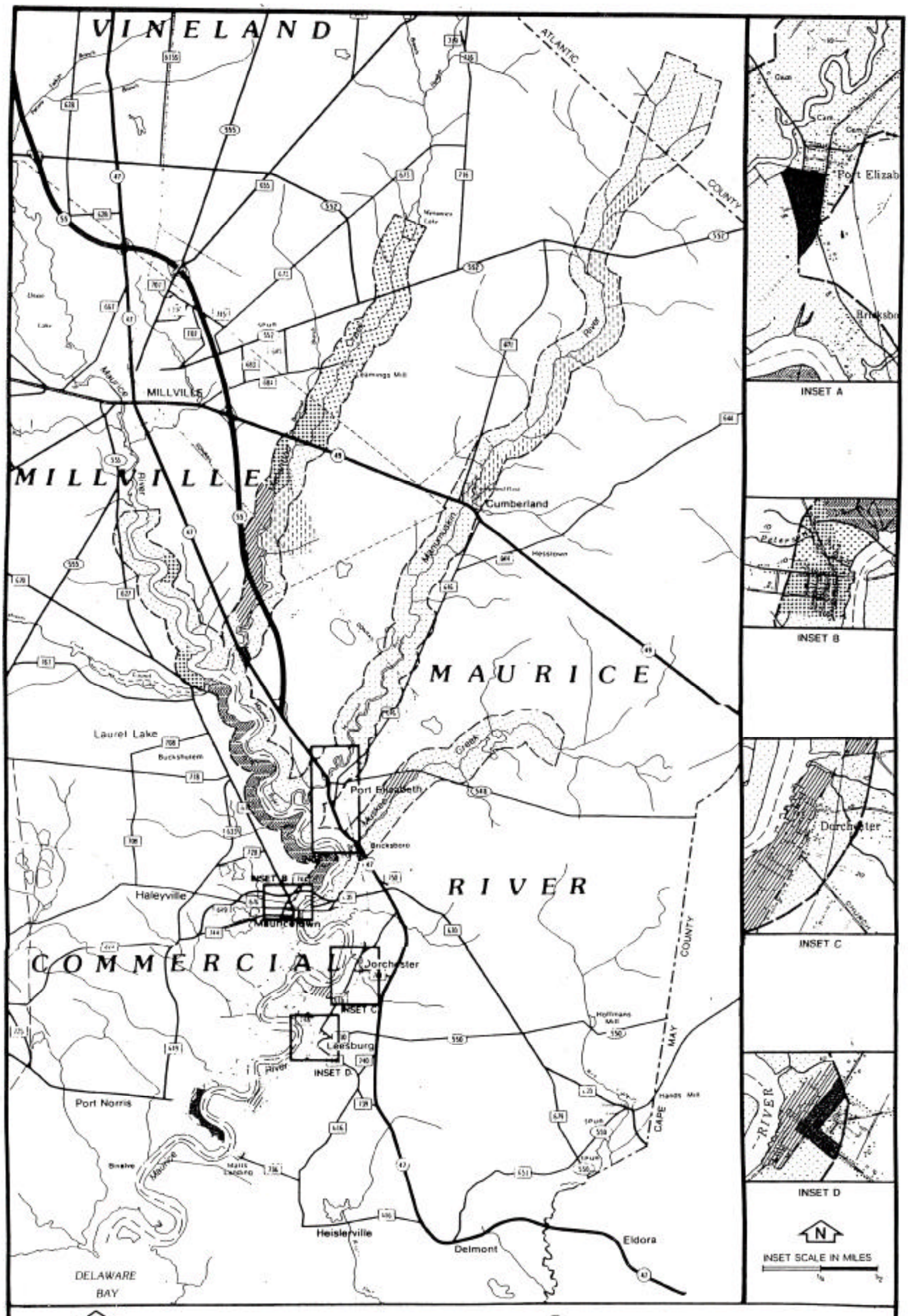
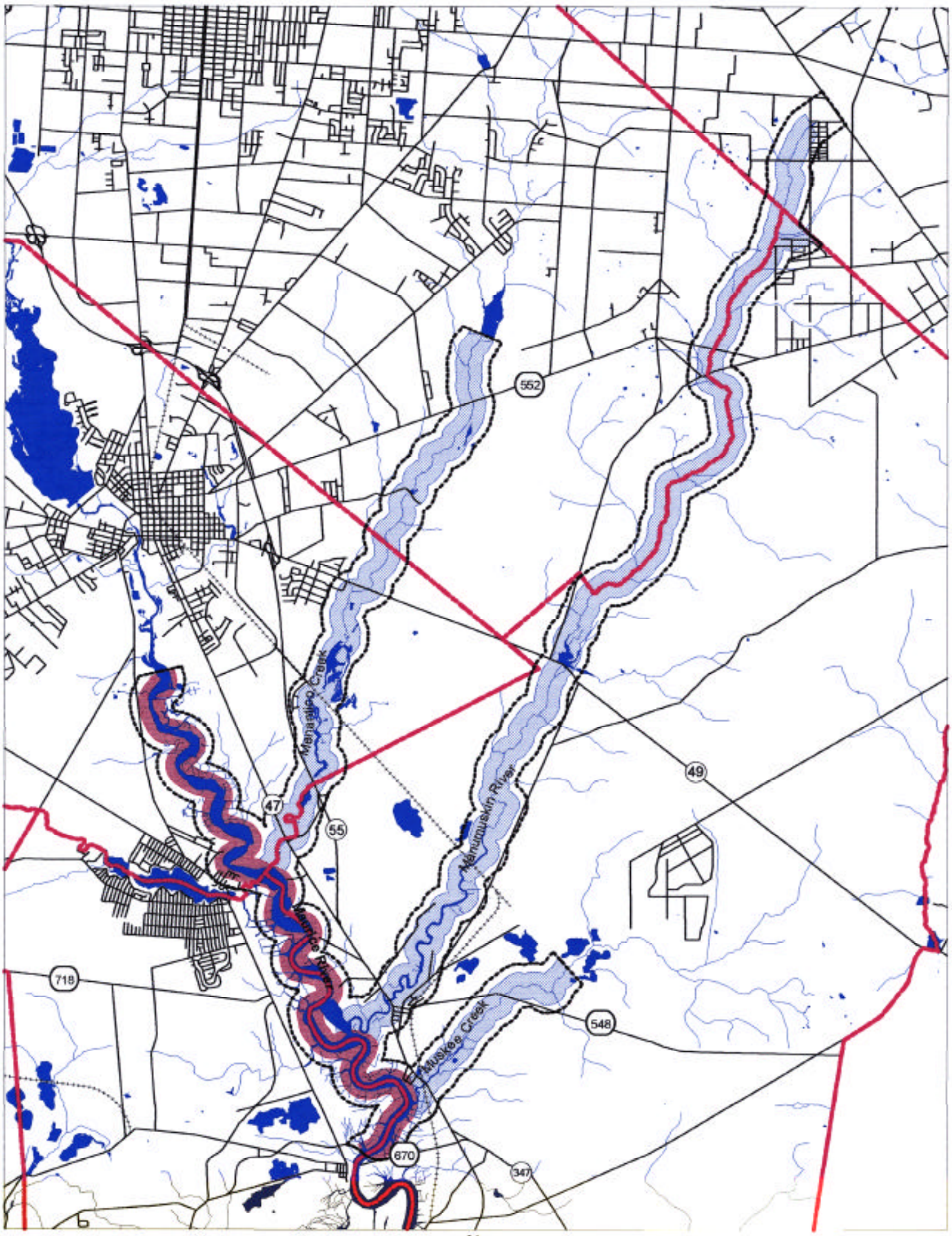
MAP 8


VINELAND
MILLVILLE
MAURICE
RIVER
COMMERCIAL
ATLANTIC
COUNTY
MAY
CAPE
Millville
Cumberland
Laurel Lake
Buckshutem
Port Elizabeth
Brickaboro
Haleyville
Maurice Town
Dorchester
Leesburg
Port Norris
Heislerville
Delmont
Eldora
DELAWARE BAY
Maurice River
Menantico Creek
Manumuskin
INSET A
INSET B
INSET C
INSET D
N
SCALE IN MILES
0
1
2
INSET SCALE IN MILES
COMPOSITE ZONING OF MAURICE NATIONAL SCENIC AND RECREATIONAL RIVER CORRIDOR
MINIMUM STUDY AREA
PUBLIC LANDS
AGRICULTURE
COMMERCIAL
INDUSTRIAL
VERY LOW DENSITY RES./AGR. (>3AC./D.U.)
LOW DENSITY RESIDENTIAL (3AC. TO AND INCLUDING .5AC./D.U.)
MEDIUM DENSITY RESIDENTIAL (<.5AC. TO 3615 SQ.FT./D.U.)

MAP 9

Waterways Over and Under 200 Feet Wide

Maurice National Scenic and Recreational River



Location Map

N

1 0 1 2 3 Miles

Legend

- Waterways under 200' wide
- Waterways over 200' wide
- Water
- Roads
- Railroads
- Maurice National Scenic & Recreation Corridor
- Municipal Limits

NOTE:
This map includes NJDEP digital data but this secondary product has not been reviewed by NJDEP and is not state authorized.

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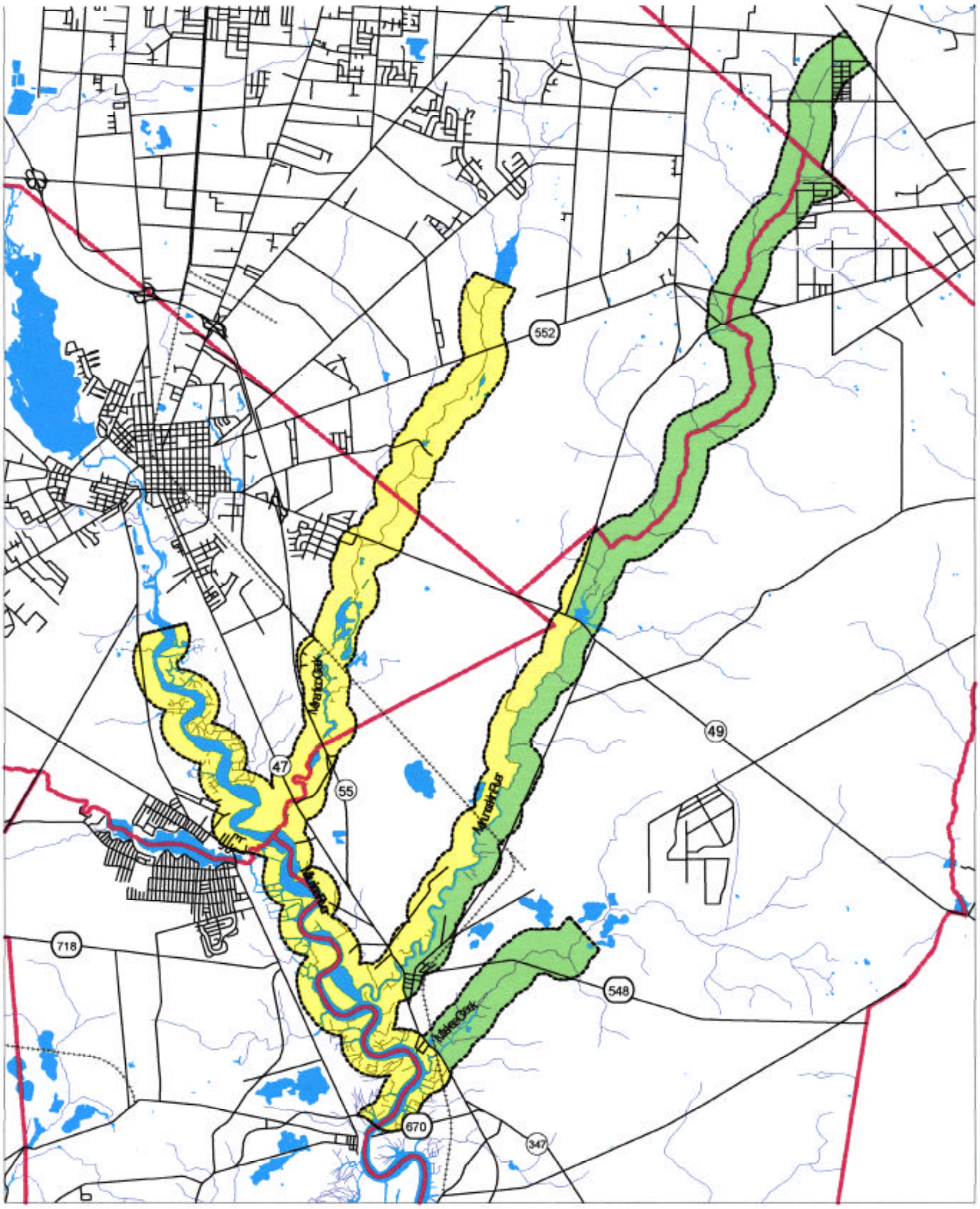
MAP 10

Areas of NJ Pinelands and NJ CAFRA Jurisdiction Within the Federal Boundary of the Maurice National Scenic and Recreational River



Location Map

N

1 0 1 2 3 Miles

NOTE:
This map includes NJDEP digital data but this secondary product has not been reviewed by NJDEP and is not state authorized.

Legend

- Pinelands Area
- CAFRA Area
- Water
- Roads
- Railroads
- Maurice National Scenic & Recreation Corridor
- Municipal Limits

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MAP 11

APPENDIX 1

PUBLIC LAW 103–162 [H.R. 2650]; December 1, 1993

MAURICE RIVER, NEW JERSEY

An Act to designate portions of the Maurice River and its tributaries in the State of New Jersey as components of the National Wild and Scenic Rivers Systems.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SECTION 1. FINDINGS AND PURPOSES.

(a) FINDINGS.—The Congress finds that—

(1) the Maurice River and its tributaries, Menantico Creek, the Manumuskin River, and Muskee Creek, are eligible for inclusion into the National Wild and Scenic Rivers System, the segments and their classifications being as follows—

(A) the Maurice River, lower segment, from the United States Geological Survey Station at Shellpile to Route 670 Bridge at Mauricetown, approximately 7.0 miles, as a recreational river;

(B) the Maurice River, middle segment, from Route 670 Bridge at Mauricetown to 3.6 miles upstream (at drainage ditch just upstream of Fralinger Farm), approximately 3.8 miles as a scenic river;

(C) the Maurice River, middle segment, from the drainage ditch just upstream of Fralinger Farm to one-half mile upstream from the United States Geological Survey Station at Burcham Farm, approximately 3.1 miles, as a recreational river;

(D) the Maurice River, upper segment, from one-half mile upstream from the United States Geological Survey Station at Burcham Farm to the south side of the Millville sewage treatment plant, approximately 3.6 miles, as a scenic river;

(E) the Menantico Creek, lower segment, from its confluence with the Maurice River to the Route 55 Bridge, approximately 1.4 miles, as a recreational river;

(F) the Menantico Creek, upper segment, from the Route 55 Bridge to the base of the Impoundment at Menantico Lake, approximately 6.5 miles, as a scenic river;

(G) the Manumuskin River, lower segment, from its confluence with the Maurice River to 2.0 miles upstream, as a recreational river;

(H) the Manumuskin River, upper segment, from 2.0 miles upstream from its confluence with the Maurice River to headwaters near Route 557, approximately 12.3 miles, as a scenic river; and

(I) the Muskee Creek from its confluence to the Pennsylvania Reading Seashore Line Railroad bridge, approximately 2.7 miles, as a scenic river;

(2) a resource assessment of the Maurice River and its tributaries, Menantico Creek, the Manumuskin River, and the Muskee Creek shows that the area possesses numerous outstandingly remarkable natural, cultural, scenic, and recreational resources that are significant at the local, regional, and international levels, including rare plant and animal species and critical habitats for birds migrating to and from the north and south hemispheres; and

(3) a river management plan for the river system has been developed by the Cumberland County Department of Planning and Development and adopted by the Maurice River Township, Commercial Township, and the City of Millville that would meet the requirements of section 6(c) of the Wild and Scenic Rivers Act, the City of Vineland has adopted a master plan which calls for river planning and management and is in the process of adopting zoning ordinances to implement their plan, and Buena Vista Township in Atlantic County has adopted a land use plan consistent with the Pinelands Comprehensive Plan which is more restrictive than the Cumberland County local river management plan.

(b) PURPOSES.—The purposes of this Act are to—

(1) declare the importance and irreplaceable resource values of the Maurice River and its tributaries to water quality, human health, traditional economic activities, ecosystem integrity, biotic diversity, fish and wildlife, scenic open space and recreation and protect such values through designation of the segments as components of the National Wild and Scenic Rivers System;

(2) recognize that the Maurice River System will continue to be threatened by major development and that land use regulations of the individual local political jurisdictions through which the river segments pass cannot alone provide for an adequate balance between conservation of the river's resources and commercial and industrial development; and

(3) recognize that segments of the Maurice River and its tributaries additional to those designated under this Act are eligible for potential designation at some point in the near future.

SEC. 2. DESIGNATION.

Section 3(a) of the Wild and Scenic Rivers Act (16 U.S.C. 1274(a)) is amended by adding the following new paragraphs at the end thereof:

"( ) THE MAURICE RIVER, MIDDLE SEGMENT.—From Route 670 Bridge at Mauricetown to 3.6 miles upstream (at drainage ditch just upstream of Fralinger Farm), approximately 3.8 miles to be administered by the Secretary of the Interior as a scenic river.

"( ) THE MAURICE RIVER, MIDDLE SEGMENT.—From the drainage ditch just upstream of Fralinger Farm to one-half mile upstream from the United States Geological Survey Station at Burcham Farm, approximately 3.1 miles, to be administered by the Secretary of the Interior as a recreational river.

"( ) THE MAURICE RIVER, UPPER SEGMENT.—From one-half mile upstream from the United States Geological Survey Station at Burcham Farm to the south side of the Millville sewage treatment plant, approximately 3.6 miles, to be administered by the Secretary of the Interior as a scenic river.

"( ) THE MENANTICO CREEK, LOWER SEGMENT.—From its confluence with the Maurice River to the Route 55 Bridge, approximately 1.4 miles, to be administered by the Secretary of the Interior as a recreational river.

"( ) THE MENANTICO CREEK, UPPER SEGMENT.—From the Route 55 Bridge to the base of the impoundment at Menantico Lake, approximately 6.5 miles, to be administered by the Secretary of the Interior as a scenic river.

"( ) MANUMUSKIN RIVER, LOWER SEGMENT.—From its confluence with the Maurice River to a point 2.0 miles upstream, to be administered by the Secretary of the Interior as a recreational river.

"( ) MANUMUSKIN RIVER, UPPER SEGMENT.—From a point 2.0 miles upstream from its confluence with the Maurice River to its headwaters near Route 557, approximately 12.3 miles, to be administered by the Secretary of the Interior as a scenic river.

"( ) MUSKEE CREEK, NEW JERSEY.—From its confluence with the Maurice River to the Pennsylvania Seashore Line Railroad Bridge, approximately 2.7 miles, to be administered by the Secretary of the Interior as a scenic river.".

16 USC 1274 note.

SEC. 3. MANAGEMENT.

(a) DUTIES OF SECRETARY.—The Secretary of the Interior shall manage the river segments designated as components of the National Wild and Scenic Rivers System by this Act through cooperative agreements with the political jurisdictions within which such segments pass, pursuant to section 10(e) of the Wild and Scenic Rivers Act, and in consultation with such jurisdictions, except that publicly-owned lands within the boundaries of such segments shall continue to be managed by the agency having jurisdiction over such lands.

(b) AGREEMENTS.—(1) Cooperative agreements for management of the river segments referred to in subsection (a) shall provide for the long-term protection, preservation, and enhancement of such segments and shall be consistent with the comprehensive management plan for such segments to be prepared by the Secretary of the Interior pursuant to section 3(d) of the Wild and Scenic Rivers Act and with the local river management plans prepared by appropriate local political jurisdictions in conjunction with the Secretary of the Interior.

(2) The Secretary of the Interior, in consultation with appropriate representatives of local political jurisdictions and the State of New Jersey, shall review local river management plans described in paragraph (1) to assure that their proper implementation will protect the values for which the river segments described in section 2 were designated as components of the National Wild and Scenic Rivers System. If after such review the Secretary determines that

such plans and their implementing local zoning ordinances meet the protection standards specified in section 6(c) of the Wild and Scenic Rivers Act, then such plans shall be deemed to constitute "local zoning ordinances" and each township and other incorporated local jurisdiction covered by such plans shall be deemed to constitute a "village" for the purposes of section 6(c) (prohibiting the acquisition of lands by condemnation) of the Wild and Scenic Rivers Act.

(3) The Secretary of the Interior shall biennially review compliance with the local river management plans described in paragraph (1) and shall promptly report to the Committee on Natural Resources of the United States House of Representatives and to the Committee on Energy and Natural Resources of the United States Senate any deviation from such which would result in any diminution of the values for which the river segment concerned was designated as a component of the National Wild and Scenic Rivers System.

(c) PLANNING ASSISTANCE.—The Secretary of the Interior may provide planning assistance to local political subdivisions of the State of New Jersey through which flow river segments that are designated as components of the National Wild and Scenic Rivers System, and may enter into memoranda of understanding or cooperative agreements with officials or agencies of the United States or the State of New Jersey to ensure that Federal and State programs that could affect such segments are carried out in a manner consistent with the Wild and Scenic Rivers Act and applicable river management plans.

(d) SEGMENT ADDITIONS.—The Secretary of the Interior is encouraged to continue to work with the local municipalities to negotiate agreement and support for designating those segments of the Maurice River and its tributaries which were found eligible for designation pursuant to Public Law 100–33 and were not designated pursuant to this Act (hereinafter referred to as "additional eligible segments"). For a period of 3 years after the date of enactment of this Act, the provisions of the Wild and Scenic Rivers Act applicable to segments included in section 5 of that Act shall apply to the additional eligible segments. The Secretary of the Interior is directed to report to the appropriate congressional committees within 3 years after the date of enactment of this Act on the status of discussions and negotiations with the local municipalities and on recommendations toward inclusion of additional river segments into the National Wild and Scenic Rivers System.

(e) APPROPRIATIONS.—For the purposes of the segment described by subsection (a), there are authorized to be appropriated such sums as may be necessary to carry out the provisions of this Act.

Approved December 1, 1993.

LEGISLATIVE HISTORY - H.R. 2650:

HOUSE REPORTS: No. 103-282 (Comm. on Resources).
CONGRESSIONAL RECORD, Vol. 139 (1993):
Oct. 12 considered and passed House.
Nov. 18, considered and passed Senate.

APPENDIX 2

Wild & Scenic Rivers Act

An Act[1]
To provide for a National Wild and Scenic Rivers System, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, that

SECTION 1. (a) This Act may be cited as the "Wild and Scenic Rivers Act."

(b) It is hereby declared to be the policy of the United States that certain selected rivers of the Nation which, with their immediate environments, possess outstandingly remarkable scenic, recreational, geologic, fish and wildlife, historic, cultural, or other similar values, shall be preserved in free-flowing condition, and that they and their immediate environments shall be protected for the benefit and enjoyment of present and future generations. The Congress declares that the established national policy of dam and other construction at appropriate sections of the rivers of the United States needs to be complemented by a policy that would preserve other selected rivers or sections thereof in their free-flowing condition to protect the water quality of such rivers and to fulfill other vital national conservation purposes.

(c) The purpose of this Act is to implement this policy by instituting a national wild and scenic rivers system, by designating the initial components of that system, and by prescribing the methods by which and standards according to which additional components may be added to the system from time to time.

SECTION 2. (a) The national wild and scenic rivers system shall comprise rivers

(i) that are authorized for inclusion therein by Act of Congress, or

(ii) that are designated as wild, scenic or recreational rivers by or pursuant to an act of the legislature of the State or States through which they flow, that are to be permanently administered as wild, scenic or recreational rivers by an agency or political subdivision of the State or States concerned, that are found by the Secretary of the Interior, upon application of the Governor of the State or the Governors of the States concerned, or a person or persons thereunto duly appointed by him or them, to meet the criteria established in this Act and such criteria supplementary thereto as he may prescribe, and that are approved by him for inclusion in the system, including, upon application of the Governor of the State concerned, the Allagash Wilderness Waterway, Maine; that segment of the Wolf River, Wisconsin, which flows through Langlade

[1] The Wild and Scenic Rivers Act (16 U.S.C. 1271-1287) as set forth herein consists of Public Law 90-542 (October 2, 1968) and amendments thereto.

County and that segment of the New River in North Carolina extending from its confluence with Dog Creek downstream approximately 26.5 miles to the Virginia State line.

Upon receipt of an application under clause (ii) of this subsection, the Secretary shall notify the Federal Energy Regulatory Commission and publish such application in the Federal Register. Each river designated under clause (ii) shall be administered by the State or political subdivision thereof without expense to the United States other than for administration and management of federally owned lands. For purposes of the preceding sentence, amounts made available to any State or political subdivision under the Land and Water Conservation [Fund] Act of 1965 or any other provision of law shall not be treated as an expense to the United States. Nothing in this subsection shall be construed to provide for the transfer to, or administration by, a State or local authority of any federally owned lands which are within the boundaries of any river included within the system under clause (ii).

