MUSCONETCONG RIVER NATIONAL WILD AND SCENIC RIVERS STUDY



FINAL STUDY REPORT

Prepared by: Musconetcong Advisory Committee Musconetcong Watershed Association Heritage Conservancy National Park Service

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Executive Summary

The Musconetcong River drains a 157.6 square mile watershed area in northern New Jersey, and as a major tributary to the Delaware River, is part of the 12,755 square mile Delaware River watershed. It flows 42.5 miles in a general southwest direction. The Musconetcong River, nestled in the heart of the New Jersey Highlands region, features a remarkably diverse array of natural and cultural resources. The limestone geologic features present in the Musconetcong River corridor are unique in the state, and the steep slopes and forested ridges in the upper segments of the river corridor contrast with the historic villages, pastures, and rolling agricultural lands at the middle and lower end of the river valley.

For its entire length the Musconetcong River is a boundary water, first dividing Morris and Sussex counties, then Hunterdon and Warren Counties. All or portions of 25 municipalities lie within the natural boundaries of the Musconetcong River watershed. Fourteen municipalities fall within the river segments eligible for National Wild and Scenic Rivers designation.

The impetus for the Musconetcong National Wild and Scenic River study can be traced back to 1991, when residents in the Musconetcong River Valley organized a petition drive in support of efforts to protect the river. The petitions circulated called for the protection of the Musconetcong River under both the National Wild and Scenic Rivers Act and New Jersey Wild and Scenic Rivers Program.

In 1992, Congress passed legislation authorizing the National Park Service to study the eligibility and potential suitability of the Lower Delaware River for addition to the National Wild and Scenic Rivers System. In 1997, 18 of 19 Musconetcong River municipalities voted to have the National Park Service determine the eligibility and potential suitability of the Musconetcong River for designation into the National Wild and Scenic Rivers System. As a part of the study effort, a Musconetcong Advisory Committee, comprised of residents representing each municipality, was formed. This committee, with assistance from the National Park Service, conducted a resource assessment and prepared an Eligibility and Classification Report as well as a Musconetcong River Management Plan.

This study report presents the results of the Musconetcong Wild and Scenic River Study process and summarizes the findings of the Eligibility and Classification Report and the Musconetcong River Management Plan (RMP).

The National Wild and Scenic Rivers Program

The National Wild and Scenic Rivers Program is designed to provide river protection through the combined efforts of private landowners and other citizens, river-related organizations, and all levels of government. Emphasis is given to cooperative actions to protect resource values. Designation does not open private lands to public access. Once designated, the river receives protection from federally licensed or assisted dams, diversions, channelizations, and other water resource projects that would have direct and adverse effects on its free-flowing condition or outstandingly remarkable resources.

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Eligibility and Suitability

Before a river can be added to the National Wild and Scenic Rivers System, it must be found both "eligible" and "suitable." To be eligible, the river must be (1) free flowing and (2) possess at least one "outstandingly remarkable" resource value as determined by the professional judgment of the study team, such as: high quality scenery, recreational opportunities, geologic features, fisheries, wildlife, and historic or cultural resources. Rivers found "eligible" are then given a proposed classification as either "wild", "scenic" or "recreational," depending on the amount of development, access and human presence along the river.

Determining suitability requires an evaluation of (1) whether an eligible river would be an appropriate addition to the national system, and (2) whether or not designation is an appropriate mechanism for the long-term management of the river, and (3) whether or not nonfederal entities have demonstrated commitment to protecting the river's outstandingly remarkable resources.

Musconetcong River Management Framework

A river management vision that acknowledges the importance and preference for local leadership, and the additional protection afforded by wild and scenic river designation is expressed in the following five goals that the Musconetcong Advisory Committee crafted and included as key elements in the Musconetcong River Management Plan:

- **Goal 1.** Encourage recreational use that is compatible with the preservation of natural and cultural qualities of the river corridor while respecting private property.
- **Goal 2.** Preserve and protect the character of archaeological sites and historic structures, districts, sites, and landscapes in the river corridor.
- **Goal 3.** Preserve farmland and open space within the river corridor and the watershed.
- **Goal 4.** Preserve, protect, restore and enhance the outstanding natural resources in the river corridor and the watershed, including rare and endangered species, forests, steep slopes, floodplains, headwaters and wetlands.
- **Goal 5.** Maintain existing water quality in the Musconetcong River and its tributaries and improve where possible.

A key principle of the management framework created for the plan is that existing institutions and authorities will continue to play primary roles in the long-term protection of the Musconetcong River. With respect to facilitating and coordinating potentially diverse interests among residents, landowners, municipalities, counties, states and non-governmental organizations (NGOs), the plan proposes the formation of a Musconetcong River Management Committee. The committee would be supported by the state and local agencies and organizations that participate in its activities. Should the Musconetcong River be designated into the National Wild and Scenic Rivers System, the management plan proposes it be administered by the Secretary of the Interior in cooperation with the states, counties, and most importantly the municipalities that participate in the Musconetcong River Management Committee.

Through this partnership approach, the federal government would retain responsibility for ensuring federal water resource projects do not impair the river's free-flowing character or outstanding resources, while the municipal, county and state governments retain their existing land use authorities.

Public Involvement in the Study

In 1992, residents of the lower Musconetcong River valley formed the Musconetcong Watershed Association, a not-for-profit organization committed to protecting the Musconetcong River. In 1995, the New Jersey Department of Environmental Protection Office of Natural Lands Management recommended to the NPS that the Musconetcong River be included in the Nationwide Rivers Inventory of candidate rivers for Wild & Scenic designation. Two years later, 18 river municipalities requested that the NPS study the Musconetcong River for eligibility and suitability for inclusion into the National Wild and Scenic Rivers System and a Musconetcong Advisory Committee was formed.

An integral element of the study included a 1999 survey of river corridor residents' opinions on a host of river-related issues. Results of the survey were important in the development of the river management plan. In all, 750 surveys were mailed and 134 were returned complete (18% return rate). Over one-third of the respondents were river front landowners.

Survey results indicated strong support for protecting the Musconetcong River's natural, historic and recreational resources. In fact, 88% of survey respondents either supported or strongly supported land use regulations and programs to conserve and protect the river. Survey results demonstrated that respondents were interested in encouraging river uses such as environmental education, parks, fishing, greenways, trails, and paddling. The results also indicated commercial and industrial development were the least desired uses for the river corridor.

In January and February 2002, public workshops were held in three locations in the river corridor to present the Musconetcong River Management Plan and discuss the potential for Wild and Scenic River designation. The responses of those attending these meetings were overwhelmingly positive.

Study Recommendation

A total of 28.5 Musconetcong River miles were deemed eligible for designation into the National Wild and Scenic Rivers System. The river's eligible segments are not contiguous, yet are closely spaced. For administrative purposes they have been named segments A, B and C. Following are the locations and lengths of the eligible segments:

- Segment A: Saxton Falls to the Rt. 46 Bridge 3.5 miles Classification: Scenic;
- Segment B: Kings Highway Bridge to the railroad tunnels at Musconetcong Gorge – 20.7 miles Classification: Recreational;
- **Segment C:** Hughesville Mill to Delaware River confluence 4.3 miles Classification: Recreational.

Based on demonstrated local support for designating the eligible river segments, support for the goals of the river management plan, and adequate river resource protection measures at the state, county and local levels, Musconetcong River segments A and B are deemed suitable for inclusion into the National Wild and Scenic River system.

Segment C is deemed not suitable for inclusion in the National Wild and Scenic Rivers system because local support for its designation was not demonstrated.

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I. Introduction and Background

Located in the Highlands region of northwestern New Jersey, the Musconetcong River corridor is renowned for its scenery, fishing, paddling, history, abundant wildlife and natural resources. The Musconetcong River corridor's position, between the New York metropolitan area and Easton, Pennsylvania, is having an impact on the health of the river. Although there have been successful conservation actions taken by the state, local municipalities, NGOs and private landowners over the past decade, the river corridor's outstandingly remarkable values (water quality, open space, farmland, wildlife habitat) have been diminishing as a result of land use changes.

It was these changes that drove municipal governments to request the National Park Service study the Musconetcong River for possible inclusion into the National Wild and Scenic Rivers System. As part of the study process, not only were Wild and Scenic River eligibility and suitability assessed, but a management plan was developed as a result of the partnership between the National Park Service, the Musconetcong Watershed Association, Heritage Conservancy and the Musconetcong Advisory Committee.

This report summarizes the work the National Park Service, the Musconetcong Watershed Association, Heritage Conservancy and the Musconetcong Advisory Committee performed in study of the Musconetcong River. It also recommends further action based on the study's collected and analyzed information.

Wild and Scenic Rivers Act

Enacted in 1968, the National Wild and Scenic Rivers Act (P.L. 90-542, as amended) was created to balance long-standing federal policies promoting construction of dams, levees, and other river development projects with one that would permanently preserve selected rivers, or river segments, in their free-flowing condition. Section 1(b) of the act states, in part:

"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 future generations."

The original Act designated eight rivers as components of the National Wild and Scenic Rivers System, and specified processes by which other rivers could be added to this system.

As of November 2001, one hundred sixty-two rivers or river segments totaling 11,600 miles are in the national system. Only a handful of these rivers are located in the middle-Atlantic states: the upper, middle and lower sections of the Delaware River forming the New Jersey/Pennsylvania border; the Great Egg Harbor River and the Maurice River in New Jersey; the Allegheny River and Clarion River in Pennsylvania; The White Clay Creek in Pennsylvania and Delaware; and the Bluestone River in West Virginia.

Under Section 7 of the Act, each river designated into the national system receives permanent protection from federally licensed or assisted dams, diversions channelizations, and other water projects that would have a direct and adverse effect on its free-flowing condition and special resources. The term "federally assisted" includes projects requiring a license, permit, grant, loan, or other assistance from the federal government.

The Wild and Scenic Rivers Act explicitly prohibits any new dam, development or other project licensed by the Federal Energy Regulatory Commission (FERC) on or directly affecting a designated river segment, and requires that all other proposed federally-assisted water projects in the area be evaluated for their potential impacts to the river's outstandingly remarkable values. Any project that would result in adverse effects to the designated segment is precluded under the Act.

Requirements for Designation

Before a river can be added to the National Wild and Scenic Rivers System, it must be found both eligible and suitable. To be eligible, the river must be free-flowing and possess at least one "outstandingly remarkable" resource value, such as high quality scenery, recreational opportunities, geologic features, fisheries and wildlife, historic sites or cultural resources. Rivers that are found "eligible" are then given a proposed classification as either "wild," "scenic," or "recreational," depending on the amount of development and human presence along the river.

Determining whether a river is "suitable" for designation is more complicated than the relatively straightforward resource assessment required to evaluate eligibility. Essentially, suitability is an evaluation of: first, whether the importance of protecting natural, cultural, and recreational resource values outweighs other potential uses of the river; and second, whether National Wild and Scenic designation is an appropriate element of long-term management for the river. In other words, does National Wild and Scenic River designation make sense for the river in question?

For rivers like the Musconetcong, which flow through predominantly private lands and for which federal land acquisition and land management are not envisioned in the river's management, there are several issues that must be addressed in the suitability analysis. These include:

• **Protection** – Are there adequate local and state mechanisms in place to provide lasting protection for the river's outstanding values without the need for federal land acquisition and management? Could those existing mechanisms be complemented by the instream protection provided by national wild and scenic designation? These protective mechanisms may included municipal, county, state, and federal laws and regulations; land owned by individuals, governmental bodies or private organizations that are legally dedicated for conservation purposes; and either natural limitations (e.g. adjacent wetlands or steep slopes), or man-made features (e.g., roads and railroad corridors) that create physical barriers to riverfront development.

- **Support** Is there demonstrated support for river protection and for National Wild and Scenic designation, as well as a commitment to participate in long-term management, among the major river interests (e.g., adjacent communities, county government, state government, elected officials, conservation organizations, residents and landowners, regional authorities, river users and business interests)?
- **Management** Is there an existing or proposed management framework that will bring those key river interests together to work toward the ongoing protection of the river?
- **Efficiency** For the river in question, National Wild and Scenic River designation must be an appropriate and efficient river conservation tool.

In proposing a river for designation into the National Wild and Scenic Rivers system, a recommendation is also made regarding the river's proposed classification. The classification – wild, scenic, or recreational – is based solely on the intensity of human presence along the river corridor, in the form of highways, railroad corridors, utility lines, buildings, etc., at the time of classification.

A river's classification is principally used to guide future actions by federal agencies on projects affecting river-related resources (e.g., whether the construction of a new boat ramp is appropriate). A river, and its segments' classifications, is also descriptive of the kind of development that exists along its corridor. The Act defines the three classifications as follows:

Wild river areas	Those rivers or sections of rivers that are free of impoundments and generally inaccessible except by trail, with watersheds and shorelines essentially primitive and waters unpolluted. These represent vestiges of primitive America.
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.
Recreational river areas	Those rivers or sections of rivers that are readily accessible by road or railroad, that may have some development along shorelines, and that may have undergone some impoundment or diversion in the past.

River Study and Management Plan Background

In 1993 Musconetcong River corridor landowners, residents, and the Musconetcong Watershed Association organized two roundtable meetings to discuss the problems, amenities and opportunities associated with the Musconetcong River. Two years later, the New Jersey Department of Environmental Protection (NJDEP) Office of Natural Land Management recommended to the National Park Service that the Musconetcong River be included in the Nationwide Rivers Inventory of "candidate" rivers, or rivers that are considered to have the appropriate characteristics for wild and scenic designation. In 1997, 18 of 19 municipalities along the river voted to request the NPS to study the Musconetcong River to determine its eligibility and suitability for inclusion into the national system.

As part of the study process, the NPS, Musconetcong Advisory Committee, Musconetcong Watershed Association and Heritage Conservancy developed a river management plan. The river management plan was discussed in public workshops and presented to municipalities, landowners and residents of the Musconetcong River corridor. Resolutions of support for the management plan and designation were adopted by 13 municipalities in the spring and summer of 2002.

The Musconetcong River Corridor

The Musconetcong River watershed drains over 157 square miles. The river valley is located entirely within the New Jersey Highlands region, which comprises part of the New England Uplands physiographic province, also known as the Reading prong. The Musconetcong River watershed comprises about 1/6 of the New Jersey Highlands region. The New Jersey Highlands region comprises about 1/8 of New Jersey's land area.

The watershed's approximately 70,000 people live in a variety of land-use settings, ranging from urban-suburban development to rural agricultural. The upper end of the watershed is more heavily populated than the lower end of the watershed. The upper watershed is only 50 miles from New York City, and considerably less distant from heavily populated northeastern New Jersey. The lower end of the watershed at the river's confluence with the Delaware River is only 50 miles north of Philadelphia, and directly across the Delaware River from Easton, Pennsylvania.

The river runs in a southwesterly direction from about 1300 feet elevation to 160 feet at its confluence with the Delaware River. It is a uniquely linear and narrow watershed, ranging from less than a mile wide at Saxton Falls to six miles across at its widest.

At its upper end, the watershed is mountainous with rocky soil and sizable limestone formations. The river valley below Hackettstown ranges in relief from relatively level to gently rolling uplands. Not surprisingly, the best soils are found in the central to lower end of the river valley. Agriculture is the chief land use in these areas. Over half of the watershed is forested and nearly 20% of it is agricultural. Over 18% of the watershed's land use is urban.

Study Goals

Based on the study background, the National Park Service has two major study goals:

- 1) To determine whether the Musconetcong River is eligible and suitable for addition to the National Wild and Scenic Rivers System, and if so, whether National Wild and Scenic River designation is an appropriate protection tool for the Musconetcong River.
- 2) To assist local communities in preparing and implementing a river conservation plan that protects the river's special qualities, regardless of whether wild and scenic designation proved to be the recommended outcome of the study.

In accordance with the wishes of study area municipalities and established NPS policies for wild and scenic studies of "private land" rivers, the study included the following elements:

- 1) A strong emphasis on grassroots involvement and consensus building in determining whether the Musconetcong River was suitable for designation and how it should be managed.
- 2) To assist local communities in preparing and implementing a watershed conservation plan that protects the watershed's special qualities, regardless of whether wild and scenic designation proved to be the recommended outcome of the study.
- 3) A commitment to the study area communities that federal designation would only be recommended if strong support were expressed though passage of support resolutions by the affected municipalities. Municipal resolutions were requested after completion of the Musconetcong River Management Plan in order to ensure the clarity of what was being proposed.

II. Description of Study Area Resources

Geology and Soils

The bedrock geology of the Musconetcong watershed is typical of the New Jersey Highlands. The ridges paralleling the river valley consist primarily of Pre-Cambrian metamorphic rocks including crystalline gneiss and granites, schist, quartzite, and occasional igneous intrusions. These rocks are not as erodible as the rocks found in the river valley.

Sedimentary carbonate and shale rocks of Cambrian and Ordovician age underlay the river valley floor from the vicinity of Hackettstown down to Rieglesville. Highly soluble limestone bedrock, or karst topography has resulted in sinkholes, depressions, caves and irregular bedrock surfaces throughout the watershed.

Fractures and solution channels in karst areas provide a direct connection between land surfaces and groundwater, greatly increasing the potential for groundwater contamination. Some small streams that begin on the ridge tops flow down into the valley and disappear into underground cavern networks that convey water to the Musconetcong River.

The upper Musconetcong Valley is primarily rough, upland terrain covered by stony or gravelly loam soils of glacial origin. The best soils in the watershed are found within the central and lower Musconetcong River valley and formed over limestone bedrock. These soils are generally well-drained, deep soils that are classified as prime farmland soils.

Hydrology

The lower Musconetcong River flows atop a prolific aquifer associated with the limestone rock formations found throughout the valley and surrounding region. According to the New Jersey Geologic Survey there is "an intimate hydraulic interaction between the river and its important carbonate bedrock aquifers." The soluble nature of the underlying limestone formations, and pervious nature of the limestone-based soils present significant hazards for groundwater and surface water contamination.

The state Geological Survey identifies the glacial outwash deposits found primarily in the upper valley as being an important medium for storing and recharging water to the underlying bedrock aquifers. While groundwater resources within the Musconetcong River valley are generally described as being abundant, groundwater withdrawals and dewatering activities associated with sand and gravel quarrying have impacted area residential wells.