(b) A wild, scenic or recreational river area eligible to be included in the system is a free-flowing stream and the related adjacent land area that possesses one or more of the values referred to in Section 1, subsection (b) of this Act. Every wild, scenic or recreational river in its free-flowing condition, or upon restoration to this condition, shall be considered eligible for inclusion in the national wild and scenic rivers system and, if included, shall be classified, designated, and administered as one of the following:

(1) Wild river areas -- Those rivers or sections of rivers that are free of impoundments and generally inaccessible except by trail, with watersheds or shorelines essentially primitive and waters unpolluted. These represent vestiges of primitive America.

(2) Scenic river areas -- Those rivers or sections of rivers that are free of impoundments, with shorelines or watersheds still largely primitive and shorelines largely undeveloped, but accessible in places by roads.

(3) Recreational river areas -- Those rivers or sections of rivers that are readily accessible by road or railroad, that may have some development along their shorelines, and that may have undergone some impoundment or diversion in the past.

SECTION 3. (a) The following rivers and the land adjacent thereto are hereby designated as components of the national wild and scenic rivers system:

[List of designated rivers omitted. Please see following list.]

(b) The agency charged with the administration of each component of the national wild and scenic rivers system designated by subsection (a) of this section shall, within one year from the date of designation of such component under subsection (a) (except where a different date

APPENDIX 2

is provided in subsection (a)), establish detailed boundaries therefore (which boundaries shall include an average of not more than 320 acres of land per mile measured from the ordinary high water mark on both sides of the river); and determine which of the classes outlined in section 2, subsection (b), of this Act best fit the river or its various segments. Notice of the availability of the boundaries and classification, and of subsequent boundary amendments shall be published in the Federal Register and shall not become effective until ninety days after they have been forwarded to the President of the Senate and the Speaker of the House of Representatives.

(c) Maps of all boundaries and descriptions of the classifications of designated river segments, and subsequent amendments to such boundaries, shall be available for public inspection in the offices of the administering agency in the District of Columbia and in locations convenient to the designated river.

(d)(1) For rivers designated on or after January 1, 1986, the Federal agency charged with the administration of each component of the National Wild and Scenic Rivers System shall prepare a comprehensive management plan for such river segment to provide for the protection of the river values. The plan shall address resource protection, development of lands and facilities, user capacities, and other management practices necessary or desirable to achieve the purposes of this Act. The plan shall be coordinated with and may be incorporated into resource management planning for affected adjacent Federal lands. The plan shall be prepared, after consultation with State and local governments and the interested public within 3 full fiscal years after the date of designation. Notice of the completion and availability of such plans shall be published in the Federal Register.

(2) For rivers designated before January 1, 1986, all boundaries, classifications, and plans shall be reviewed for conformity within the requirements of this subsection within 10 years through regular agency planning processes.

SECTION 4. (a) The Secretary of the Interior or, where national forest lands are involved, the Secretary of Agriculture or, in appropriate cases, the two Secretaries jointly shall study and submit to the President reports on the suitability or nonsuitability for addition to the national wild and scenic rivers system of rivers which are designated herein or hereafter by the Congress as potential additions to such system. The President shall report to the Congress his recommendations and proposals with respect to the designation of each such river or section thereof under this Act. Such studies shall be completed and such reports shall be made to the Congress with respect to all rivers named in subparagraphs 5(a) (1) through (27) of this Act no later than October 2, 1978. In conducting these studies the Secretary of the Interior and the Secretary of Agriculture shall give priority to those rivers

(i) with respect to which there is the greatest likelihood of developments which, if undertaken, would render the rivers unsuitable for inclusion in the national wild and scenic rivers system, and

(ii) which possess the greatest proportion of private lands within their areas. Every such study and plan shall be coordinated with any water resources planning involving the same river which is being conducted pursuant to the Water Resources Planning Act (79 Stat. 244; 42 U.S.C. 1962 et seq.). Each report, including maps and illustrations, shall show among other things the area included within the report; the characteristics which do or do not make the area a worthy addition to the system; the current status of land ownership and use in the area; the reasonably foreseeable potential uses of the land and water which would be enhanced, foreclosed, or curtailed if the area were included in the national wild and scenic rivers system; the Federal agency (which in the case of a river which is wholly or substantially within a national forest, shall be the Department of Agriculture) by which it is proposed the area, should it be added to the system, be administered; the extent to which it is proposed that such administration, including the costs thereof, be shared by State and local agencies; and the estimated cost to the United States of acquiring necessary lands and interests in land and of administering the area, should it be added to the system. Each such report shall be printed as a Senate or House document.

(b) Before submitting any such report to the President and the Congress, copies of the proposed report shall, unless it was prepared jointly by the Secretary of the Interior and the Secretary of Agriculture, be submitted by the Secretary of the Interior to the Secretary of Agriculture or by the Secretary of Agriculture to the Secretary of the Interior, as the case may be, and to the Secretary of the Army, the Chairman of the Federal Power Commission, the head of any other affected Federal department or agency and, unless the lands proposed to be included in the area are already owned by the United States or have already been authorized for acquisition by Act of Congress, the Governor of the State or States in which they are located or an officer designated by the Governor to receive the same. Any recommendations or comments on the proposal which the said officials furnish the Secretary or Secretaries who prepared the report within ninety days of the date on which the report is submitted to them, together with the Secretary's or Secretaries' comments thereon, shall be included with the transmittal to the President and the Congress.

(c) Before approving or disapproving for inclusion in the national wild and scenic rivers system any river designated as a wild, scenic or recreational river by or pursuant to an act of the State legislature, the Secretary of the Interior shall submit the proposal to the Secretary of Agriculture, the Secretary of the Army, the Chairman of the Federal Power Commission, and the head of any other affected Federal department or agency and shall evaluate and give due weight to any recommendations or comments which the said officials furnish him within ninety days of the date on which it is submitted to them. If he approves the proposed inclusion, he shall publish notice thereof in the Federal Register.

APPENDIX 2

(d) The boundaries of any river proposed in section 5(a) of this Act for potential addition to the National Wild and Scenic Rivers System shall generally comprise that area measured within one-quarter mile from the ordinary high water mark on each side of the river. In the case of any designated river, prior to publication of boundaries pursuant to section 3(b) of this Act, the boundaries also shall comprise the same area. This subsection shall not be construed to limit the possible scope of the study report to address areas which may lie more than one-quarter mile from the ordinary high water mark on each side of the river.

SECTION 5. (a) The following rivers are hereby designated for potential addition to the national wild and scenic rivers system:

[List of study rivers and study periods is omitted. If you need the list, please contact a Council member.]

(c) The study of any of said rivers shall be pursued in as close cooperation with appropriate agencies of the affected State and its political subdivisions as possible, shall be carried on jointly with such agencies if request for such joint study is made by the State, and shall include a determination of the degree to which the State or its political subdivisions might participate in the preservation and administration of the river should it be proposed for inclusion in the national wild and scenic rivers system.

(d)(1) In all planning for the use and development of water and related land resources, consideration shall be given by all Federal agencies involved to potential national wild, scenic and recreational river areas, and all river basin and project plan reports submitted to the Congress shall consider and discuss any such potentials. The Secretary of the Interior and the Secretary of Agriculture shall make specific studies and investigations to determine which additional wild, scenic and recreational river areas within the United States shall be evaluated in planning reports by all Federal agencies as potential alternative uses of the water and related land resources involved.

(2) The Congress finds that the Secretary of the Interior, in preparing the Nationwide Rivers Inventory as a specific study for possible additions to the National Wild and Scenic Rivers System, identified the Upper Klamath River from below the John Boyle Dam to the Oregon-California State line. The Secretary, acting through the Bureau of Land Management, is authorized under this subsection to complete a study of the eligibility and suitability of such segment for potential addition to the National Wild and Scenic Rivers System. Such study shall be completed, and a report containing the results of the study shall be submitted to Congress by April 1, 1990. Nothing in this paragraph shall affect the authority or responsibilities of any other Federal agency with respect to activities or action on this segment and its immediate environment.

APPENDIX 2

SECTION 6. (a)(1) The Secretary of the Interior and the Secretary of Agriculture are each authorized to acquire lands and interests in land within the authorized boundaries of any component of the national wild and scenic rivers system designated in section 3 of this Act, or hereafter designated for inclusion in the system by Act of Congress, which is administered by him, but he shall not acquire fee title to an average of more than 100 acres per mile on both sides of the river. Lands owned by a State may be acquired only by donation or by exchange in accordance with the subsection (d) of this section. Lands owned by an Indian tribe or a political subdivision of a State may not be acquired without the consent of the appropriate governing body thereof as long as the Indian tribe or political subdivision is following a plan for management and protection of the lands which the Secretary finds protects the land and assures its use for purposes consistent with this Act. Money appropriated for Federal purposes from the land and water conservation fund shall, without prejudice to the use of appropriations from other sources, be available to Federal departments and agencies for the acquisition of property for the purposes of this Act.

(2) When a tract of land lies partially within and partially outside the boundaries of a component of the National Wild and Scenic Rivers System, the appropriate Secretary may, with the consent of the landowners for the portion outside the boundaries, acquire the entire tract. The land or interest therein so acquired outside the boundaries shall not be counted against the average one-hundred-acre-per-mile fee title limitation of subsection (a)(1). The lands or interests therein outside such boundaries, shall be disposed of, consistent with existing authorities of law, by sale, lease, or exchange.

(b) If 50 per centum or more of the entire acreage outside the ordinary high water mark on both sides of the river within a federally administered wild, scenic or recreational river area is owned in fee title by the United States, by the State or States within which it lies, or by political subdivisions of those States, neither Secretary shall acquire fee title to any lands by condemnation under authority of this Act. Nothing contained in this section, however, shall preclude the use of condemnation when necessary to clear title or to acquire scenic easements or such other easements as are reasonably necessary to give the public access to the river and to permit its members to traverse the length of the area or of selected segments thereof.

(c) Neither the Secretary of the Interior nor the Secretary of Agriculture may acquire lands by condemnation, for the purpose of including such lands in any national wild, scenic or recreational river area, if such lands are located within any incorporated city, village or borough which has in force and applicable to such lands a duly adopted, valid zoning ordinance that conforms with the purposes of this Act. In order to carry out the provisions of this subsection the appropriate Secretary shall issue guidelines, specifying standards for local zoning ordinances, which are consistent with the purposes of this Act. The standards specified in such guidelines shall have the object of (A) prohibiting new commercial or industrial uses other than commercial or industrial uses which are consistent with the purposes of this Act, and (B) the protection of the bank lands by means of acreage, frontage, and setback requirements on development.

(d) The appropriate Secretary is authorized to accept title to non-Federal property within the authorized boundaries of any federally administered component of the national wild and scenic rivers system designated in section 3 of this Act or hereafter designated for inclusion in the system by Act of Congress and, in exchange therefore, convey to the grantor any federally owned property which is under his jurisdiction within the State in which the component lies and which he classifies as suitable for exchange or other disposal. The values of the properties so exchanged either shall be approximately equal or, if they are not approximately equal, shall be equalized by the payment of cash to the grantor or to the Secretary as the circumstances require.

(e) The head of any Federal department or agency having administrative jurisdiction over any lands or interests in land within the authorized boundaries of any federally administered component of the national wild and scenic rivers system designated in section 3 of this Act or hereafter designated for inclusion in the system by Act of Congress is authorized to transfer to the appropriate Secretary jurisdiction over such lands for administration in accordance with the provisions of this Act. Lands acquired by or transferred to the Secretary of Agriculture for the purposes of this Act within or adjacent to a national forest shall upon such acquisition or transfer become national forest lands.

(f) The appropriate Secretary is authorized to accept donations of lands and interests in land, funds, and other property for use in connection with his administration of the national wild and scenic rivers system.

(g)(1) Any owner or owners (hereinafter in this subsection referred to as "owner") of improved property on the date of its acquisition, may retain for themselves and their successors or assigns a right of use and occupancy of the improved property for noncommercial residential purposes for a definite term not to exceed twenty-five years, or in lieu thereof, for a term ending at the death of the owner, or the death of his spouse, or the death of either or both of them. The owner shall elect the term to be reserved. The appropriate Secretary shall pay to the owner the fair market value of the property on the date of such acquisition less the fair market value on such a date retained by the owner.

(2) A right of use and occupancy retained pursuant to this subsection shall be subject to termination whenever the appropriate Secretary is given reasonable cause to find that such use and occupancy is being exercised in a manner which conflicts with the purposes of this Act. In the event of such a finding, the Secretary shall tender to the holder of that right an amount equal to the fair market value of that portion of the right which remains unexpired on the date of termination. Such right of use or occupancy shall terminate by operation of law upon tender of the fair market price.

(3) The term "improved property," as used in this Act, means a detached, one-family dwelling (hereinafter referred to as "dwelling"), the construction of which was begun before January 1, 1967, (except where a different date is specifically provided by law with respect to any particular river), together with so much of the land on which the dwelling is situated, the said

land being in the same ownership as the dwelling, as the appropriate Secretary shall designate to be reasonably necessary for the enjoyment of the dwelling for the sole purpose of noncommercial residential use, together with any structures accessory to the dwelling which are situated on the land so designated.

SECTION 7. (a) The Federal Power Commission shall not license the construction of any dam, water conduit, reservoir, powerhouse, transmission line, or other project works under the Federal Power Act (41 Stat. 1063), as amended (16 U.S.C. 791a et seq.), on or directly affecting any river which is designated in section 3 of this Act as a component of the national wild and scenic rivers system or which is hereafter designated for inclusion in that system, and no department or agency of the United States shall assist by loan, grant, license, or otherwise in the construction of any water resources project that would have a direct and adverse effect on the values for which such river was established, as determined by the Secretary charged with its administration. Nothing contained in the foregoing sentence, however, shall preclude licensing of, or assistance to, developments below or above a wild, scenic or recreational river area or on any stream tributary thereto which will not invade the area or unreasonably diminish the scenic, recreational, and fish and wildlife values present in the area on the date of designation of a river as a component of the National Wild and Scenic Rivers System. No department or agency of the United States shall recommend authorization of any water resources project that would have a direct and adverse effect on the values for which such river was established, as determined by the Secretary charged with its administration, or request appropriations to begin construction of any such project, whether heretofore or hereafter authorized, without advising the Secretary of the Interior or the Secretary of Agriculture, as the case may be, in writing of its intention so to do at least sixty days in advance, and without specifically reporting to the Congress in writing at the time it makes its recommendation or request in what respect construction of such project would be in conflict with the purposes of this Act and would effect the component and the values to be protected by it under this Act. Any license heretofore or hereafter issued by the Federal Power Commission affecting the New River of North Carolina shall continue to be effective only for that portion of the river which is not included in the National Wild and Scenic Rivers System pursuant to section 2 of this Act and no project or undertaking so licensed shall be permitted to invade, inundate or otherwise adversely affect such river segment.

(b) The Federal Power Commission shall not license the construction of any dam, water conduit, reservoir, powerhouse, transmission line, or other project works under the Federal Power Act, as amended, on or directly affecting any river which is listed in section 5, subsection (a), of this Act, and no department or agency of the United States shall assist by loan, grant, license, or otherwise in the construction of any water resources project that would have a direct and adverse effect on the values for which such river might be designated, as determined by the Secretary responsible for its study or approval --

(i) during the ten-year period following enactment of this Act or for a three complete fiscal year period following any Act of Congress designating any river for potential addition to the national wild and scenic rivers system, whichever is later, unless, prior to the expiration of the relevant period, the Secretary of the Interior and where national forest lands are involved, the Secretary of Agriculture, on the basis of study, determine that such river should not be included in the national wild and scenic rivers system and notify the Committees on Interior and Insular Affairs of the United States Congress, in writing, including a copy of the study upon which the determination was made, at least one hundred and eighty days while Congress is in session prior to publishing notice to that effect in the Federal Register: *Provided*, That if any Act designating any river or rivers for potential addition to the national wild and scenic rivers system provides a period for the study or studies which exceeds such three complete fiscal year period the period provided for in such Act shall be substituted for the three complete fiscal year period in the provisions of this clause (i); and

(ii) during such interim period from the date a report is due and the time a report is actually submitted to the Congress; and

(iii) during such additional period thereafter as, in the case of any river the report for which is submitted to the President and the Congress for inclusion in the national wild and scenic rivers system, is necessary for congressional consideration thereof or, in the case of any river recommended to the Secretary of the Interior under section 2(a)(ii) of this Act, is necessary for the secretary's consideration thereof, which additional period, however, shall not exceed three years in the first case and one year in the second.

Nothing contained in the foregoing sentence, however, shall preclude licensing of, or assistance to, developments below or above a potential wild, scenic or recreational river area or on any stream tributary thereto which will not invade the area or diminish the scenic, recreational, and fish and wildlife values present in the potential wild, scenic or recreational river area on the date of designation of a river for study as provided in section 5 of this Act. No department or agency of the United States shall, during the periods hereinbefore specified, recommend authorization of any water resources project on any such river or request appropriations to begin construction of any such project, whether heretofore or hereafter authorized, without advising the Secretary of the Interior and, where national forest lands are involved, the Secretary of Agriculture in writing of its intention so to do at least sixty days in advance of doing so and without specifically reporting to the Congress in writing at the time it makes its recommendation or request in what respect construction of such project would be in conflict with the purposes of this Act and would affect the component and the values to be protected by it under this Act.

(c) The Federal Power Commission and all other Federal agencies shall, promptly upon enactment of this Act, inform the Secretary of the Interior and, where national forest lands are involved, the Secretary of Agriculture, of any proceedings, studies, or other activities within their

jurisdiction which are now in progress and which affect or may affect any of the rivers specified in section 5, subsection (a), of this Act. They shall likewise inform him of any such proceedings, studies, or other activities which are hereafter commenced or resumed before they are commenced or resumed.

(d) Nothing in this section with respect to the making of a loan or grant shall apply to grants made under the Land and Water Conservation Fund Act of 1965 (78 Stat. 897; 16 U.S.C. 4601-5 et seq.).

SECTION 8. (a) All public lands within the authorized boundaries of any component of the national wild and scenic rivers system which is designated in section 3 of this Act or which is hereafter designated for inclusion in that system are hereby withdrawn from entry, sale, or other disposition under the public land laws of the United States. This subsection shall not be construed to limit the authorities granted in section 6(d) or section 14A of this Act.

(b) All public lands which constitute the bed or bank, or are within one-quarter mile of the bank, of any river which is listed in section 5, subsection (a), of this Act are hereby withdrawn from entry, sale, or other disposition under the public land laws of the United States for the periods specified in section 7, subsection (b), of this Act. Notwithstanding the foregoing provisions of this subsection or any other provision of this Act, subject only to valid existing rights, including valid Native selection rights under the Alaska Native Claims Settlement Act, all public lands which constitute the bed or bank, or are within an area extending two miles from the bank of the river channel on both sides of the river segments referred to in paragraphs (77) through (88) of section 5(a) are hereby withdrawn from entry, sale, State selection or other disposition under the public land laws of the Unites States for the periods specified in section 7(b) of this Act.

SECTION 9. (a) Nothing in this Act shall affect the applicability of the United States mining and mineral leasing laws within components of the national wild and scenic rivers system except that --

(i) all prospecting, mining operations, and other activities on mining claims which, in the case of a component of the system designated in section 3 of this Act, have not heretofore been perfected or which, in the case of a component hereafter designated pursuant to this Act or any other Act of Congress, are not perfected before its inclusion in the system and all mining operations and other activities under a mineral lease, license, or permit issued or renewed after inclusion of a component in the system shall be subject to such regulations as the Secretary of the Interior or, in the case of national forest lands, the Secretary of Agriculture may prescribe to effectuate the purposes of this Act;

(ii) subject to valid existing rights, the perfection of, or issuance of a patent to, any mining claim affecting lands within the system shall confer or convey a right or title only to the mineral deposits and such rights only to the use of the surface and the surface resources as are reasonably required to carrying on prospecting or mining operations and are consistent with such regulations as may be prescribed by the Secretary of the Interior, or in the case of national forest lands, by the Secretary of Agriculture; and

(iii) subject to valid existing rights, the minerals in Federal lands which are part of the system and constitute the bed or bank or are situated within one-quarter mile of the bank of any river designated a wild river under this Act or any subsequent Act are hereby withdrawn from all forms of appropriation under the mining laws and from operation of the mineral leasing laws including, in both cases, amendments thereto.

Regulations issued pursuant to paragraphs (i) and (ii) of this subsection shall, among other things, provide safeguards against pollution of the river involved and unnecessary impairment of the scenery within the components in question.

(b) The minerals in any Federal lands which constitute the bed or bank or are situated within one-quarter mile of the bank of any river which is listed in section 5, subsection (a) of this Act are hereby withdrawn from all forms of appropriation under the mining laws during the periods specified in section 7, subsection (b) of this Act. Nothing contained in this subsection shall be construed to forbid prospecting or the issuance of leases, licenses, and permits under the mineral leasing laws subject to such conditions as the Secretary of the Interior and, in the case of national forest lands, the Secretary of Agriculture find appropriate to safeguard the area in the event it is subsequently included in the system. Notwithstanding the foregoing provisions of this subsection or any other provision of this Act, all public lands which constitute the bed or bank, or are within an area extending two miles from the bank of the river channel on both sides of the river segments referred to in paragraphs (77) through (88) of section 5(a), are hereby withdrawn, subject to valid existing rights, from all forms of appropriation under the mining laws and from operation of the mineral leasing laws including, in both cases, amendments thereto, during the periods specified in section 7(b) of this Act.

SECTION 10. (a) Each component of the national wild and scenic rivers system shall be administered in such manner as to protect and enhance the values which caused it to be included in said system without, insofar as is consistent therewith, limiting other uses that do not substantially interfere with public use and enjoyment of these values. In such administration primary emphasis shall be given to protecting its esthetic, scenic, historic, archaeologic, and scientific features. Management plans for any such component may establish varying degrees of intensity for its protection and development, based on the special attributes of the area.

(b) Any portion of a component of the national wild and scenic rivers system that is within the national wilderness preservation system, as established by or pursuant to the Act of

September 3, 1964 (78 Stat. 890; 16 U.S.C., ch. 23), shall be subject to the provisions of both the Wilderness Act and this Act with respect to preservation of such river and its immediate environment, and in case of conflict between the provisions of these Acts the more restrictive provisions shall apply.

(c) Any component of the national wild and scenic rivers system that is administered by the Secretary of the Interior through the National Park Service shall become a part of the national park system, and any such component that is administered by the Secretary through the Fish and Wildlife Service shall become a part of the national wildlife refuge system. The lands involved shall be subject to the provisions of this Act and the Acts under which the national park system or national wildlife refuge system, as the case may be, is administered, and in case of conflict between the provisions of these Acts, the more restrictive provisions shall apply. The Secretary of the Interior, in his administration of any component of the national wild and scenic rivers system, may utilize such general statutory authorities relating to areas of the national park system and such general statutory authorities otherwise available to him for recreation and preservation purposes and for the conservation and management of natural resources as he deems appropriate to carry out the purposes of this Act.

(d) The Secretary of Agriculture, in his administration of any component of the national wild and scenic rivers system area, may utilize the general statutory authorities relating to the national forests in such manner as he deems appropriate to carry out the purposes of this Act.

(e) The Federal agency charged with the administration of any component of the national wild and scenic rivers system may enter into written cooperative agreements with the Governor of a State, the head of any State agency, or the appropriate official of a political subdivision of a State for State or local governmental participation in the administration of the component. The States and their political subdivisions shall be encouraged to cooperate in the planning and administration of components of the system which include or adjoin State-or county-owned lands.

SECTION 11. (a) The Secretary of the Interior shall encourage and assist the states to consider, in formulating and carrying out their comprehensive statewide outdoor recreation plans and proposals for financing assistance for State and local projects submitted pursuant to the Land and Water Conservation Fund Act of 1965 (78 Stat. 897), needs and opportunities for establishing State and local wild, scenic and recreational river areas.

(b)(1) The Secretary of the Interior, the Secretary of Agriculture, or the head of any other Federal agency, shall assist, advise, and cooperate with States or their political subdivisions, landowners, private organizations, or individuals to plan, protect, and manage river resources. Such assistance, advice and cooperation may be through written agreements or otherwise. This

APPENDIX 2

authority applies within or outside a federally administered area and applies to rivers which are components of the National Wild and Scenic Rivers System and to other rivers. Any agreement under this subsection may include provisions for limited financial or other assistance to encourage participation in the acquisition, protection, and management of river resources.

(2) Wherever appropriate in furtherance of this Act, the Secretary of Agriculture and the Secretary of the Interior are authorized and encouraged to utilize the following:

(A) For activities on federally owned land, the Volunteers in the Parks Act of 1969 (16 U.S.C. 18g-j) and the Volunteers in the Forest Act of 1972 (16 U.S.C. 558a-558d).

(B) For activities on all other lands, section 6 of the Land and Water Conservation Fund Act of 1965 (relating to the development of statewide comprehensive outdoor recreation plans).

(3) For purposes of this subsection, the appropriate Secretary or the head of any Federal agency may utilize and make available Federal facilities, equipment, tools and technical assistance to volunteers and volunteer organizations, subject to such limitations and restrictions as the appropriate Secretary or the head of any Federal agency deems necessary or desirable.

(4) No permit or other authorization provided for under provision of any other Federal law shall be conditioned on the existence of any agreement provided for in this section.

SECTION 12. (a) The Secretary of the Interior, the Secretary of Agriculture, and the head of any other Federal department or agency having jurisdiction over any lands which include, border upon, or are adjacent to, any river included within the National Wild and Scenic Rivers System or under consideration for such inclusion, in accordance with section 2(a)(ii), 3(a), or 5(a), shall take such action respecting management policies, regulations, contracts, plans, affecting such lands, following the date of enactment of this sentence, as may be necessary to protect such rivers in accordance with the purposes of this Act. Such Secretary or other department or agency head shall, where appropriate, enter into written cooperative agreements with the appropriate State or local official for the planning, administration, and management of Federal lands which are within the boundaries of any rivers for which approval has been granted under section 2(a)(ii). Particular attention shall be given to scheduled timber harvesting, road construction, and similar activities which might be contrary to the purposes of this Act.

(b) Nothing in this section shall be construed to abrogate any existing rights, privileges, or contracts affecting Federal lands held by any private party without the consent of said party.

(c) The head of any agency administering a component of the national wild and scenic rivers system shall cooperate with the Administrator, Environmental Protection Agency and with the appropriate State water pollution control agencies for the purpose of eliminating or diminishing the pollution of waters of the river.

SECTION 13. (a) Nothing in this Act shall affect the jurisdiction or responsibilities of the States with respect to fish and wildlife. Hunting and fishing shall be permitted on lands and waters administered as parts of the system under applicable State and Federal laws and regulations unless, in the case of hunting, those lands or waters are within a national park or monument. The administering Secretary may, however, designate zones where, and establish periods when, no hunting is permitted for reasons of public safety, administration, or public use and enjoyment and shall issue appropriate regulations after consultation with the wildlife agency of the State or States affected.

(b) The jurisdiction of the States and the United States over waters of any stream included in the national wild, scenic or recreational river area shall be determined by established principles of law. Under the provisions of this Act, any taking by the United States of a water right which is vested under either State or Federal law at the time such river is included in the national wild and scenic rivers system shall entitle the owner thereof to just compensation. Nothing in this Act shall constitute an express or implied claim or denial on the part of the Federal Government as to exemption from State water laws.

(c) Designation of any stream or portion thereof as a national wild, scenic or recreational river area shall not be construed as a reservation of the waters of such streams for purposes other than those specified in this Act, or in quantities greater than necessary to accomplish these purposes.

(d) The jurisdiction of the States over waters of any stream included in a national wild, scenic or recreational river area shall be unaffected by this Act to the extent that such jurisdiction may be exercised without impairing the purposes of this Act or its administration.

(e) Nothing contained in this Act shall be construed to alter, amend, repeal, interpret, modify, or be in conflict with any interstate compact made by any States which contain any portion of the national wild and scenic rivers system.

(f) Nothing in this Act shall affect existing rights of any State, including the right of access, with respect to the beds of navigable streams, tributaries, or rivers (or segments thereof) located in a national wild, scenic or recreational river area.

(g) The Secretary of the Interior or the Secretary of Agriculture, as the case may be, may grant easements and rights-of-way upon, over, under, across, or through any component of the national wild and scenic rivers system in accordance with the laws applicable to the national park system and the national forest system, respectively: *Provided*, That any conditions precedent to granting such easements and rights-of-way shall be related to the policy and purpose of this Act.

SECTION 14. The claim and allowance of the value of an easement as a charitable contribution under section 170 of title 26, United States Code, or as a gift under section 2522 of said title shall constitute an agreement by the donor on behalf of himself, his heirs, and assigns that, if the terms of the instrument creating the easement are violated, the donee or the United States may acquire the servient estate at its fair market value as of the time the easement was donated minus the value of the easement claimed and allowed as a charitable contribution or gift.

SECTION 14A. (a) Where appropriate in the discretion of the Secretary, he may lease federally owned land (or any interest therein) which is within the boundaries of any component of the National Wild and Scenic Rivers system and which has been acquired by the Secretary under this Act. Such lease shall be subject to such restrictive covenants as may be necessary to carry out the purposes of this Act.

(b) Any land to be leased by the Secretary under this section shall be offered first for such lease to the person who owned such land immediately before its acquisition by the United States.

SECTION 15. Notwithstanding any other provision to the contrary in sections 3 and 9 of this Act, with respect to components of the National Wild and Scenic Rivers System in Alaska designated by paragraphs (38) through (50) of section 3(a) of this Act --

(1) the boundary of each such river shall include an average of not more than six hundred and forty acres per mile on both sides of the river. Such boundary shall not include any lands owned by the State or a political subdivision of the State nor shall such boundary extend around any private lands adjoining the river in such manner as to surround or effectively surround such private lands; and

(2) the withdrawal made by paragraph (iii) of section 9(a) shall apply to the minerals in Federal lands which constitute the bed or bank or are situated within one-half mile of the bank of any river designated a wild river by the Alaska National Interest Lands Conservation Act.

SECTION 16. As used in this Act, the term --

(a) "River" means a flowing body of water or estuary or a section, portion, or tributary thereof, including rivers, streams, creeks, runs, kills, rills, and small lakes.

(b) "Free-flowing," as applied to any river or section of a river, means existing or flowing in natural condition without impoundment, diversion, straightening, rip-rapping, or other modifi-cation of the waterway. The existence, however, of low dams, diversion works, and other minor structures at the time any river is proposed for inclusion in the national wild and scenic

rivers system shall not automatically bar its consideration for such inclusion: *Provided*, That this shall not be construed to authorize, intend, or encourage future construction of such structures within components of the national wild and scenic rivers system.

(c) "Scenic easement" means the right to control the use of land (including the air space above such land) within the authorized boundaries of a component of the wild and scenic rivers system, for the purpose of protecting the natural qualities of a designated wild, scenic or recreational river area, but such control shall not affect, without the owner's consent, any regular use exercised prior to the acquisition of the easement. For any designated wild and scenic river, the appropriate Secretary shall treat the acquisition of fee title with the reservation of regular existing uses to the owner as a scenic easement for purposes of this Act. Such an acquisition shall not constitute fee title ownership for purposes of section 6(b).

SECTION 17. There are hereby authorized to be appropriated, including such sums as have heretofore been appropriated, the following amounts for land acquisition for each of the rivers described in section 3(a) of this Act:

Clearwater, Middle Fork, Idaho, $2,909,800;
Eleven Point, Missouri, $10,407,000;
Feather, Middle Fork, California, $3,935,700;
Rio Grande, New Mexico, $253,000;
Rogue, Oregon, $15,147,000
St. Croix, Minnesota and Wisconsin, $21,769,000;
Salmon, Middle Fork Idaho, $1,837,000; and
Wolf Wisconsin, $142,150.

APPENDIX 3

MEMORANDUM OF UNDERSTANDING
BETWEEN
BUENA VISTA TOWNSHIP
COMMERCIAL TOWNSHIP
MAURICE RIVER TOWNSHIP
THE CITY OF MILLVILLE
THE CITY OF VINELAND
CUMBERLAND COUNTY
THE NATIONAL PARK SERVICE

IMPLEMENTING THE DESIGNATION OF THE MAURICE RIVER AND ITS TRIBUTARIES AS PART OF THE NATIONAL WILD AND SCENIC RIVER SYSTEM

Introduction

In May of 1987, President Reagan signed legislation authorizing the National Park Service to study the lower Maurice River and its principal tributaries, the Manumuskin, Menantico, and Muskee Creeks for possible inclusion in the National Wild and Scenic River System. This study, in conjunction with the local planning process, spanned more than six years. It was a precedent setting effort. For the first time, local communities drafted and agreed upon management strategies prior to recommending any level of National Wild and Scenic River designation. The local river management plan, prepared by Cumberland County and its municipalities, established the framework for an intermunicipal agreement on designation that was incorporated into legislation proposed by Congressman William Hughes and Senators Bill Bradley and Frank Lautenberg. This legislation was passed by both houses of Congress and signed into law by President Clinton, in December 1993.

Article I. Background and Objectives

Whereas, Public Law 103-162 designated portions of the Maurice River and its principal tributaries, the Manumuskin, Muskee, and Menantico Creeks, as components of the National Wild and Scenic Rivers System and authorizes the Secretary of the Interior to provide planning assistance to local political subdivisions of the State of New Jersey through which designated river segments flow;

Whereas, Section 11 of the National Wild and Scenic Rivers Act (P.L. 90-542, as amended) authorizes the Department of the Interior to assist, advise and cooperate with other public and private organizations to plan, protect, and manage river resources and to provide limited financial assistance for this purpose;

Whereas, Section 3(a) of Public Law 103-162 requires the Secretary of the Interior to manage the designated river segments through agreements with the political jurisdictions within which such river segments pass and in consultation with such jurisdictions.

Whereas, Section 3(b) of the Public Law 103-162 requires that the cooperative agreements for management of designated river segments shall provide for the long-term protection, preservation, and enhancement of such segments and shall be consistent with the comprehensive management plan to be prepared by the Secretary of the Interior pursuant to 3(d) of the Wild and Scenic Rivers Act and with the local river management plans prepared by the local municipalities. The comprehensive management plan hereafter is referred to as the Final Composite Local River Management Plan (Composite Plan).

Whereas, the Composite Plan, as defined in the Final Study Report will include: the boundary for the designated river corridor; a compilation of the local river conservation zones; actions to implement proposed programs such as a conservation program, a "welcome" facility, scenic byways and interpretive loops, environmental enterprise zones, programmatic community development, and permit streamlining; environmental compliance; updated mapping; and other municipal and regional issues. The affected municipalities will be responsible for day-to-day implementation of the Composite Plan.

Whereas, the above listed organizations enter into this agreement to work cooperatively in the implementation of the local management plans for the Maurice River and its tributaries and agree to cooperatively assemble the Composite Plan required to be submitted to Congress. This agreement and the management plans provide for the long-term protection, preservation, and enhancement of the natural, cultural, and recreational values of the designated river and tributary segments. Now, therefore, the parties agree as follows:

Article II. Statements of Work

A. Role of the Municipalities:
The municipalities agree to implement their local management plans and participate in the assembly of a Composite Plan in a way that conserves the special natural resources of the area and enhances the cultural, recreational, and economic opportunities of municipal residents. The municipalities believe that their municipal land management authority is strengthened through National Wild and Scenic River designation by providing the support of other agencies of government for meeting local river management objectives.

1. Each municipality will participate in the assembly of the Composite Plan, including representing their community's interests and providing zoning maps, local ordinances, and other data as needed that identify how they have implemented their local management plan. This data will be included in the Composite Plan.

2. The municipalities agree to give a status report to Cumberland County every two years beginning on December 1, 1995, and every two years thereafter on the implementation of their local river management plans. This shall not preclude the discussion and resolution of issues associated with plan implementation as they might arise periodically.

B. Role of Cumberland County:

Cumberland County does not have the regulatory authority of the federal, state, or municipal governments in implementing a Composite Plan. Therefore, the County will act as a coordinator and advisor of municipal, state, and federal actions. The County will provide an appropriate forum for the resolution of differences should they arise regarding interpretation and implementation of the Composite Plan. It will reinforce the role of the local governments as the primary agents for implementing the Local Management Plan and in developing the Composite Plan.

1. The County will provide technical assistance to, coordinate with, and resolve differences among the municipalities regarding implementation of the Composite Plan.

2. The County will work with citizens, businesses, and municipalities to develop an education program on sensitive use of the river corridor.

3. The County, in conjunction with its municipalities, will promote conservation and develop objectives that provide both for natural and cultural resource preservation, enhancement of the local economy, and the continuation of traditional and compatible uses of the waterways and their environs.

4. Beginning on December 1, 1995 and every two years thereafter, the County will provide to the National Park Service a status report on the local management effort to fulfill the requirement of the National Wild and Scenic Rivers Act that the Service undertake a biennial review of the management of designated waterways.

5. In conjunction with its municipalities and the Service, the County will provide an assessment of the facility needs in the region such as welcome centers, maritime and interpretive museums, public parks, recreation area, and other facilities the type of which were recommended as part of the County's Local Management Plan for the Maurice River and Its Tributaries and the Service's Final Report to Congress.

C. Role of the National Park Service:

The National Park Service (the Service) agrees to work cooperatively to ensure that the Composite Plan is implemented fairly and equitably. The Service appreciates that there are many interests in the Maurice River watershed and that the management of the designated areas requires sensitivity to these many interests.

1. The Service recognizes that the primary role of federal agencies in management of the designated river segments is limited to those projects that require federal funding, licensing, or permitting. The Service relies on the County and local governments to implement the management plans in ways that will not threaten the resource values of the designated areas;

2. The Service recognizes that the local governments, through their planning and zoning authority shall administer the river management plans within their jurisdiction

on a day to day basis and that the local governments shall grant the necessary zoning, subdivision and site plan approvals in accordance with the river management plans.

3. The Service agrees to work as a partner with the local governments to solve problems and resolve issues regarding the conservation and development of these waterways. This means that any federal action taken will be done in consultation with local governments.

4. The Service will work with the State of New Jersey to streamline the federal and state regulatory processes in the designated area;

5. The Service shall provide staff to assist Cumberland County and its municipalities in assembling the local management plans, resolutions, and ordinances and to assemble the Composite Plan document.

Article III. Term of Agreement

This agreement becomes effective on the date of signing of the last signature below and will continue in effect for five years after this date.

Article IV. Signatures

Rosario D'Amore, Mayor
Buena Vista Township

George Garrison, Mayor
Commercial Township

John Feltes, Mayor
Maurice River Township

Emil Van Hook, Mayor
City of Millville

Joseph Romano, Mayor
City of Vineland

Jennifer Lookabaugh,
FreeholderDirector
Cumberland County

B. J. Griffin, Regional Director
Mid-Atlantic Region
National Park Service

In witness thereof:

Albert Gore, Vice President
United States of America

William J. Hughes
U.S. Representative

Robert C. Shinn, Jr.
Commissioner
New Jersey Department of
Environmental Protection

Bill Bradley
United States Senator

Frank R. Lautenberg
United States Senator

APPENDIX 4

LISTING OF HISTORIC STRUCTURES AND SITES

Commercial Township

- Mauricetown Academy; High Street; Mauricetown
  Significance: Was the community school for over 100 years. A community gathering place for many affairs. Has great sentimental value to local residents.

- Birthplace of Dallas Lore Sharp, Naturalist**;** High street, Mauricetown
  Significance: Birthplace of the famous naturalist, Dallas Lore Sharp, author of many books, native of South Jersey, professor at Boston University

- Mariners Memorial Window; Mauricetown United Methodist Episcopal; Noble Street at 2nd, Mauricetown, NJ;
  Significance: The stain glass window is an accurate list of those men who were captains and mates of ships that left South Jersey villages and never returned to port. Dedicated by Alonzo T. Bacon who as a Sea Captain. He compiled the list as well as much valuable information about the small ports of villages in the 19th Century, Southern New Jersey.

- Site of the Revolutionary war Battle of Dallas's Landing; On the Maurice River off the end of Main St., Port Norris;
  Significance: Site of the only Revolutionary war conflict known to have taken place in Cumberland County in which blood was spilled. Some time during the last of August 1781 an encounter took place off Dallas's landing between the Tories or Refugees, as they were sometimes called, and a few New Jersey Militia commanded by Capt. James Riggins.

- Captain Charles Sharp House, Corner of Noble and Front Sts., Mauricetown, NJ
  Significance: No doubt built with money derived from the very important industry of the 19th century in Mauricetown - shipbuilding. Best example of ornate iron work decorating the house - compotes of fruit, birds, etc.

- "Cashier" Oyster Boat, Port Norris, NJ
  Significance: It is significant that a 130 year old wooden boat has been kept in repair and working for this long period and that it was built in Cumberland County and has remained in the area and working the bay oyster beds for the entire period as far as is known.

- Iron Bridge - 1888, East End of High Street, Mauricetown, on the Maurice River
  Significance: Site of the first bridge across the Maurice River (A Wooden Bridge of 1864). It was replaced by a 3-Span Iron Bridge in 1888 and served river and road traffic for nearly a century. The middle section, a swinging draw, opened two waterways for navigation.

- George Compton House - C 1820; Northeast Corner High & Front Streets, Mauricetown
  Significance: This ten room home is of Wooden Peg construction. Pegs joining "A" roof together are visible on third floor. Rear kitchen was floated down the river from Port Elizabeth on a barge in 1830, and attached to original building.

- David Lore House - C 1760, Mauricetown-Buckshutem Road, Mauricetown, NJ
  Significance: Among the first houses of Mauricetown and possibly the oldest to survive - it represents the simple, functional box like houses of the late 18th century. The Lore family were among the first in the area and figure prominently in early Mauricetown and Down Township history.

- Captain Joseph T. Marts House - C 1862; Northwest corner Front & High Sts, Mauricetown, NJ
  Significance: Victorian style home built for one of Mauricetown's influential Sea Captains, Captain Joseph T. Marts by Lehman Blew, a leading shipbuilder of the Civil War era. Capt. Marts was a member of the Mauricetown Masonic Temple

- George Fagan House - Store - C1862; High Street, Mauricetown, NJ
  Significance: This building presently houses the Mauricetown Post office. The original pigeon hole postal boxes are still in use.

- Mauricetown Post Office Building - 1862-1876; High Street, Mauricetown, NJ
  Significance: The only self-contained Post Office in Mauricetown history. All other Post Office sites were incorporated in some other type business or home.

- The Samuel Butcher House - 1799; High & Second Street, Mauricetown, NJ
  Significance; From time of construction until it was abandoned it was used as home and doctor's office, there being a long line of doctors named Butcher. The house was restored in the 1940s.

- Captain Charles Haley House - Before 1862; High Street, Mauricetown, NJ
  Significance: house is one of several large victorian houses in Mauricetown, owned by wealthy Sea Captain and Merchant. Was built during the peak of the victorian era.

- Captain Abel Haley House - C1876; Southeast Corner of Second & High Sts., Mauricetown, NJ
  Significance: Classic Victorian structure, built for Sea Captain, Abel Haley, one of three brothers, also Sea Captains, who had similar structures built in Mauricetown.

- Captain Alfred Haley House - C1870. High Street, Mauricetown
  Significance: One of the most significant points of this property is the arbors. A victorian frame with cathedral type bay windows and center hall with open stairway.

- J. Milton Compton House - 1880, High Street, Mauricetown, NJ
  Significance: True architectural example of Victorian design. Original gingerbread trim, wooden pickett fence. Writing on door dated 1879.

- Samuel Cobb House - 1853; High Street, Mauricetown, NJ
  Significance; Samuel Cobb was an architect and builder who helped build the town's Methodist Church and started the first Sunday School. He was also the town's Justice of the Peace and also built the J. Sharp House circa 1860 on High Street.

- John Bowen House - Before 1862; High Street, Mauricetown, NJ
  Significance: Two story house original structure. Red door, grape arbor and original outhouse in back.

- John Bowen House 0 C 1876; High Street, Mauricetown, NJ
  Significance: Two story white house, original pumpkin pine floors and original working fireplaces, warming closet in dining room.

- Daniel B. Compton House - 1857; Southwest High Street, Mauricetown, NJ
  Significance: Georgian Colonial style as opposed to the many victorian homes in the area.

- Ichabod Compton, Jr. - 1812; Front Street, Mauricetown, NJ
  Significance: Flagg Bacon native of New England built homes on Front St for the Compton brothers who in 1814 laid out the streets with a Town Plan showing numbered lots and names streets of Mauricetown

- Captain Samuel Sharp - Before 1862; Front Street, Mauricetown, NJ
  Significance: This three story home situated along the banks of the Maurice River was the home of a Sea Captain. Victorian embellished with fancy gingerbread-cathedral.

- David Compton House - 1815; SW Corner Front and High Sts., Mauricetown
  Significance: Dwelling typical of New England architectural influence during the early 1800s. Said influence was prompted by the migration of New England sea captains to the southern New Jersey area.

- Captain Isaac Peterson House - C1868; Front Street, Mauricetown, NJ
  Significance: Captain Peterson was one of several owner-captains that typified the colorful maritime heritage of Cumberland County and Mauricetown region. The Captain's house served as a focal point for his love of the area as shown in its large front windows, its original intricate cast iron work around the porch and its cupola.

- Benjamin Tomlin House, Southeast Corner Front & Noble Sts, Mauricetown
  Significance: 2 1/2 story saltbox with side addition made approx. 1890. Salt box side has pre-Civil War construction.

- Samuel Compton House - C 1822; Noble Street & Stable Lane; Mauricetown, NJ
  Significance: This house is a double house and was built in sections at different times.

- Mauricetown Methodist Episcopal Church - 1880; Northeast corner Noble & Second St., Mauricetown
  Significance: As Mauricetown became more prosperous a larger church was desired with high spire for a landmark visable in Delaware Bay and mouth of Maurice River.

- Mosie Bateman - 1828; Second & Noble Sts., Mauricetown
  Significance; Home of Mosie Bateman, an oysterman. Oyster fishing was a thriving business. Thre was a Millinery Shop in the side front room which is still in tact.

- Seth Bowen House - before 1860; Northeast corner of Front & Noble St, Mauricetown
  Significance: One of the older houses of Mauricetown.

- The Ferry House; Buckshutem and Spring Garden Roads
  Significance: Typical South Jersey farmhouse of era, being the home of the Mayhew family until 1934. Spring Garden Ferry crossed the river at this point, at low tide some of the boards from the old road can be seen. Historically known locally as the "Ferry House".

- J. E. Avis House - 1861; Buckshutem Road, Mauricetown
  Significance: First house in Mauricetown to be wired for electricity. Original hand switch on exterior. House is a good example of the stype of architecture of the mid 1800's in southern New Jersey.

- William Henry Phillips House - 1863; Second St north of Noble, Mauricetown
  Significance: Considered to be an important representation of architecture and building style of the South Jersey area in the mid-1800's and an integral part of the overall visual and historic impact and importance of the Mauricetown area.

- Caesar Hoskins Cabin - C1700; Corner of South & Second Sts., Mauricetown
  Significance: Oldest known structure in the Mauricetown area. Caesar Hoskins first came to the area in 1691 as a whaleman. He was Sheriff of Cape May County from 1701-1704 according to the "Early History of Cape May County" by Maurice Beesley. Caesar Hoskins was the earliest known settler predating that of John Peterson's ettlement in the 1730s.

Maurice River Township

- East Point Lighthouse, East Point, Delaware Bay, in Maurice River Cove
  Significance: Constructed in 1849, the lighthouse marks the entrance of the Maurice River and has been a beacon for old time Coasters, oyster boats and commercial fishermen. It is the last remaining lighthouse on the shores of the Delaware Bay.

- Port Elizabeth Moethodist Episcopal Church; Second St., Port Elizabeth
  Significance: First ME church in the county was built on this site in 1786. Present brick church built in 1827 is considered a fine example of the architecture of that period.

- Port Elizabeth Library/Benjamin Fisler Store: Broadway & Second Sts., Port Elizabeth
  Significance: The main part of the store was built n 1810. Afterwards used as store, storehouse and for elections, town meetings and entertainment. Its value has been both economic and social and it continues to serve the community in a very worthwhile way today.

- Settlement of Fries' Mills, Entire Complex, 1770: off Port Cumberland Rd., Maurice River Twp.
  Significance: Site of an early settlement of some importance, one of the early stage roads and site of one of the Township's early taverns. The structure which was the tavern is the only one still in existence. The tavern is better known today as the Simon Shaw house due to a sensational murder which tool place there in 1896.

NOTE: The Pinelands Commission staff have documented many pre-historic occupation sites along the River. While the exact locations of these sites are not published for their protection, the existence of these sites should be accounted for in planning efforts.

APPENDIX 5

FEDERALLY LISTED ENDANGERED AND THREATENED SPECIES IN NEW JERSEY

An **ENDANGERED** species is any species that is in danger of extinction throughout all or a significant portion of its range.

A **THREATENED** species is any species that is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range.