The Musconetcong River is the largest non-tidal tributary to the Delaware River in New Jersey, and is categorized as a third order stream. There are approximately 30 tributaries to the Musconetcong River. Major tributaries include Beatty's Brook, Lubbers Run (the largest tributary), Hances Brook, Mine Brook, Schooleys Mountain Brook, Stephensburg Creek, Turkey Hill Brook, and West Portal Brook. The river's flow is augmented by seasonal releases from Lake Hopatcong and Lake Musconetcong. Both lakes are subject to an annual drawdown to protect boat docks from ice damage. These minor annual releases begin November 1, when Lake Hopatcong is drawn down approximately 26 inches. Every five years Lake Musconetcong is drawn down five feet, according to the Lake Musconetcong Management Plan. During drought emergencies, the state is authorized by the lake management plan to pump water out of Lake Hopatcong, and into the adjoining Rockaway River basin to supply northern New Jersey communities with water.

Habitat and Vegetation

The Musconetcong River is a lotic, or flowing-water habitat. The turbulence of a flowing stream provides aeration of water, making oxygen available for a rich diversity of aquatic life. Throughout the length of the Musconetcong River the natural flow sequence of riffles, runs and pools can be seen. Vegetation and especially aquatic insects flourish in the riffles.

Within pools and eddies the current is slow and sediment particles tend to be deposited on the stream bottom. Sedimentation and warmer temperatures found within pools and edge water areas can be expected to support a less diverse population of aquatic insect species – compared with the riffle areas. The dams present below Saxton Falls do not alter the general character of the Musconetcong River, and their combined impacts likely only affect the riverine habitat marginally.

The wetlands of the Musconetcong River help absorb and slow floodwaters, filter out pollutants, and provide valuable wildlife habitat. They are also important for groundwater recharge. The predominant type of wetlands found along the Musconetcong River corridor is Palustrine Forested Deciduous, or wooded swamp. These wetlands are less wet than shrub or wet meadow wetlands, and are often inundated with water seasonally or during flood events. Deciduous wooded wetlands are dominated by sycamore, red maple, box elder and river birch.

Wetlands have been mapped by the U.S. Fish and Wildlife Service using high altitude photography for the National Wetlands Inventory (NWI). There are significant wetlands along the river, but most of these are above the large dam pools at Saxton Falls and Waterloo Village. A smaller marshy area can be seen between Rt. 57 and the river above Penwell Mill Dam. Soft-stemmed plants like cattails and the invasive phragmites as well as grasses and other herbaceous plants dominate these marshes. Many of the wetland areas occurring within the Musconetcong River corridor are less than one acre in size, but their ecological significance within the river system remains high.

The Musconetcong watershed lies within the New Jersey Highlands, a region containing the greatest diversity of natural resources in the state. The forested ridges of the Highlands form critical migration routes for songbirds and hawks following the distinct topography of the New England Upland physiographic province. The New Jersey Highlands was recognized as an area of national significance in a Congressionally authorized study of the region by the U.S. Forest Service (Michaels et al 1992). The forested ridges that define the watershed boundaries of the Musconetcong River, including Musconetcong Mountain, Schooleys Mountain and Pohatcong Mountain, have been identified by the Forest Service study as critically important forestland.

Wildlife and Critical Habitat

Regionally important populations of wildlife and critical habitat for state listed threatened, endangered or rare species are present within the river corridor. The Musconetcong River watershed lies entirely within the New Jersey Highlands Region, a landscape of national importance as determined by the U. S. Forest Service. The Musconetcong River is also an important wildlife corridor due to its relationship to the Delaware River flyway, a migratory route for songbirds, shorebirds, and waterfowl, and one of four major bird migratory routes in North America. Migratory waterfowl and shorebirds such as the common merganser, great blue and little green heron depend on the Musconetcong and its adjacent lands for an abundant supply of fish, reptiles, amphibians and small rodents.

Two New Jersey Natural Heritage Priority Sites are located within the plan area: a portion of the Alpha Grasslands, located in Pohatcong Township, Warren County; and Vinces Ravine, located in Holland Township, Hunterdon County. These sites are identified by the Office of Natural Lands Management, DEP Endangered and Nongame Species Program and The Nature Conservancy as containing critical habitat of rare species and exemplary natural communities.

In addition, the Natural Heritage Program has records of the following rare species within the eligible river segments:

• Barred Owl	Strix varia
• Brook floater	Alasmidonta varicose
• Wood turtle	Clemmys insculpta

State threatened Critically imperiled in NJ State threatened State endangered

• Fleshy hawthorn *Crataegus succulenta*

Fisheries

The Musconetcong River is one of the most important trout fisheries in New Jersey, and as a result it is one of the state's most valuable recreational resources. The main stem of the Musconetcong River is classified by NJDEP as "Trout Maintenance Waters." Eighteen Musconetcong River tributaries are classified as "Trout Production Streams." A "Trout Maintenance Stream" designation means that water quality is sufficient to support stocked trout populations throughout the year. A "Trout Production" classification indicates that waterbody is used by trout for spawning or nursery purposes during their first summer.

Trout, especially the native brook trout, which thrive in the Musconetcong and its tributaries, are important indicators of good water quality. Although most of the brook trout are hatchery raised, some Musconetcong tributary systems support natural breeding populations. Two Musconetcong tributaries, Hances Brook and Stephensburg Brook, receive the special designation of Wild Trout Stream because they support natural breeding populations of brook or brown trout. Designated Wild Trout streams are not stocked to protect self-sustaining native populations from disease and competition from hatchery-raised fish and are managed under more restrictive angling regulations. These streams support populations that are extremely sensitive to thermal pollution, siltation and habitat degradation.

Water Quality

The Musconetcong River is widely considered to be a high quality stream in comparison to many other rivers in New Jersey. The Federal Clean Water Act sets forth minimum water quality standards, and requires states to assess stream quality and list those waterways that are "water quality limited waterbodies." This list is required pursuant to section 303(d) of the Clean Water Act. The New Jersey Department of Environmental Protection (NJDEP) data contained in the New Jersey 1998 Section 303 (d) report indicates that water quality in some sections of the river does not meet federal standards for several criteria including: ammonia, temperature, fecal coliform, pH, total phosphorus, and various heavy metals.

The Federal Clean Water Act also requires states to determine the assimilative capacity of receiving water for specific pollutants from all sources (point sources and non-point sources). This assimilative capacity is determined by establishing a Total Maximum Daily Load (TMDL) for a waterbody. Point Source discharges have been permitted to discharge levels of pollutants based on an assumed assimilative capacity that does not take into account the potential nonpoint sources. The NJDEP is currently studying the impacts of discharges on TMDLs through its Watershed Management Area (WMA) characterization program. The Musconetcong River Watershed is within the state's designated WMA 1. The WMA characterization program will include careful assessments of nonpoint source pollution to the river and its tributaries. The ultimate goal of the program is to bring the water quality parameters back into compliance with federal standards.

Recreational and Scenic Resources

The Musconetcong River valley features a remarkable diversity of scenic farms, secluded wooded areas, villages and hamlets. In addition to being one of the most scenic river valleys in New Jersey and the Highlands region, the Musconetcong valley is a high-quality setting for a wide variety of recreational activities such as hiking, hunting, fishing, canoeing, camping, nature study and other outdoor activities. The scenic and recreational resources combined are an important part of the local and regional economy.

The unique geologic features of the Musconetcong River valley play a major role in determining its scenic character. The prominent ridges that parallel both sides of the valley provide an unmistakable definition to the valley landscape. Long stretches of the river valley are wide and straight enough to allow for sweeping views of gently sloping farmland and forested ridgelines. The river itself contains many hidden away areas that provide intimate views of mature forests.

Outstanding vistas that overlook the Musconetcong valley are found along Route 46 (above Hackettstown), Point Mountain Park overlook, Route 636 1/4 mile below Asbury, Route 579 overlooking the valley near Bloomsbury, Route 519 overlooking the valley below Warren Glen, and the westbound lanes of Interstate Rte. 78 as it enters the river valley above Bloomsbury.

Recreational opportunities in the Musconetcong River valley are found in the over 5000 acres of state-owned parks and river access points. There are also several hundred acres of county and local municipal parklands adjacent along the river. In addition, several property owners lease their riverfront lands to private fishing and hunting clubs.

The Musconetcong is one of the most popular trout fishing streams in New Jersey and the surrounding region. The river is also an important source of boating recreation (primarily paddlecraft), and has been identified by the NJDEP Office of Natural Lands Management as a Waterways Trail. The most frequently paddled sections of the river are between Beattystown and Bloomsbury. The river below Bloomsbury requires difficult portages at the Warren Glen dams. There is little or no intrusive power boating in the Musconetcong River, as the river is normally too shallow for power boating. In fact, the Musconetcong River is normally too shallow for paddling except during the spring, after heavy rainfalls, or in November, when water is released from Lake Musconetcong and on a five-year cycle from Lake Hopatcong.

The bridge in the Village of Asbury is a popular local swimming area, and families enjoy tubing in the river from Beattystown to Rieglesville. Since high bacteria levels can be found throughout the entire length of the river, though, swimming may pose a health risk.

The river corridor also provides numerous locations for hiking, birding and other forms of recreation. Exceptional hiking opportunities are found in Allamuchy-Stephens State Park, Point Mountain Park, Musconetcong Preserve and state-owned lands below Bloomsbury.

Cultural Resources

Human settlement in the Musconetcong River Corridor has been traced back 12,000 years, when Paleo-Indians occupied the area during the retreat of the Wisconsin glacier. Evidence of human habitation has been found at the Plenge site, along the lower Musconetcong River corridor. The site was one of only two major Paleo-Indian archaeological site excavations in New Jersey, and it is considered to be one of the most important in the northeastern United States.

Outstanding historic features can be found in the river-related villages of Stanhope, Waterloo Village, Asbury, Finesville and several other Musconetcong River communities. Many of these features are listed on the New Jersey and National Registers of Historic Places. These places contribute to the overall scenic character of the Musconetcong River corridor, and serve as attractions in their own right.

From an historical perspective, it is interesting to note that 12,000 years of Lenni Lenape (the indigenous Native American tribe) settlement, caused minimal impact to the river and surrounding landscape. In contrast, a mere 150 years of European settlement profoundly altered the river and surrounding landscape. Peter O. Wacker's *The Musconetcong Valley of New Jersey: A Historical Geography", Rutgers University Press (1968)* related how the parallel growth of agriculture, industry and transportation rapidly transformed the natural landscape of the Lenni Lenape into a developed cultural landscape.

Subsistence agriculture took root in the lower Musconetcong valley at the dawn of the 18th century. The fertile limestone valley was rapidly cleared for croplands, and subsistence agriculture gradually evolved into commercial grain and dairy farming. Villages sprang up around the many gristmills and iron forges built along the Musconetcong River from Finesville to Stanhope.

The charcoal industry was also established during the early 18th century on the lower Musconetcong River, and was supported by abundant supplies of ore from surrounding river corridor ridges. The early iron industry needed charcoal to fuel its furnaces, and since charcoal was derived from burning wood, intensive deforestation of the ridges surrounding the Musconetcong valley took place over a period of 100 years.

The iron industry faced a decline when wood supplies were depleted by the early 19th century. However, the industry was rescued when one of early America's truly amazing engineering feats – the Morris Canal – was constructed to carry coal from Pennsylvania to fuel the iron furnaces. The availability nearly eliminated the need for wood as fuel, and forests were allowed to regenerate, particularly in those areas too steep, rocky or wet for cultivation or settlement.

The Morris Canal was a world-famous engineering marvel that required abundant supplies of water. Lake Hopatcong, which was originally a small, natural glacial lake, was dammed to supply water to the entire canal system, but it was found to be an inadequate source. To augment the flow of water to the canal, several other dams were built on the Musconetcong River and Lubbers Run, its largest tributary.

Only a few remnants of the Morris Canal remain, yet its impact on the river can be seen in the silted-in dam pools above Waterloo Village and Saxton Falls. The lakes that were created to serve the needs of the canal and iron industry also spawned the river valley's recreation and tourism industry. Summer cottages soon appeared around the canal lakes, and tourists from industrial Pennsylvania and the congested metropolitan New York area flocked to the river corridor.

This historical land-use pattern continues today in the upper river valley. Most of the summer cottages have since become permanent homes. The lower Musconetcong River valley, where agriculture continues to dominate the landscape, has undergone remarkably little change in the past 100 years.

III. Eligibility and Classification

This section documents the National Park Service findings relative to the eligibility of the study river segments for designation and the proposed classification under which the eligible segments could be included in the National Wild and Scenic Rivers System.

Eligibility Assessment

The National Wild and Scenic Rivers Act requires that for river segments to be eligible for inclusion into the national system they be free-flowing and adjacent to land areas that possess one or more outstandingly remarkable scenic, recreational, geologic, fish and wildlife, historic, cultural or other similar values.

Free-Flowing Condition

The National Wild and Scenic Rivers Act is intended to protect only "freeflowing" rivers, and such flows must be adequate to support all flowdependent outstanding resource values. Section 16(b) of the Act defines "free flowing" as: "...existing or flowing in natural condition without impoundment, diversions, straightening, rip rapping or other modifications of the waterway. The existence, however, of low dams, diversionary works, and other minor structures... shall not automatically bar...consideration for...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."

Federal guidelines provide the following additional clarification:

"The fact that a river segment may flow between large impoundments will not necessarily preclude its designation. Such segments may qualify if conditions within the segment...Existing dams, diversion works, riprap and other minor structures, will not bar recreational classification provided that the waterway remains generally natural and riverine in its appearance."

To determine which segments of the river are "free flowing," several documents were consulted. The United States Geographical Survey (USGS) topographical, NJ DEP and floodplain maps were analyzed for assessing free flow and other river characteristics. Additionally, inspections were made of the river segments by boat, and information about the river was gathered from federal, regional, state, county, and local government agencies, and members of the Musconetcong Advisory Committee.

Outstandingly Remarkable Values

The term "outstandingly remarkable" is not defined in the Wild and Scenic Rivers Act. What constitutes an "outstandingly remarkable resource value" was left to the judgment of the study team. The Musconetcong Advisory Committee and NPS staff in 1998 and 1999 inventoried the resources along the river corridor. In order to be assessed as outstandingly remarkable, a river-related value must be a unique, rare or exemplary feature that is significant at a regional or national scale. Also, all values should be river-

related. That is, they should; 1) be located in the river or within one-quarter mile; 2) contribute substantially to the functioning of the river ecosystem; and/or 3) owe their location or existence to the presence of the river. If Musconetcong River resource values were determined to be exemplary or outstandingly remarkable within a regional or national context, then they were deemed to be "outstandingly remarkable."

The criteria applied for this context are as follows:

- **National** The resource's significance has been established through designation or recognition in federal programs such as endangered, threatened and/or rare species; and historical and cultural sites and parks.
- State The resource has been designated or recognized by the State of New Jersey in programs such as historic sites, recreational parks and trails, endangered, threatened and/or rare species; and historical and cultural sites and parks.
- **Regional** Regional significance has been recognized and documented in research programs or studies and confirmed by regional experts.

Finding of Eligibility

Free Flowing

There are 11 dams of varying size along the Musconetcong River, from Lake Hopatcong to Finesville. Thus the "free flowing" criterion of the study received special attention. The Musconetcong Advisory Committee used "natural riverine character" as the subjective standard to determine whether a particular dam significantly alters the river's natural width, base flow, and benthic characteristics, and to decide if a particular river segment met the eligibility requirement. Dams such as those at Imlaydale and New Hampton are little more than archaeological remains and have no effect on base flow. Dams at Penwell, Asbury and Bloomsbury are historic mill dams that have created small pools, but exert minimal influence over the river's natural riverine character. The river area between Lake Hopatcong and Saxton Falls is dammed in five places, and flow is interrupted by varying degrees. This area was excluded from National Wild and Scenic River eligibility.

Outstandingly Remarkable Values

Many outstandingly remarkable values exist along the Musconetcong River Corridor. The resources that have been determined to be outstandingly remarkable include the following:

Recreational

The Musconetcong River Valley features a diversity of recreational opportunities that are popular enough to attract visitors from throughout the region. The river corridor provides a high-quality environment for a wide variety of recreational activities which are important to the local economy. State, county and local parklands within the river corridor provide significant opportunities for hiking, fishing, canoeing, camping, nature study and other outdoor activities. The Musconetcong River and its tributaries are regionally important trout fishing streams. Approximately 20 of the tributary streams support naturally reproducing trout populations. The river is also eligible for designation to the State Trails System as a *Waterways Trail*. The river-related recreational resources are considered to be regionally exemplary.

Recreational river-related resources:

- Allamuchy/Stephens State Park
- Eligible State Waterway Trail
- Musconetcong River Reservation and other County park lands
- Numerous state-owned access points for fishing, boating and hiking



Cultural

The Musconetcong River Valley contains many river-related historic bridges, mills and historic districts that are listed on the National Register of Historic Places. One riverrelated resource, the Morris Canal Historic District, is a National Historic Landmark and was judged to be nationally exemplary. The Plenge Paleo-Indian archaeological site within the river corridor is eligible for

Paddling on the river

National Landmark designation study. River-related historic resources were judged overall to be regionally exemplary.

Cultural river-related resources:

- Morris Canal National Historic Landmark
- Beattystown Historic District: National Register
- Miller Farmstead and stone bridge: National Register
- New Hampton Pony Pratt Truss Bridge: National Register
- New Hampton Historic District: National Register
- Imlaydale Historic District: National Register
- Asbury Village Historic District: National Register



- North Bloomsbury Historic District: National Register
- Siegle Homestead: National Register
- George Hunt House: National Register
- *Riegelsville Company Town Historic District: National Register*

Scenic

Several locations in the river corridor offer outstanding views of the agricultural river valley, Highland Ridges, Kittatinny

Old Turnpike Road Bridge

Mountain and Delaware Water Gap. These views of landforms and vegetation throughout the seasons are only minimally interrupted by cultural intrusions. River-related scenery was judged to be regionally exemplary.

Scenic views and vistas of the river corridor:

- Largely primitive, undeveloped river corridor through state and municipal parklands.
- Outstanding views of agricultural river valley, Highland Ridges, Kittatinny Mountain and Delaware Water Gap.
- Outstanding views of agricultural river valley from Highway 639, Franklin Township

Wildlife and Critical Habitat

Regionally important populations of wildlife and critical habitat for state listed threatened, endangered or rare species are present within the river corridor. The Musconetcong River watershed lies entirely within the New Jersey Highlands Region, a landscape of national



Point Mountain Overlook

importance as determined by the U.S. Forest Service and within the Atlantic Flyway, one of four major migratory bird routes in North America.