	COMMON NAME	SCIENTIFIC NAME	STATUS
FISHES	Shortnose sturgeon*	Acipenser brevirostrum	E
REPTILES	Bog turtle	Clemmys muhlenbergii	T
	Atlantic Ridley turtle*	Lepidochelys kempii	E
	Green turtle*	Chelonia mydas	T
	Hawksbill turtle*	Eretmochelys imbricata	E
	Leatherback turtle*	Dermochelys coriacea	E
	Loggerhead turtle*	Caretta caretta	T
BIRDS	Bald eagle	Haliaeetus leucocephalus	T
	Piping plover	Charadrius melodus	T
	Roseate tern	Sterna dougallii dougallii	E
MAMMALS	Eastern cougar	Felis concolor couguar	E+
	Indiana bat	Myotis sodalis	E
	Gray wolf	Canis lupus	E+
	Delmarva fox squirrel	Sciurus niger cinereus	E+
	Blue whale*	Balaenoptera musculus	E
	Finback whale*	Balaenoptera physalus	E
	Humpback whale*	Megaptera novaeangliae	E
	Right whale*	Balaena glacialis	E
	Sei whale*	Balaenoptera borealis	E
	Sperm whale*	Physeter macrocephalus	E
PLANTS	Swamp pink	Helonias bullata	T

FEDERAL CANDIDATE SPECIES IN NEW JERSEY

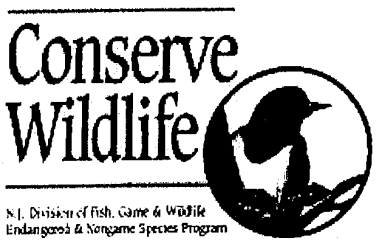
Candidate Species are species that appear to warrant consideration for addition to the federal List of Endangered and Threatened Wildlife and Plants. Although these species receive no substantive or procedural protection under the Endangered Species Act, the US Fish and Wildlife Service encourages federal agencies and other planners to give consideration to these species in the environmental planning process.

SPECIES	SCIENTIFIC NAME
Bog asphodel	Narthecium americanum
Hirst's panic grass	Panicum hirstii

Note: For complete listings of taxa under review as candidate species, refer to Federal Register, Vol. 64, No. 205, October 25, 1999 (Endangered and Threatened Wildlife and Plants; Review of Plant and Animal Taxa that are Candidates for Listing as Endangered or Threatened Species).

Revised 11/99

New Jersey Division of Fish and Wildlife



Endangered and Threatened Wildlife of New Jersey

Endangered Species are those whose prospects for survival in New Jersey are in immediate danger because of a loss or change in habitat, over-exploitation, predation, competition, disease or contamination. Assistance is needed to prevent future extinction in New Jersey.

Threatened Species are those who may become endangered if conditions surrounding them begin to or continue to deteriorate.

List updated 3/28/00.

BIRDS			
Endangered		**Threatened**	
Bittern, American	*Botaurus lentiginosos**	Bobolink	*Dolichonyx oryzivorus*
Eagle, bald	*Haliaeetus leucocephalis***	Hawk, Cooper's	*Accipiter cooperii*
Falcon, peregrine	*Falco peregrinus***	Hawk, red-shouldered (breeding)	*Buteo lineatus*
Goshawk, northern	*Accipiter gentilis*	Hawk, red-shouldered (non-breeding)	*Buteo lineatus*
Grebe, pied-billed	*Podilymbus podiceps**	Night-heron, black-crowned	*Nycticorax nycticorax*
Harrier, northern	*Circus cyaneus**	Knot, red	*Calidris canutus*
Night-heron, yellow-crowned	*Nyctanassa violaceus*	Osprey	*Pandion haliaetus*
Owl, short-eared	*Asio flammeus**	Owl, barred	*Strix varia*
Plover, piping	*Charadrius melodus***	Owl, long-eared	*Asio otus*
Sandpiper, upland	*Batramia longicauda*	Rail, black	*Laterallus jamaicensis*
Shrike, loggerhead	*Lanius ludovicianus*	Sparrow, grasshopper	*Ammodramus savannarum*
Skimmer, black	*Rynchops niger*	Sparrow, Savannah	*Passerculus sandwichensis*
Sparrow, Henslow's	*Ammodramus henslowii*	Woodpecker, red-headed	*Melanerpes erythrocephalus*
Sparrow, vesper	*Pooecetes gramineus*		
Tern, least	*Sterna antillarum*		
Tern, roseate	*Sterna dougallii*		
Wren, sedge	*Cistothorus platensis*		

*Only breeding population considered endangered or threatened

**Federally endangered or threatened

APPENDIX 5

REPTILES			
Endangered		**Threatened**	
Rattlesnake, timber	*Crotalus horridus*	Turtle, wood	*Clemmys insculpta*
Snake, corn	*Elaphe guttata*	Atlantic Green Turtle	*Chelonia mydas***
Turtle, bog	*Clemmys muhlenbergii***	Snake, northern pine	*Pituophis melanoleucus*
Atlantic Hawksbill	*Eretmochelys imbricata***		
Atlantic Loggerhead	*Caretta caretta***		
Atlantic Ridley	*Lepidochelys kempi***		
Atlantic Leatherback	*Dermochelys coriacea***		

AMPHIBIANS			
Endangered		**Threatened**	
Salamander, Tremblay's	*Ambystoma tremblayi*	Salamander, eastern mud	*Pseudotriton montanus*
Salamander, blue-spotted	*Ambystoma laterale*	Salamander, longtail	*Eurycea longicauda*
Salamander, eastern tiger	*Ambystoma tigrinum*		
Treefrog, pine barrens	*Hyla andersonii*		
Treefrog, southern gray	*Hyla chrysocelis*		

MAMMALS		INVERTEBRATES	
Endangered		**Endangered**	
Bobcat	*Lynx rufus*	Mitchell's Satyr (butterfly)	*Neonympha m. mitchellii***
Woodrat, Eastern	*Neotoma floridana*	Northeastern Beach Tiger Beetle	*Cincindela d. dorsalis*
Whale, sperm	*Physeter macrocephalus***	American Burying Beetle	*Nicrophorus americanus***
Whale, fin	*Balaenoptera physalus***	Dwarf Wedge Mussel	*Alasmidonta heterodon***
Whale, sei	*Balaenoptera borealis***		
Whale, blue	*Balaenoptera musculus***		
Whale, humpback	*Megaptera novaeangliae***		
Whale, black LEFT	*Balaena glacialis***		
**Federally Endangered			

FISH	
Endangered	
Sturgeon, shortnose	Acipenser brevirostrum**

APPENDIX 5

List of Threatened and Endangered Plants from the Pinelands Comprehensive Management Plan

1. Sensitive-joint vetch (Aeschynomene Virginica)
2. Red milkweed (Asclepias rubra)
3. Silvery aster (Aster concolor)
4. Pickering's morning glory (Breweria pickeringii)
5. Pine Barrens reedgrass (Calamovilfa brevipilis)
6. Barratt's sedge (Carex barrattii)
7. Sickle-leaved golden aster (Chrysopsis falcata)
8. Spreading pogonia (Cleistes divaricata)
9. Broom crowberry (Corema conradii)
10. Rose-colored tickseed (Coreopsis rosea)
11. Rushfoil (Crotonopsis elliptica)
12. Stiff Tick Trefoil (Desmodium strictum)
13. Knotted spike rush (Eleocharis equisetoides)
14. Resinous bonesett (Eupatorium resinosum)
15. Pine Barrens gentian (Gentiana autumnailis)
16. Yellow-fringed orchid (Habenaria ciliaris)
17. Crested yellow orchid (Habenaria cristata)
18. Southern yellow orchid (Habernaria integra)
19. Swamp pink (Helonias bullata)
20. New Jersey rush (Juncus caesariensis)
21. Lily-leaved twayblade (Liparis loeselii)
22. Loesel's twayblade (Liparis loeselii)
23. Southern twayblade (Listera australis)
24. Boykin's lobelia (Lobelia boykinii
25. Canby's lobelia (Lobeliia canbyi)
26. Hairy ludwigia (Ludwigia hirtella)
27. Linear-leaved ludwigia (Ludwigia linearis)
28. Climbing fern (Lygodium palmatum)
29. Torrey's muhly (Muhlenbergia torreyana)
30. Yellow asphodel (Narthecium americanum)
31. Floating heart (Nymphoides cordata)
32. Narrow panic grass (Panicum hemitomon)
33. Hirst's panic grass (Panicum hirstii)
34. American mistletoe (Phoradendron flavescens)
35. Maryland milkwort (Polygala mariana)
36. Slender rattlesnake root (Prenanthes autumnalis)
37. Awned meadow beauty (Rhexia aristosa)
38. Capitate beakrush (Rhynchospora cephalantha)
39. Slender beaked rush (Rhynchospora inundata)
40. Knieskern's beaked rush (Rhynchospora Knieskernii)
41. Curly grass fern (Schizaea pusilla)
42. Chaffseed (Schwalbea americana)
43. Long's bulrush (Scirpus longii)
44. Slender nut rush (Scleria minor)
45. Reticulated nut rush (Scleria reticularis)
46. Sclerolepis (Sclerolepis uniflora)
47. Wand-like goldenrod (Solidago stricta)
48. Little Ladies tresses (Spiranthes tuberosa)
49. False asphodel (Tofieldia racemosa)
50. Humped bladderwort (Utricularia gibba)
51. White-flowered bladderwort (Utricularia olivacea)
52. Purple bladderwort (Utricularia purpurea)
53. Reclined bladderwort (Utricularin resupinata)
54. Yellow-eyed grass (Xyris flexuosa)

□1
28 JUL 1999

CUMBERLAND COUNTY
RARE SPECIES AND NATURAL COMMUNITIES PRESENTLY RECORDED IN
THE NEW JERSEY NATURAL HERITAGE DATABASE

NAME	COMMON NAME	FEDERAL STATUS	STATE STATUS	REGIONAL STATUS	GRANK
*** Vertebrates					
ACCIPITER COOPERII	COOPER'S HAWK		E		G5
AMBYSTOMA TIGRINUM TIGRINUM	EASTERN TIGER SALAMANDER		E		G5T5
AMMODRAMUS HENSLOWII	HENSLOW'S SPARROW		E		G4
AMMODRAMUS SAVANNARUM	GRASSHOPPER SPARROW		T/T		G5
ARDEA HERODIAS	GREAT BLUE HERON		T/S		G5
BUTEO LINEATUS	RED-SHOULDERED HAWK		E/T		G5
CIRCUS CYANEUS	NORTHERN HARRIER		E/U		G5
CISTOTHORUS PLATENSIS	SEDGE WREN		E		G5
CROTALUS HORRIDUS HORRIDUS	TIMBER RATTLESNAKE		E		G4T4
ELAPHE GUTTATA GUTTATA	CORN SNAKE		E		G5T5
EUMECES FASCIATUS	FIVE-LINED SKINK		U		G5
FALCO PEREGRINUS	PEREGRINE FALCON	E(S/A)	E		G4
HALIAEETUS LEUCOCEPHALUS	BALD EAGLE	LT	E		G4
HYLA ANDERSONII	PINE BARRENS TREEFROG		E		G4
HYLA CHRYSOSCELIS	COPE'S GRAY TREEFROG		E		G5
LATERALLUS JAMAICENSIS	BLACK RAIL		T/T		G4
MELANERPES ERYTHROCEPHALUS	RED-HEADED WOODPECKER		T/T		G5
NOTROPIS CHALYBAEUS	IRONCOLOR SHINER				G5
PANDION HALIAETUS	OSPREY		T/T		G5
PASSERCULUS SANDWICHENSIS	SAVANNAH SPARROW		T/T		G5
PITUOPHIS MELANOLEUCUS MELANOLEUCUS	NORTHERN PINE SNAKE		T		G5T4
POOECETES GRAMINEUS	VESPER SPARROW		E		G5
STERNA ANTILLARUM	LEAST TERN		E		G4
STRIX VARIA	BARRED OWL		T/T		G5
SYNAPTOMYS COOPERI	SOUTHERN BOG LEMMING		U		G5
VIRGINIA VALERIAE VALERIAE	EASTERN SMOOTH EARTH SNAKE		U		G5T5
*** Ecosystems					

CUMBERLAND COUNTY
RARE SPECIES AND NATURAL COMMUNITIES PRESENTLY RECORDED IN
THE NEW JERSEY NATURAL HERITAGE DATABASE

NAME	COMMON NAME	FEDERAL STATUS	STATE STATUS	REGIONAL STATUS	GRANK
BRACKISH TIDAL MARSH COMPLEX	BRACKISH TIDAL MARSH COMPLEX				G4
COASTAL PLAIN INTERMITTENT POND	VERNAL POND				G3?
FRESHWATER TIDAL MARSH COMPLEX	FRESHWATER TIDAL MARSH COMPLEX				G4?
*** Invertebrates					
ANAX LONGIPES	COMET DARNER				G5
APAMEA APAMIFORMIS	A NOCTUID MOTH				G4
APAMEA INEBRIATA	A NOCTUID MOTH				G3G4
BOLORIA SELENE MYRINA	A SILVER-BORDERED FRITILLARY				G5T5
CATOCALA CONSORS SORSCONI	THE CONSORT, OR CONSORS UNDERWING				G4TU
CATOCALA PRETIOSA PRETIOSA	PRECIOUS UNDERWING				G4T2T3
CELITHEMIS MARTHA	MARTHA'S PENNANT				G4
CELITHEMIS VERNA	DOUBLE-RINGED PENNANT				G5
CHLOROPTERYX TEPPERARIA	ANGLE WINGED EMERALD MOTH				G4
CISTHENE KENTUCKIENSIS	KENTUCKY LICHEN MOTH				G4
ENALLAGMA PICTUM	SCARLET BLUET				G3
ENALLAGMA RECURVATUM	PINE BARRENS BLUET				G3
EUSARCA FUNDARIA					G4
FARONTA RUBRIPENNIS	PINK STREAK				G3G4
GOMPHUS APOMYIUS	BANNER CLUBTAIL				G4
HEMARIS GRACILIS	GRACEFUL CLEARWING				G4
HESPERIA ATTALUS SLOSSONAE	DOTTED SKIPPER				G3G4T3
HESPERIA LEONARDUS	LEONARD'S SKIPPER				G4
IDAEA OBFUSARIA	RIPPLED WAVE				G4G5
IDAEA VIOLACEARIA	A GEOMETRID MOTH				G4
INCISALIA HENRICI	HENRY'S ELFIN				G5
INCISALIA IRUS	FROSTED ELFIN				G3G4
LIBELLULA AURIPENNIS	GOLDEN-WINGED SKIMMER				G5

NAME	COMMON NAME	FEDERAL STATUS	STATE STATUS	REGIONAL STATUS	GRANK
LIBELLULA AXILENA	BAR-WINGED SKIMMER				G5
LIGUMIA NASUTA	EASTERN PONDMUSSEL				G4G5
LITHOPHANE LEMMERI	LEMMER'S PINION MOTH				G3G4
LITHOPHANE LEPIDA ADIPEL	A NOCTUID MOTH				G4T3T4
LYCAENA HYLLUS	BRONZE COPPER				G5
MACROCHILO HYPOCRITALIS	A NOCTUID MOTH				G4
MACROCHILO SANTERIVALIS	A NOCTUID MOTH				GU
MACROCHILO SP 1	A NOCTUID MOTH				G3
MEROPLEON TITAN	A NOCTUID MOTH				G2G4
METARRANTHIS PILOSARIA	COASTAL SWAMP METARRANTHIS				G3G4
METARRANTHIS SP 1	A GEOMETRID MOTH				G2G3
MITOURA HESSELI	HESSEL'S HAIRSTREAK				G3G4
PAPAIPEMA STENOCELIS	CHAIN FERN BORER MOTH				G4
PROBLEMA BULENTA	RARE SKIPPER				G2G3
SOMATOCHLORA PROVOCANS	TREETOP EMERALD				G3G4
SPEYERIA IDALIA	REGAL FRITILLARY				G3
SYMPETRUM AMBIGUUM	BLUE-FACED MEADOWHAWK				G5
TARACHIDIA SEMIFLAVA	HALF YELLOW MOTH				G4
*** Other types					
BALD EAGLE WINTERING SITE	BALD EAGLE WINTERING SITE				G?
MIGRATORY SHOREBIRD CONCENTRATION SITE	MIGRATORY SHOREBIRD CONCENTRATION SITE				G?
PRIMEVAL FOREST	PRIMEVAL FOREST				G3?
*** Vascular plants					
AESCHYNOMENE VIRGINICA	SENSITIVE JOINT-VETCH	LT	E	LP	G2
AGASTACHE SCROPHULARIIFOLIA	PURPLE GIANT HYSSOP				G4
ARETHUSA BULBOSA	DRAGON MOUTH				G4

NAME	COMMON NAME	FEDERAL STATUS	STATE STATUS	REGIONAL STATUS	GRANK
ASCLEPIAS RUBRA	RED MILKWEED			LP	G4G5
ASCLEPIAS VARIEGATA	WHITE MILKWEED				G5
BIDENS BIDENTOIDES	BUR-MARIGOLD		E		G3
BOLTONIA ASTEROIDES VAR GLASTIFOLIA	BOLTONIA		E		G5T?
CALYSTEGIA SPITHAMAEA	ERECT BINDWEED		E		G4G5
CAREX BARRATTII	BARRATT'S SEDGE			LP	G3G4
CAREX MITCHELLIANA	MITCHELL'S SEDGE				G3G4
CAREX ROSTRATA	BEAKED SEDGE				G5
CAREX TYPHINA	CAT-TAIL SEDGE				G5
CHENOPODIUM LEPTOPHYLLUM	NARROW-LEAVED GOOSEFOOT				G5
CHIONANTHUS VIRGINICUS	FRINGE-TREE				G5
CLITORIA MARIANA	BUTTERFLY PEA		E		G5
COREOPSIS ROSEA	PINK TICKSEED			LP	G3
CRATAEGUS RUBELLA	REDISH HAWTHORN				G?Q
CROTONOPSIS ELLIPTICA	ELLIPTICAL RUSHFOIL			LP	G5
CUSCUTA CORYLI	HAZEL DODDER				G5
CUSCUTA POLYGONORUM	SMARTWEED DODDER				G5
CYPERUS ENGELMANNII	ENGELMANN'S FLATSEDGE				G4Q
CYPERUS POLYSTACHYOS	COAST FLATSEDGE		E		G5
DESMODIUM LAEVIGATUM	SMOOTH TICK-TREFOIL				G5
DESMODIUM STRICTUM	PINELAND TICK-TREFOIL			LP	G4
DESMODIUM VIRIDIFLORUM	VELVETY TICK-TREFOIL				G5?
DIOSCOREA VILLOSA VAR HIRTICAULIS	HAIRY-STEMMED WILD YAM				G5T3Q
ELATINE MINIMA	SMALL WATERWORT				G5
ELEOCHARIS EQUISETOIDES	KNOTTED SPIKERUSH		E	LP	G4
ELEOCHARIS MELANOCARPA	BLACK-FRUITED SPIKERUSH		E		G4
ELEOCHARIS QUADRANGULATA	ANGLED SPIKERUSH				G4
ELEOCHARIS TORTILIS	TWISTED SPIKERUSH		E		G5

CUMBERLAND COUNTY
RARE SPECIES AND NATURAL COMMUNITIES PRESENTLY RECORDED IN
THE NEW JERSEY NATURAL HERITAGE DATABASE

NAME	COMMON NAME	FEDERAL STATUS	STATE STATUS	REGIONAL STATUS	GRANK
ERIOCAULON PARKERI	PARKER'S PIPEWORT				G3
ERIOPHORUM TENELLUM	ROUGH COTTONGRASS		E		G5
EUPATORIUM CAPILLIFOLIUM	DOG-FENNEL THOROUGHWORT		E		G5
EUPATORIUM RESINOSUM	PINE BARREN BONESET		E	LP	G3
GALACTIA VOLUBILIS	DOWNY MILK-PEA		E		G5
GENTIANA AUTUMNALIS	PINE BARREN GENTIAN			LP	G3
GENTIANA VILLOSA	STRIPED GENTIAN				G4
GRATIOLA VIRGINIANA	ROUND-FRUITED HEDGE-HYSSOP				G4G5
HELONIAS BULLATA	SWAMP-PINK	LT	E	LP	G3
HYPERICUM ADPRESSUM	BARTON'S ST. JOHN'S-WORT		E		G2G3
HYPERICUM GYMNANTHUM	CLASPING-LEAVED ST. JOHN'S-WORT				G4
JUNCUS CAESARIENSIS	NEW JERSEY RUSH		E	LP	G2
LESPEDEZA STUEVEI	TALL BUSH-CLOVER				G4?
LOBELIA CANBYI	CANBY'S LOBELIA			LP	G4
MUHLENBERGIA TORREYANA	PINE BARREN SMOKE GRASS			LP	G3
MYRIOPHYLLUM PINNATUM	CUT-LEAVED WATER-MILFOIL		E		G5
MYRIOPHYLLUM VERTICILLATUM	WHORLED WATER-MILFOIL		E		G5
NUPHAR MICROPHYLLUM	SMALL YELLOW POND LILY		E		G5
NYMPHOIDES CORDATA	FLOATING HEART			LP	G5
ONOSMODIUM VIRGINIANUM	VIRGINIA FALSE-GROMWELL		E		G4
OPHIOGLOSSUM VULGATUM VAR PYCNOSTICHUM	SHEATHED ADDER'S-TONGUE		E		G5TU
PANICUM HEMITOMON	MAIDEN CANE			LP	G5?
PASPALUM DISSECTUM	MUDBANK PASPALUM				G4?
PENSTEMON LAEVIGATUS	SMOOTH BEARD TONGUE		E		G5
PHORADENDRON SEROTINUM	MISTLETOE			LP	G5
PINUS TAEDA	LOBLOLLY PINE				G5
PLATANTHERA CILIARIS	YELLOW-FRINGED ORCHID			LP	G5
POLYGALA INCARNATA	PINK MILKWORT		E		G5

APPENDIX 5

CUMBERLAND COUNTY
RARE SPECIES AND NATURAL COMMUNITIES PRESENTLY RECORDED IN
THE NEW JERSEY NATURAL HERITAGE DATABASE

NAME	COMMON NAME	FEDERAL STATUS	STATE STATUS	REGIONAL STATUS	GRANK
POLYGALA MARIANA	MARYLAND MILKWORT			LP	G5
POLYGALA POLYGAMA	RACEMED MILKWORT				G5
POLYGONUM DENSIFLORUM	STOUT SMARTWEED		E		G5
PRUNUS ANGUSTIFOLIA	CHICKASAW PLUM		E		G5
PUCCINELLIA FASCICULATA	TORREY'S MEADOW GRASS				GU
PYRUS ANGUSTIFOLIA	NARROW-LEAVED WILD CRABAPPLE				G5?
QUERCUS NIGRA	WATER OAK		E		G5
RHODODENDRON ATLANTICUM	DWARF AZALEA		E		G4G5
RHYNCHOSPORA MICROCEPHALA	SMALL-HEADED BEAKED RUSH		E		G?
RHYNCHOSPORA NITENS	SHORT-BEAKED BALDRUSH				G4
RHYNCHOSPORA PALLIDA	PALE BEAK RUSH				G3
RUELLIA CAROLINIENSIS	CAROLINA PETUNIA		E		G5
SCHIZAEA PUSILLA	CURLY GRASS FERN			LP	G3
SCHWALBEA AMERICANA	CHAFFSEED	LE	E	LP	G2
SCIRPUS MARITIMUS	SALT MARSH BULRUSH		E		G5
SCLERIA MINOR	SLENDER NUT RUSH			LP	G4
SENECIO TOMENTOSUS	WOOLY RAGWORT				G4G5
SPIRANTHES ODORATA	FRAGRANT LADIES'-TRESSES				G5
STACHYS HYSSOPIFOLIA	HYSSOP HEDGE-NETTLE				G5
STYLOSANTHES BIFLORA	PENCIL FLOWER				G5
UTRICULARIA PURPUREA	PURPLE BLADDERWORT			LP	G5
VERNONIA GLAUCA	BROAD-LEAVED IRONWEED		E		G5
VIOLA BRITTONIANA	COAST VIOLET				G4G5

WATERSHED MANAGEMENT AREA #17 - DELAWARE BAY DRAINAGE
BIOLOGICAL ASSESSMENT TABLE: AREA 17

(Excerpted from the New Jersey 1996 State Water Quality Inventory Report

Watershed	Site ID	Water Body	Location	Municipality	Sample Date	Biological Impairment Rating
78	ANO690	Salem R	Commissioners Rd (Rte 581	U.Pittsgrove Twp	8/24/95	Moderately Impaired
78	AN690A	Salem R	Newkirk Sta Rd	U.Pittsgrove Twp	10/17/90	Moderately Impaired
78	AN0691	Salem R	Mill St	Wodstown	8/22/95	Severely Impaired
78	AN0692	Nichomus Run	Rte 45	Pilesgrove Twp.	8/22/95	Severely Impaired
78	ANO693	Salem R	Kings Hwy	Sharptown	8/22/95	Moderately Impaired
78	ANO694	Major Run	Pointers-Sharptown Rd	Mannington Twp	8/22/95	Severely Impaired
78	ANO695	Two Penny Run	E. Quillytown Rd	U Penns Neck Twp	8/22/95	Moderately Impaired
78	ANO696	Game Ck	Route 48	U Penns Neck Twp	8/22/95	Moderately Impaired
78	ANO697	Culliers Run	Bassett Rd	ManningtonT wp	9/12/95	Moderately Impaired
78	ANO698	Swedes Run	Swedes Bridge Rd	Mannington Twp.	9/12/95	Moderately Impaired
81	ANO699	Alloway Ck	Yorktown-Friesburg Rd	Alloway Twp	8/24/95	Moderately Impaired
81	ANO700	Cool Run	Stockington-Pleasant Hill Rd	Alloway Twp	8/24/95	Moderately Impaired
81	ANO701	Cedar Bk	Alloway-Aldine Rd	Alloway Twp.	9/21/95	Moderately Impaired
81	ANO702	Alloway Ck	Welchville-Alloway Rd	Alloway	9/12/95	Moderately Impaired
81	ANO703	Deep Run	Waterworks Rd	Alloway	9/12/95	Moderately Impaired
81	ANO704	Alloway Ck Trib	Perry Rd	L. Alloway Ck Twp.	9/12/95	Moderately Impaired
86	ANO705	Sarah Run	Telegraph Rd	Quinton Twp	10/12/95	Moderately Impaired
86	ANO706	Stow Ck	Buckhorn Rd	L Alloway Ck Twp.	9/21/95	Moderately Impaired