Wildlife and critical habitat of the river corridor:

- Barred Owl: State threatened
- Brook Floater: Critically imperiled in NJ
- Wood Turtle: State threatened
- Fleshy Hawthorn: State endangered
- Alpha Grasslands Natural Heritage Priority Site

National Wild and Scenic River Eligibility Determination

- 1) The Musconetcong River is eligible for inclusion into the National Wild and Scenic River system.
- 2) The Musconetcong River possesses the following outstandingly remarkable values: recreation, scenery, historical and cultural resources, wildlife and critical habitat.

River Segment Classification

A total of 28.5 miles of the Musconetcong River are eligible to be included into the National Wild and Scenic Rivers System. The recommended classifications are: 25.0 miles are recreational and 3.5 miles are scenic. These findings are described in detail in the Musconetcong River National Wild & Scenic River Study Resource Assessment and Eligibility & Classification Report dated August 1999.

The river's eligible segments are not contiguous, yet are closely spaced. For administrative purposes they have been named segments A, B and C. Following are the locations and lengths of the of the Musconetcong River's eligible segments:

Saxton Falls to the Rt. 46 Bridge – 3.5 miles
classification: Scenic;
Kings Highway Bridge to the railroad tunnels at
Musconetcong Gorge – 20.7 miles
Classification: Recreational;
Hughesville Mill to Delaware River confluence – 4.3 miles Classification: Recreational.

Only Segment A qualifies for scenic designation, due to its relatively secluded position in the forested, mountainous terrain of the upper watershed. Most of the lands adjoining the river in segment A are publicly owned, and Allamuchy Mountain State Park, the largest park in the river corridor, is located here. Stephens State Park and Saxton Falls are also parks that border the Musconetcong River. Segments B and C qualify as recreational designations, due to the level of development along their respective portions of the river corridor, and human access.

Segment	Classification	Length	Free Flowing	Values
А	Scenic	3.5 miles	Yes	Scenery, Recreation, Historic, Wildlife & Critical Habitat
В	Recreational	20.7 miles	Yes	Scenery, Recreation, Historic, Wildlife & Critical Habitat
С	Recreational	4.3 miles	Yes	Scenery, Recreation, Historic Critical Habitat

Eligibility and Classification Summary Chart

IV. Musconetcong River Management Plan

In keeping with National Park Service policy for studying wild and scenic rivers that flow through private lands, study river communities were involved in the development of a Draft Musconetcong River Management Plan (RMP). To initiate this process, the Musconetcong Advisory Committee, Heritage Conservancy and the Musconetcong Watershed Association conducted an analysis of existing resource protection in the river corridor. The committee then developed management goals, objectives and key actions based on the findings of the resource protection analysis. Finally, a Draft Musconetcong River Management Plan was prepared and distributed to municipalities, county and state agencies and to interested residents of the river corridor.

The plan went through public review and 13 of 14 river corridor municipalities voted by resolution to support the designation of the river and to adopt the goals of the management plan. Key elements of the Draft Musconetcong River Management Plan include the role of local municipalities in controlling river corridor land use and river protection measures with the understanding that the federal government will not acquire land in the river corridor, in accordance with NPS policy and Section 6(c) of the National Wild and Scenic Rivers Act.

Management Principles

The Musconetcong Advisory Committee established the following set of principles to guide the development of management strategies for the Musconetcong River.

- No Federal Land Acquisition: The National Park Service (NPS) will not acquire land within the Musconetcong River corridor for the purpose of protecting outstandingly remarkable resources. Federal funds may be used in existing federal, state and local land conservation programs such as farmland and open space preservation programs.
- Local Management: Management of the Musconetcong River resources will be primarily based on the actions of local government in cooperation with landowners, the business community, individual citizens, and county and state agencies. The role of the federal government will be minimal.
- **Protection of Landowner Rights:** Strategies to conserve the Musconetcong River's resources should simultaneously ensure the property rights of river corridor landowners are protected.
- **Recommendations for Local Government:** Local governments should adopt into their local ordinances and master plans those objectives and key actions not currently addressed in their local ordinances. The RMP's resource management objectives and key actions should offer a range of alternatives for meeting resource protection goals.
- Comprehensive and Coordinated Strategy for Resource Protection and Conservation: The Musconetcong River Management Plan recognizes that no one group, organization, or level of government can protect all of the resources of the Musconetcong River. The actions of

local governments will be the foundation of the river management plan. Landowners should be encouraged to adhere to the resource management objectives and key actions in the stewardship of their own properties. However, the successful protection of resources will require a coordinated approach and application of local land use regulation, conservation strategies, education programs, and best management practices.

• Management Committee: A Musconetcong River Management Committee should be established to coordinate the long-term implementation of the river management plan. The management committee should assist and guide local governments and landowners in their efforts to implement watershed management objectives.

River Management Partnership

A partnership approach to the management of the Musconetcong River recognizes both the importance of, and preference for, local leadership, and the additional protection afforded by the federal government with National Wild and Scenic River designation.

The primary management level of the partnership will focus on the municipal and county governments of the watershed with the cooperation of New Jersey's land management agencies. Parties at this level will adopt and implement watershed management strategies contained in the Resource Management section of the RMP. Cooperation in the implementation of the management plan across county and municipal lines will foster river resource management consistency throughout the river corridor.

The partnership model of Wild and Scenic river management described in the River Management Plan is designed to be cost effective, and takes advantage of river partner leveraging efforts. For river management plan implementation to be successful, there needs to be adequate funding. Funding assistance to municipalities and other river partners is essential in the implementation of river management plan recommendations.

The following is the estimated annual National Park Service expenditure to support Musconetcong River Management Plan implementation:

Cooperative agreements, land conservation*, riverbank stabilization, public outreach, website development	\$220,000
Educational program support for local school districts river curriculum development/upgrading	\$60,000
Interpretation	\$25,000
NPS staff (1 FTE)	\$80,000
Brochures and other print media	\$15,000
	Total \$400,000

*Will provide limited financial and technical assistance to management partners for land and easement acquisition.

A second level of management will involve the federal government through the National Wild and Scenic Rivers System. Federal action will center on reviewing the potential impacts to outstanding river resources from proposed water resource projects involving federal loans, licensees or permits within the designated area, consistent with Section 7 of the National Wild and Scenic Rivers Act. Additionally, the federal government can facilitate and coordinate river planning and conservation projects among municipalities, counties and the state.

The partnership approach to managing the outstanding resources of the Musconetcong River recognizes that existing municipal, county and state agencies will continue to exercise their authorities over state and federal permits and other regulations affecting the environment of the Musconetcong River.

Geographic Area Proposed for Designation

Generally, designation boundaries incorporate outstanding resources and provide enough land area to buffer a river from incompatible land uses. The designated area may not exceed more than 320 acres per river mile, on average. The following river segments are recommended for wild and scenic river designation by the Musconetcong Advisory Committee:

- Segment (A) between Saxton Falls to the Rt. 46 Bridge; and
- Segment (B) between Kings Highway Bridge and the Railroad tunnels at Musconetcong Gorge.

Musconetcong River Management Committee

Key to the administrative framework of implementing the goals of the Musconetcong River Management Plan is the primary role existing institutions will play. Municipal, county and state agencies together with private organizations and landowners will participate in maintaining and enhancing the high quality of the Musconetcong River's outstanding resources. To bring these diverse interest together in a common purpose, a permanent, standing committee will be convened. The proposed Musconetcong River Management Committee will continue to carry forward the work and recommendations of the Musconetcong Advisory Committee, serving as a democratic body where diverse river-related interests will have a forum for discussion, and function as a body to coordinate and facilitate river conservation efforts in different parts of the river corridor.

Purpose

The Musconetcong River Management Committee will promote the long-term protection of the Musconetcong River by:

- Holding meetings (at least one annually) among watershed interests.
- Facilitating cooperation and coordination among watershed interests.
- Providing a forum for discussing and resolving issues; and
- Promoting the implementation of the Musconetcong River Management Plan.

Scope

The Musconetcong River Management Committee will be advisory in nature. The committee will have no regulatory or land-acquisition authority. It may provide research or technical advice to agencies and institutions with management or regulatory authority, but will not have the power to force actions or decisions of any of those entities.

Cooperative Management

The committee will develop a memorandum of understanding (MOU) to define member roles and responsibilities for the cooperative management of the Musconetcong River. This agreement will establish a cooperative commitment among members to participate in the long-term management of the river and to implement those parts of the management plan for which they assume responsibility. Participation in this agreement will be contingent upon the endorsement of the provisions contained in the legislation designating the river.

The committee membership will include municipal representatives of the watershed municipalities, representatives from each of the four counties, the New Jersey Department of Environmental Protection Division of Watershed Management, Division of Fish and Wildlife, Division of Parks and Forestry, the Musconetcong Watershed Association, Heritage Conservancy and other non-governmental organizations. The committee may also establish sub-committees to address specific goals, objectives and key actions in the management plan.

National Park Service Role

The National Park Service (NPS) will serve as the key federal representative in the implementation of the Musconetcong River Management Plan. The agency's primary role will be to represent the Secretary of the Interior in reviewing federal projects as required by the National 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 Musconetcong River. As a part of such reviews, the NPS will evaluate each proposed project in terms of an activity's impact on the river's outstandingly remarkable values. NPS may also continue to provide technical assistance to the committee, on a request basis, through the NPS Rivers, Trails, and Conservation Assistance program (RTCA), or similar such program.

A major goal of the Musconetcong River Management Plan is to protect the Outstandingly Remarkable Values for which the river was designated. The key to achieving this goal is coordination among local communities, government entities and non-governmental organizations (NGOs). The Musconetcong River Management Committee is the center of such coordination.

Resource Management Issues

Resource management issues in the Musconetcong River valley were identified during the development of the Resource Assessment in the late 1990s. The Musconetcong Advisory Committee reviewed and discussed these issues again as the basis for defining the goals and objectives for the River Management Plan and developing the plan's key actions.

Recreational Use of the River Corridor

Some conflicts have arisen as recreational use of the Musconetcong River has increased in recent years. At times, paddlers and anglers have experienced conflicts in certain river reaches and during seasons of higher use, particularly in the spring. Also, there is disagreement among river corridor residents about how much recreational access should be provided to non-river corridor residents. Trespassing, trash and crime have been concerns voiced by some river corridor residents when discussing recreational access to the river. Recreational use and access should be carefully planned and managed to avoid adversely impacting resources and the quality of life for private landowners.

Land Use and Development

The lower Musconetcong River, at its confluence with the Delaware River is

approximately 50 miles north of Philadelphia, and only ten miles from the urban growth areas of the Lehigh Valley. Interstate 78, with an interchange near Bloomsbury, links the Musconetcong valley with both the Lehigh Valley and the urbanized areas of eastern New Jersey and New York City. Interstate 80 connects the upper Musconetcong River corridor with the densely populated northern New Jersey/New York area, approximately 50 miles to the east.

Increasingly, farmland and wooded hillsides are being converted to



Development in the Hackettstown area

residential and commercial uses as the suburban development pattern to the east and west encroach on the rural Musconetcong valley. The river corridor around Hackettstown and Mansfield Township in particular has seen significant growth over the past five years. Conversion to residential and commercial uses increases impervious surface area, stormwater runoff and non-point source pollution. State, county and local planning agencies have all recognized the need for managing growth in this region and have embarked on a variety of open space preservation and smart growth initiatives.

Loss of Cultural Resources

Historic sites are found throughout the river valley and contribute greatly to the scenic character of the communities. Historic sites and villages are also important to the local economy as key components of regional tourism.



Finesville Bridge

Portions of the river corridor, particularly between the historic hamlets of Beattystown and New Hampton are facing increased development that may negatively impact the rural and historic character of the river corridor. Plans for the replacement of historic steel truss and stone arch bridges at several locations along the river corridor recently has also led to conflicts between local communities and transportation planners. These issues help to

highlight the pressing need to inventory, document and protect the character of cultural sites and structures that help to define the Musconetcong River corridor.

Natural Resource Protection and Management

The Musconetcong River is located entirely within the New Jersey Highlands Region, a region of extensive forestlands, high quality aquifers, and important wildlife habitat. Abundant natural resources make this a desirable place to live but also present a challenge to land use planners and land managers as growth continues to disrupt and fragment the natural systems. On the forested ridges, clearing of trees is fragmenting the forest habitat, causing erosion problems on steep slopes, and impacting scenic views. In the limestone valley development results in the loss of productive farms and farmland soils, and creates drainage and stormwater management problems impacting the karst geology and water quality of the river. The counties, the Highlands Coalition and most of the municipalities through which the river flows have assessed and prioritized land for acquisition to protect the Musconetcong River. Additionally, the U.S. Forest Service's 2002 study of the Highlands includes a conservation values assessment that can aid local and county governments in prioritizing watershed land for conservation. Significant amounts of land have been permanently preserved as open space in recent years through the State Green Acres program and through



Stormwater outfall to the river

municipal open space programs, however, additional financial and technical resources are needed to provide ongoing stewardship of natural resource on these lands.

Water Quality and Watershed Management

Water quality issues of nutrient loads, bacteria and excessive temperatures impact the quality of the trout fishery of the Musconetcong, as well as the recreational potential of the river. With increasing development in the watershed, stormwater management and groundwater withdrawls for drinking water supplies have added to the stresses on the river. Cooperation in watershed management is critical for this river in that the river is the boundary of four counties and includes parts of 25 local municipalities. Improved monitoring of stream condition, both on the main stem and its tributaries, and implementation of best management practices for both water quality and quantity are needed throughout the watershed.

River Management Plan Goals

The Resource Management section of the Musconetcong River Management Plan describes the goals, objectives and key actions to protect the river and it's outstanding resource values. The plan delineates responsibilities of each government agency and other entities involved in management, sets goals, and recommends actions that would protect and enhance each of the resources (refer to the Musconetcong River Management Plan for a listing of all recommended actions).

Goals

- 1) Encourage recreational use that is compatible with the preservation of natural land and cultural qualities of the river corridor while respecting private property.
- 2) Preserve and protect the character of archaeological sites and historic structures, districts, sites, and landscapes in the river corridor.
- 3) Preserve farmland and open space within the river corridor and the watershed.
- 4) Preserve, protect, restore and enhance the outstanding natural resources in the river corridor and the watershed, including rare and endangered species, forests, steep slopes, floodplains, headwaters and wetlands.
- 5) Maintain existing water quality in the Musconetcong River and its tributaries and improve where possible.

Public Participation Summary

An analysis of the existing resource protection mechanisms, such as state and local regulations, was completed and presented at public workshops in April and May 2000. This analysis formed the basis for developing the goals and objectives of the management plan. The draft River Management Plan was developed by the Musconetcong Advisory Committee and distributed to all municipalities, state and county agencies and interested individuals in the river corridor in December 2001.

In January and February 2002, three public workshops were held in locations throughout the river corridor to present the draft River Management Plan and to solicit comments. More than 100 people attended the three meetings. Questions from the audience included: the role the National Park Service will play if the Musconetcong River is designated, what the National Park Service can do for river communities once the river is designated, how designation will impact conflicts between private property owners and recreational users, whether or not designation will impact development, how designation would effect the economics of the river corridor communities and how farmland and open space will be impacted by designation.

In June 2002, a revised draft River Management Plan was prepared and distributed to all river corridor municipalities with a request to support the plan and the designation of the river through a municipal resolution. Over the next several months members of the advisory committee and National Park Service staff attended municipal meetings to discuss the river management plan and river designation in support of these resolutions. Questions at the municipal level were focused on what the National Park Service can do for municipalities in terms of conserving the river's resources. These questions tended to be specific and related to river issues in the respective municipality. By September 2002, 13 of the 14 river corridor municipalities had passed resolutions in support of the designation. Copies of these resolutions are included in Appendix A.

V. Suitability

The following describes the study findings relative to Section 4(a) of the Wild & Scenic Rivers Act, which requires the study report to detail the river's suitability for designation into the National Wild and Scenic Rivers System.

Suitability Criteria

A river's suitability for wild and scenic designation is based on several factors, most importantly, whether designation would provide long-term protection for the river's outstandingly remarkable resources. For rivers that flow through private land, such protection must rely on state, local, and private resource protection strategies. For designation to be effective these non-federal entities must support and be committed to the implementation of any necessary resource protection measures.

For the Musconetcong River, the criteria used to assess suitability included the following:

- 1) Adequacy of existing state and local resource protection laws, zoning, and land ownership in conserving the river's outstanding resources;
- 2) Development of a management framework that facilitates communication and cooperation among governmental entities and private citizens to address any resource protection gaps; and
- 3) Demonstrated local support for designation and implementation of the river management plan.

Analysis of Existing State and Local Resource Protection

Preservation of outstanding river resources is a primary goal of the Wild and Scenic Rivers Act. The long-term protection of the river corridor, and the outstandingly remarkable resources, is necessary in order to maintain the integrity of the river system and for the eligible river segments to be suitable for designation in the Wild and Scenic program. In order to determine the adequacy of existing resource protection measures, a vulnerability analysis was conducted. The result of this effort was a description of riverfront land use, land ownership, and regulatory controls for the entire study corridor.

The vulnerability analysis was based on readily available land use data, reviews of county files for master plans and municipal land development ordinances as of January 2000 and updated in August 2003. All of the 14 municipalities in the sections considered eligible for Wild and Scenic designation were evaluated.

Land ownership

Within the plan area the main stem of the river flows for 42 miles from the outlet of Lake Musconetcong to the Delaware River. The three segments which were determined to be eligible represent 28.5 miles or 68 percent of the river corridor. In total, about 19 percent of the river corridor in the eligible river sections is preserved through public ownership. An additional 7.6 percent of the land is privately preserved as farmland.

The NJDEP Division of Parks and Forests manages 513 acres within the river corridor, primarily in Stephens and Allamuchy state parks. Another 550 acres is controlled by the Division of Fish and Wildlife. County and municipal governments manage approximately 672.2 acres along the river.

Additional acreage is permanently preserved for agricultural use through conservation or agricultural easements on private land in Bethlehem Township. Recent additions to the farmlands preservation program principally in Franklin, Holland and Washington (Warren) townships have increased the total acreage of properties subject to easements within the river corridor. The remaining municipalities have no privately protected lands in the eligible segments of the river corridor according to the county files.

Regulatory programs

Regulatory programs are based on laws and regulations at the federal, state, regional, county and municipal levels. Many landscape features such as wetlands, floodplains and steep slopes are regulated to limit environmental degradation and protect resource values and property. An overview of some of the existing regulatory programs in the study area is included in Appendix B.

Two of the state Land Use Regulations that affect the river corridor are the Flood Hazard Control Act and the Freshwater Wetland Protection Act. NJ State Flood Control law regulates activities in the floodplain, including the placement of fill and the removal of riparian vegetation within 50 feet of the top of the channel of the river. In addition, NJ State Freshwater Wetlands law regulates activities in wetlands and transition areas of 50 to 150 feet around wetlands in the Musconetcong watershed. These regulations provide basic protections to the river corridor. Within the eligible sections an additional 19 percent of the river corridor is regulated floodplain, freshwater wetlands or wetland transition areas.

At the local level, a review of municipal zoning and land development ordinances was conducted to determine if municipalities have established goals to protect natural resources and determine what measures have been adopted to meet these goals.

In general, many communities have goals and objectives in their master plans which benefit the river corridor. These goals include:

- Protection of critical resources,
- Limiting development in natural hazard areas,
- Preservation of stream corridors,
- Protection of scenic views,
- Preservation of farmland, and
- Establishment of a river greenway.

The mechanisms to implement these goals are varied. Many communities have zoned the undeveloped sections of the river corridor for agricultural and low density residential uses. Several ordinances allow for lot averaging, clustering and open space set asides, either as options or requirements. When wetlands, floodplains and stream corridors are identified as resources to be preserved in open space or through clustering, these mechanisms may be effective in establishing building setbacks from the river and its tributary streams.

Many master plans identify protection of water resources and preservation of stream corridors as a goal, and a few have adopted stream setbacks or riparian buffer ordinances.

Gaps in resource protection along the river were identified in several locations and recommendations for actions to ensure long-term protection were developed by the Advisory Committee to address these issues. These actions were incorporated into the river management plan.

Non-regulatory resource protection programs

Regulatory methods to protect river resources often suffer from lack of coordination throughout the watershed. Regulations are also subject to failure when funding is insufficient, staffing inadequate, property owner equity is not considered, or when regulations fail to consider the cumulative impact of multiple projects on a resource. An effective tool to provide long-term protection of resources is often a non-regulatory program.

There are numerous such programs in place in the study area. A description of these programs is included in Appendix B. Some of the most important programs are those that provide for the permanent preservation of open space through land acquisitions and easements. Most lands in the watershed are being preserved through the NJ Green Acres program, the county and state farmland preservation programs, or the Hunterdon County Parks program. In addition, eleven of the municipalities in the study area have dedicated funding for open space acquisitions. As a result of these efforts over 2,445 acres of land are permanently preserved within the eligible sections of the river corridor.

Over the three years that the river management plan and study report were prepared (January 2000 to August 2003) significant gains in protected lands have been realized throughout the river corridor. These are summarized below.

- Addition of 418 acres of privately preserved farmland.
- Increase to four the number of municipalities with preserved farmland in the corridor.
- Addition of 272 acres of public open space through state and municipal acquisitions and easements.
- Increase from 19 to 26.6 percent of the river corridor protected as public open space or preserved farmland.

River Management Framework

Based on the interest expressed by the Musconetcong Advisory Committee and local community leaders in maintaining local control over riverfront lands, the study team recommended the creation of a Musconetcong River Management Committee to implement the plan. The plan ensures the continued protection of the river's outstanding values, free-flowing characteristics, and recommends actions to address gaps in some areas. The river management plan provides the framework for enhanced resource protection and greater cooperation among resource management entities. This is accomplished in great part through voluntary adoption of the five river management goals, and through creation of a River Management Committee comprised of state, county, and municipal representatives. The river management plan ensures that future management decisions will be based on resource protection objectives that satisfy the Wild and Scenic Rivers Act mandate – to protect the river's outstandingly remarkable values.

Federal designation will facilitate coordination between the state, three counties and 14 municipalities.

Effects and Benefits of Designation

The Musconetcong River has been the object of several conservation efforts at the state, local and private level. One of the principal effects of designation would be to ensure that the federal government's actions with respect to the river would build upon these existing efforts. There would be a NPS review of future federal water resources projects to ensure that the river's outstanding resources would be protected.

A River Management Committee will be created to facilitate the implementation of the plan, and also to seek intergovernmental cooperation in the protection of the river. The funding that is anticipated to be provided to the committee from both federal and non-federal sources will also heighten public awareness and understanding of the river's functions, reinforce the ability of local landowners and governments to act in the best interest of the river, and reduce the need for additional regulatory controls.

Designation will not cause significant changes in land use or property values along the 28.5 miles of eligible river segments. Most of the privately owned developable land along the eligible river segments is currently zoned for agricultural or low density residential uses. In addition, many of the municipal governments have identified the river corridor as a priority for open space and farmland protection and the state has been actively pursuing land acquisitions and conservation easements along the river corridor. Designation might tend to stabilize land values by ensuring that local zoning does not change to allow more intensive land uses and by protecting the scenic and recreational values of the river.

Local Support for Designation

The Musconetcong River flows primarily through privately owned lands, and federal land acquisition may not be an appropriate vehicle for protection. Therefore, protection must rely on a combination of federal, state, local and private resource-protection actions. For designation to be effective, the nonfederal entities must support and be committed to the implementation of any necessary resource protection measures.
Strong support for both the river management plan and the river's designation into the national system was demonstrated by municipal votes on both river protection measures. Of the 14 river-corridor municipalities within the eligible segments, 13 passed resolutions supporting both designation and the river management plan. In addition, adjacent municipalities within the watershed and all three counties also passed resolutions supporting the designation (see Appendix A for municipal resolutions).

The public workshops and the municipal resolutions demonstrate strong support for the river management plan and designation as tools to protect the resources of the Musconetcong River. *The Musconetcong River Survey* (see Appendix C) documents strong support for the river's scenic, natural and cultural resources. Survey respondents listed water quality, wildlife habitat, wetlands and forests as the most important resources to protect, respectively. Over 90% of survey respondents would support or strongly support lower density riverfront zoning, stronger restrictions for building on flood plains, slopes, farmland preservation programs and restrictions on removing riverfront vegetation.

Suitability Finding

Based on demonstrated local support for designating the eligible river segments, support for the goals of the river management plan, and adequate river resource protection measures at the state, county and local levels, Musconetcong River segments A and B are deemed suitable for inclusion into the National Wild and Scenic River system.

Suitable River Segments

Segment A: From Saxton Falls to the Route 46 Bridge; 3.5 miles

Segment B: Kings Highway Bridge to the railroad tunnels at the Musconetcong Gorge; 20.7 miles

The following segment is deemed **not suitable** for inclusion in the National Wild and Scenic Rivers system because local support for its designation was not demonstrated.

Unsuitable River Segment

Segment C: From the Hughesville Mill to Delaware River confluence; 4.3 miles

Recommended Boundary

Section 7(a) of the Wild and Scenic Rivers Act requires federal review of any water resources project that could potentially have an adverse impact on the values for which a river is designated. For the purposes of administering Section 7 of the Act regarding federal government actions, a formal boundary will be established within one-quarter mile from the ordinary high water mark on each side of the suitable river segments.

VI. Environmental Assessment

The Wild and Scenic Rivers Act (Public Law 90-542, as amended), enacted in 1968, established a framework for protection of select rivers, for the benefit 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.

Prior to a river's addition to the National Wild and Scenic River System, it must be found both eligible and suitable. To be eligible, the river must be i) free-flowing; and ii) possess at least one "outstandingly remarkable" resource value, such as exceptional scenery, recreational opportunities, fisheries and wildlife, historic sites and cultural resources. The resource values must be directly related to, or dependent upon, the river. The determination of a resource's significance is based on the professional judgment of the study team.

The suitability determination for a wild and scenic river designation is based upon several findings. First, there must be evidence of lasting protection for the river's free-flowing character and outstanding resources, either through existing mechanisms, or through a combination of existing and new conservation measures resulting from the Wild and Scenic study. Second, there must be strong support for designation from the entities – local municipalities, state agencies, riverfront landowners, and conservation organizations that will be partners in the long-term protection of the river. Third, a practical management framework must be devised that will allow these interests to work together as effective stewards of the river and its resources. Finally, National Wild and Scenic River designation must make sense for the river in question: it must be an appropriate and efficient river conservation tool.

As a result of studies conducted by the Musconetcong Advisory Committee in partnership with the Musconetcong Watershed Association, Heritage Conservancy and the NPS, two segments of the river have been determined to be both eligible and suitable for designation into the National Wild and Scenic Rivers system.

In accordance with the National Environmental Policy Act (NEPA), Council on Environmental Quality (CEQ) regulations (40 CFR 1500-1508), and NPS Director's Order #12, an Environmental Assessment (EA) was conducted as part of the Musconetcong River Study Report. This EA addresses the proposed action of designation of the Musconetcong River to the National Wild and Scenic Rivers System.

The EA is comprised of sections that describe the Purpose and Need for Action, Alternatives, the River Environment and the Impacts of Alternatives, and the Public Involvement Process.

Project Description

The proposed project is the permanent protection of the Musconetcong River and its important river related resources. No river construction projects or improvements that may impact the river environment are being considered as part of this project.

Purpose and Need for the Action

The purpose of the project is to protect and enhance the Musconetcong River and the outstanding river resources including natural resources, water quality, recreation, scenery, culture and history. Local residents and local land use decision-makers have expressed a strong desire to protect the river and its resources and are seeking federal designation in order to strengthen these local decisions.

The purpose of this document is to enable the National Park Service and its partners to:

- 1) Determine if portions of the Musconetcong River should be added to the National Wild and Scenic Rivers System; and
- 2) Determine the best long-term conservation strategy for the Musconetcong River.

The Musconetcong River corridor contains important "outstandingly remarkable" resource values related to habitat and species of concern, recreation, scenery, culture and history. Protection of these resources is fragmented due to the complex system of local and state government agencies responsible for the management of various resources. The watershed contains 25 municipalities spread over four counties. Within the suitable river segments local management of the river and its resources lie within the jurisdiction of 12 municipalities and three counties. In addition, various state agencies have responsibility for water quality, fisheries, wildlife management, historic resources, and other river related resources. Management of the river and its watershed will require a cooperative approach between all levels of government as well as residents, community groups, and others.

The primary need for the study, as determined by the Musconetcong Advisory Committee and the established National Park Service policy for studies of primarily private-lands rivers, is to assist local communities in preparing and implementing a river management plan that protects the values of the Musconetcong River. The purpose of the study is reflected in the following goals:

- Encourage recreational use that is compatible with the preservation of natural and cultural qualities of the river corridor while respecting private property.
- Preserve and protect the character of archeological sites and historic structures, districts, sites, and landscapes in the river corridor.
- Preserve farmland and open space within the river corridor and the watershed.

- Preserve, protect, restore and enhance the outstanding natural resources in the river corridor and the watershed, including rare and endangered species, forests, steep slopes, floodplains, headwaters and wetlands.
- Maintain existing water quality in the Musconetcong River and its tributaries and improve where possible.

Alternatives

During the study process the Musconetcong Advisory Committee considered a variety of alternatives for the long-term protection of the river and it's resources. In accordance with NEPA, CEQ regulations, the wishes of study area communities, and established NPS policy for wild and scenic studies of "private lands" rivers, alternatives for the conservation of river resources are described here.

Alternatives were considered and evaluated in accordance with the interests and objectives of the river communities as articulated through the Advisory Committee. In order for an alternative to meet the needs of the community in protecting the river the following objectives must be met:

- A strong emphasis on grassroots involvement and consensus building.
- The development of a river management plan that relies on private, local and state conservation measures rather than federal land acquisition and direct management to protect the river's outstanding resources.
- Federal designation would only be recommended if strong support were expressed through passage of support resolutions by the affected municipalities.
- The recommended alternative must enhance cooperation and communication between the state, counties, municipalities and several federal agencies with laws and regulations affecting the Musconetcong River.

In accordance with NPS Director's Order #12 and NEPA Section 102(2)(E), a range of proposed river protection alternatives were considered, including a "no action" alternative.

Alternative A. No Action

The No Action alternative is evaluated and used as a baseline for comparison with the effects of the action alternatives. This alternative does not involve designation of the Musconetcong River to the National Wild and Scenic Rivers System. Under this alternative it is assumed that the municipal, county and state government offices that have supported the goals of the River Management Plan will continue to function according to their existing regulations and policies and be guided in their river conservation efforts by the Musconetcong River Management Plan. Under the No Action alternative, there will be no involvement or support in river management from the National Park Service through administration of the National Wild and Scenic Rivers Act.

Alternative B. Establishment of a Management Committee

Alternative B does not involve designation of the Musconetcong River into the National Wild & Scenic Rivers System. The goal of conserving riverrelated resources via the management plan, with this alternative, would be facilitated by a Musconetcong River Management Committee. The river management committee would likely be comprised of municipal, county, state, NGO representatives and landowners and other interested people. The river management committee would function as an organization that coordinates river management efforts of various levels of governments, share river-related information among the governments, and conduct activities in the river corridor consistent with the goals of the Musconetcong River Management Plan. Other roles the river management committee could take include:

- Provide education and technical assistance to promote Best Management Practices
- Coordinate management of the river with responsible agencies
- Assist municipalities in planning and implementing zoning and other protection methods
- Review and coordinate actions among municipalities for consistency
- Provide assistance in seeking funds for projects
- Coordinate law enforcement and river access
- Implement and update the river management plan
- Provide a forum for open discussion of water quality and river management issues

This alternative would not allow for the involvement of the National Park Service in the management of the river.

Alternative C. Wild and Scenic River Designation

Under Alternative C, the Musconetcong River segments found both eligible and suitable would be added to the National Wild and Scenic Rivers System. The Musconetcong River Management Committee would assume lead responsibility for coordination of river management plan implementation. To undertake this responsibility, the committee would coordinate the activities described in the river management plan. A National Park Service representative could serve periodically as an advisor to the committee.

The NPS could provide limited financial and technical assistance to help cover the cost of management plan implementation. The NPS would provide National Wild and Scenic River Act Section (7) reviews of projects which might potentially impact the river. Additionally, functions of the National Park Service could include, but may not be limited to:

- Provide limited financial assistance to support the coordination of river municipalities and partners
- Respond to public inquiries
- Develop appropriate plans to protect resources and develop visitor and interpretive resources
- Fund additional research initiatives for resource protection and public use
- Provide technical and financial assistance, as appropriate, through use of cooperative agreements
- Assist in public education
- Develop interpretive media

Alternatives Considered and Rejected

The following alternatives were considered during the study process and dismissed without further evaluation when it was determined that they did not meet the needs of the project.

Alternative D. National Park Service Management

Under this alternative, the Musconetcong River would be added to the National Wild and Scenic River System as a unit of the National Park Service and would be managed directly by agency staff. A local National Park Service office would be funded and staffed for administration and operations. A river management committee with similar responsibilities to that described in Alternative B would be created. This alternative also involves a more active National Park Service role, using the committee and river management plan for guidance. The National Park Service would link organizations together and be a more visible presence in the communities in comparison with the other alternatives. The agency would assume responsibility for direct coordination of the management committee functions, and, but not be limited to:

- Coordinate river management efforts with other federal agencies
- Develop appropriate resource protection and interpretation plans
- Provide technical assistance to municipalities regarding resource protection and land use planning
- Coordinate river recreation, resource protection and visitor service development through cost-share incentives
- Perform Section 7, Wild and Scenic Rivers Act Permit review
- Assist in public education
- Developing public information media
- Responding to public inquiries
- Funding necessary research initiatives for resource protection and public use

With this alternative the federal government's presence would increase with respect to the management of the Musconetcong River's resources, federal land use regulations could be imposed and the National Park Service would have the authority to acquire land along the river corridor. While resource conservation was strongly expressed by municipal representatives along the river corridor, there is consensus that the Musconetcong River remain locally managed. Home rule and local control over land use was clearly voiced as a priority by the Musconetcong Advisory Committee and municipal representatives.

Because this alternative is incompatible with the wishes of the Musconetcong Advisory Committee, riverside municipalities and National Park Service guidelines for managing "Partnership" Wild and Scenic Rivers, it was dropped from further consideration. National Park Service Partnership Wild and Scenic Rivers guidelines focus on the local management of rivers with the federal government being a partner with state, county and primarily local governments.

Alternative E. State Management

Federal Wild and Scenic River designation by Secretary of the Interior under Section 2(a)(ii) of the Federal Wild and Scenic Rivers Act would mean that the state of New Jersey would serve as the manager for the Musconetcong River corridor. For Section 2(a)(ii) to apply to a nominated river, the river must be a component of a state special rivers program and, post-designation, it must be managed by the state. The state of New Jersey has rivers that are designated Wild and Scenic, but the Musconetcong River is not one of them. The New Jersey Wild and Scenic River Program is not currently administered by the state, and the state has no interest in designating the Musconetcong River under this alternative.

Affected Environment

The plan area for the Wild & Scenic rivers study has included all portions of the watershed from Saxton Falls downstream and has focused on the river corridor. Above Saxton Falls the river is dominated by several large lakes and is not in a free-flowing condition. For the purposes of designation and the future administration of the Wild & Scenic program, a formal boundary of one-quarter mile from the ordinary high water mark on each side of the river in the eligible and suitable segments is proposed. This is the area that would be directly affected by the proposed action. In addition, the Musconetcong watershed as a whole would also be affected by the proposed action.

Regional Setting

The Musconetcong River drains a narrow watershed in the unique lands of the New Jersey Highlands, between its confluence with the Delaware River and Lake Hopatcong. The lower portion of the river is approximately 50 miles north of Philadelphia, while the northern portion of the river is approximately 50 miles west of New York City. Tens of millions of people live within a two hour drive of the river corridor, and because of its beauty, access through Interstate Routes 78 and 80, and growing, local economies, the river corridor is under unprecedented commercial and residential development pressures.