APPENDIX 6: Biological Assessment of Watershed Area #17

Watershed	Site ID	Water Body	Location	Municipality	Sample Date	Biological Impairment Rating
86	ANO707	Canton Drain	Maskell Mill Rd	L Alloway Ck Twp	9/21/95	Moderately Impaired
86	ANO708	Raccoon Ditch	Davis Mill Rd	Stow Ck Twp	9/21/95	Moderately Impaired
82	ANO 709	Cohansey R	Beal Rd	Alloway Twp.	10/19/95	Non-Impaired
82	ANO709	Cohansey R	Beal Rd	Alloway Twp.	1/4/96	Non-Impaired
82	ANO710	Cohansey R	Rt 540	Hopewell Twp.	10/19/95	Moderately Impaired
82	ANO711	Parsonage Run	Finley Rd	U Deerfield Twp	10/19/95	Severely Impaired
82	ANO712	Cohansey R	Silver Lk Rd	U Deerfield Twp	09/26/95	Moderately Impaired
82	ANO713	Barrett Run	Maple Ave	Hopewell Twp.	10/12/95	Moderately Impaired
82	ANO714	Barrett Run	W Ave.	Bridgeton	9/26/95	Moderately Impaired
82	ANO715	Indian Fields Br	Grove St	Bridgeton	9/26/95	Moderately Impaired
82	AN716A	Town Swamp Bk	Buckshutem Rd	Fairfield Twp.	10/25/90	Moderately Impaired
82	AN716B	Mill Ck	Rte 650	Greenwich Twp.	10/25/95	Moderately Impaired
82	ANO717	Pine Mt. Ck	Rte 623	Greenwich Twp	10/12/95	Moderately Impaired
90	ANO718	Cedar Ck	Main St	Cedarville	10/19/95	Moderately Impaired
90	ANO719	Pages Run	Rte 553	Downe Twp	10/19/95	Moderately Impaired
92	ANO721	Scotland Run	Rte 322	Monroe Twp	11/1/95	Non Impaired
92	ANO721	Scotland Run	Rte 322	Monroe Twp.	02/13/96	Moderately Impaired
92	ANO722	Scotland Run	Clayton-Williamstown Rd (Rt 610)	Clayton	2/22/96	Non-Impaired
92	ANO723	Scotland Run	Rte 538	Franklin Twp	2/14/96	Non-Impaired
92	ANO724	Indian Br	Rte 47	Franklin Twp	2/14/96	Moderately Impaired
92	AN724A	Indian Br	Sta Rd	Janvier (Franklin Twp)	3/26/91	Non-Impaired
92	AN724A	Indian Br	Sta Rd	Janvier (Franklin Twp)	06/10/91	Moderately Impaired
92	ANO725	Scotland Run	Rte 40	Malaga	2/15/96	Moderately Impaired
92	ANO726	Ltl Ease Run	Carpenter Rd	Glassboro	11/1/95	Moderately Impaired
92	ANO727	Ltl Ease Run	Grant Ave	Franklin Twp	2/15/96	Moderately Impaired
92	ANO728	Ltl Ease Run	Leonard Cake Rd	Franklin Twp	2/15/96	Moderately Impaired

Watershed	Site ID	Water Body	Location	Municipality	Sample Date	Biological Impairment Rating
92	ANO729	Still Run	Aura Rd	Aura (Elk Twp)	11/1/95	Non-Impaired
92	ANO730	Still Run	Ltl Mill Rd	Franklin Twp	2/22/96	Moderately Impaired
92	ANO731	Reed Br	Royal Ave	Franklin Twp.	2/15/96	Moderately Impaired
92	ANO732	Still Run	Rte 40	Franklin Twp	2/15/96	Non-Impaired
92	ANO733	Maurice R	Willow Grove Rd	Pittsgrove Twp.	1/18/96	Moderately Impaired
92	ANO734	Burnt Mill Br	W Blvd.	Newfield	2/14/96	Moderately Impaired
92	AN734A	Burnt Mill Br	Forest Grove Rd	Newfield	3/26/91	Moderately Impaired
92	ANO735	Burnt Mill Br	Rte 55	Vineland	1/18/96	Non-Impaired
92	ANO736	Green Br	Crow Pond Rd	Pittsgrove Twp	3/25/91	Non-Impaired
92	ANO736	Green Br	Crow Pond Rd	Pittsgrove Twp.	6/10/91	Moderately Impaired
92	ANO736	Green Br	Crow Pond Rd	Pittsgrove Twp.	9/23/91	Non-Impaired
92	ANO736	Green Br	Crow Pond Rd	Pittsgrove Twp.	12/9/91	Non-Impaired
92	ANO737	Green Br	Jesse Bridge Rd	Pittsgrove Twp.	1/18/96	Moderately Impaired
92	ANO738	Blackwater Br	Main Rd	Franklin Twp	2/14/96	Severely Impaired
92	ANO739	Blackwater Br	Maurice R. Pkway	Vineland	2/14/96	Moderately Impaired
92	ANO740	Maurice R	Almond Ave	Vineland	12/5/95	Non-Impaired
92	ANO741	Muddy Run	Burlington Rd	U Pittsgrove Twp	01/17/96	Moderately Impaired
92	ANO742	Muddy Run	Dutch Row Rd	Elmer	01/18/86	Moderately Impaired
92	ANO743	Palatine Br	Shirley Rd	U Pittsgrove Twp	01/17/96	Moderately Impaired
92	ANO744	Palatine Br	Dubois Rd	Pittsgrove Twp	01/18/96	Moderately Impaired
92	ANO745	Muddy Run	Blw Palatine Lk	Pittsgrove Twp.	12/12/95	Moderately Impaired
92	ANO746	Indian Run	Cedar Ln Rd	U Pittsgrove Twp.	01/17/96	Moderately Impaired
92	ANO747	Indian Run	Husted Sta Rd	Pittsgrove Twp.	01/17/96	Severely Impaired
92	ANO748	Muddy Run	Parvins Mill Rd	Pittsgrove Twp	01/17/96	Moderately Impaired
92	ANO749	Muddy Run	Lebanon Rd	Pittsgove Twp	11/30/95	Moderately Impaired
92	ANO750	Parvin Br	Rte 55	Vineland	12/12/95	Moderately Impaired
92	ANO751	Maurice R	Sherman Ave	Vineland	11/30/95	Moderately Impaired
92	ANO752	Lebanon Br	Sherman Ave	Deerfield Twp.	11/30/95	Non-Impaired
92	ANO753	Mill Cr	Off Spur 552 (Union Lk WMA)	Millville	12/5/95	Non-Impaired

Watershed	Site ID	Water Body	Location	Municipality	Sample Date	Biological Impairment Rating
92	ANO754	White Marsh Run	Hogbin Rd	Millville	10/25/90	Moderately Impaired
92	ANO754	White Marsh Run	Hogbin Rd	Millville	03/12/91	Moderately Impaired
92	ANO754	White Marsh Run	Hogbin Rd	Millville	05/16/91	Moderately Impaired
92	ANO754	White Marsh Run	Hogbin Rd	Millville	07/11/91	Moderately Impaired
92	ANO755	White Marsh Run	Rte 555	Millville	11/30/95	Moderately Impaired
92	ANO756	Buckshutem Ck	Rte 555	Millville	10/31/95	Moderately Impaired
85	ANO757	Cedar Br	Italia Ave	Vineland	12/05/95	Moderately Impaired
85	ANO758	Panther Br	Italia Ave	Vineland	12/05/95	Moderately Impaired
85	ANO759	Menantico Ck	Hance Bridge Rd	Vineland	11/28/95	Moderately Impaired
85	ANO760	Menantico Ck	Rte 49	Millville	11/28/95	Non-Impaired
85	ANO761	Berryman Br	Rte 49	Millville	11/28/95	Non-Impaired
87	ANO762	Manumuskin R	Old Mays Landing Rd	Maurice R Twp	11/28/95	Non-Impaired
87	AN762A	Manumuskin R	Main Ave	Milmay	03/26/91	Severely Impaired
87	AN0763	Manumuskin R	Fries Mill (off Cumberland-Port Elizabeth Rd)	Maurice R. Twp	11/28/95	Non-Impaired
92	ANO764	Muskee Cr	Rte 548	Maurice R. Twp	10/31/95	Non-Impaired

Regulatory Programs

Resource Focus: Water Quality

Federal

Clean Water Act of 1977, 33 U.S.C. 1251 et seq.
The Clean Water Act of 1977 provides, among other things, that "fishable/swimmable" waters wherever attainable shall be the objective of national policy. It provides the directives to restore and maintain the chemical, physical, and biological integrity of the nation's waters. Section 303(d) of this Act pertains to the establishment of Total Maximum Daily Loads. In 1994 the State of New Jersey was approved to assume authority of the Section 404 permit program

Federal Water Pollution Act of 1972, U.S.C. 1988 Title 33 SS. 1251 et seq.
The purpose of this Act is to restore and maintain the chemical, physical, and biological integrity of the nation's waters. In order to achieve this objective, the Congress recognizes that it is a national goal to eliminate the discharge of pollutants into navigable waters; wherever attainable, an interim goal of water quality that provides for the protection and propagation of fish, shellfish, and wildlife, and provides for recreation on the waters of the nation. It is a national policy that area-wide waste treatment management planning processes be developed and implemented to assure adequate control of sources of pollutants in each state and that federal financial assistance be provided to construct publicly owned waste treatment works.

National Parks and Recreation Act of 1978, Public Law 95-625, Section 502(a)
(92 Stat. 3467)
Section 502 of the National Parks and Recreation Act established the Pinelands National Reserve in New Jersey. Through this legislation a partnership among local, state and federal governments and the private sector was established for the specific purpose of protecting, preserving and enhancing the land and water resources of the Pinelands Area. The development of a Comprehensive Management Plan was authorized, and a mechanism to provide financial assistance for the acquisition of lands in the Pinelands area that have critical ecological values was established.

Rivers and Harbors Act of 1899 (Section 10)
This Act regulates waterways and wetlands, through permits, the discharge of dredge and fill material into U.S. waters (including wetlands) Any individual, company, corporation or government body planning construction or fill activities in waters of the United States, including wetlands, must obtain a federal permit from the US Army Corps of Engineers

Safe Drinking Water Act of 1974 (Public Law 93-523, Section 1424(e))
This Act was established to protect the quality of drinking water in the United States. It focuses on all waters actually or potentially designed for drinking use, whether from above ground or underground sources.

State of New Jersey

Clean Water Act
Assumed responsibility for the Section 404 permit program under the Federal Clean Water Act (CWA). The State of New Jersey's Department of Environmental Protection is the lead agency for regulating the discharge of dredged or fill material into certain waters/wetlands under the CWA, as well as its own individual and general permit program for the discharge of dredged or fill material into State regulated waters within its jurisdiction.

Flood Hazard Area Control Act of 1962, N.J.S.A. 58:16a-66 et seq.
To delineate flood hazard areas, review and process stream encroachment applications in accordance with program regulations.

Freshwater Wetlands Protection Act of 1987, N.J.S.A. 13:9B-23 et seq.
The purpose of the Act is to preserve the purity and integrity of the state's remaining wetlands by expanding the state's jurisdiction beyond tidal waters and providing a basis for assuming responsibility for the federal program.

Safe Drinking Water Act, N.J.S.A. 58:12A-1, et seq.
The Act regulates pollutants in drinking water supplies, and empowers DEP to promulgate and enforce regulations to purify drinking water prior to distribution and to assume primary enforcement under the Federal Safe Drinking Water Act through the imposition of primary and secondary drinking water standards, limits on hazardous contaminants in drinking water, and standards for construction of public water systems.

The Pinelands Comprehensive Management Plan, N.J.A.C.7:50
The Pinelands Comprehensive Management Plan establishes minimum requirements for Pinelands municipalities located within the Pinelands Area.

The Wetlands Act of 1970, N.J.S.A. 13:9A-1, et seq.
Authorizes the Commissioner of DEP to regulate activities in coastal wetlands by issuing, revising, or repealing orders that form the basis for issuing permits.

Water Pollution Control Act, N.J.S.A. 58:10A-21 to 58:10A-37 et seq.
To facilitate restoration and maintenance of unpolluted surface and ground waters of the state.

Water Quality Planning Act, N.J.S.A. 58:11A-2 to 58:11A-11 et seq.
To restore and maintain the chemical, physical, and biological integrity of the waters of New Jersey.

Resource Focus: Natural Resources

Federal

Architectural Barriers Act of 1969; The Rehabilitation Act of 1973; and The Americans With Disabilities Act of 1990 (42 U.S.C. 4151, et. Seq; 29 U.S>C. 701, et. Seq; P.L. 101-336, 104 Stat. 327
Provides access to all public places for persons with disabilities and ensures that all facilities and programs are accessible to visitors with disabilities.

Clean Air Act (CAA) Amendments of 1990, as amended; Sec. 118 (42 U.S.C. 7401, et seq. & 42 U.S.C. 7609)
Establishes standards to protect and improve air quality. Authority for air quality delegated to States. Requires project conformity with State Implementation Plan concerning air quality. Sec. 118 requires Federal land managers to protect air quality on Federal land.

Endangered Species Act of 1973, 16 U.S.C. 1531 et seq.
The Act provides a means to ensure that endangered and threatened species are conserved and protected and that their continued survival is ensured. The Act mandates that all federal agencies will take action to ensure that their activities do not jeopardize endangered species or habitats critical to their survival.

Farmland Protection Policy Act (FPPA) of 1981 (7 U.S.C. 4201-4209
Minimizes impacts on farmland and maximizes compatibility with state and local farmland programs and policies.

Fish and Wildlife Coordination Act of 1934, as amended (16 U.S.C. 661-666)
Requires early coordination with the US Fish and Wildlife Service whenever water resources are involved. Applies to projects that affect water resources

General Authorities Act of 1970 (16 U.S.C.1)
Affirmed that all national park areas, including historic sites, while acknowledged to be "distinct in character," were "united through their interrelated purposes and resources into one national park system, as cumulative expressions of a single national heritage."

National Environmental Policy Act of 1969 (NEPA), 42 U.S.C. 4321-4347 et seq.
Section 102 of the Act directs that "to the fullest extent possible: the policies, regulations and public laws of the U.S. shall be interpreted and administered in accordance with the policies set forth in this Act, and all agencies of the Federal Government shall "...insure that presently unquantified environmental amenities and values may be given appropriate considerations in decision-making along with economic and technical considerations."

National Historic Preservation Act of 1966, as amended; Sec. 106 and Sec. 110 (16 U.S.C. 470 & 36 CFR 800)
To protect and preserve districts, sites and structures and architectural, archaeological and cultural resources. Sec. 106 requires consultation with the State Historic Preservation Office.

National Parks and Recreation Act of 1978, Public Law 95-625, Section 502(a)
(92 Stat. 3467)
Section 502 of the National Parks and Recreation Act established the Pinelands National Reserve in New Jersey. Through this legislation a partnership among local, state and federal governments and the private sector was established for the specific purpose of protecting, preserving and enhancing the land and water resources of the Pinelands Area. The development of a Comprehensive Management Plan was authorized, and a mechanism to provide financial assistance for the acquisition of lands in the Pinelands area that have critical ecological values was established.

National Park Service Organic Act of 1916 (16U.S.C.1-4, et seq.)
To promote and regulate the use of national parks, monuments, and reservations, by such means and measures as to conserve the scenery and the natural and historic objects and the wildlife therein and to provide for the enjoyment of the land in such manner as will leave them unimpaired for the enjoyment of future generations.

National Wild and Scenic River Act, 16 U.S.C. 1271-1287
Certain selected rivers of the nation which, with their immediate environments, possess outstandingly remarkable scenic, recreational, geologic, fish and wildlife, historic, cultural, or other values, shall be preserved in free-flowing condition, and they and their immediate environments shall be protected for the benefit and enjoyment of present and future generations.

U.S. Department of Transportation Act of 1966, Sec 4(f) (49 U.S.C. 303, Subtitle I)
Preserves publicly owned parkland, waterfowl and wildlife refuges and significant historic sites. Requires the Secretary of Transportation to consider all prudent and feasible alternatives to impacting such lands.

State of New Jersey

Coastal Area Facilities Review Act, N.J.S.A. 13:13-1 to 13:19-21 et seq.
To create a balanced set of land use policies in New Jersey's coastal areas, including its bays, channels, beaches, intertidal, and near shore areas.

Endangered and Non-Game Species Act, N.J.S.A. 23:2A-1 to 23A-13 et Seq.
Endangered wildlife indigenous to New Jersey that are found to be endangered should be accorded special protection in order to maintain them and, to the extent possible, to enhance their numbers. Through the Act (in extreme cases) the State of New Jersey can resort to condemnation procedures when it feels that proposed development poses a detrimental risk to endangered wildlife species.

Municipal Conservation Commission Act, N.J.S.A. 58:16A-50 to 16A-66 et seq.
The Act allows environmental commissions to acquire and administer property by gift, grant, bequest, or lease. This statute also allows for the creation of joint environmental commissions by municipal ordinance. In view of the disparity in zoning practices from one municipality to another, this statutory device holds promise for joint action to preserve and protect common environmental elements by monitoring use and development.

Municipal Land Use Law, **N.J.S.A**. 40:55D-2 to 40:55D-20 et seq.
The legislation is intended to provide sufficient space in appropriate locations for a variety of agricultural, residential, recreational, commercial, and industrial uses, as well as open spaces, according to their respective environmental requirements. The statute encourages planning boards to design a conservation plan that provides for the preservation, conservation, and utilization of natural resources, including water supply, forests, soil, marshes, wetlands, fisheries, endangered or threatened species, and other natural resources.

Natural Area Systems Act, N.J.S.A. 13:1B-15.4 to 13:1B-15.12a10 et seq.
This Act calls for a system to control significant natural areas in the State of New Jersey. To date there are forty-one areas encompassing 27,000 acres that are presently held by the state under the Natural Areas System Act. The Act allows any individual or organization to suggest a potential natural area to the Commissioner of Environmental Protection or to the Natural Areas Council; this could allow for protection of a river area which contains endangered species and rare plants, fish and wildlife.

NJ State Planning Commission Act, N.J.S.A. 52:18A-196 to 52:18A-205 et seq.
The significance of this Act rests upon the fact that this is the only statewide planning mechanism in New Jersey; the purpose is to integrate and coordinate state planning to conserve natural resources.

New Jersey Wild and Scenic River Act, N.J.S.A. 13:8-45 to 13:8-63 et seq.
The purpose is to preserve and protect New Jersey rivers, together with adjacent land areas possessing outstanding scenic, recreational, geologic, fish and wildlife, floral, historic, cultural, or similar values that are a public trust.

New Jersey Environmental Rights Act, N.J.S.A. 2A:35A-1 et seq.
This Act allows any person to maintain an action in a court of competent jurisdiction against any other person to enforce or to restrain the violation of any statute, regulation, or ordinance which is designed to prevent or minimize pollution.

Soil Erosion and Sediment Control Act, N.J.S.A. 4:29-39 et seq.
All major land development activities must be carried out with regard to the control of soil erosion and sedimentation. The Act calls for the creation of land use regulations within districts in order to conserve soil resources, while preventing and controlling soil erosion.

The Pinelands Comprehensive Management Plan, N.J.A.C.7:50
The Pinelands Comprehensive Management Plan establishes minimum requirements for Pinelands municipalities located within the Pinelands Area.

Resource Focus: Historic and Cultural

Federal

Archaeological and Historic Preservation Act of 1974, as amended (16 U.S.C. 469-469c)
Requires survey, recovery and preservation of significant scientific, prehistorical, historical, archaeological or paleontological data when such data may be destroyed to due a federal project. Directs federal agencies to notify the Secretary of the Interior whenever they find that such a project may cause loss or damage.

Archeological Resources Protection Act, P.L. 96-95 Stat. 721
To meet an urgent need to provide greater protection for archeological resources on federally controlled public lands and on Indian lands, Congress enacted Public Law 96-95. It was signed into law on October 31, 1979. The Act has two fundamental purposes: "to protect irreplaceable archeological resources on public lands and Indian lands which are subject to loss or destruction from actions of persons who would excavate, remove, damage, alter or deface them for commercial or personal reasons; and to increase communications and the exchange of information among government authorities, the professional archeological community, collectors, Native Americans and the general public toward the goal of protecting and conserving archeological resources nationwide."

National Historic Preservation Act, 16 U.S.C. 470-471
This Act provides for the protection and enhancement of sites associated with events that have made significant contributions to the broad patterns of our history; or are associated with the lives of persons significant in our past; or embody the distinctive characteristics of a type, period, or method of construction; or represent the work of a master; or otherwise have high artistic or specific historic value.

National Parks and Recreation Act of 1978, Public Law 95-625, Section 502(a)
(92 Stat. 3467)
Section 502 of the National Parks and Recreation Act established the Pinelands National Reserve in New Jersey. Through this legislation a partnership among local, state and federal governments and the private sector was established for the specific purpose of protecting, preserving and enhancing the land and water resources of the Pinelands Area. The development of a Comprehensive Management Plan was authorized, and a mechanism to provide financial assistance for the acquisition of lands in the Pinelands area that have critical ecological values was established.

Native American Graves Protection and Repatrification Act, 25 U.S.C. SS 3001, 3002
The regulations set forth by this Act develop a systematic process of determining the rights of lineal descendants and members of Indian Tribes to certain Native American human remains and cultural items with which they are affiliated. These regulations include procedures related to the intentional excavation and inadvertent discovery of human remains or cultural items from federal or Tribal lands.

State of New Jersey

National Historic Preservation Act
Requires the NJ Historic Preservation Office to review projects under Section 106 of the National Historic Preservation Act for projects with federal funding, permitting, licensing, etc.

NJSA 13:1B.128
Establishes the State Register of Historic Places

NJSA 13:1B-15.131
Requires state, county or municipality determination of whether any of their undertakings encroach upon state Register properties and, if so, to provide information on the project to the Commissioner of DEP. All State Register encroachment projects require authorization from the Commissioner of DEP.

The Pinelands Comprehensive Management Plan, N.J.A.C.7:50
The Pinelands Comprehensive Management Plan establishes minimum requirements for Pinelands municipalities located within the Pinelands Area.

Non-Regulatory Protection Programs

State of New Jersey

Green Acres Program of the Department of Environmental Protection
The Green Acres Program was created in 1961 to meet New Jersey's growing recreation and conservation needs. In the first Green Acres bond referendum, the legislature declared that "the provision of lands for public recreation and conservation of natural resources promotes public health, prosperity, and general welfare and is a proper responsibility of the government." Over the years, New Jersey's voters have overwhelmingly approved nine bond issues totaling more that $1.4 billion. As a result, the State of New Jersey has acquired or assisted municipalities and nonprofit conservation organizations to acquire over 337,000 acres of open space.

New Jersey Farmland Preservation Program
In 1981, New Jersey established the Farmland Preservation Program. The primary purpose of the program is to enhance the agricultural industry by purchasing development rights on farmland and sharing with farmers the cost of soil and water conservation practices. Well-managed farmland provides environmental amenities through the protection of aquifer recharge areas, pastoral and rural landscapes and wildlife habitat.

New Jersey State Development and Redevelopment Plan "Communities of Place," 1992
The development of this plan for the State of New Jersey was a result of the response to shifting development patterns and the aging of its urban infrastructure. Since 1950, hundreds of thousands of acres of rural and agricultural lands have been converted to sprawling subdivisions: a pattern of development that destroys the character of the cultural landscape, is inefficient in terms of public facilities and services, and devoid of the sense of place that has long defined the character of life in New Jersey. Worse still, sprawl generates more vehicle miles of travel than more compact forms of development.

In 1985, the New Jersey Legislature adopted the State Planning Act (N.J.S.A. 52:18A-196 et seq.). In the Act, the legislature declared that the State of New Jersey needs sound and integrated "statewide planning to conserve its natural resources, revitalize its urban centers, protect the quality of its environment, and provide needed housing and adequate public services at a reasonable cost while promoting beneficial economic growth, development and renewal..." The state plan is not a regulation but a policy for state, regional, and local agencies to use when exercising their delegated authority.

New Jersey Trails Plan
The 1996 plan is a major component of New Jersey's State Trails Program efforts, with the purpose of preserving and expanding trails and trail systems throughout the state by incorporating these as part of a State Trails System, and providing a planning guide for establishing trails. In the Great Egg Harbor River corridor, the Estell Manor Atlantic County Park Trail System was found eligible for inclusion in the New Jersey Trail System. In addition, 16 miles of Pine Barrens waters from Penny Pot to Lake Lenape (sections within the designated Great Egg Harbor River corridor) were found to be eligible waterways for the state system.