The Musconetcong River divides Morris and Sussex Counties, then Hunterdon and Warren Counties as it flows southwest some 42 miles to the Delaware River. All or portions of 25 municipalities lie within the natural boundaries of the Musconetcong watershed.

It is a relatively clean, cool river, and supports diverse populations of flora and fauna as it flows through a variety of landscapes. From forested hills at its northern end, through rolling hills and developed towns in its middle portions, and finally flowing through the rich agricultural lands of Hunterdon and Warren Counties. The Musconetcong River drains diverse landscapes and links towns, cultures and people – as it has for millennia.

Geology

The Musconetcong River drains a limestone valley. The watershed is part of the New England uplands physiographic province. The terminal moraine of the Wisconsin glacier crosses the valley below Netcong and Stanhope. The high ridges of crystalline rock flanking the river are permeated by small streams, some of which disappear into the slopes to form underground caverns. In some areas, groundwater flows into the river through springs in the riverbed.

Vegetation and Critical Habitat

Diverse natural resources abound along the Musconetcong River.

The forested areas that flank either side of the river are critical resting and feeding stops for migrating songbirds and hawks. The Alpha Grasslands, not far from the river's confluence with the Delaware River, and Vince's Ravine, in Holland Township, Hunterdon County, are identified by the state's Department of Natural Lands Management and the Nature Conservancy as containing critical habitat of rare species and exemplary natural communities.

Wildlife

Rural landscapes, forested ridges and relatively undeveloped sections of the Musconetcong River provide habitat for a variety of year-round and migratory birds. Summer residents such as the northern oriole, yellowthroat warbler, catbird and wood duck can be found in the river corridor's wetlands and adjacent wood lots. The river corridor provides habitat to migratory birds, as it is a major stop on the Atlantic Flyway.

Year round wildlife rely on river corridor habitat as well. Beaver, mink, eastern belted kingfisher and snapping turtles all depend on river corridor vegetation. Migratory waterfowl such as the common merganser and great blue heron rely on the river's abundant supply of fish, reptiles, amphibians and small rodents.

The NJDEP office of Natural Lands Management administers the Natural Heritage Program. The program's data base lists rare wildlife species that can be found in the Musconetcong River corridor. The NJDEP considers these areas to be top priorities for the preservation of biological diversity.

Threatened and Endangered Species

The Natural Heritage Program has identified the Barred Owl and Wood Turtle as state threatened, Fleshy Hawthorn as state endangered and Brook Floater as critically imperiled in New Jersey. All of these species are found within the river corridor.

Fisheries

One of the prominent trout fisheries in the state, the Musconetcong River is stocked each year with brook, brown and rainbow trout. The mainstem of the Musconetcong River is classified by the NJDEP Division of Fish and Wildlife, Bureau of Freshwater Fisheries as a "trout maintenance" stream. Trout maintenance designation means the stream can support trout populations year round.

Two Musconetcong River tributaries, Hances Brook and Stephensburg Brook are classified as "trout production" streams. Trout production designation means that trout can spawn in these streams, and that these streams fall under tighter state angling regulations.

History and Cultural Resources

The Musconetcong River corridor has impacted, and in turn, has been impacted by people who have settled in it for millennia. Humans settled the area approximately 12,000 years ago, during the Wisconsin glacier's ice-age retreat. The Plenge Site, one of two Paleo-Indian site excavations in New Jersey, is located along the Lower Musconetcong in Warren County. The site is one of the most important Paleo-Indian sites in the northeastern United States. By the time European settlers arrived in the early 18th century, the indigenous Lenape Indians were in decline. The Europeans at first lived and toiled in a subsistence agricultural setting. Later, in the middle 18th century, subsistence farming gave way to commercial farming and dairy production. Many of the villages that flank the river today, Finesville, Asbury, Waterloo Village and Stanhope, sprang up in this period. These villages feature many sites on the State and National Register of Historic Places, and their scenic qualities, grist mills, architecture and bridges, are important to the local economy and regional tourism.

The iron industry grew in strength in the 19th century, and the lands in the river corridor were deforested to fuel iron furnaces. To replace the wood used for iron production, coal was transported via the Morris Canal from Pennsylvania. Remnants of the Morris Canal remain, and several streams, along with Lake Hopatcong, were dammed to provide the water for the canal. Small, silted in dam pools are what remains of the extensive damming of the Musconetcong River.

The lakes that were created to provide water for the canal in the upper watershed remained intact, and they attracted tourists and vacationers in the latter 19th century. The vacation cottages that sprang up around the upper watershed lakes have since become permanent homes. Thousands of people a year recreate on these lakes and the lower Musconetcong.

Recreation and Scenic Resources

Trout fishing and paddling are especially popular in the Musconetcong River. The Musconetcong River is a designated trout maintenance stream. The river also has grown in popularity as a fishing stream with the increase of public fishing access sites maintained by the NJDEP Division of Fish and Wildlife.

Non-powered boating is also an important source of recreation on the Musconetcong River. Canoeists and kayakers most often paddle the river between Beattystown and Bloomsbury. The river below Bloomsbury requires difficult portages at the Warren Glen Dam. The office of Natural Lands Management has designated the Musconetcong River as a Waterways Trail in its New Jersey Trail Plan. The river is normally only navigable in high water seasons or following heavy rains and lake releases. Primary river-contact activities such as swimming and tubing are not recommended in the Musconetcong, as bacteria levels in some locations can exceed health standards.

Other popular forms of recreation in the Musconetcong River corridor include hiking and birding. Excellent hiking opportunities can be found in Allamuchy-Stephen's State Park, Point Mountain Park and the Musconetcong Preserve.

The Musconetcong River corridor is a high quality scenic area as well. Forested ridgelines, historic villages and towns, agricultural lands can be seen by canoe or on foot the length of the river corridor. From Beattystown down to Hances Brook confluence, the river corridor is well forested and shows little signs of development. Moreover, much of segment A, from Saxton Falls to Route 46 near Hackettsown has little development and a great deal of public open space.

Impact of Alternatives

This section of the Environmental Assessment allows for comparisons of the alternatives and their impacts on the resources of the Musconetcong River. It is not anticipated that any part of the natural environment of the Musconetcong River corridor will be adversely or negatively impacted by designation of the river into the National Wild and Scenic River System or the adoption of the river management plan. Excepting Alternative A, alternatives in this Environmental Assessment are not only intended to prevent negative impacts to the river's natural resources, but also to enhance those natural resources. No river construction projects or improvements that may impact the river environment are being considered as part of this planning process.

Alternative A. No Action

Under a No Action alternative, there would be no federal designation of the Musconetcong River to the Wild & Scenic Rivers program. There would not be any review of federal actions for consistency with state and local policies as articulated in the Musconetcong River Management Plan. Also under Alternative A, there would not be river management plan implementation assistance from the federal government.

Under alternative A, and given the limited local, county and state resources to implement the Musconetcong River Management Plan it is unlikely that the Musconetcong River Management Plan would be effectively implemented. Natural resource protection and the implementation of the river management plan would continue to be the function of many separate local, state, and federal agencies. There would be no incentives from the National Park Service for implementation of the river management plan.

The No Action alternative would involve no review of federal actions or permits for consistency with state, county and local policies. Federal projects or permits for projects that impact the river environment and its resources may be approved in conflict with the local efforts to protect the river. There could also be no National Park Service involvement in the implementation of the river management plan.

Selection of this alternative is contrary to the expressed interest of the Musconetcong Advisory Committee, river corridor municipalities, landowners, the affected counties, the state of New Jersey and non-governmental organizations. There is consensus through municipal resolutions, expressed opinions at public workshops, the river survey and comments on the management plan, that the No Action alternative would be an alternative that does not adequately protect the Musconetcong River's outstanding resources.

Alternative B. Establishment of a Management Committee

The establishment of a River Management Committee, comprised of representatives of riverside municipalities, NGOs, the business community, landowners and interested people, is central to implementing the Musconetcong River Management Plan. The river management committee alone is the stimulus for organizing and coordinating river management strategies. This alternative consists of a multiple partnership that involves coordination among multi-interest parties for river conservation purposes. River management regulations, service duplication and costs would be minimized under this alternative. The effectiveness of this alternative would be dependent upon the ability of the management committee to educate and persuade municipalities and landowners to adhere to the management plan provisions and recommended actions.

Like Alternative A, Alternative B would involve no review of federal actions/ permits, consistent with state, county and local policies. There could also be no anticipated federal involvement in the implementation of the river management plan.

Alternative C. Wild and Scenic River Designation

Like alternative A, this alternative would help minimize regulation and service duplication, and minimize cost, while protecting river resources. Additionally, this alternative would facilitate the efforts of the river management committee in implementing the river management plan with National Park Service involvement.

This alternative would garner the river greater attention because it would place it into the National Wild and Scenic Rivers System. Also this alternative would include federal financial, technical and coordination assistance. A federal representative from the National Park Service could attend river management committee meetings and provide technical assistance related to river management plan implementation. This guidance would facilitate river management plan implementation. National designation, along with its federal financial and technical assistance, are strong incentives for municipal government and landowner participation in river management plan implementation. Alternation in river management plan implementation and river management committee participation.

Consistent with the goals of the river management plan, local school districts would also be supported by the river management committee and the National Park Service under this alternative. School districts interested in developing river education curricula could be supported by small grants administered through National Park Service cooperative agreements.

Management coordination and municipal outreach would be viewed as less threatening if the primary agent for such activities is the river management committee, rather than directly from the National Park Service. This alternative would also provide greater resource protection. The federal government would be responsible for reviewing any federal actions that could impact the river's resources.

There is potential for greater positive impacts with this alternative because management decisions are strictly made at the local level, with the National Park Service primarily supporting the municipalities. A strong understanding of local issues and concerns provided by the river management committee allows more appropriate and responsive decisions to be made.

Cumulative Impacts

Land management decisions that could cumulatively impact the Musconetcong River are made primarily by landowners and the local municipalities. Under Alternative C the National Park Service has the responsibility under Section (7) of the Wild and Scenic Rivers Act, to review proposed river construction projects that could impact the river's resources. In the case of the Musconetcong River, resource protection measures such as municipal open space zoning, ordinances which include setbacks, buffers, grade construction restrictions and minimum lot sizes, are for the most part in place. These local controls, in part, led to the decision by the National Park Service that the river is suitable for designation into the National Wild and Scenic Rivers System (see Appendix D). In addition, municipalities in the suitable segments of the river have endorsed the goals of the Musconetcong River Management Plan.

Selection of the Preferred Alternative

The preferred alternative is C, National Wild and Scenic River designation of all segments found eligible and suitable, with the river management plan implemented through a partnership of private, local, state and federal actions guided by a Musconetcong River Management Committee.

This alternative was selected as the best mechanism to enhance and support protection of the river resources while maintaining local control of land use decisions. This alternative ensures federal review under Section 7 of projects which might impact the river and alter its water quality or its free flowing condition. This review process will ensure that federal resource projects that would impede or alter the free-flowing condition would not be permitted on the Musconetcong River.

The designation will allow a partnership to exist among river entities to protect and enhance the river's resource values through the implementation of the river management plan. Federal designation will allow the NPS to participate in management and protection of the river in partnership with local governments and local interests. This alternative, which involves the NPS as a partner, was considered the alternative best suited to the Musconetcong, as it would enhance those resource protection measures already in place through municipal land use regulation and state regulation.

In addition, the federal designation would bring increased attention to the river from landowners, local, county and state governments and may lead to enhancements of the river's resource values and the riparian ecosystem as a whole. Increased recognition of the value of the river to the economic future of the valley may also provide additional protection to the river as development in the region continues.

Lastly, the federal designation of the river would allow the NPS to allocate resources to the implementation of the river management plan. Implementation of the plan would proceed more effectively with the NPS participating in a facilitating role, coordinating activities of the many local and state government agencies and other river interests.

Public Involvement

A comprehensive public involvement effort was undertaken to ensure that the study and alternatives encompassed all the concerns of landowners, local residents, state and federal agencies, municipalities, counties, business and conservation interests. The Musconetcong Advisory Committee was formed to ensure diverse viewpoints were heard during each step of the study. Advisory committee members were drawn from each of the river corridor municipalities. Opportunities for public involvement included the following:

- The development of mailing lists that included key local officials, riverside landowners, county and state agency officials, and Non-Governmental Organizations. Those on the mailing lists received meeting notices and draft documents for comment.
- Monthly advisory committee meetings at various locations throughout the river corridor open to all.
- Several special meetings were sponsored to promote public awareness of the river and of its unique resources, including a historical perspective on the river valley presented by a NPS historian, driving tours of the watershed, canoe tours, and hiking trips to remote reaches of the river.
- A public opinion survey was developed and mailed to 750 residents of the 18 river municipalities, including 300 riparian landowners.

An analysis of the existing resource protection mechanisms, such as state and local regulations, was completed and presented at public workshops in April and May 2000. This analysis formed the basis for developing the goals and objectives of the management plan. The draft River Management Plan was developed by the Musconetcong Advisory Committee and distributed to all municipalities, state and county agencies and interested individuals in the river corridor in December 2001.

In January and February 2002, three public workshops were held in locations throughout the river corridor to present the draft River Management Plan and to solicit comments. More than 100 people attended the three meetings. Questions from the audience included: the role the National Park Service will play if the Musconetcong River is designated, what the National Park Service can do for river communities once the river is designated, how designation will impact conflicts between private property owners and recreational users, whether or not designation will impact development, how designation would effect the economics of the river corridor communities and how farmland and open space will be impacted by designation. Meeting notes from this series of meetings are included in Appendix E.

In June 2002, a revised draft River Management Plan was prepared and distributed to all river corridor municipalities with a request to support the plan and the designation of the river through a municipal resolution. Over the next several months members of the advisory committee and National Park Service staff attended municipal meetings to discuss the river management plan and river designation in support of these resolutions. Questions at the municipal level were focused on what the National Park Service can do for municipalities in terms of conserving the river's resources. These questions tended to be specific and related to river issues in the respective municipality. By September 2002, 13 of the 14 river corridor municipalities had passed resolutions in support of the designation. Copies of these resolutions are included in Appendix A.

Glossary

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, 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.

Anti-Degradation Policy:

A policy to adhere to the anti-degradation clause: A provision in air quality and water quality laws that prohibits deterioration of air or water quality in areas where the pollution levels are presently below those allowed.

Aquifer:

An underground bed or stratum of earth, gravel or porous stone that contains a useable supply of water.

Aquifer Recharge:

Replenishment of a useable supply of groundwater by infiltration of rainfall or water which infiltrates the soil.

Best Management Practices:

A practice or combination of practices for preventing or reducing diffuse or nonpoint sources of pollution to a level compatible with water quality goals.

Boundary:

A map line that defines the area of national interest in the Musconetcong River Corridor. The area to be protected through local laws, plans and ordinances, and the use of other existing laws.

Classification:

Under the Wild and Scenic Rivers Act, a system for assessing existing development levels and for directing future management; the proposed classifications on the Musconetcong River are scenic and recreational.

Clustering:

Clustering involves the arrangement of residential building lots in groups through a reduction in lot area and building setback requirements while still adhering to permitted density regulations. This allows the remaining area of the development to be incorporated as open space, often based upon the preservation of environmentally sensitive areas (i.e., woodlands, wetlands, floodplains, or severely steep slopes).

Conservation Easement:

A flexible legal instrument that protects land while leaving it in private ownership. A landowner generally donates the easement to a qualified conservation organization or government agency, which in turn ensures that the conditions of the easement are met over time.

Critical Habitat:

The 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 and architectural features.

Designation:

The process whereby rivers are added to the National Wild and Scenic Rivers System by an act of Congress or by administrative action of the Secretary of the Interior with regard to state-designated rivers and Section 2(a) (ii) of the Wild and Scenic Rivers Act.

Easement:

A partial interest in land.

Feedlot:

A lot or building, or a combination thereof, intended for the confined feeding, breeding, raising or holding of animals and specifically designed as a confinement area in which manure may accumulate; or in which the concentration of animals prevents maintenance of a vegetative cover within the enclosure. Open lots used for the feeding and rearing of poultry are considered feedlots.

Fish and Wildlife:

A division of the NJDEP whose mission is to manage 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 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, landings and related research and educational activities.

Headwaters:

The waters from which a river rises. Referring to the source of a river or stream.

Historic District:

One or more historic sites and intervening or surrounding property united historically or aesthetically by plan or physical development. A district may also comprise individual elements separated geographically but linked by association or history.

Impervious Surface:

Hard surfaces which are impermeable to rainfall, such as roof tops, roads, parking lots, driveways and sidewalks.

Impoundment:

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.

Jurisdiction:

The limits or territory within which authority may be exercised.

Karst Topography:

A terrain, generally underlain by limestone in which the topography is chiefly formed by the dissolving of rock. It is commonly characterized by closed drainage, subterranean drainage and caves.

Landfill:

Site where trash or refuse, including toxic or radioactive waste, is buried as part of a public or private business operation.

Lot Averaging:

Lot averaging is similar to clustering in that both methods allow some variation in minimum lot size regulations. However, with the lot averaging technique common open space areas are not typically created nor is overall density typically modified. Larger lots are designed to avoid encroachment into environmentally sensitive areas, while still providing adequate area for residential construction. The zoning ordinance generally requires a minimum lot size for each specific zoning district.

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.

Open Space Set Aside:

Any parcel or area of land or water set aside in a development.

Overlay:

A zoning district that encompasses one or more underlying zones and that imposes additional requirements above that required by the underlying zone.

Restrictive Covenant:

Provision in a deed limiting the use of the property and prohibiting certain uses.

Ridgeline:

A line connecting the highest points along a ridge and separating drainage basins or small-scale drainage systems from one another.

Riprap:

A layer, facing or protective mound of rubble or stones randomly placed to prevent erosion, scour, or soughing of a structure or embankment; also the stone used for this purpose.

Riparian Buffer:

A vegetated area near a stream, usually forested, which helps shade and partially protect a stream from the impact of adjacent land uses.

Riparian:

Belonging or relating to the bank of a natural course of water.

Setback:

The minimum horizontal distance from a lot line, shoreline or road to the nearest part of a structure.

Wetland:

An area where hydric soils are saturated by surface and/or ground water long and frequently enough during the growing season to support a dominance of hydrophytic vegetation.

References

Final Comprehensive Management Plan and Environmental Impact Statement for the Maurice National Scenic and Recreational River; prepared by the Philadelphia Support Office In Cooperation with Partners, Philadelphia Support Office, U.S. Department of the Interior; January 2001.

Lower Delaware River Management Plan; prepared by Northeast Region, National Park Service, U.S. Department of the Interior; August 1998.

Lower Delaware Wild and Scenic Study Report; prepared by the Northeast Region, National Park Service, U.S. Department of the Interior; May 1999.

Michaels, Joseph A.; Neville, L. Robert; Edelman, David; Sullivan, Tim; DiCola, Leslie A. 1992. *New York – New Jersey Highlands Regional Study*. Radnor, PA: USDA Forest Service, Northeastern Area State and Private Forestry 130 p.

Musconetcong River Draft Mananagement Plan; prepared by the Northeast Region, National Park Service, U.S. Department of the Interior; April 2002

Musconetcong River National Wild and Scenic River Study Resource Assessment and Eligibility & Classification Draft Report; prepared by the National Park Service, Department of the Interior, in cooperation with John Brunner, Executive Director of the Musconetcong Watershed Association; August 1999.

White Clay Creek and Its Tributaries Watershed Management Plan with Reference Sections; prepared by White Clay Creek Wild and Scenic Study Task Force and the National Park Service, U.S.

White Clay Creek and Its Tributaries Wild and Scenic River Study Draft Report; prepared by Wild and Scenic Rivers Program, Northeast Region, National Park Service, U.S. Department of the Interior; September 1999.

White Clay Creek and Its Tributaries, National Wild and Scenic River Study, Final Landowner Survey Report; prepared by Division of Park and Resource Planning, Mid-Atlantic Regional Office of the National Park Service, U.S. Department of the Interior in cooperation with the White Clay Creek Wild and Scenic Study Task Force; November 1994.

Appendix A: Municipal Resolutions

Township	Resolution No.	Date
Holland	n.a.	8/6/02
Bloomsbury	No. 23-02	6/11/02
Hampton	n.a.	7/22/02
Bethlehem	n.a.	7/18/02
Lebanon	No. 24-2002	2/6/02
Washington, Morris	No. 214-02	9/17/02
Mt. Olive	n.a.	6/18/02
Allamuchy	n.a.	6/18/02
Hackettstown	n.a.	6/10/02
Mansfield	No. 2002-54	6/26/02
Washington, Warren	No. 2002-13	8/20/02
Franklin	No. 2002-53	7/8/02
Greenwich	No. 2002-63	8/15/02
Pohatcong	n.a.	n.a.

Additional Resolutions

Byram Township, Resolution No 60-2002, 6/17/02 Netcong Borough, Resolution No 2002-91, 9/12/02 Warren County, 8/21/02 Morris County, Resolution No 38, 9/9/02 Hunterdon County, 3/11/03

TOWNSHIP OF HOLLAND COUNTY OF BUNTERDON, STATE OF NEW JERSEY

WHEREAS, the Township Committee of the Township of Holland recognizes that the Musconetcong River provides outstandingly remarkable natural, cultural, recreational, and scenic resource values that are important for the quality of life and economic health of our community; and

WHEREAS, the Township Committee of the Township of Holland recognizes that the Musconstcong River Management Plan provides a mechanism to enhance protection of the Musconetcone River, primarily through local action while recognizing the rights of property owners: and,

WHEREAS, the Township Committee of the Township of Sollami recognizes the hemeful of forming a partnership with other municipalities and interested parties along the Musconstcong River in protection of the Museometering River; and

WHEREAS, the National Park Service authorized an aligibility study of the Musconetcong River at the request of municipalities along the Musconsteang River to determine its suitability for inclusion into the National Wild and Scenic Rivers System.

NOW, THEREFORE, BE IT RESCIVED, that the Township Committee of the Township of Holland supports the Musconoldong River Management Plan, agrees to acopt the goals of the plan into the Township's Comprehensive Master Plan, will take action as appropriate to implement the goals of the plan, and endorses designation of the eligible section of the Musconstory Sivor that borders the Township of Holland into the National Wild and Scenic River System.

CERTIFICATION.

I, Judith Belardo, Township Clerk of the Township of Holland, County of Hunterdon and State of New Jersey, hereby certify the foregoing Resolution is a true and correct copy of a Resolution adopted by the Township Committee at a regular meeting held on August 6, 2002.

Judiz Bočasća Južith Belardo, SMC

BOROUGH OF BLOOMSBURY RESOLUTION # 23-02

WHEREAS, the Common Council of the Borough of Bloomsbury recognizes that the Musconetcong River provides outstanding remarkable natural, cultural, recreational, and scenic resource values that are important for the quality of ble and economic health of our community; and

WHEREAS, the Common Council of the Borough of Bloomsbury recognizes that the Musconetcong River Management Plan provides a mechanism to enhance protection of the Musconetcong River, primarily through local action while recognizing the rights of property owners; and,

WHEREAS, the Common Council of the Borough of Bloomsbury recognizes the benefit of forming a partnership with our municipalities and interested parties along the Musconetcong River in protection of the Musconetcong River, and

WHEREAS, National Park Service authorized an eligibility study of the Musconetcong River at the request of municipalities along the Musconetcong River to determine its suitability for inclusion into the National Wild and Scenic Rivers System,

NOW THEREFORE, BE IT RESOLVED, that the Common Council of the Borough of Bloomsbury supports the Musconetcong River Management Plan, agrees to adopt the goals of the plan into the Municipal Master Plan, will take action as appropriate to implement the goals of the plan, and endorses designation of the eligible section of the Musconetcong River that borders the municipality of the Borough of Bloomsbury into the National Wild and Scenic River System.

Edwin Tuxhorn, Meyer

FORTH LING 4440

Karen Dysarf, RMC Borough Clerk

I, Karen Dysart, Clerk of the Borough of Bloomsbury, County of Hutmardon, do hereby certify the foregoing to be a true and correst copy of a resolution adopted by the Borough Common Council at a meeting held on June 18, 2002.

Kolen Die Jart RINC Barough Clerk

RESOLUTION # 41-02 MUSCONETCONG RIVER MANAGEMENT PLAN

BOROUGH OF HAMPTON COUNTY OF HUNTERTON, STATE OF NEW JERSEY

WHEREAS, the Mayor and Council of the Borough of Hampton Recognizes that the Musconeteong River provides outstandingly remarkable natural, cultural, recreational, and scenic resource values that are important for the quality of life and economic health of our community; and

WHEREAS, the Mayor and Council of the Borough of Hampton recognizes that the Musconetcong River Management Plan provides a mechanism protection of the Musconetcong River, primarily through local action while recognizing the rights of property owners; and,

WHEREAS, the Mayor and Council of the Borough of Hampton recognizes the benefit of forming a partnership with other municipalities and interested parties along the Musconetcong River in protection on the Musconetcong River, and

WHEREAS, National Park Service authorized an eligibility study of the Musconetong River at the request of municipalities along the Musconetcong River to determine its suitability for inclusion into the National Wild and Scenic Rivers System,

NOW, THEREFORE, BE IT RESOLVED, that the Mayor and Council of Hampton Borough supports the Musconetcong River Management Plan, agrees to adopt the goals of the plan into the Borough Comprehensive Plan, Res.#41-02 (Hampton Borough)

> will take action as appropriate to implement the goals of the plan, and endorses designation of the eligible section of the Musconetcong River that borders the Borough of Hampton into the National Wild and Scenic River System.

ames Neidlin

RI Mainteon Massey.

Muinicipel Clerk June 22, 2007

CERTIFICATION

I, Maurean Massey. Borough Clerk of the Borough of Mampion, County of Hunterton and State of New Jersey hereby certify the foregoing Resolution is a true and context ropy of a Resolution adopted by the Mayor and Council at a regular meeting held on July 22, 2002.

Moursen Massey. RMC. CHC Municipal Clerk

RESOLUTION #2002-80

WHEREAS, the governing body of the Township of Bethlehem recognizes that the Musconetiong River provides outstandingly remarkable natural, cultural, recreational, and scenic resource values that are unportant for the quality of life and economic health of our community; and

WHEREAS, the governing body of the Township of Bethlehem recognizes that the Musconetcong River Management Plan provides a mechanism to enhance protection of the Musconetcong River, primarily through local action while recognizing the rights of property owners; and

WHEREAS, the governing body of the Township of Bethlehetn recognizes the benefit of forming a partnership with other municipalities and interested parties along the Musconetcong River in protection of the Musconetcong River; and

WHEREAS, National Park Service authorized an eligibility study of the Musconetcong River at the request of municipalities along the Musconetcong River to determine its suitability for inclusion into the National Wild and Scenic Rivers System.

NOW, THERBFORE, BP IT RESOLVED, that the governing body of the Township of Bethlehem supports the Musiconetoong River Management Plan, agrees to adopt the goals of the plan into the Municipal Master Plan, will take action as appropriate to implement the goals of the plan, and endorses designation of the eligible section of the Musiconetoong River that borders the Township of Bethlehem into the National Wild and Scenic River System.

Vote: aye - Alexander

- aye Johnson
- aye -- Meehan
- aye Stetar
- aye Graczyk, Mayor

I. Diane Pflugfelder, R.M.C., Municipal Clerk of the Township of Bethlebern, County of Hunterdon, do hereby certify the foregoing to be a true and correct ropy of a resolution adopted by the governing body at a meeting beht on July 18, 2002.

يا فن Diene Pflugfeber, R.M.C. enc Municipal Clork

RESOLUTION NO. 24-2002

WHEREAS, Wild and Scenic Rivers Act (Public Law 90-542, as amended) was enacted in 1968 and Section (b) states: "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 a free-flowing condition, and that they and their immediate environments shall be protected for the benefit and enjoyment of presenand future generations", and

WHEREAS, the Musconetrong Watershed Association was formed in 1993, and

WHEREAS, in 1995 the NJDEP Office of Natural Lands Management recommended to the NPS (National Park Service) that the Musconetcong River be included in the Nationwide Rivers Inventory of "randidate" rivers that are considered to have the appropriate characteristics for Wild and Scenic designation, and

WHEREAS, in 1997 municipalities along the river voted to request the NPS to study the Musconetcong River to determine its eligibility and suitability for inclusion in the National System, and

WHEREAS, the Musconetcong Advisory Committee studied the main stem and the river corridor, a distance of approximately 42 miles. An Eligibility and Classification Report, was completed in 1999 and recommended that these segments of the river, representing 28.5 miles, were eligible for inclusion in the National Wildlife and Scenic River System, and

WHEREAS, a Draft River Management Plan has been circulated to municipalities and interested parties outlining the following goals:

- Encourage recreational use that is compatible with the preservation of natural and cultural qualities of the river corridor while respecting private property.
- Preserve and protect the character of archeological sites and historic structures, districts, sites and landscapes in the river corridor.
- 3. Preserve farmland and open space within the river corridor and the watershed
- Preserve, protect, restore and enhance the outstanding natural resources in the river corridor and the watershed, including rare and endangered species, forests, steep slopes, floodplains, bradwaters and wetlands.
- Maintain existing water quality in the Musconetcong River and its tributarics and improve where possible, and

WHEREAS, these goals reflect the goals outlined in the Lebanon Township Master-Plan 2001.

NOW, THEREFORE, BE IT RESOLVED that the Lebanon Township Committee wholeheartedly supports the efforts of the Musconetcong Advisory Committee, the Musconetcong Watershed Association, the Hentage Conservancy and the National Park Service as outlined in the Draft River Management Plan to include the recommended portions. of the Musconetcong River in the National Wild and Scenic Rivers System

BE IT FURTHER RESOLVED that certified copies of this resolution of support be forwarded to the Musconetcong Advisory Committee, the Musconetcong Watershed Association, the Heritage Conservancy and the National Park Service.

DATE: February 6, 2002

Patricea Schriver, Mayor

Auest:

Linda Kerr Municipal Clerk

I, Linda Ketr, Clerk of the Township of Lebanon do hereby certify the above to be a true copya resolution adopted by the Township Committee on February 6, 2002.

inda Kerr, Clerk

RESOLUTION OF THE TOWNSHIP OF WASHINGTON

Morris County, New Jersey

No. R-214-02

Date of Adoption: September 16, 2002

THIs or Subject: RESOLUTION IN SUPPORT OF THE MUSCONETCONG RIVER MANAGEMENT FLAN

WHEREAS, the Township Committee of the Township of Whishington recognizes that the Musconetcong River provides outstandingly remarkable natural, cultural, recreational, and second resource values that ore important for the quality of life and economic health of our community; and

WHEREAS, the Township Committee of the Yownship of Washington recognizes that the Musconetcong River Management Plan provides a mechanism to enhance protection of the Musconetcong River, primarily through local action while recognizing the rights of property owners; and

WHEREAS, due Township Committee of the Yownship of Washington recognizes the henefit of forming a propership with other municipalities and interested parties along the Musceneteong River in protection of the Musconstering River, and

WIEEREAS, National Park Service authorized an eligibility study of the Musconetcong River at the request of municipalities along the Musconetcong River to determine as suitability for atclasion into the National Wild and Scenic Rivers System.

NOW, THEREFORE, BE IT RESOLVED, that the Township Committee of the Township of Washington, Morris County, supports the Muscoucteoing River Management Plan, agrees to adopt the goals of the plan into the Municipal Master Plan, will take nerion as appropriate to implement the geols of the plan, and endorses designation of the eligible section of the Muscoucteoing River that borders the Township of Washington into the National Wild and Scenie River System.

ATTEST:

Dianne S. Gallets, Township Clerk

TOWNSHIP COMMITTEE OF THE TOWNSHIP OF WASHINGTON

John Krickus , Mayor

I, Dianne S. Gallets, Township Clark, do harshy certify that the foregoing resolution was adopted at a meeting of the Township Committee, held on September 16, 2002.

Diaune S. Gallets, Township Clerk

Date

RESOLUTION OF THE TOWNSHIP COUNCIL OF THE TOWNSHIP OF MOUNT OLIVE SUPPORTING MUSCONETCONG RIVER WILD & SCENIC DESGINATION AND DRAFT MANAGEMENT PLAN

WILEREAS, the township council of the Township of Mount Olive recognizes that the Musconetrong River provides outstandingly remarkable natural, cultural, recreational, and scenic resource values that are important for the quality of life and economic health of our community; and

WHEREAS, the Township Council of the Township of Mount Olive recognizes that the Musconetcong River Management Plan provides a nucchanism to enhance. protection of the Musconetcong River, primarily through local action while recognizing the rights of property owners; and

WHEREAS, the Township Council of the Township of Mount Olive recognizes. the benefit of forming a partnership with other municipalities and interested parties along. the Musconetcong River in protection of the Musconetcong River; and

WHEREAS, National Park Service authorized an eligibility study of the Musconceong River at the request of municipalities along the Musconceong River to determine its suitability for inclusion into the National Wild and Scenic River System; and

WHEREAS, patrolling of these areas by police is costly, and not oractical. without special equipment with which to access of road areas; and

NOW THEREFORE, BE IT RESOLVED by the Township Council of the Township of Mount Olive, County of Morris that the Governing Body supports the Musconetoong River Management Plan, agrees to adopt the goals of the plan into the Municipal Master Plan, will take action as appropriate to implement the goals of the plan, and endorses designation of the eligible section of the Musconetcong River that borders the Township of Mount Olive into the National Wild and Scenie River System.

TOWNSHIP OF MOUNT OLIVE

DA. Scapica

David Scapicchio Township Council President

SCARE: PC by certify the above to be a true copy of a resulution passed by the Mount avership Council at a duly convened meeting held on June 18:2002 መም የማ ሌሌ

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W. P.T.

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BATTYL I 5240

Lisa M. Lashway Township Clerk

ALLAMUCHY TOWNSHIP WARREN COUNTY Clerk's Office

Municipal Buildung - Alphone Road Mail Ta: Box A Allamachy, NJ 07820

(908) 857-5137 Fax: (908) 857-0129

RESOLUTION

TOWNSHIP OF ALLAMUCHY, COUNTY OF WARREN, STATE OF NEW JERSEY

WHEREAS, the Township Council of the Township of Allamuchy recognizes that the Musconettong River provides nutstandingly remarkable natural, cultural, recreational, and scenic resource values that are important for the quality of life and coononuc health of our community, and

WHEREAS, the Township Council of the Township of Allamochy recognizes that the Musconeteong River Management Plan provides a mechanism to enhance protection of the Musconeteong River, primarily through local action while recognizing the rights of property owners, and

WHEREAS, the Township Council of the Township of Allamuchy recognizes the benefit of forming a partnership with other municipalities and interested parties along the Musconetoong River, and

WHEREAS, National Park Service authorized an eligibility study of the Musconetcong Riverat the request of municipalities along the Musconetcong River to determine its suitability forinclusion into the National Wild and Scenic Rivers System,

NOW, THEREFORE, BE IT RESOLVED, that the Township Council of the Towoship of Allamuohy, County of Warren, State of New Jersey supports the Musiconetoong River Management Plan, agrees to adopt the goals of the plan into the Municipal Master Plan, will take action as appropriate to implement the goals of the plan, and endorses designation of the eligible section of the Musicoretcong River that hundres the Township of Allamuchy into the National Wild and Scenie River System.

CERTIFICATION.

 Anne Marie Tracy, Municipal Clerk of the Township of Allamuchy, County of Warren, State of New Jersey bereby certify the fixegoing resolution is a true and correct onpy of a Resolution adopted by the Township Council at a regular meeting held on June 18, 2002

Anne Marie Tracy, Municipal Clerk Township of Allamnehy 🔚



MAYOR Regenties

MEMORIAS DE COUNCIL Joseph Scalow Nordy Brown Foward Kelly Brom Medden Katen Scaletier John Stout

COAN ELERKY ADMINISTRATOR Withom Witholandur, HWC/ONG

CHEFFENANCAL OFFICER Ostolio (1991 CMFO

wi INICIPAL ASSESSOR Kothenn C. Degen CCA

TAX COLLECTOR Regime McKerne C°C

CONSTRUCTION OFFICIAL Protocol COSMON

ZOMING OFFICIAL Das MEQUES

TOWN ATTORNEY Yoshiai K. Drugo TOWN OF HACKETTSTOWN

MUNICIPAL BUILDING 215 STREER \$IR\$L1 + -IACKETS\$X1WN + NEW JERSEY 07840 mu: 906-859-3130 + FAX 936-859-5735

RESOLUTION

WHEREAS, the Moyor sud4, ommon Council of the Municipality of Hackelestown recognizes that the Musconetoong River provides substandingly remarkable natural, cultural, representional, and scenic resource values that are important for the quality of life and economic health of our community; and

WHEREDAS, the Mayor and Common Council of the Municipality of Hackettstown recognizes that the Musconetoong River Management Plan provides a mechanism to enhance protection of the Musconetoong Rivet, principally through local action while recognizing the rights of property owners, and,

WHEREAS, the Mayor and Common Council of the Municipality of Hackettstuwn recognizes the benefit of ferming a partnership with other municipalities and interested parties storig the Musecenetoong River in protection of the Musecenetoong River, and

WHEREAS, National Park Service authorized an obgibility study of the Muscenerleong River at the request of municipalities along the Muscenerleong River to determine it suitability for inclusion into the National Wild and Stenie Rivers System.