Statewide Watershed Management Framework Document For the State of New Jersey - Draft
The January 1997 draft plan defines the geographic boundaries that will be used to target and focus statewide and regional watershed management activities. It also provides an implementation schedule and begins a process for coordinating and integrating existing NJDEP programs for the implementation of statewide watershed management activities and for achieving the water resource goals, objectives and milestones developed under the National Performance Partnership System (NEPPS) and articulated in the NJ 1996 Performance Partnership Agreement with the US Environmental Protection Agency.

Guidelines for Water Resource Projects, Including Public Utilities, and Transportation and Recreational Facilities

Facilities providing transportation, energy resources, communications, water supply, waste disposal, education and recreation are critical public services provided to citizens living and working in, or visiting the Maurice River corridor. However, if improperly located, designed, constructed or maintained, such facilities have the potential of destroying or severely damaging natural and cultural resource values and adversely affecting the quality of life within the corridor and watershed. The cumulative impact of multiple corridors and stream crossings can magnify these problems.

Section 7 Provisions
For these reasons, the United States Congress (in Section 7 of the Federal Wild and Scenic Rivers Act (P.L. 90542, as amended), directed that within the boundaries of designated national wild and scenic rivers that the proposed location, design and construction of water resource projects, where any kind of federal assistance is provided, should be reviewed to determine if there is the potential of affecting the free-flowing character of wild, scenic or recreational rivers. The key terms are defined below:

Water Resources Project
Any dam, water conduit, reservoir, powerhouse, transmission line, or other project works under the Federal Power Act (FPA), or other construction of developments which would affect the free-flowing characteristics of a wild and scenic or congressionally authorized study river. In addition to projects, licensed by the Federal Energy Regulatory Commission (FERC), water resources projects may also include: dams; water diversion projects; fisheries habitat and watershed restoration or enhancement projects; bridges and other roadway construction; bank stabilization projects; channelization projects; levee construction; recreation facilities such as boat ramps and fishing piers; and activities that require a permit from the Army Corps of Engineers (ACOE), pursuant to the Rivers and Harbors Act or Section 404 of the Clean Water Act.

Federal Assistance
Any assistance by an authorizing agency before, during, or after construction. Such assistance may include, but is not limited to: a license, permit, preliminary permit, or other authorization granted by FERC; a license, permit or other authorization ranted by the Army Corps of Engineers. Assistance also includes federal funding of project such as highways, roads and bridges, environmental and recreational facilities, community development activities, etc.

Free Flowing
Defined in the Wild and Scenic Rivers Act in section 16(b) as “existing or flowing in natural condition without impoundment, diversion, straightening, rip-rapping, or other modification of the waterway.”

Procedures
The vast majority of these activities are subject also to review and approval by other federal, state and local agencies. No new permits are required under Section 7. However, the section does require that the federal agency assisting with the project consult with the National Park Service before a project is actually begun. Project proponents are encouraged to consult very early in the siting and project design process to avoid delays and costs associated with projects that cannot be approved under Section 7.

Section 7 states, in part, that no department or agency of the United States shall assist by loan, grant, license or otherwise in the construction of any water resource project that either:

- would have a direct and adverse impact on the values for which the river was established (for projects located on a designated river); in the case of the Maurice River and its tributaries, this includes hydro-geology, water quality and quantity, certain botanical, fish and wildlife resources, and historic and cultural values; or

- invade the area or unreasonably diminish the scenic, recreational, fish and wildlife values present in the area at the time of designation (for projects above or below designated rivers, or on a non-designated tributary)

It is the intent of this Guideline to provide the National Park Service, Cumberland and Atlantic Counties, municipalities, land owners and public service providers with better guidance on how to plan, review and provide such needed facilities in the future. The National Park Service should conduct its Section 7 reviews in consultation with affected federal, state and local agencies, and other appropriate citizens and organizations. Such review also will be conducted following the assessment procedures outlined in "Appendix C: Evaluation Procedures Under 'Direct and Adverse'" of the Wild and Scenic Rivers Reference Guide and the guidance which follows:

Review Criteria
Transportation, recreation and utility corridors and facilities, and other water resource projects, should be designed to protect the free flowing character and outstandingly remarkable values of the Maurice River through application of the following:

I. Assessment of:

A. Impacts on the free flowing character of the Maurice River corridor

B. Impacts on the outstandingly remarkable values of the Maurice River corridor for which the area was designated as a component of the National Wild and Scenic Rivers System.

C. Effect on related environmental factors and ecological systems involved, including adjacent lands, waters, aesthetics, fisheries, recreational, floodplain, wildlife, vegetation, and historic and archeological values

D. Cumulative impacts

E. Alternatives available to the applicant

F. Secondary effects likely to be caused or encouraged by the project

G. Economic factors, including the need for resource protection measures in the approximate area in the future

H. Other relevant factors

II. In addition to the general assessments described above, the following specific items need to be considered.

A. For all projects:

1. The facility should be located to take advantage of existing topography and vegetation.

2. The facility should be located, constructed and maintained so that it does not lead to accelerated bank erosion or degradation of streams and related resources.

3. Removal of trees, shrubs, and other vegetation should be kept to a minimum, for the protection of water quality, fish, and wildlife habitat, visual quality and related values.

4. Only minimal filling of wetlands and floodplains should occur.

5. Construction should incorporate the use of materials that blend with the natural setting.

6. During construction, strict erosion control measures should be taken to prevent sediment from reaching the river. Only minimal clearing of existing vegetation, clearing, grubbing and grading should be performed.

7. The construction area should be restored to as natural a condition as possible immediately following construction.

8. Following construction, special measures may be needed to restore the natural appearance of the area, stabilize river banks, discourage damaging off-road vehicle or other recreational use, or enhance fish and wildlife habitat.

9. Materials used for bank stabilization following construction should maintain and enhance the natural and aesthetic qualities of the Wild and Scenic River area.

10. Biodegradable materials such as burlap, jute netting or blankets made from coconut fiber should be used to hold vegetative plantings in conjunction with slope stabilization and other erosion and sedimentation control measures.

11. Specifications regarding stabilization efforts and revegetation should be consistent with the goals of maintaining stream width as near as possible to the original width, and to provide early revegetation of the area

12. If revegetation is required within the riparian forest buffer, native plant materials commonly found in that area should be used.

13. The time and method of planting native vegetation should occur in a manner that ensures maximum survival and growth of plant species.

14. Work should be performed at the time of year when the stream is experiencing low flow conditions to minimize impacts to fish and macroinvertebrate populations.

B. For corridors and rights-of-way:

1. Planning for new right-of-way should identify existing nearby rights-of-way which the proposed facility might share or be located adjacent to.

2. Establishment of new corridors should anticipate future needs in that area, and attempt to accommodate those needs, so that additional future intrusions into designated areas will be minimized.

3. The narrowest width right-of-way necessary to facilitate construction and maintenance of the facility should be used.

4. The low points of approach on the corridor should be far enough landward of the water's edge to direct runoff to a vegetated area away from any stream.

5. Upon reaching the riparian forest buffer during clearing operations for overhead transmission or communication lines, tall growing tree species may selectively be removed. Shrubs, low-growing tree species with a mature height of less than 20 feet, and other vegetation should be left as natural as possible.

6. Management of trees, shrubs, and other vegetation for maintenance of all rights-of-way should be done manually in the riparian forest buffer. However, appropriate herbicides may be applied by hand to stumps of selectively cut

trees, where establishing and maintaining a low growing shrub community in this zone will further the objectives of the wild and scenic river designation. Selective hand application of certain pesticides to control insect or disease infestations is acceptable.

C. Stream Crossings

1. Bridge and culvert structures. In order to safeguard the free-flowing character of designated streams and protect scenic, recreational and fish and wildlife values:

    a. Bridges should be:
        1. Clear-span structures (means spanning the entire width of the waterway, and having no piers, piles, abutments or other structures located below the high water mark).

        2. Low profile, and constructed of materials which blend with the natural surroundings as much as feasible

        3. Where watercraft and/or fisherman passage is required, a vertical clearance of 5 feet between the high watermark and the bottom of the bridge is desired.

    b. Culverts should provide for a natural streambed under the structure, either by using a bottomless structure or by recessing the culvert bottom a minimum of 12 inches below the stream bottom.

    c. There should be no reduction of the total waterway area passing through the bridge or culvert.

2. The stream should be crossed by a method which minimizes disruption to the streambed. Streams should be crossed at the point and time least damaging to fishery resources and aquatic organisms and generally at right angles.

3. If aerial crossings are used, they should be designed to accommodate safe recreational use of the river in addition to protection of the streambanks.

4. A single-span stream crossing is preferred wherever possible, maintaining proper vertical clearance over the waterway and proper structure height for minimal adverse visual impact.

5. Underground installation is preferred for all new utility lines except: power lines of greater than 35KV; where new lines are to be placed on existing poles, towers or bridges; or where burying is proven to be feasible because of geological constraints.

6. Directional boring will be the preferred method of crossing stream channels. Open cut construction across the stream is discouraged, except for large diameter installations such as a sewer or water main.

7. Towers and poles should be removed when elimination of existing aboveground facilities occurs.

8. The width of the streambed should not be altered.

D. Other Structures

Except as provided for in B and C above, structures associated with water resource projects should be located in such a manner as to protect and enhance the outstandingly remarkable values of the Maurice River corridor. Generally, the following should be observed:

1. Follow all general provisions outlined in A above.

2. Meet setbacks described in Local Zoning Ordinances, and the Pinelands Comprehensive Management Plan

APPENDIX 9

INTERPRETIVE THEMES FROM RELATED PLANS

From the Pinelands Interpretation Concept Plan

The environment: New Jersey's Pinelands is a unique natural environment.

The people: People have inhabited New Jersey's Pinelands for centuries and created traditions that continue today.

Interaction: the diversity of Pinelands' landscapes and man's interaction with this land is continually evolving.

From the New Jersey Coastal Heritage Trail Route

New Jersey's strategic geographic position on the Mid-Atlantic coast placed it in a pivotal location for fishing, trade, and coastal defense.

New Jersey's coastal waterways and other natural resources shaped the historic settlement patterns within the region.

The allure of the New Jersey coastal environment, combined with its proximity to large metropolitan areas, resulted in its traditional use as a destination for recreation, inspiration, and other leisure activities.

New Jersey's barrier islands, coastal wetlands, estuaries, bays, and rivers provide habitat, nurseries, and refuge for a rich diversity of plant and animal life.

During their seasonal migrations, the New Jersey coast provides critical habitat for many of the Western Hemisphere's migrating species.

From Cumberland County's Ecotourism Plan

Tracing Cumberland County's Maritime Heritage

Boating Adventures in Cumberland County

Premier Fishing, Hunting, Crabbing, and Trapping Opportunities

The Heart of Farming in the Garden State

Birding, Biking, and Hiking: Passive Recreation and Ecotourism

From Silica to Crystal: Tracing the Natural History of Glass

APPENDIX 9

THE TEN COMMANDMENTS OF ECO-TOURISM

The American Society of Travel Agents (ASTA) prepared the following:

1. Respect the frailty of the earth. Realize that unless we are all willing to help in its preservation, unique and beautiful destinations may not be here for future generations to enjoy.
2. Leave only footprints. Take only photographs. No graffiti! No litter! Do not take away "souvenirs" from historical sites and natural areas.
3. To make your travels more meaningful, educate yourself about the geography, customs, manners and cultures of the region you visit. Take time to listen to people. Encourage local conservation efforts.
4. Respect the privacy and dignity of others. Inquire before photographing people.
5. Do not buy products made from endangered plants and animals.
6. Always follow designated trails. Do not disturb animals, plants or their natural habitats.
7. Learn about and support conservation-oriented programs and organizations working to preserve the environment.
8. Whenever possible, walk or utilize environmentally-sound methods of transportation. Encourage drivers of public vehicles to stop engines when parked.
9. Patronize hotels, airlines, resorts, cruise lines, tour operators and suppliers that advance energy and environmental conservation; water and air quality; recycling; safe management of waste and toxic materials; noise abatement; community involvement; and that provide experience, well-trained staff dedicated to strong principles of conservation.
10. Ask your ASTA travel agent to identify organizations that subscribe to ASTA Environmental Guidelines for air, land and sea travel.

PROGRAMMATIC ACCESSIBILITY GUIDELINES

The following guidelines were prepared by Harpers Ferry Center (NPS) in September 1991. They should be applied to the development of any new interpretive programs as well as to revisions of existing programs.

Statement of Purpose

This document is a guide for promoting full access to interpretive media to ensure that people with physical and mental disabilities have access to the same information necessary for safe and meaningful visits to National Parks. Just as the abilities of individuals cannot be reduced to simple statements, it is impossible to construct guidelines for interpretive media that can apply to every situation in the National Park System. These guidelines define a high level of programmatic access which can be met in most situations. They articulate key areas of concern and note generally accepted solutions. Due to the diversity of park resources and the variety of interpretive situations, flexibility and versatility are important.

Each interpretive medium contributes to the total park program. All media have inherent strengths and weaknesses, and it is our intent to capitalize on their strengths and provide alternatives where they are deficient. It should also be understood that any interpretive medium is just one component of the overall park experience. In some instances, especially with regard to learning disabilities, personal services, that is one-on-one interaction, may be the most appropriate and versatile interpretive approach.

In the final analysis, interpretive design is subjective, and dependent on both aesthetic considerations as well as the particular characteristics and resources available for a specific program. Success or failure should be evaluated by examining all interpretive offerings of a park. Due to the unique characteristics of each situation, parks should be evaluated on a case by case basis. Nonetheless, the goal is to fully comply with NPS policy:

"...To provide the highest level of accessibility possible and feasible for persons with visual, hearing, mobility, and mental impairments, consistent with the obligation to conserve park resources and preserve the quality of the park experience for everyone." NPS Special Directive 83-3, Accessibility for Disabled Persons

Audiovisual Programs
Audiovisual programs include motion pictures, sound/slide programs, video programs, and oral history programs. As a matter of policy, all audiovisual programs produced by the Harpers Ferry Center will include some method of captioning. The approach used will vary according to the conditions of the installation area and the media format used, and will be selected in consultation with the parks and regions.

The captioning method will be identified as early as possible in the planning process and will be presented in an integrated setting where possible. To the extent possible, visitors will be offered a choice in viewing captioned or uncaptioned versions, but in situations where a choice is not possible or feasible, a captioned version of all programs will be made available. Park management will decide on the most appropriate operational approach for the particular area.

Guidelines Affecting Mobility Impaired Visitors
1. The theater, auditorium, or viewing area should be accessible and free of architectural barriers, or alternative accommodations will be provided. UFAS 4.1.
2. Wheelchair locations will be provided according to ratios outlined in UFAS 4.1.2(18a).
3. Viewing heights and angles will be favorable for those in designated wheelchair locations.
4. In designing video or interactive components, control mechanisms will be placed in an accessible location, usually between 9" and 48" from the ground and no more than 24" deep.

Guidelines Affecting Visually Impaired Visitors
1. Simultaneous audio description will be considered for installations where the equipment can be properly installed and maintained.

Guidelines Affecting Hearing Impaired Visitors
1. All audiovisual programs will be produced with appropriate captions.
2. Copies of scripts will be provided to the parks as a standard procedure.
3. Audio amplification and listening systems will be provided in accordance with UFAS 4.1.2(18b).

Guidelines Affecting Learning Impaired Visitors
1. Unnecessarily complex and confusing concepts will be avoided.
2. Graphic elements will be chosen to communicate without reliance on the verbal component.
3. Narration will be concise and free of unnecessary jargon and technical information.

Exhibits
Numerous factors affect the design of exhibits, reflecting the unique circumstances of the specific space and the nature of the materials to be interpreted. It is clear that thoughtful, sensitive design can go a long way in producing exhibits that can be enjoyed by a broad range of people. Yet, due to the diversity of situations encountered, it is impossible to articulate guidelines that can be applies universally.

In some situations, the exhibit designer has little or no control over the space. Often exhibits are placed in areas ill suited for that purpose, they may incorporate large unyielding specimens, may incorporate sensitive artifacts which require special environmental controls, and room decor or architectural features may dictate certain solutions. All in all, exhibit design is an art which defies simple description. However, one central concern is to communicate the message to the largest audience possible. Every reasonable effort will be made to eliminate any factors limiting communication through physical modification or by providing an alternate means of communication.

Guidelines Affecting Mobility Impaired Visitors

1. Exhibit space will be free of physical barriers or a method of alternate accommodation shall be provided.
2. All pathways, aisles, and clearances will meet standards set forth in UFAS 4.3. Generally a minimum width of 36" will be provided.
3. Ramps will be as gradual as possible and will not exceed a slope of 1" rise in 12" run, and otherwise conform with UFAS 4.8.
4. Important artifacts, labels, and graphics, will be placed at a comfortable viewing level relative to their size. Important text will be viewable to all visitors. Display cases will allow short or seated people to view the contents and the labels. Video monitors associated with exhibits will be positioned to be comfortably viewed by all visitors.
5. Lighting will be designed to reduce glare or reflections, especially when viewed from a wheelchair.
6. Ground and floor surfaces near the exhibit area will be stable, level, firm, and slip-resistant. (UFAS 4.5)
7. Operating controls or objects to be handled by visitors will be located in an area between 9" and 48" from the ground and no more than 24" deep. (UFAS 4.3)
8. Horizontal exhibits (e.g. terrain model) will be located at a comfortable viewing height.
9. Information desks and sales counters will be designed for use by visitors and employees using wheelchairs, and will include a section with a desk height no greater than 32 to 34 inches, with at least a 30" clearance underneath. The width should be a minimum of 32" vertical, with additional space provided for cash registers or other equipment, as applicable.
10. Accessibility information about the specific park should be available at the information desk and the international symbol of access will be displayed where access information is disseminated.
11. Railings and barriers will be positioned in such a way as to provide unobstructed viewing by persons in wheelchairs.

Guidelines Affecting Visually Impaired Visitors

1. Exhibit typography will be selected with readability and legibility in mind.
2. Characters and symbols shall contrast with their backgrounds, either light characters on a dark background or dark characters on a light background. (UFAS 4.30.3)
3. Tactile and participatory elements will be included where possible.
4. Audio description will be provided where applicable.
5. Signage will be provided to indicate accessible rest rooms, telephones, and rest room elevators. (UFAS 4.30)

Guidelines Affecting Hearing Impaired Visitors

1. Information presented via audio formats will be duplicated in a visual medium, either in the exhibit copy or by printed material.
2. Amplification systems and volume controls will be incorporated to make programs accessible to the hard or hearing.
3. Written text of all audio narrations will be provided.
4. All narrated AV programs will be captioned.
5. Allowance for Telecommunication Devices for the Deaf (TDD) will be included into information desk designs.

Guidelines Affecting Learning Impaired Visitors

1. Exhibits will avoid unnecessarily complex and confusing topics.
2. Graphic elements will be developed to communicate non-verbally.
3. Unfamiliar expressions and technical terms will be avoided and pronunciation aids will be provided where appropriate.
4. To the extent possible, information will be provided in a manner suitable to a diversity of abilities and interests.
5. Where possible, exhibits will be multi-sensory. Techniques to maximize the number of senses utilized in an exhibit will be encouraged.
6. Exhibit design will be cognizant of directional handicaps and will utilize color and other creative approaches to facilitate comprehension of maps.

Historic Furnishings
Historically refurnished rooms offer the public a unique interpretive experience by placing visitors within historic spaces. Surrounded by historic artifacts visitors can feel the spaces "come alive" and relate more directly to the historic events or personalities commemorated by the park.

Accessibility is problematical in many NPS furnished sites because of the very nature of historic architecture. Buildings were erected with a functional point of view that is many times at odds with our modern views of accessibility.

The approach used to convey the experience of historically furnished spaces will vary from site to site. The goals, however, will remain the same, to give the public as rich an interpretive experience as possible given the nature of the structure.

Guidelines Affecting Mobility Impaired Visitors
1. The exhibit space should be free of architectural barriers or a method of alternate accommodation should be provided, such as slide programs, videotaped tours, visual aids, dioramas, etc.
2. All pathways, aisles, and clearances shall (when possible) meet standards set forth in UFAS 4.3 to provide adequate clearance for wheelchair routes.
3. Ramps shall be as gradual as possible and not exceed a 1" rise in 12" run, and conform with UFAS 4.8.
4. Railings and room barriers will be constructed in such a way as to provide unobstructed viewing by persons in wheelchairs.
5. In the planning and design process, furnishing inaccessible areas, such as upper floors of historic buildings, will be discouraged unless essential for interpretation.
6. Lighting will be designed to reduce glare or reflections when viewed from a wheelchair.
7. Alternative methods of interpretation, such as audiovisual programs, audio description, photo albums, and personal services will be used in areas which present difficulty for the physically impaired.

Guidelines Affecting Visually Impaired Visitors
1. Exhibit typefaces will be selected for readability and legibility, and conform with good industry practice.
2. Audio descriptions will be used to describe furnished rooms, where appropriate.
3. Windows will be treated with film to provide balanced light levels and minimize glare.
4. Where appropriate and when proper clearance has been approved, surplus artifacts or reproductions will be utilized as "hands-on" tactile interpretive devices.

Guidelines Affecting Hearing Impaired Visitors
1. Information about room interiors will be presented in a visual medium such as exhibit copy, text, pamphlets, etc.
2. Captions will be provided for all AV programs relating to historic furnishings.

Guidelines Affecting the Learning Impaired
1. Where appropriate, hands-on participatory elements geared to the level of visitor capabilities will be used.
2. Living history activities and demonstrations which utilize the physical space as a method of providing multi-sensory experiences will be encouraged.

Publications
A variety of publications are offered to visitors, ranging from park folders which provide an overview and orientation to a park to more comprehensive handbooks. Each park folder should give a brief description of services available to the disabled, list significant barriers, and note the existence of TDD phone numbers, if available.

In addition, informal site bulletins are often produced to provide more specialized information about a specific site or topic. It is recommended that each park produce an easily updated "Accessibility Site Bulletin" which could include detailed information about the specific programs, services, and opportunities available for the disabled and to describe barriers which are present in the park. These bulletins should be in reasonably large type, 18 points or larger.

Guidelines Affecting Mobility Impaired Visitors
1. Park folders, site bulletins, and sales literature will be distributed from accessible locations and heights.
2. Park folders and Accessibility Site Bulletins should endeavor to carry information on the accessibility of buildings, trails, and programs by the disabled.

Guidelines Affecting Visually Impaired Visitors
1. Publications will be designed with the largest type size appropriate for the format.
2. Special publications designed for use by the visually impaired should be printed in 18 point type.
3. The information contained in the park folder should also be available on audio cassette. Handbooks, accessibility guides, and other publications should be similarly recorded where possible.

Guidelines Affecting Hearing Impaired Visitors
1. Park site bulletins will note the availability of such special services as sign language interpretation and captioned programs.

Guidelines Affecting Learning Impaired Visitors
1. The park site bulletin should list any special services available to this group.

Wayside Exhibits
Wayside exhibits, which include outdoor interpretive exhibits and signs, orientation shelter exhibits, trailhead exhibits, and bulletin boards, offer special advantages to disabled visitors. The liberal use of photographs, artwork, diagrams, and maps, combined with highly readable type, make wayside exhibits an excellent medium for visitors with hearing and learning impairments. For visitors with sight impairments, waysides offer large type and high legibility.

Although a limited number of NPS wayside exhibits will always be inaccessible to visitors with mobility impairments, the great majority are placed at accessible pullouts, viewpoints, parking areas, and trailheads.

The NPS accessibility guidelines for wayside exhibits help insure a standard of quality that will be appreciated by all visitors. Nearly everyone benefits from high quality graphics, readable type, comfortable base designs, accessible locations, hard-surfaced exhibit pads, and well-designed exhibit sites.

While waysides are valuable on-site "interpreters," it should be remembered that the park resources themselves are the primary things visitors come to experience. Good waysides focus attention on the features they interpret, and not on themselves. A wayside exhibit is only one of many interpretive tools which visitors can use to enhance their appreciation of a park.

Guidelines Affecting Mobility Impaired Visitors
1. Wayside exhibits will be installed at accessible locations whenever possible.
2. Wayside exhibits will be installed at heights and angles favorable for viewing by most visitors including those in wheelchairs. For standard NPS low-profile units the recommended height is 34" from the bottom edge of the exhibit panel to the finished grade; for vertical exhibits the height is 24-28", depending on panel size.
3. Trailhead exhibits will include an accessibility advisory.
4. Wayside exhibit sites will have level, hard surfaced exhibit panels.
5. Exhibit sites will offer clear, unrestricted views of park features described in exhibits.

Guidelines Affecting Visually Impaired Visitors

1. Exhibit type will be as legible and readable as possible.
2. Panel colors will be selected to reduce eye strain and glare, and to provide excellent readability under field conditions. White should not be used as a background color.
3. Selected wayside exhibits may incorporate audio stations or tactile elements such as models, texture blocks, and relief maps.
4. For all major features interpreted by graphic wayside exhibits, the park should offer non-visual interpretation covering the same subject matter. Examples include cassette tape tours, radio messages, and ranger talks.
5. Appropriate tactile cues should be provided to help visually impaired visitors locate exhibits.

Guidelines Affecting Hearing Impaired Visitors

1. Wayside exhibits will communicate visually, and will rely heavily on graphics to interpret park resources.
2. Essential information included in audio station messages will be duplicated in written form, either as part of the exhibit text or with printed material.

Guidelines Affecting Learning Impaired Visitors

1. Topics for wayside exhibits will be specific and of general interest. Unnecessary complexity will be avoided.
2. Whenever possible, easy to understand graphics will be used to convey ideas, rather than text alone.
3. Unfamiliar expressions, technical terms, and jargon will be avoided. Pronunciation aids and definitions will be provided where needed.
4. Text will be concise and free of long paragraphs and wordy language.

APPENDIX 10

United States Department of the Interior

NATIONAL PARK SERVICE

Philadelphia Support Office
United States Custom House
200 Chestnut Street – Third Floor
Philadelphia, PA 19106

IN REPLY REFER TO:

(NPS/PHSO/S&P-C)

00-1398 DS
HPO-E2000-44

May 1, 2000

RECEIVED
MAY 4 2000
HISTORIC PRESERVATION OFFICE

Cari Wild
State Historic Preservation Officer
NJ Department of Environmental Protection
CN-402, 401 East State Street
Trenton, NJ 08625

Dear Ms. Wild:

The National Park Service, in partnership with its partners, prepared the enclosed draft Comprehensive Management Plan and Environmental Impact Statement (CMP/EIS) for the Maurice National Scenic and Recreational River.

Because there are a number of historic places located along the 35.4 mile river corridor, this draft Comprehensive Management Plan/EIS is being submitted for review under Section 106 of the National Historic Preservation Act of 1966, as amended, and the regulations of the Advisory Council on Historic Preservation.

This plan provides a framework for future decision-making and includes goals and strategies for addressing identified issues. The National Park Service is limited by legislation to working in the river corridor through Cooperative Agreements and will continue its role as facilitator and advisor with its partners. We find that this CMP will have "no effect" upon any National Register properties at this time and request your concurrence in this finding.

Should you have any questions regarding any aspect of this plan, please contact Mary Vavra, Program Manager, at (215) 597-9175. Please forward your Section 106 comments and concerns to Mary directly.

Thank you for your continued support and participation in the Northeast Region's Historic Preservation Program.

Sincerely,

Michael H. Gordon, Group Manager
Conservation Assistance

RECEIVED
MAY 2000

Enclosure

Concurrence in finding of "No Effect".

New Jersey State Historic Preservation Officer

May 6 2000
Date

RECEIVED
MAY - 3 2000
LHPO GUZZO
OFFICE OF NATURAL AND HISTORIC RESOURCES

FRANK A. LoBIONDO
2ND DISTRICT, NEW JERSEY

REPLY TO:
222 CANNON HOUSE OFFICE BUILDING
WASHINGTON, DC 20515-3002
202-225-6572
FAX 202-225-3318

5914 MAIN STREET
MAYS LANDING, NJ 08330
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COMMITTEES:
TRANSPORTATION AND INFRASTRUCTURE
SUBCOMMITTEES:
COAST GUARD AND MARITIME TRANSPORTATION, VICE CHAIRMAN
WATER RESOURCES AND ENVIRONMENT
SMALL BUSINESS
SUBCOMMITTEES:
REGULATORY REFORM AND PAPERWORK REDUCTION
EMPOWERMENT

Congress of the United States
House of Representatives
Washington, DC 20515-3002

June 20, 2000

Ms. Mary Vavra
Program Manager
National Park Service
Philadelphia Support Service
200 Chestnut Street, 3rd Floor
Philadelphia, PA 19106

Dear Ms. Vavra:

Attached for your consideration are comments on the "Draft Comprehensive Management Plan and Environmental Impact Statement for the Maurice National Scenic and Recreational River." These comments are from Jane Galetto, President of Citizens United to Protect the Maurice River and Its Tributaries, Inc., a local nonprofit environmental organization located in Millville, New Jersey, in my Congressional district.

I support these comments and ask they be given your full consideration throughout the process of determining what will be included in the final content of this Management Plan. Thank you for your consideration of this request. Should you have any questions, please feel free to contact Jennifer Drazek on my staff at 202-225-6572.

Sincerely,

Frank A. LoBiondo
Member of Congress

Refer to Citizens United to Protect the Maurice River and its Tributaries, Inc. letter of June 20, 2000.

APPENDIX 11

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 2
290 BROADWAY
NEW YORK, NY 10007-1866

JUL 14 2000

Mr. J. Keith Everett, Superintendent
Philadelphia Support Office
U.S. Department of the Interior
National Park Service
200 Chestnut Street
Philadelphia, Pennsylvania 19106

Class EC-2

Dear Mr. Everett:

The Environmental Protection Agency (EPA) has reviewed the draft Comprehensive Management Plan and Environmental Impact Statement (CMP/EIS) (CEQ No. 000134), for Maurice National Scenic and Recreational River (River) (35.4 miles) through Cumberland County, New Jersey. This review was conducted in accordance with Section 309 of the Clean Air Act, as amended (42 U.S.C. 7609, PL 91-604 12(a), 84 Stat. 1709), and the National Environmental Policy Act.

In 1993, Congress passed Public Law 103-162, designating 35.4 miles of the Maurice River and three tributaries in New Jersey as components of the National Wild and Scenic Rivers System. As such, the National Park Service (NPS) has responsibility for managing the river segments through cooperative agreements with the political entities for the five municipalities and Cumberland County through which the River passes. Section 3 (d)(1) of the Wild and Scenic Rivers Act (WSRA) requires preparation and implementation of a CMP for protection of the river values. The draft EIS evaluates three management alternatives implementation of the CMP.

The CMP provides appropriate recommendations to protect the Maurice River and its cultural and environmental resources. It includes such recommended actions as: development of a Watershed Management Plan consistent with New Jersey Department of Environmental Protection's (NJDEP) 1998 draft Strategic Plan, creation of a "No Discharge Zone" for the Maurice River corridor; identification of critical areas needing protection; and establishment of buffer zones around critical habitat. In addition, it encourages acquisition of parcels by state and local governments, as well as nonprofit conservation organizations to maintain undeveloped waterfront property, upland properties identified as having critical resources, and wildlife corridors; development of a forest management plan; minimization of impacts from commercial operations; restriction of new mining activities; limiting public access to the River; carrying out impact studies; education and outreach, and enforcement of various land use restrictions.

The three management alternatives for implementation of the CMP evaluated in the draft EIS are: Alternative I, no action (continued management by Cumberland County in cooperation with local, county and state governments with limited NPS involvement); Alternative II, establishment of a River Council under Cumberland County management; and Alternative III, more direct NPS management. All of the alternatives recognize that primary river corridor protection rests with municipal zoning and compliance with the Pinelands Comprehensive Management Plan and New Jersey Coastal Area Facilities Review Act. Alternative I is identified as the preferred alternative because the existing process has been effective since the

COMMENT

1993 designation and as defined in the 1994 Memorandum of Understanding signed by all partners. Since the MOU signing, the County assumed responsibility for monitoring compliance with Local River Management Plans.

Under the preferred management plan, Cumberland County will act as coordinator and advisor of municipal, state, and federal actions. It will reinforce the role of the local governments as the primary agents for implementing local management plans. Every two years, the NPS and the County will prepare a status report on the local management effort. The NPS will review any proposed water resources project that requires federal assistance through permits, licenses, funding, or other action encroaching on or directly affecting any designated segment of the Maurice National Scenic and Recreational River.

In concept, we agree with Alternative I. However, in order to monitor the effectiveness of the preferred alternative's environmental impacts, EPA suggests that the final CMP/EIS include a section detailing a plan for a periodic assessment of the implementation of the CMP's recommendations. The draft CMP/EIS includes a commitment for preparation of a report every two years, as required by Congress. Toward that end, the CMP/EIS should include a monitoring plan which states the criteria to perform this assessment, and a plan for a process to address any problems that may be identified. Costs associated with this monitoring plan will have to be included in the cost summary of all alternatives.

Regarding compliance with existing statutes and regulations, the draft CMP/EIS states that any actions taken that will effect the river must comply with the regulatory programs listed in Appendix 7. In the list of federal regulations, the final CMP/EIS should also include: Section 1424(e) of the Safe Drinking Water Act pertaining to sole source aquifers; and Section 303(d) of the Clean Water Act pertaining to Total Maximum Daily Loads (TMDLs). In particular with regard to TMDLs, the final CMP/EIS should reference that a Schedule to Establish TMDLs for all Water Bodies Listed on New Jersey's 1998 303(d) List Memorandum of Agreement(MOA) was signed by NJDEP and EPA in May 1999. Under this MOA, TMDLs for the Maurice River are required by June 2004. In order to establish TMDLs, water quality must be monitored. Accordingly, we recommend that a the final CMP/EIS include a section on water quality monitoring.

The CMP includes general recommendations for establishing wildlife corridors, and recommends purchasing of open space by various agencies and organizations. We suggest that the final CMP include a map with the recommended locations for wildlife corridors

In conclusion, based on our review and in accordance with EPA policy, we have rated this draft EIS an EC-2 indicating that we have concerns about timely implementation and monitoring of the CMP recommendations to enhance and protect the open space, water quality, and wildlife corridor values for which the river was designated, and that more detailed information is needed in this regard. The final EIS should include a water quality monitoring plan and a detailed plan for periodic evaluation of the implementation of the CMP.

NPS RESPONSE

→ A section entitled "Periodic Assessment and Reporting Requirements" was added to the final document to address comments concerning the need to monitor environmental impacts.

→ Appendix 7 was revised to address USEPA comments.

→ A "Water Quality Monitoring" section was added to the final Plan. Information regarding TMDLs was also included in Section VI. Appendix 6 is a Biological Assessment Table for State Watershed Management Area #17 which includes the Maurice River.

Comments about implementation to enhance and protect the river's water quality are difficult to address. The National Park Service's authority in the designated river corridor is very limited. Under Section 7(a) of Public Law 90-5442, NPS has the authority to review water resource permits to assure no adverse effect on identified outstandingly remarkable resources.

Through designation legislation for the Maurice River (P.L. 103-162) the National Park Service, through the Secretary of the Interior, was given responsibility for "managing the river segments...through cooperative agreements with the political jurisdictions within which such segments pass... and in consultation with such jurisdictions, except that publicly-owned lands within the boundaries of such segments shall continue to be managed by the agency having jurisdiction over such lands."

The National Park Service will own no land nor will it have a direct presence in the river corridor. Resource protection, including water quality, will primarily occur at the local and state level with the National Park Service providing coordination and assistance wherever appropriate. Information on water quality, along with recommendations for its improvement, is included in this document. NPS recognizes the importance of implementing those recommendations but also recognizes the limits of its authority in the river corridor. In addition, the Pinelands Comprehensive Management Plan and EIS are incorporated into the final plan by reference which also addresses protection of the lands and waters of the Maurice River.

→ Including a map detailing recommended locations for wildlife corridors is outside the scope of this document. The CMP/EIS contains a recommendation that wildlife corridors need to be established and the National Park Service will work with appropriate federal, state and local governments, as well as with nonprofit organizations to implement this recommendation

APPENDIX 11

Please be certain to add EPA to your mailing list for distribution of all future CMP related documents. In the interim, should you have any questions, please contact Barbara Giannacco at (212) 637-3755.

Sincerely yours,

Robert W. Hargrove, Chief
Strategic Planning and Multi-Media Programs Branch

cc: Mary Vavra, National Park Service

APPENDIX 11

United States Department of the Interior

FISH AND WILDLIFE SERVICE

Ecological Services
927 North Main Street (Bldg. D1)
Pleasantville, New Jersey 08232

Tel: 609-646-9310
FAX: 609-646-0352

IN REPLY REFER TO:

SP-00/31

June 13, 2000

Mary Vavra, Program Manager
National Park Service, Philadelphia Support Office
200 Chestnut Street, 3rd Floor
Philadelphia, Pennsylvania 19106

Dear Ms. Vavra:

This responds to Mr. J. Keith Everett's May 12, 2000 letter to the U.S. Fish and Wildlife Service (Service) requesting review and comments on the draft March 2000 *Comprehensive Management Plan (CMP) and Environmental Impact Statement (EIS) for the Maurice National Scenic and Recreational River.* The Service has reviewed the CMP/EIS and offers the following comments.

AUTHORITY

The following comments are provided as technical assistance and do not preclude separate review and comments by the Service on any forthcoming environmental documents pursuant to the National Environmental Policy Act as amended (83 Stat. 852; 42 U.S.C. 4321 *et seq.*); the Endangered Species Act of 1973 (87 Stat. 852; 16 U.S.C. 1531 *et seq.*) (ESA); the Fish and Wildlife Coordination Act (48 Stat. 401; 16 U.S.C. 661 *et seq.*); or comments if any permits are required from the U.S. Army Corps of Engineers (Corps) pursuant to the Clean Water Act of 1977 (33 U.S.C. 1344 *et seq.*) or the Rivers and Harbors Act of 1899 (30 Stat. 1151; 33 U.S.C. 403 *et seq.*).

GENERAL COMMENTS

The draft CMP/EIS for the Maurice National Scenic and Recreational River is a well-prepared document. It appears well organized and comprehensive. The Service concurs with the preferred alternative, which is to continue existing trends.

APPENDIX 11

FEDERALLY LISTED THREATENED AND ENDANGERED SPECIES

The following is current information regarding federally listed threatened and endangered species. It should be used to update the information provided on page 44 of the draft CMP. The attached *Federally listed Endangered and Threatened Species in New Jersey* and *Federal Candidate Species in New Jersey* should also replace the related lists in Appendix 5.

Four federally listed species occur within the boundary of the Maurice National Scenic and Recreational River. Pursuant to the ESA, federally listed species are afforded protection from activities that may adversely affect the species. Information on these federally listed species is provided below.

Swamp pink

Several occurrences of swamp pink (*Helonias bullata*), a federally listed (threatened) plant species, are found within the boundary of the Maurice National Scenic and Recreational River. Swamp pink is an obligate wetland species that occurs in a variety of palustrine forested wetlands in New Jersey, including forested wetlands bordering meandering streamlets, headwater wetlands, sphagnous Atlantic white cedar (*Chamaecyparis thyoides*) swamps, and spring seepage areas. Specific hydrologic requirements of swamp pink limit its occurrence within these wetlands to areas with lateral ground-water movement that are perennially saturated, but not inundated, by floodwaters. Threats to swamp pink include the following: loss of habitat due to wetland filling, clearing and draining; degradation of habitat due to sedimentation from off-site construction activities; flooding and erosion due to increased runoff from upstream sites; and, subtle changes in groundwater and surface water hydrology due to adjacent developments. Additionally, stormwater outfalls discharging into wetlands that support swamp pink can increase the frequency, duration, and volume of flooding in these wetlands and adversely affect swamp pink.

Any activities within the project area that directly or indirectly affect forested wetland habitats may affect this species. Therefore, if forested wetlands would be directly or indirectly affected, the Service requests that a qualified botanist conduct a vegetative survey to determine the absence or presence of swamp pink. The results of the survey, including the survey method used and the qualifications of the surveyor, should be forwarded to this office for review and to determine if consultation pursuant to Section 7(a)(2) of the ESA is necessary.

Sensitive joint-vetch

Two occurrences of sensitive joint-vetch (*Aeschynomene virginica*), a federally listed threatened species, are found within the boundary of the Maurice National Scenic and Recreational River. Sensitive joint-vetch is an annual legume that can grow up to six feet tall and produces yellow pea-like flowers. It occurs along segments of river systems that are close enough to the coast to be influenced by tidal action, yet far enough upstream to consist of fresh or slightly brackish

→ The text under "Threatened and Endangered Species" in Section VI was changed to include all the information contained in the US Fish and Wildlife Service's letter of June 13, 2000.

water. These freshwater tidal marshes are subjected to a cycle of twice-daily flooding that most plants cannot tolerate.

Any activities within the project area that directly or indirectly affect freshwater tidal wetland habitats may affect this species. Therefore, if these areas would be directly or indirectly affected, the Service requests that a qualified botanist conduct a vegetative survey to determine the absence or presence of sensitive joint-vetch. The results of the survey, including the survey method used and the qualifications of the surveyor, should be forwarded to this office for review and to determine if consultation pursuant to Section 7(a)(2) of the ESA is necessary.

Bald eagle

Two pairs of the federally listed (threatened) bald eagle (*Haliaeetus leucocephalus*) nest within the boundary of the Maurice National Scenic and Recreational River. A third pair of bald eagles nests approximately four miles from the project area. Eagles are often attracted to a water body, such as the Delaware River or Maurice River, as they search for food. Eagles are opportunistic feeders and will eat carrion or live prey, including fish, small mammals, and waterfowl, and often roost in dead or mature trees adjacent to water. Therefore, disturbances to mature timber within the project boundary may impact roosting or feeding bald eagles. If any activities proposed for the Maurice National Scenic and Recreational River include disturbance to mature timber, consultation pursuant to Section 7(a)(2) of the ESA may be required to assure that proposed activities do not adversely affect the bald eagle.

Shortnose sturgeon

The shortnose sturgeon (*Acipenser brevirostrum*), a federally listed endangered species, is documented to occur in the Delaware River adjacent to the project area. The shortnose sturgeon is an anadromous fish that was once common; however, over-fishing and increased water pollution have led to drastic reductions in shortnose sturgeon populations. Principal responsibility for threatened and endangered marine species, including the shortnose sturgeon, is vested with the National Marine Fisheries Service (NMFS). For additional information regarding shortnose sturgeon please contact the NMFS at:

National Marine Fisheries Service
Habitat and Protected Resources Division
Sandy Hook Laboratory
Highlands, New Jersey 07732
(732) 872-3023

Except for the aforementioned species, no other federally listed or proposed threatened or endangered flora or fauna are known to occur within the vicinity of the Maurice National Scenic and Recreational River. If additional information on federally listed endangered or threatened species becomes available, this determination may be reconsidered.

OTHER COMMENTS

The following specific comments are referenced by page number of the CMP/EIS.

Page 3: Add "from each bank" to the first sentence in the first paragraph ....consists of one-quarter mile from the high water line "from each bank" throughout the 35.4 mile corridor.

Page 20: Last sentence - change "as Superfund sites," to "on Superfund sites,"

Pages 22, 34, 35, 38, 56, 59, 67, 75, 103, and 132: Correct New Jersey Division of Fish, Game and Wildlife to New Jersey Division of Fish and Wildlife. The Division changed its name to New Jersey Division of Fish and Wildlife in December 1999.

Page 123: Add the following section as the first full paragraph on the page. "An area of wetlands in Maurice River Township, which is dominated by *Phragmites,* provides a premigratory roosting site for more than 60,000 Purple Martins. After the young have fledged, from July through August, Purple Martins often congregate in distinctive nocturnal roosts. Dense stands of Phragmites provide safe places for the birds to roost. These communal assemblages may reach enormous concentrations and are considered a prelude to the martins' fall migration to South America. The martins feed upon the abundant supply of flying insects associated with the river corridor."

The Service appreciates the opportunity to provide comments on the CMP/EIS. Please contact Allen Jackson or Lisa Arroyo at extensions 23 and 49 respectively if you have any questions regarding these comments.

Sincerely,

Clifford G. Day
Supervisor

Enclosures

→ All the recommended changes under "Other Comments" were incorporated into the final CMP/EIS

APPENDIX 11

COMMENT

NPS RESPONSE

State of New Jersey
THE PINELANDS COMMISSION
PO Box 7
New Lisbon NJ 08064
(609) 894-7300

CHRISTINE TODD WHITMAN
Governor

July 17, 2000

Ms. Mary Vavra
United States Department of the Interior
National Park Service
Philadelphia Support Office
United States Custom House
200 Chestnut Street - Third Floor
Philadelphia, PA 19106

Dear Ms. Vavra:

Thank you for the opportunity to review the "Comprehensive Management Plan and Draft Environmental Impact Statement for the Maurice National Scenic and Recreational River." Overall, I found the draft to be a very comprehensive and informative document. As I mentioned to you on the telephone, I have a few minor comments. Simple corrections are noted directly on the enclosed copies of pages from the draft. In addition, my other comments are as follows:

- On page 28, the last sentence in the first paragraph under subheading (3) appears to be inaccurate when it states that Maurice River Township wholly contains the Manumuskin River segment, since this area apparently extends into Buena Vista Township. Also, while subsequent paragraphs discuss the Township's zoning provisions that apply outside of the Pinelands, it may be helpful to note that the Township's zoning ordinance for the area inside of the Pinelands conforms to the Pinelands Comprehensive Management Plan and therefore contains protections for natural, ecological, cultural resources (see page 23). With the exception of villages such as Port Elizabeth/Bricksboro, commercial and other more intensive uses are generally prohibited throughout the remainder of the Township inside of the Pinelands area.

→ Changes were made to Section VI based on comments.

- The discussions concerning cultural resources (e.g., p. 38-39 and Appendix 4) seem to pertain exclusively to sites and structures dating from the colonial era on. Commission staff, however, have documented many pre-historic occupation sites along the River. While the exact locations of these sites should not be divulged to best secure their protection, the existence of these sites should be accounted for in planning efforts. Also, the definition of cultural resources should be expanded to include historic districts, not just individual sites. Commission staff have identified potential historic districts throughout the Pinelands, including Port Elizabeth-Bricksboro. The integrity of such districts, as well as individual sites, requires protection.

→ Additional information regarding conformance to the Pinelands Comprehensive Management Plan was added to Section VI.

→ Information was included under "Cultural Resources" in Section VI and also in Appendix 4

APPENDIX 11

- The two key resources that guide protection of threatened and endangered species in the Pinelands are omitted from the discussion beginning on page 43 and Appendix 5: the official State listing of endangered and threatened wildlife produced by the New Jersey Division of Fish and Wildlife, and the list of threatened and endangered plants from the Pinelands Comprehensive Management Plan. Both documents should be referred to in the discussion and copies are provided for inclusion in the Appendix.

→ Information was included under "Threatened and Endangered Species Protection" in Section VI. The official State listing of endangered and threatened wildlife and the Pinelands Commission's listing were included in Appendix 5.

- Several recent Commission initiatives relate to regional ecotourism efforts and should be discussed somewhere in the draft, possibly within Section VII.

1. The Commission recently completed a 2-year pilot program to examine economic development opportunities in some of the more rural Pinelands communities, including Maurice River Township in partnership with Dennis Township in Cape May County (Buena Vista Township also participated but was primarily interested in development opportunities along Route 40, which falls outside of the federal boundary for the Maurice River). Opportunities identified through the pilot program matched local interests and needs with Pinelands requirements for resource protection. The key recommendation resulting from this program was to develop a comprehensive ecotourism strategy for the region (the name "BayLands" was suggested as a way to promote a regional identity). The associated implementation strategy identified action items in the areas of staffing, planning, infrastructure, marketing, site-specific development, targeted new uses, education, partnerships, and events. A copy of the strategy is enclosed.

→ Information was included in Section VII

2. Work has begun on one of the key components of the ecotourism strategy, the designation of a scenic byway. Based on preliminary discussions, a potential route would run from Port Elizabeth to Dennis Township via Delsea Drive or Belleplain State Forest, before turning north to other portions of the Pinelands. In addition to the main route, the byway may include spurs to other nearby destinations. This concept has been enthusiastically endorsed by the municipalities along the route, and we are working with them to pursue state-level designation through the New Jersey Department of Transportation (with an ultimate goal of federal designation).

→ Information was included in Section VII.

3. A signage program is in the early stages of development as part of the Pinelands Interpretive Program, a partnership with the National Park Service and the New Jersey Department of Environmental Protection. This effort is focusing on municipalities that participated in the pilot program and may ultimately entail the design and placement of highway signs in Maurice River Township.

→ Information was included in Section VII.

- It would be helpful if the County-produced maps could show the names of the three tributaries, major roads, and/or population centers to serve as points of reference. An updated map of the Pinelands Area is also enclosed (a disk version can be sent if preferred).

→ The maps in the final CMP/EIS were updated to include additional information

State of New Jersey

Christine Todd Whitman
Governor

Department of Environmental Protection

Robert C. Shinn, Jr.
Commissioner

Office of Program Coordination
PO Box 418
Trenton, NJ 08625-0418
Phone 609-292-2662
Fax 609-292-4608
E-mail: lschmidt@dep.state.nj.us

July 20, 2000

Ms. Mary Vavra
U.S. Department of the Interior
National Park Service
Philadelphia Support Office
U.S. Custom House
200 Chestnut Street – Third Floor
Philadelphia, PA 19106

RE: Maurice National Scenic and Recreational River Comprehensive Plan and Environmental Impact Station

Dear Ms. Vavra:

The Office of Program Coordination of the New Jersey Department of Environmental Protection (NJDEP) has completed its review of the Maurice National Scenic and Recreational River Comprehensive Plan and Environmental Impact Station (CMP/EIS). We offer the following comments and concerns of our Department's Division of Fish and Wildlife (DFW) and Office of State Plan Coordination.