NOW, THEREFORE, BE IT RESOLVED, that the Mayor and Common Council of the Hackettstewn supports the Musconotoong Rive: Management Plan, agrees to adopt the geals of the plan into the Municipal Master Plan, will take action as appropriation to implement the geals of the plan, and endocres designation of the eligible section of the Musconotomy River that boarders the municipality of Flackettstown into the National Wild and Scenic River System

CERTIFICATION

I. William Kuster, Municipal Clerk of the Town of Backetistown. County of Warren and State of New Jettery hereby certify the folloge fig. Resolution is a frue and correct copy of a Resolution adopted by the Longel of a negator meeting held on Juny 10, 2002.

Der mail 02 MACKETTS TOWN.

Example numbers (9). Veneziad Balding, 215 Stign Street, the Sycrediand Faarth Mandays at each month of 7.50 pm

RESOLUTION NO. 2002-54

TOWNSHIP OF MANSFIELD COUNTY OF WARREN STATE OF NEW JERSEY

WHEREAS, the Mayor and Township Committee of the Township of Mansfield recognizes that the Musconeteong River provides outstanding remarkable natural, cultural, recreational, and scenic resource values that are important for the quality of life and economic health of our community; and

Whereas, the Mayor and Township Committee of the Township of Mansfield recognizes that the Musconetcong River Management Plan provides a mechanism to enhance protection of the Musconetcong River, primarily through local action white recognizing the rights of property owners; and

WHEREAS, the Mayor and Township Committee of the Township of Mansfield recognizes the benefit of forming a partnership with other municipalities and interested parties along the Musconetcong River in protection of the Musconetcong River; and

WHEREAS, National Park Service authorized an eligibility study of the Musconctcong River at the request of municipalities along the Musconetcong River to determine its suitability for inclusion into the National Wild and Scenic Rivers System.

NOW, THEREFORE, BE IT RESOLVED, that the Mayor and Township Committee of the Township of Mansfield supports the Musconetcong River Management Plan and will take actions as it deems appropriate to implement the goals of the plan, and endorses designation of the eligible section of the Musconetcong River that borders the Township of Mansfield into the National Wild and Scenic River System.

CERTIFICATION

I, Maria E. Turner, Municipal Clerk of the Township of Mansfield, County of Warren and State of New Jersey, hereby certify the foregoing Resolution is a true and correct copy of a Resolution adopted by the Township Committee at a regular meeting held on June 26, 2002.

ua C. Jurner

María E. Turner, R.M.C Municipal Clerk

TOWNSHIP OF WASHINGTON WARREN COUNTY **RESOLUTION 2002-103**

WHEREAS, the Township Committee of the Township of Washington recognizes that the Musconeteong River provides outstanding remarkable natural, cultural, recreational and scenic resource values that are important for the quality of life and economic health of our community; and

WHEREAS, the Township Committee of the Municipality of the Township of Washington recognizes that the Musconetcong River Management Plan provides a mechanism to enhance protection of the Musconetcong River, primarily through local action while recognizing the rights of property owners; and

WHEREAS, the Township Committee of the Township of Washington recognizes the benefit of forming a partnership with other municipalities and interested parties along the Musconetcong River in protection of the Musconetcong River; and

WHEREAS, National Park Service authorized an eligibility study of the Musconetcong River at the request of municipalities along the Musconetcong River to determine its suitability for inclusion into the national Wild and Scenic Rivers System,

NOW, THEREFORE, BE IT RESOLVED, that the Township Committee of the Township of Washington supports the Musconetcong River Management Plan, will take action as appropriate to implement the goals of the plan and endorses designation of the eligible section of the Musconetcong River that borders the municipality of the Township of Washington into the National Wild and Scenic River System.

Mary Clau (1 pc.) May Ma O'Neil RMC/CMC

Township Clerk

I, Mary Ann O'Neil, Municipal Clerk of the Township of Washington, County of Warren, and State of New Jersey hereby certify the foregoing Resolution is a true and correct copy of a Resolution adopted by the Township Committee at a regular meeting held on the 20th day of August 2002.

Mary Inn O'Neil RMC+CMC

Towaship Clerk

RESOLUTION 2002-53

TOWNSHIP OF FRANKLIN COUNTY OF WARREN, STATE OF NEW JERSEY

WHEREAS, the Township Committee of the Township of Franklin, County of Warren recognizes that the Musconetcong River provides outstandingly remarkable natural, cultural, recreational, and scenic resource values that are important for the quality of life and economic health of our community; and

WHEREAS, the Township Committee of the Township of Franklin, County of Warren, recognizes that the Musconetcong River Management Plan provides a mechanism to enhance protection of the Musconetcong River, primarily through local action while recognizing the rights of property owners; and,

WHEREAS, the Township Committee of the Township of Franklin. County of Warren, recognizes the benefit of forming a partnership with other municipalities and interested parties along the Musconeteong River in protection of the Musconeteong River, and

WHEREAS, National Park Service authorized an eligibility study of the Musconetcong River at the request of municipalities along the Musconetcong River to determine its suitability for inclusion into the National Wild and Scenic Rivers System,

NOW, THEREFORE, BE IT RESOLVED, that the Township Committee of the Township of Franklin. County of Warren, supports the Musconeteong River Management Plan, agrees to adopt the goals of the plan into the Municipal Mater Plan, will take action as appropriate to implement the goals of the plan, and endorses designation of the eligible section of the Musconeteong River that borders the Township of Franklin into the National Wild and Scenic River System.

On motion by Wayne Forguson and seconded by Pence Ziegler, the aforenoted **Resolution 2002-53** be adopted as read.

Roll Call Vote	Yes	No	Absent/Abstained
Larry Adams	х		
Wayne Ferguson	х		
Pence Ziegler	Х		
Earl Sigler	Х		
Mayor Riggs			х

Certification

 Audrey M. Schmidt), Municipal Clerk of the Township of Township County of Warren, and State of New Jersey hereby certify the foregoing Resolution is a true and correct copy of a Resolution adopted by the Council at a regular meeting held on Monday, July 8, 2002.

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TOWNSHIP OF GREENWICH COUNTY OF WARREN

RESOLUTION 2002-63

WHEREAS, the Greenwich Township Committee of the Township of Greenwich recognizes that the Musconetcong River provides outstandingly remarkable natural, cultural, recreational, and scenic resource values that are important for the quality of life and connomic health of our cummunity; and

WHEREAS, the Greenwich Township Committee of the Township of Greenwich recognizes that the Musconcecong River Management Plan provides a mechanism to enhance protection of the Musconetcong River, primarily through local action while recognizing the rights of property owners; and,

WHEREAS, the Greenwich Township Committee of the Township of Greenwich recognizes the benefit of forming a partnership with other municipalities and interested parties along the Musconetcong River in protection of the Musconetcong River, and

WHEREAS, National Park Service authorized an eligibility study of the Musconetcong River at the request of municipalities along the Musconetcong River to determine its suitability for inclusion into the National Wild and Scenic Rivers System,

NOW, THEREFORE, BE IT RESOLVED, that the Greenwich Township Committee of the Township of Greenwich supports the Musconetcong River Management Plan, agrees to adopt the goals of the plan into the Township Comprehensive Plan, will take action as appropriate to implement the goals of the plan, and endorses designation of the eligible section of the Musconetcong River that borders the Township of Greenwich into the National Wild and Scenic River System.

CERTIFICATION

1, Kimberly Viscomi, Township Clerk of the Township of Greenwich, County of Warren and State of New Jersey hereby certify the foregoing Resolution is a true and correct copy of a Resolution adopted by the Township Committee at a regular meeting held on Thursday, August 15, 2002

moscillipcomi imberly Viscani, RM(

Tuwnship Clerk

BOARD OF CHOSEN FREEHOLDERS MORRIS COUNTY, NEW JERSEY

RESOLUTION NO. 38

ADOPTED: September 9, 2002

WHEREAS, the Freeholders of the County of Morris recognize that the Musconeteong River provides outstandingly remarkable natural, collural, recreational, and scenic resource values that are important for the quality of life and economic health of our community; and

WHEREAS, the Freeholders of the County of Morris recognize that the Musconetcong River Management Plan provides a mechanism to enhance protection of the Musconetcong River, primarily through local action while recognizing the rights of property owners: and,

WHEREAS, the Freeholders of the County of Morris (cooprize the benefit of forming a partnership with other municipalities and interested parties along the Musconetcong River in protection of the Musconetcong River, and

WHEREAS, the National Park Service authorized an eligibility study of the Musconetening River at the request of municipalities along the Musconeteoug River to determine its seitability for inclusion into the National Wild and Scenic Rivers System,

NOW THEREFORE, BE (TRESOLVED, that the Freeholders of the County of Morris support the Musconetcong River Management Plan, will take action as appropriate to implement the goals of the plan, and endorses designation of the eligible section of the Musconetcong River that borders the County of Morris into the National Wild and Scenic River System.

I hereby certify the above to be a true cupy of a resolution adopted by the Board of Chosen Freeholders of the County of Morris at a regular meeting held on September 9, 2002.

CLEAR OF THE BOAR

BYRAM TOWNSHIP RESOLUTION NO. 60 -2002

RESOLUTION SUPPORTING THE DRAFT MANAGEMENT PLAN OF THE MUSCONETCONG RIVER. NATIONAL WILD AND SCENIC RIVERS STUDY.

WHEREAS, Lubbers Run in Byram Township is the largest tributary of the Musconcecong River, and;

WHEREAS, the great majority of Byram Township lies within the Musconetcong watershed, and;

WHEREAS, Byram Township is actively pursuing the protection of the Township's and the region's critical natural resources, rural landscapes, and recreational attractions, and;

WHEREAS, Byram Township is actively pursuing town-wide and regional trails and greenways, including the Lubbers Run Greenway and its connections to the Musconetcong valley, and;

WHEREAS, Byram Township fully supports proper protections for Planning. Areas 4 & 5 in the State Development and Redevelopment Plan, and:

WHEREAS, the proposal to include portions of the Musconetcong River within the National Wild and Somic Rivers System and to adopt a strategy for managing the River and and its watershed helps promote a better future for the watershed and its municipalities and is in concert with Byram Township's own future plans;

NOW THEREFORE BE IT RESOLVED, that the Township of Byram enthusiastically supports the Draft Management Plan and the proposals to include pertions of the Muscenetcong. River within the Wild and Scenic Rivers System.

BYRAM TOWNSHIP COUNCIL

Michael Marotte, Mayor

ATTEST:

I certify that the foregoing resolution was adopted by the Byram Township Council at a meeting. held on 6/17 . 2002.

Mary Johnson, BMC

Township Clerk
RESOLUTION #2002-91

MUNICIPALITY OF NETCONG COUNTY OF MORRIS, STATE OF NEW JERSEY

WHEREAS, the Mayor and Council of the Borough of Netcong recognizes. that the Musconetcong River Management Plan provides a mechanism to enhance protection of the Musconetcong River, primarily through local action while recognizing the rights of property owners; and,

WHEREAS, the Mayor and Council of the Borough of Netcong recognizes. that the Musconetcong River Management Plan provides a mechanism to enhance protection of the Musconetcong River, primarily through local action while recognizing the rights of property owners; and,

WHEREAS, the Mayor and Council of the Borough of Netcong recognizes. the benefit of forming a partnership with other municipalities and interested parties along the Musconetcong River in protection of the Musconetcong River, and

WHEREAS, the National Park Service authorized an eligibility study of the Musconetcong River at the request of municipalities along the Musconetcong River to determine its suitability for inclusion into the National Wild and Scenic Rivers System,

NOW, THEREFORE, BE IT RESOLVED, that the Mayor and Council of the Borough of Netcong supports the Musconetcong River Management Plan, will take action as appropriate to implement the goals of the plan, and endorses. designation of the eligible section of the Musconotcong River that borders the Borough of Netcong into the National Wild and Scenic River System.

BOROUGH OF NETCONG

Nichola Propilis

Nicholas C. Pompilio, Mavor

CERTIFICATION

 Dolores Dalessandro, Borough Clerk of the Borough of Netcong, County. of Morris and State of New Jersey, hereby certify the foregoing Resolution is a true and correct copy of a Resolution adopted by the Council at a regular meeting held on September 12, 2002.

Dalessandro, Borough Clerk

STATE OF NEW JERSEY COUNTY OF MUNTERDON

RESOLUTION

WHEREAS, the Board of Chosen Freehoxiens of the County of Hunterdon recognize that the Musconstoorg River provides outstanding remarkable natural, cultural, recreations' and scanic resource values that are important for the quality of life and economic health of our community and to preserve Hunterdon County's rural character; and

WHEREAS, the speed of Chosen Freeholders of the County of Hunterdon recognize that the Drah Musconstituong River Management Plen provides a mechanism to enhance the resource value of the Musconstituong River, primarily through local action while recognizing the rights of property owners; and

WHEREAS, each municipality in Hunterston County boarding the Musconettong River has adopted a resolution supporting the Musconettong River's Wild and Scenic River designation and Draf Musconettong River Management Plan; and

WHEREAS, the Board of Chocen Preeholders of the County of Hunterdon, recognize the banefits of participating in a pertnership with other counties and intersected parties along the Musconelcong River to preserve and enhance the resource values of the Musconelcong River, and

WHEREAS, the National Park Service authorized on sligbillity study of the Musconstrong River at the request of municipalities along the Musconstrong River to determine its eutability for inclusion has the National Wild and Scienci River System;

NOW, THEREFORE, BE IT RESOLVED, that the Board of Chosen Fraehalders of the County of Hunterdon does hereby anderso the designation of the eligible section of the Musconetcong River thet boarders the County of Huntercon into the National Wild and Board River System, and will take action an appropriate to implement the goals of the Musconercong River Management Plan that are consistent with the goals and objectives of the County of Huntercon.

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Adopted <u>Merch 11, 2003</u>

Denise B. Doolan, CLERK

Appendix B: Regulatory and Non-regulatory Programs

Resource Focus: Water Quality

Federal

Clean Water Act, 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 the national policy. It provides the directives to restore and maintain the chemical, physical and biological integrity of the nation's waters.

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 provide for recreation in and on the waters of the nation. It is national policy that area-wide waste treatment management 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.

U.S. Army Corps of Engineers

The Army Corps of Engineers regulates waterways and wetlands through permits the discharge of dredge and fill material into U.S. waters (including wetlands) under authority of Section 404 of the Federal Clean Waters Act and Section 10, Rivers and Harbors Act of 1899.

Any individual, company, corporation or government body planning construction of fill activities in the waters of the United States, including wetlands, must obtain a permit from the Corps of Engineers. 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. Permits are required for activities such as: bulkheads, piers, boathouse, pilings, excavation, dredging, filling and depositing dredged materials in waters and wetlands and overhead and underwater transmission lines, cables and pipes.

Regional

Delaware River Basin Commission

In 1961 the federal government and the states of New York, New Jersey, Pennsylvania, and Delaware, recognizing the regional and national significance of the water and related sources of the Delaware River Basin, created the Delaware River Basin Commission. The purpose of the Commission is to adopt and promote coordinated policies for water conservation, control, use and management of the Basin. The powers granted to the Commission to plan and regulate water conservation and use in the Basin place it in a central river management role, particularly for water supply and quality issues. The Commission's powers include:

- **1. Water Supply** To develop and implement plans for the use of Basin water for domestic, municipal, agricultural, and industrial water supply.
- **2. Pollution Control** to conduct studies, and develop and maintain projects and facilities to control potential and existing pollution.
- **3.** Flood Protection to plan and develop projects and facilities for flood damage reduction.
- **4. Watershed Management** to promote sound watershed management, including projects and facilities to retard runoff and waterflow and prevent soil erosion.
- **5. Recreation** to provide for the development of water related public recreational facilities.
- **6.** Hydroelectric Power to develop or authorize dams and related facilities for generating hydroelectric power.
- **7. Regulation of Withdrawls and Diversions** to regulate and control withdrawls and diversions from surface and ground waters.
- **8.** Intergovernmental Relations to avoid conflicts of jurisdiction all projects related to the powers delegated by the Commission must be undertaken in consultation with the Commission.
- **9. Capital Financing** to borrow money for the purposes of the Delaware River Basin Compact.

DRBC is required to adopt a Comprehensive Plan that guides development of the Basin's water resources as a management and regulatory mechanism. It includes codification of administrative decisions governing water resources use, development and conservation.

The Water Code of the Basin (March 1994) establishes policy for 1) conservation, development, and utilization of Delaware River Basin Water Resources, and 2) water quality standards for the Basin. Water conservation policy includes requiring maximum feasible efficiency in the use of water by new industrial, municipal and agricultural users and eventual application of feasible conservation practices by existing users. The Water Code establishes priorities of water use during drought emergencies, determined in part by streamflow objectives at Trenton, NJ. Water quality standards include an antidegradation policy for interstate waters to maintain existing water quality where existing water quality is better than the established stream quality objectives, with certain caveats. The antidegradation policy includes a no measurable change for designed special protection waters with exceptionally high scenic, recreational, ecological, and/or water supply values.

The Commission's Water Resources Program, 1995-1996, is an important tool for river management. It provides an overview of water resources and presents the Commission's six-year water resource program. Within the Lower Delaware River Management Plan are the recorded water quality problems are local pollution sources affecting water quality in Milford, PA; fish consumption warnings in the Yardley, PA area for American eels, Channel catfish, and White perch; and, occasional pH and fecal coliform standards violations in the section of the river below the falls at Trenton.