OUTBOARD MOTOR BAN ON THE THREE TRIBUTARIES

The CMP/EIS proposes an outboard motor ban on the three tributaries of the Maurice River. The DFW feels that this ban is not reasonable. Having consulted with the Division s personnel and the NJ Marine Police, the DFW does not feel that electric motors will allow for the continuing use of these waters by sportsman legally engaged in hunting, fishing and/or trapping. We agree that these waters are "No Wake Zones" and should remain as such. We also question what will happen and be the reaction to this restriction from those individuals that have motor boats and personal watercraft (PWC) on these tributaries. Perhaps only a PWC ban should be in effect.

→ Refer to NJDEP memo of August 29, 2000 for additional comments. The "Resource Protection Areas" section under Section VI was revised to more clearly state the recommendation that electric motors only be permitted in very specific sections of the three tributaries for resource protection. Those sections are clearly delineated in Section VI.

APPENDIX 11

The proposed ban should be subject to further analysis, public review, public comment, and local community acceptance.

RESIDENT CANADA GEESE

The DFW has concerns as to what affect resident Canada geese are having on the growing of wild rice in the area. The Division's Waterfowl Ecology Section is presently studying this problem. The resident goose segment of this population appears to be grazing this plant and greatly reducing its potential to provide food and cover. Their actions appear to be causing great havoc! The DFW is still studying the problem and expects to develop some sort of management plan to address the problem in the near future.

→ These comments were incorporated under "Wildlife Management" in Section VI

DOCK MATERIALS RECOMMENDATIONS

In order to conform to the NJDEP's Strategic Plan, the DFW recommends that the following materials be used at all times in the construction of all bulkheads and docks.

Bulkheads – The replacement of all bulkheads should be with metal (aluminum) or vinyl. If any piling is necessary, the DFW recommends that the piling be plastic encased, impregnated or solid.

Docks and Piers – The DFW recommends the use of a lumber substitute or aluminum for the construction of all non-structural members. Aluminum is available for all structural members.

Justification – The use of lumber substitutes and aluminum would reduce the amount of heavy metals presently entering the ecosystem. New advances in materials even offer products that are manufactured from wood waste and reclaimed plastics. These products are even offering a ten-year warranty. Some of these products are resistant to termites, insects and marinebores (Limnoria Tripunctata, Shipworms, Terdimidai and Crustacean Borere). They do not degrade in fresh or salt water, are in various colors, solvent resistant, hold up in temperature extremes, do not rot, splinter or decompose, require no sealer and they will outlast traditional wood products.

→ These recommendations were included under "Docks, Bulkheads and Marinas" in Section VI.

For additional information regarding the concerns of the DFW, please contact Donald Wilkinson of the DFW's Environmental Review Section at 856-785-0455.

STATE DEVELOPMENT AND REDEVELOPMENT PLAN

The NJDEP's Office of State Plan Coordination has found the CMP consistent with the State Development and Redevelopment Plan. The majority of

→ This information was included in Section V

APPENDIX 11

the river corridor is in the Coastal Area Facility Review Act (CAFRA) Area, and has been delineated as Coastal Planning Area 5 (environmentally sensitive). Other tributaries are in the Pinelands, and classified as Forest Management Area. The City of Millville has delineated a Regional Center that excludes the river corridor.

Please note it appears that Map 11 of the CMP/EIS does not accurately depict the boundaries of the regulatory authorities of the CAFRA and the Pinelands Commission. The map shows a substantial area of the Menantico and Manumuskin Rivers as being within the CAFRA area. The CAFRA boundary on the east side of the Maurice River is Route 47, putting the majority of these two rivers within the jurisdiction of the Pinelands Commission. Attached is a map showing the current CAFRA boundaries in this area.

→ This map was revised by Cumberland County to more accurately depict the boundaries of the regulation authority of CAFRA and Pinelands Commission.

In Maurice River Township, the State Planning Commission recently endorsed five centers (Port Elizabeth, Dorchester/Leesburg, Mauricetown Station, Delmont and Heilerville). The endorsement also included recognition of the Township's environs protection efforts, and river management plan. Commercial Township has also submitted a center petition to the Commission to designate Mauricetown and Port Norris. Although the Commission has not yet acted on it, a preliminary review indicates that the petition is also consistent with the Draft Comprehensive Management Plan.

→ Information was included under "Township of Maurice River" in Section V.

Thank you for the opportunity to comment on the CMP/EIS.

Sincerely,

Lawrence Schmidt
Director
Office of Program Coordination

C: Donald Wilkinson, NJDEP
Bill Purdie, NJDEP

Attachment

APPENDIX 11

State of New Jersey

Christine Todd Whitman
Governor

Department of Environmental Protection

Robert C. Shinn, Jr.
Commissioner

Division of Fish, Game and Wildlife
Bevans/Millville WMA
1670 East Buckshutem Road
Millville, NJ 08332
Ph. (856)-785-0455 fax (856)-785-0670

MEMORANDUM

TO: Lawrence Schmidt, Director
Office of Program Coordination

FROM: Don Wilkinson, Wildlife Biologist

SUBJECT: Maurice National Scenic and Recreational River
Draft EIS Comments

DATE: August 29, 2000

Jane Morton Galetto recently contacted me, on behalf of Citizens United to Protect the Maurice River and Its Tributaries, Inc., about my position on the outboard motor ban. Upon further review, I believe this is an area that needs clarification. We feel that the electric motor only policy on those areas covered on page 52 of the EIS is valid. However, these creeks are less than 200' wide for their entire length per map #10 of the EIS (I don't know if this is accurate). We do not feel there should be a ban on outboards in the area below those covered on page 52 and the main river. We have another question about the 200' width. Is this at MHW or MLW or at some other stage of the tide? Will the boat operator be responsible for being able to recognize the area as being over 200' wide at the moment? This seems like it maybe hard for Law Enforcement to enforce. Perhaps the proper markings can be put in place to notify boaters.

c. A. Didun, M. Vavra (NPS), J. Galetto

→ "Resource Protection Areas" in Section VI was revised for clarification. The only areas where an "electric motor only" policy is recommended are clearly specified. Should this policy be implemented by the NJDEP, the National Park Service will Work with the NJ Marine Police to produce the appropriate signs and markings so That boaters are aware of the policy.

JAMES G. ATKINSON
DEPUTY FREEHOLDER DIRECTOR

COUNTY OF GLOUCESTER
STATE OF NEW JERSEY
PLANNING DIVISION
1200 N. DELSEA DRIVE
CLAYTON, NEW JERSEY 08312
(856) 307-6650 FAX (856) 863-1069
(Development Review (856) 307-6658)
Website: www.co.gloucester.nj.us/plan

CHARLES E. ROMICK, AICP/PP
PLANNING DIRECTOR

July 13, 2000

Mary Vavra
Program Manager
United States Department of the Interior
National Park Service
Philadelphia Support Office
United States Custom House
200 Chestnut Street – Third Floor
Philadelphia, PA 19106

Dear Ms. ~~Vavra~~ Mary:

The Gloucester County Public Works Department – Planning Division has reviewed the Draft Comprehensive Management Plan and Environmental Impact Statement for the Maurice National Scenic and Recreational River (March 2000) and offers the following comments:

1. SECTION III – PURPOSE AND SIGNIFICANCE

   c. **River Significance (page 11-12)**

   Additional information concerning the environmental significance of the Maurice River can be obtained from United States Fish and Wildlife Service publications entitled:

   A. Regional Wetlands Concept Plan: Northeast Region
   B. 1998 Update – North American Waterfowl Management Plan
   C. North American Waterfowl Management Plan – 1999 United States Progress Report

   Also, as per the USEPA publication entitled "Priority Wetlands for the State of New Jersey," freshwater wetlands within the Maurice River System have been identified as USEPA Priority Wetlands.

2. SECTION V – RIVER MANAGEMENT

→ This information was included in the final CMP EIS

APPENDIX 11

COMMENT	NPS RESPONSE
b. State of New Jersey (page 23) NJDEP recently published draft Water Quality and Watershed Management Rules and Proposed Freshwater Wetlands Rules. The agency is also revising the New Jersey Best Management Practices Manual for Control of Nonpoint Source Pollution from Stormwater.	→ This comment was added to Section VI under "State of New Jersey".
3. SECTION VI - RESOURCE MANAGEMENT ISSUES, GOALS, AND PRESCRIPTIONS	
19. Water Quality – Water Quality Assessment Summary (page 46) Additional information for the water quality assessment section can be obtained from the following studies: 1. Maurice River Watershed (May 1984) – Gloucester County Planning Department 2. Still Run Watershed Stormwater Management Plan (February 1994) – Planning Division, NJDEP, Gloucester County Soil Conservation District, and NRCS. 3. An Environmental Assessment: Scotland Run Watershed (August 1999) – Dr. Robert Pultorak, Gloucester County College 4. Known Contaminated Sites in New Jersey, NJDEP 5. NJDEP NJPDES Permits, Stormwater Discharge Permits, and Remedial Action Work Plans 6. 208 Water Quality Management Plan: Burlington, Camden, and Gloucester Counties, Delaware Valley Regional Planning Commission 7. USEPA Web Site (i.e. Index of Watershed Indicators, Enviromapper)	→ The resources identified were reviewed and information was incorporated into Section VI where appropriate.
20. Water Supply/Withdrawal (page 50-51) Staff should also review technical reports and hydrogeologic studies which were completed for the Critical Area Program (i.e. Camden Metropolitan Area Supply Feasibility Study). Technical studies and water resources investigations are also available from the United States Geological Survey (i.e. Franklin Township Land Use and Ground Water Study, Radium, Mercury, Water Supply Availability, Upper Maurice River Basin) and the Delaware River Basin Commission (i.e. Special Ground Water Study, Water '98 Snapshot). Hydrogeologic studies, Consumer Confidence Reports, Monitoring Reports, and Water Conservation Reports are available from the water companies and municipal utility authorities.	→ The existence of additional resource information was noted and information was incorporated where appropriate.

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COMMENT	NPS RESPONSE
4. SECTION VII – VISITOR MANAGEMENT AND INTERPRETATION SERVICES	
Existing Facilities and Programs (page 70) Staff should review the Gloucester County Farmland Preservation, Open Space Protection and Recreational Needs Study.	
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5. SECTION VIII - ENVIRONMENTAL IMPACT STATEMENT

Surface Hydrology (page 125-126)

Additional streamflow information is available from the Little Ease Run stream gage which is maintained by USGS and funded by the Planning Division.

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The Planning Department appreciates the opportunity to provide input for this most important project. Please feel free to contact me if there are any questions or if I can be of further assistance.

Sincerely,

Rick

Richard Westergaard

RW:vb
C: Stephen Sweeney, Freeholder Director
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APPENDIX 11

CITIZENS UNITED

to Protect the Maurice River and its Tributaries, Inc.

June 20, 2000

Ms. Mary Vavra
Program Manager
National Park Service, Philadelphia Support Office
200 Chestnut Street, 3rd Floor
Philadelphia, PA 19106

Dear Ms. Vavra,

I am writing you on behalf of the officers and trustees of Citizens United to Protect the Maurice River and Its Tributaries, Inc.(CU). CU is a non profit watershed corporation, 501 (c) (3). CU founded in 1979 and incorporated in 1986, with approximately 400 memberships. As an environmental group, we are committed to our mission of preservation and protection of both the natural and cultural resources within the Maurice River watershed. CU was instrumental in securing the Wild and Scenic River designation by the National Park Service of 4 Southern New Jersey rivers: the Maurice, Menantico, Manumuskin and Muskee. Conservation achievements in which Citizens United has played a major role or acted as a catalyst are numerous.

We thank you for the opportunity to comment on the "Draft Comprehensive Management Plan and Environmental Impact Statement for the Maurice National Scenic and Recreational River" a product of the Department of the Interior, National Park Service, Philadelphia Support Office - In Cooperation With Partners, March 2000.

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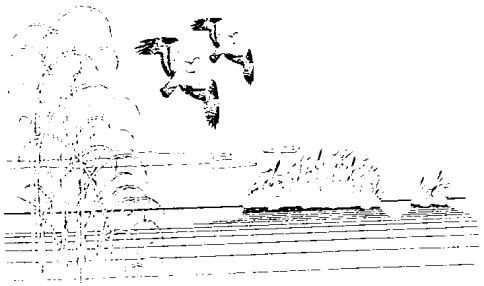

P.O. Box 474 • Millville, New Jersey 08332

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Alternative 1 is most consistent with the locally expressed desires to retain local control. It further recognizes the need for some coordination with the National Park Service. It is impossible to be a unit of the National Park System without some coordination between the NPS and the County. The County needs to have a reliable and predictable response from the NPS as the need arises to coordinate with various issues that preserve the integrity of the river's resources. For this reason we strongly support the expenditure of $210,000 as outlined on page 110. In fact we would support a larger allocation.

It is imperative that dollars be allocated for coordinating implementation responsibilities between County and the NPS. We believe that the dollar amount allocated to the Development of Information & Educational Brochures is an underestimate of the amount needed. Some of these educational products might be produced by the Cooperative Agreements. We would suggest that because of the local emphasis that has been placed on increasing visitation, an equal amount of vigilance needs to be placed on educating the public regarding the sensitive nature of the natural resources. There are products and programs that we feel need to be produced to insure the protection and enhancement of the natural, cultural and recreational resources of the rivers, such that they remain intact for future generations of Americans. Property owners along the river need to be contacted in a proactive manner regarding their responsibilities for the maintenance of the river corridor. At county/NPS workshops we have discussed and agreed upon the need for brochures on permitting processes for docks, bulkheads and the like. Additionally we have agreed that property owners should be informed about the allowances and prohibitions of the local river conservation plans. In fact property owners are not familiar with vegetative buffers required by the plans, nor are they adequately familiar with how their activities impact the waterways. Some examples: feeding waterfowl is inherently detrimental; domestic ducks hybridize with native species and cause sterility; lawn products, bulkheads and floating docks all have impacts. Frankly, many residents would not have pursued these or other questionable activities if they had known they were detrimental in the first place. If each resident were provided a "friendly list of dos and don'ts" and each time property changed hands the new property owner was provided the same, many adverse impacts could be avoided. Mostly property owners act in ignorance, not with malice.

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→ The National Park Service is working with Cumberland County to produce a brochure about the permitting process and has worked with the Natural Lands Trust to establish the Maurice River Natural Areas Registry Program that is designed to educate landowners about important resources that may be located on their property.

Let us provide a costly example. One well-intentioned property owner attempted to stabilize his bank by placing tons of clam shells on a steep slope. This destroyed the native vegetation and violated CAFRA regulations and the local river conservation plan of maintaining native vegetation. It is a long costly process to revegetate a slope and results are not always as beneficial as it would have been to plant native vegetation to begin with. A little proactive intervention might have averted what we assume became thousands of dollars of frustration for all parties involved. Property owners continue to move to the river where they clear and plant lawns to the banks and water's edge . No one likes to evoke the regulations after the fact. If property owners acted contrary to the regulations after having been properly informed, enforcement would be much more palatable. Clearly the best case scenario would be prevention through awareness.

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→ Information on Flora Management and Wildlife Management were added to Section VI to address this comment.

COMMENT

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Sincerely,

Jane Morton Galetto
President

cc Stephen Kehs
Trustees and Officers of Citizens United...
Congressman Frank LoBiondo
Jay Laubengeyer
Michele Byers

NPS RESPONSE

→ Additional recommendations were added to Section VI under "Recreation" to address noise level and the comments made regarding protection of the tidal marshes and mudflats.

→ A recommendation to clearly mark areas of regular strandings was included under "Recreation" in Section VI.

APPENDIX 11

2725 S. Second Street
Millville, N. J. 08332

May 26, 2000

National Park Service
Philadelphia Support Office
United States Customs House
200 Chestnut Street—Third Floor
Philadelphia, Pa. 19106

Attn: Ms. Mary Vavra

Dear Ms. Vavra,

My wife and I live on about seventy-five acres along the north side of the Menantico Creek. Our eastern property line is Route 55 to the Rt. 55 bridge. Our creek frontage is about one-quarter mile +/-.

We want you to know that we support the National Park Service's management plans for the Maurice River and its tributaries.

As a result of our location and its sensitive nature, we are strongly supportive of the "no wake" and "electric motor only" zones proposed here on the Menantico. This kind of management is long overdue, and we hope that damage to our banks and this sensitive area in general will be greatly diminished.

We would like you to know we are also appreciative, and support, Mr. and Mrs. Berwyn Kirby's wildlife sanctuary efforts on the east side of Route 55 along with the same ambitions of the Nature Conservancy.

Sincerely,

Clark Bean

No Response Required

APPENDIX 11

Walking By Faith
Growing In Grace

July 13, 2000

Ms. Mary Vavra
United States Dept. of the Interior
National Park Service
200 Chestnut St – Third Floor
Philadelphia, PA 19106

Dear Ms. Vavra:

The Bethany Baptist Association is a union of ninety-five churches. Our Cedar Knoll Camp ground located on Schooner Landing Road in Maurice River Township has historically been our prized provider of outdoor experiences for our youth and others. We have worked long and hard to establish what is there today.

We are very much concerned about our environment. We have been a strong voice against past potential environmentally negative ambitions. The most significant was our intense representation at a local public forum, which helped defeat a hazardous waste dumpsite proposed for this sensitive area.

No Response Required

Our Campground water frontage on the Menantico Creek extends essentially from Route 55 to Route 47 on the Maurice River Township side of the Millville-Maurice River Township boundary line. Schooner Landing Road from Route 55 to Route 47 +/- a few hundred feet on both ends is our land boundary in Maurice River Township.

We Support the National Park Service's Comprehensive Management Plan. We are especially supportive of "no Wake" and "electric motors only" recommendations for the three tributaries of the Maurice River, which includes Menantico Creek.

We support preservation of existing plant and wildlife in general. Also, we would hope that our lengthy sensitive shoreline would be more secure as a result of this management plan.

Sincerely,

Guy Campbell, Jr.

Dr. Guy Campbell, Jr.
Moderator Bethany Baptist Association

Evergreen Baptist Church

APPENDIX 11

COMMENT

120 Schooner Landing Road
Millville, N.J. 08332

June 20, 2000

Ms. Mary Vavra
United States Dept. of the Interior
National Park Service
United States Custom House
200 Chestnut St.-Third Floor
Philadelphia, Pa 191106

Dear Ms. Vavra:

My wife and I own between fifty and sixty acres adjacent to Route 55 on the Menantico Creek. The creek runs through our land, of which the greater parts of both sides are banked wetlands.

There are several breaks in our banks caused by long-term tidal action and short-term wake damage due to inappropriate use of outboard motors. Trees are being undermined, creek grasses uprooted, and general environmental degradation is increasing. Natural bank erosion is more easily maintained than wake damage caused by outboard motors which is almost impossible to stay abreast of. Outboards in general, regardless of speed (slow or fast) still impact the wild rice meadows. Bottom and bank vegetation, some of which are endangered, is impacted by prop action and oil-laden exhaust. Noise also has an impact on quiet sensitive areas.

For these and other reasons we support the National Park Service's management plan, particularly in regards to "no wake" (idle speed) and "electric motors only" zoning on the Maurice River tributaries. As you are aware, our property is functioning as a wildlife sanctuary. The Nature Conservancy shares our boundaries.

We are looking forward to the positive consequences the proposed controls will definitely bring.

Sincerely,

Berwyn Kirby

Berwyn Kirby
Kay Kirby

NPS RESPONSE

No Response Required

APPENDIX 11

As the nation's principal conservation agency, the Department of the Interior has responsibility for most of our nationally owned public lands and natural resources. This includes fostering sound use of our land and water resources; protecting our fish, wildlife, and biological diversity; preserving the environmental and cultural values of our national parks and historical places; and providing for the enjoyment of life through outdoor recreation. The Department assesses our energy and mineral resources and works to ensure that their development is in the best interests of all our people by encouraging stewardship and citizen participation in their care. The Department also has a major responsibility for American Indian reservation communities and for people who live in island territories under U.S. administration.

COMMENT	NPS RESPONSE
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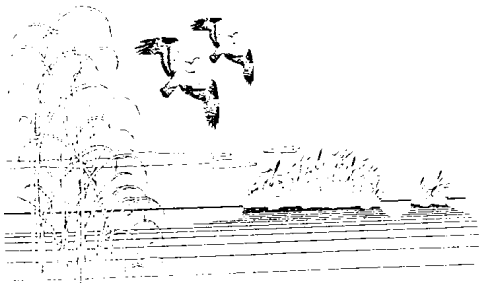

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2725 S. Second Street
Millville, N. J. 08332

May 26, 2000

National Park Service
Philadelphia Support Office
United States Customs House
200 Chestnut Street—Third Floor
Philadelphia, Pa. 19106

Attn: Ms. Mary Vavra

Dear Ms. Vavra,

My wife and I live on about seventy-five acres along the north side of the Menantico Creek. Our eastern property line is Route 55 to the Rt. 55 bridge. Our creek frontage is about one-quarter mile +/-.

We want you to know that we support the National Park Service's management plans for the Maurice River and its tributaries.

As a result of our location and its sensitive nature, we are strongly supportive of the "no wake" and "electric motor only" zones proposed here on the Menantico. This kind of management is long overdue, and we hope that damage to our banks and this sensitive area in general will be greatly diminished.

We would like you to know we are also appreciative, and support, Mr. and Mrs. Berwyn Kirby's wildlife sanctuary efforts on the east side of Route 55 along with the same ambitions of the Nature Conservancy.

Sincerely,

Clark Bean

No Response Required

APPENDIX 11

Walking By Faith
Growing In Grace

July 13, 2000

Ms. Mary Vavra
United States Dept. of the Interior
National Park Service
200 Chestnut St – Third Floor
Philadelphia, PA 19106

Dear Ms. Vavra:

The Bethany Baptist Association is a union of ninety-five churches. Our Cedar Knoll Camp ground located on Schooner Landing Road in Maurice River Township has historically been our prized provider of outdoor experiences for our youth and others. We have worked long and hard to establish what is there today.

We are very much concerned about our environment. We have been a strong voice against past potential environmentally negative ambitions. The most significant was our intense representation at a local public forum, which helped defeat a hazardous waste dumpsite proposed for this sensitive area.

No Response Required

Our Campground water frontage on the Menantico Creek extends essentially from Route 55 to Route 47 on the Maurice River Township side of the Millville-Maurice River Township boundary line. Schooner Landing Road from Route 55 to Route 47 +/- a few hundred feet on both ends is our land boundary in Maurice River Township.

We Support the National Park Service's Comprehensive Management Plan. We are especially supportive of "no Wake" and "electric motors only" recommendations for the three tributaries of the Maurice River, which includes Menantico Creek.

We support preservation of existing plant and wildlife in general. Also, we would hope that our lengthy sensitive shoreline would be more secure as a result of this management plan.

Sincerely,

Guy Campbell, Jr.

Dr. Guy Campbell, Jr.
Moderator Bethany Baptist Association

Evergreen Baptist Church

APPENDIX 11

COMMENT

120 Schooner Landing Road
Millville, N.J. 08332

June 20, 2000

Ms. Mary Vavra
United States Dept. of the Interior
National Park Service
United States Custom House
200 Chestnut St.-Third Floor
Philadelphia, Pa 191106

Dear Ms. Vavra:

My wife and I own between fifty and sixty acres adjacent to Route 55 on the Menantico Creek. The creek runs through our land, of which the greater parts of both sides are banked wetlands.

There are several breaks in our banks caused by long-term tidal action and short-term wake damage due to inappropriate use of outboard motors. Trees are being undermined, creek grasses uprooted, and general environmental degradation is increasing. Natural bank erosion is more easily maintained than wake damage caused by outboard motors which is almost impossible to stay abreast of. Outboards in general, regardless of speed (slow or fast) still impact the wild rice meadows. Bottom and bank vegetation, some of which are endangered, is impacted by prop action and oil-laden exhaust. Noise also has an impact on quiet sensitive areas.

For these and other reasons we support the National Park Service's management plan, particularly in regards to "no wake" (idle speed) and "electric motors only" zoning on the Maurice River tributaries. As you are aware, our property is functioning as a wildlife sanctuary. The Nature Conservancy shares our boundaries.

We are looking forward to the positive consequences the proposed controls will definitely bring.

Sincerely,

Berwyn Kirby

Berwyn Kirby
Kay Kirby

NPS RESPONSE

No Response Required

APPENDIX 11

As the nation's principal conservation agency, the Department of the Interior has responsibility for most of our nationally owned public lands and natural resources. This includes fostering sound use of our land and water resources; protecting our fish, wildlife, and biological diversity; preserving the environmental and cultural values of our national parks and historical places; and providing for the enjoyment of life through outdoor recreation. The Department assesses our energy and mineral resources and works to ensure that their development is in the best interests of all our people by encouraging stewardship and citizen participation in their care. The Department also has a major responsibility for American Indian reservation communities and for people who live in island territories under U.S. administration.