New Jersey

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-1 to 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 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 Wetlands Act of 1970, N.J.S.A. 13:9A-1 et seq.

Authorizes the Commissioner of DEP to regulate alternatives of, or 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

Endangered Species Act of 1973, 16 U.S.C. 1531 *et. seq.* The Act provides 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.

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 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.

New Jersey

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, enhance their numbers. The Act can, in extreme cases request a 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 agriculture, 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, conversation, 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 to the Commissioner of Environmental Protection or to the Natural Areas Council; this could allow for the protection of a river area which contains endangered species and rare plants, fish and wildlife.

New Jersey 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 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 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 to 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 with districts in order to conserve soil resources, while preventing and controlling soil erosion

Resource Focus: Historic and Cultural

Federal

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 had 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 to 471

This Act provides for the protection and enhancement of sites associated with events that have made a significant contribution to the broad patterns of our history; or are associated with the lives of persons significant in our past; or embody the distinctive charactisitics of a type, period, or method of construction; or represent the work of a master; or otherwise have high artistic or specific value.

Native American Graves Protection and Repartrification Act,

25 U.S.C. 3001, 3002

The regulations set forth by this Act to develop a systematic process of determining the rights of lineal descendants and members of the 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.

New Jersey

NJSA 13:1B.128

Establishes the State Register of Historic Places.

NJSA 13:1B-15.131

Requires state, county or municipality to determine 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.

Non-Regulatory Protection Programs

Federal

Forest Legacy Program

The Forest Legacy Program (FLP), a federal program in partnership with states, supports state efforts to protect environmentally sensitive forest lands. Designed to encourage the protection of privately owned forest lands, FLP is an entirely voluntary program. To maximize the public benefits it achieves, the program focuses on the acquisition of partial interests in privately owned forest lands. FLP helps the states develop and carry out their forest conservation plans. It encourages and supports acquisition of conservation easements, legally binding agreements transferring a negotiated set of property rights from one party to another, without removing the property from private ownership. Most FLP conservation easements restrict development, require sustainable forestry practices, and protect other values.

Forest Stewardship Program

Approximately forty-five percent of all forestland in the United States, or 354 million acres is under nonindustrial private ownership, contributing significantly to America's clean water and air, wildlife habitat, recreational resources and timber supplies. Authorized by the Cooperative Forestry Assistance Act of 1978, the Forest Stewardship Program (FSP) provides technical assistance, through State forestry agency partners, to nonindustrial private forest (NIPF) owners to encourage and enable active long-term forest management. A primary focus of the Program is the development of comprehensive, multi-resource management plans that provide landowners with the information they need to manage their forests for a variety of products and services. Participation in the Forest Stewardship program is open to any nonindustrial private forest landowners who are committed to the active management and stewardship of their forested properties for at least ten years. The FSP is not a cost share program. Cost-share assistance for plan implementation may be available through other programs such as the Forest Land Enhancement Program.

Urban and Community Forestry Program

Statewide Urban and Community Forestry Programs have been established to assist municipalities, nonprofit organizations, schools, and citizens in developing community forestry programs. The programs are generally coordinated by State forestry agencies and supported by other State agencies, nonprofit organizations, and the USDA Forest Service.Communities can receive advice on technical issues such as planting the right tree in the right place, proper tree maintenance, identifying hazardous trees, developing tree protection ordinances, conducting tree inventories, and writing urban forestry management plans. Education and training programs for employees and citizens are offered on a regular basis. Grant funds may also be available to assist communities in initiating an urban forestry program or conduct tree maintenance and planting projects.

Conservation Reserve Program: This program reduces soil erosion, reduces sedimentation in streams and lakes, improves water quality, established wildlife habitat and enhances forest and wetland resources. In encourages farmers to convert highly erodible cover or other environmentally sensitive acreage to vegetative cover, wildlife plantings, tress, filterstrips or riparian buffers. Farmers receive an annual rental payment for the term of the 10-15 year contracts. Cost share is provided to establish the vegetative cover practices.

Wetland Reserve Program: The Wetland Reserve Program is a voluntary program to restore wetlands. Participating landowners can establish conservation easements of wither permanent or 30 year duration, or can enter into restoration cost-share agreements where no easement is involved.

- In exchange for establishing a permanent easement, the landowner receives payment up to the agricultural value of the land and 100% of the restoration costs for restoring the wetlands.
- The 30 year permanent easement payment is 75% of what would be provided for a permanent easement on the same site and 75% of the restoration cost.
- The voluntary agreements are for a minimum 10 year duration and provide for 75% of the cost of restoring cost-share agreements establish wetland protection and restoration as the primary land use for the duration of the easement or agreement. In all instances, landowners continue to control access of their land.

Stewardship Incentives Program (SIP)

The Stewardship Incentives Program provides technical and financial assistance to encourage non-industrial private forest landowners to keep their lands and natural resources productive and healthy. It provides a means to plant trees that are otherwise not available.

- Qualifying land includes rural lands with existing tree cover or land suitable for growing trees and which is owned by a private individual, group, association, corporation, Indian tribe, or other legal private entity.
- Eligible landowners must have an approved Forest Stewardship Plan and own 1,000 or fewer acres of qualifying land.

New Jersey

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.

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 than \$1.4 billion. As a result, the State of New Jersey has acquired or assisted municipalities and non profit conservation organizations to acquire over 337,000 of open space.

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 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.

If New Jersey wants to preserve and maintain its abundant natural, cultural, economic and social resources – its quality of life – it must plan for its future. 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 resource, 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 guide 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 the 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 study area the following trails have been found to be eligible for the State Trails System and are described in detail in the Trails Plan: Delaware and Raritan Canal State Park, Paulinskill Valley Trail, Delaware River, Musconetcong River. Potential eligible trails including the following waterways: Crosswicks Creek, Paulinskill River and Pequest River.

Appendix C: Musconetcong River Survey

Question # 1

Prior to receiving this questionnaire, had you heard about the Wild and Scenic Study of the Musconetcong River that is being conducted jointly by the Musconetcong Advisory Committee, Musconetcong Watershed Association, and National Park Service? <u>65</u> yes 67 no

If yes, how did you receive your information? (See answers below)

- 19 Watershed Association <u>3</u> Local Govt' 31 Newspaper
- 2 Word of Mouth 2 Canoe Club <u>1</u> State Fish Hatchery
- 1 Meeting notice 3 Mail

Question # 2

In what municipality or town do you live? (See answers below)

- <u>3</u> Allamuchy Twp. <u>11</u> Bethlehem Twp.
- <u>11</u> Franklin Twp. <u>1</u> Frenchtown <u>6</u> Hackettstown <u>1</u> Hampton
- <u>1</u> High Bridge
- <u>1</u> Hopatcong Twp. <u>1</u> Lambertville
- <u>2</u> Holland Twp. <u>9</u> Mansfield Twp. <u>23</u> Lebanon Twp.
 - 4 Pohatcong
- <u>3</u> Netcong <u>1</u> Roxbury Twp.
- <u>1</u> Readington Twp. 10 Washington Twp (Morris)
- 8 Stanhope Twp. <u>7</u> Washington Twp. (Warren)
- <u>4</u> Washington Bor.

Question # 3

Do you own property in the Musconetcong River Valley? _____ yes _____ no

If yes, What local municipality or town is the property in?

Does your property abut the river? 43 yes 91 no

Question # 4

How often do you or members of your family use the Musconetcong River and its adjacent corridor for each of the following activities?

Activity	No Use	1 to 3 times/yr.	4 to 10 times/yr.	more than 10 times/yr.
hiking		22	15	31
kayaking		2	1	1
fishing		15	24	26
picnicking		19	6	10
photography		24	12	13
swimming		14	9	12
canoeing		19	11	10
tubing		13	14	3
bicycling		18	8	10
hunting		1	4	4
camping		7	2	4
nature study		15	17	25
Other*		1	2	5

- 13 Bloomsbury

<u>2</u> Mt Olive Twp.

<u>6</u> Greenwich

Question # 5

How would you rate public accessibility to the river? (please circle one)

Respondents whose property is adjacent to the river:

- <u>25</u> Adequate public access <u>4</u> Not enough public access
- <u>11</u> Too much public access

Respondents who do not live along the river:

- <u>46</u> Adequate public access <u>33</u> Not enough public access
- <u>3</u> Too much public access
- (71 Adequate public access) (37 Not enough public access)
- (14 Too much access)

Question # 6

How important to you is the Musconetcong River compared to other issues facing your town and the region?

<u>53</u> high	priority
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- 53 medium priority
- <u>14</u> low priority
- <u>8</u> not a priority

Question # 7

Who should have the major responsibility for protecting the River? (prioritize the list with "1" being the highest)

The following totals are for "1" priority votes

- <u>24</u> Local government
- <u>5</u> County government
- <u>38</u> State government
- <u>15</u> Federal government
- <u>12</u> Conservation organizations
- <u>25</u> Property owners

Question # 8

How important do you believe it is to protect each of the following features associated with the Musconetcong River? (check one for each feature)

Feature	Extremely Important to Protect	Important to Protect	Not Important to Protect	Don't Know Enough About It
Water Quality	113	16	0	0
River Flow	73	47	2	5
Floodplains	76	41	6	2
Wetlands	90	33	4	1
Wildlife Habitat	90	33	4	1
Fisheries	71	44	7	2
Farmland	60	55	9	2
Rural & Scenic Character	76	44	4	0
Forests	85	35	4	1
Historic & Archaeological	60	52	3	3

Question # 9

Please indicate how important you feel it is to encourage or discourage the following uses of the Musconetcong River and its immediate corridor.

River or Land Use	Encourage	Neutral	Discourage
residential development	3	18	104
commercial development	3	8	115
industrial development	3	6	113
greenways or trails	98	18	10
fishing	82	18	4
canoeing/kayaking/tubing	79	40	7
environmental education	107	15	5
hydroelectric development	5	36	83
future water supply	55	43	28
sewage disposal	55	43	28
sand and gravel mining	0	17	104
tourism	45	52	27
farming	58	54	11
parks	88		14

Question # 10

Please indicate how you feel about the following options for protecting the Musconetcong.

Protection Tool	Strongly Support	Support	Neutral	Oppose
require set backs for new development near river and its tributaries	103	14	6	2
restrict vegetation removal near river	74	28	15	6
restrict building on steep slopes	96	16	8	2
stronger restrictions for building in 100 year flood plain	83	26	12	4
state or local acquisition of open space	71	29	9	14
low density zoning for districts abutting river	77	25	12	6
stronger enforcement of existing regulations	73	25	13	3
voluntary donation of conservation easements	58	32	26	3
farmland preservation programs	71	36	14	1
stream bank restoration	78	28	14	5
other (specify)*				5

*"other" included opposition to "new sewer plants" (2), "new roads" (2), "commercial development" (1)

Questions For Landowners Only

<i>Question # 1</i> Approximately how ma	any acres in total do you	own? acres
1 acre or less (26) 4 acres or less (4)	2 acres or less (29) 5 acres or more (15)	3 acres or less (10)

Question # 2

How is your land used: (check all that apply)

Land Use	
farming	15
residence	73
undeveloped land	25
recreation	18
timber management	7
wildlife habitat	19
rental housing	7
hunting/trapping/fishing	9_
vacation	1_
commercial	3
real estate investment	4_
industrial	2
other (specify)	

Question # 3

Why did you choose to own land in the Musconetcong Valley? (check all that apply)

pleasant rural community	_66_
natural surroundings	58
good place to raise children	38
recreational opportunities	33
wanted to live near a river	42
easy access to work	_13_
land in area is a good investment	16
family has always lived here	_12
favorite vacation place	
good location for my business	
job opportunity	2
other (specify)	

Question # 4

If you are a river front land owner, is trespassing by fishermen or boaters a problem? $\underline{21}$ yes $\underline{19}$ no

Question # 5

What plans do you have for your property? (check up to 3 options)

continue present use	_77_
keep in family	42
build residence	1_
subdivide	_1_
sell	9
commercial development	0
industrial development	0
determine future use by:	
deed restriction	_1_
easement	0
don't know	4_
other (specify)	_1*_
*Improve wildlife habitat	

Question # 6

Is any of your land protected as open space by easement, deed restriction, or in farmland preservation, etc.? $\underline{7}$ yes $\underline{72}$ no

If yes, list number of acres. _____ acres 1 (10 acres) 1 (5 acres 1 (-1 acres)

Question # 7

Would you be interested in learning more about open space easements and deed restrictions to protect the river and its related resources? 31 yes 20 no

(If yes, please provide name/address on page six.)

Please share additional thoughts on the Musconetcong River, Wild and Scenic study, watershed management, land use issues, etc.

Are you interested in helping in any of the following areas?

The year merested in helping in any of the fellowing areas.
 22 water quality monitoring 13 guided interpretive hikes and/or canoe trips 9 historic tours 16 watershed planning 30 river cleanups
Would you like to be on the mailing list for the Wild & Scenic River Study?
Name:
Address:
Phone: ()
FAX: ()
email

Thank you for completing this survey. Please return by March 31, 1999

fold here

Please return to:

Musconetcong River Survey PO Box 87 Washington, New Jersey 07882

Staple or tape here

Appendix D

Analysis of Existing Resource Protection

Preservation of outstanding river resources is a primary goal of the National Wild and Scenic Rivers Act. The long-term protection of the river corridor, lands immediately adjacent to the riverbanks, and the outstandingly remarkable resources is necessary in order to maintain the integrity of the river system and for the eligible river segments to be suitable for designation in the National Wild and Scenic program.

Protection of lands within the corridor was determined based on two levels of assessment: 1) the status of ownership for conservation purposes, and 2) local and state land use laws.

Identification of lands, which are designated for public use and conservation purposes, were determined from the Green Acres data and the NJ Highlands report – An Inventory and GIS Mapping of Open Space and Undeveloped Land. This mapping provided a supplement to the previously available to the study team. Open space lands, which are not subject to long-term conservation restrictions, were not considered as protected for our purposes.

Local land use laws and regulations that protect natural resources or provide incentives and setbacks were evaluated in a preliminary way for each river municipality. This evaluation was done based on a review of master plans and land development ordinances available at the county planning board offices.

Protections afforded by state land, use laws that protect the river corridor, including wetlands, floodplains, and critical areas were also evaluated. This analysis provides a summary of the level of protection currently provided by these mechanisms and the potential for the maintenance and enhancement of river resources values in the future. Threats to the corridor and gaps in the protection of river resources are addressed in the management plan.

Corridor Summary

The following analysis was completed in January 2000 and updated in August 2003. The findings are estimates based on readily available land use data, reviews of county files for master plans and municipal land development ordinances as of August 2003. Only the 14 municipalities in the sections considered eligible for wild and scenic designation were evaluated.

Approximately 19 percent of the river corridor lands (land within onequarter-mile of the river in the eligible segments) in the 14 river municipalities are protected from incompatible land uses through ownership by state or local governments. These lands include 672 acres of municipal and county owned lands and 1,074 acres of state owned lands.

Recent additions to the farmlands preservation program in Bethlehem, Holland, Franklin and Washington townships have increased the total acreage of properties subject to easements within the river corridor to 698 acres or 7.6 percent of the corridor. The remaining 10 municipalities have no privately protected lands in the eligible segments of the river corridor according to the county files.

The banks of the river form approximately 57 miles of riverfront within the sections considered eligible for wild and scenic designation. Approximately 24.4 miles (or 43 percent) of this frontage is currently public land or privately protected through farmland preservation programs.

Approximately 15 percent of the remaining river corridor lands are floodplain, wetland or wetland transition area regulated by the state. Some portion of this wetland and wetland transition area is in agricultural production and exempt from some state wetland regulations.

During the timeframe that this data was collected (January 2000 to August 2003) significant gains in protected lands have been realized throughout the river corridor. These are summarized below.

- Addition of 418 acres of privately preserved farmland.
- Increase to four the number of municipalities with preserved farmland in the corridor.
- Addition of 272 acres of public open space through state and municipal acquisitions and easements.
- Increase from 19 to 26.6 percent of the river corridor protected as public open space or preserved farmland

Allamuchy Township

Land use along the river corridor from Saxton Falls to Hackettstown is primarily parkland and low density residential. Approximately 72 percent of the river corridor lands in the township are within Allamuchy Mountain State Park. To the right of County Road 604 the state parkland is designated as a natural area. Less than 800 feet of riverfront is privately owned within the township's river corridor. This area is zoned single family residential (SFR). No sewer service is present or proposed in this area. Critical areas in the township have been identified and mapped including freshwater wetlands, 100-year floodplain, and slopes in excess of 15 percent. Permitted uses within the floodplain include overflow parking and detention basins. No structures or septic systems are permitted within the floodplain.

The Master Plan (dated 1993) recommends preservation of priority stream corridors, including the Musconetcong River, through conservation easements of 150 feet from each bank or greater if the floodplain extends further.

Hackettstown

The Town of Hackettstown is a densely developed town center in the river corridor. The downstream portions of the riverfront were determined to be ineligible for designation as wild and scenic. Zoning along the riverfront includes highway commercial (HC), Apartments (APT), limited manufacturing (LM), community commercial (CC), health facilities (HF), and residential (R-30, R-12.5/OFF). With the recent addition of the Spina Tract for Riverfront Park, approximately 23 percent of the riverfront is preserved as state park, fish and game lands, or community park. The remaining undeveloped riverfront lands would be developed subject to the town's

natural features ordinance which seeks to minimize changes in existing grades and preserve natural features. Natural features to be preserved include: trees > six-inches in diameter, wooded areas, brooks, hilltops, view and vistas, rock outcrops, wetlands, steep slopes, seasonal high water lands, and surface and water bodies. In addition, critical areas are to be preserved as undeveloped open space including: wetlands, significant trees, floodplains, slopes > 25 percent, habitat of state or federally listed rare, threatened or endangered species, and historically significant structures. In 2001 the township adopted an ordinance to preserve, protect and enhance the Morris Canal and amended their natural features (Sec 506) to promote the preservation of trees.

Although the undeveloped lands along the river are zoned for high-density residential and commercial uses, the implementation of the town's natural features ordinance should allow for the preservation of the remaining riverfront as open space. The 2001 Master Plan Re-examination Report recommends the requirement for a conservation easement adjacent to the Musconetcong River in the planned residential district, the preservation of existing and open space and the set aside of additional lands for open space to maintain a balance of development and open space, and the preparation of an updated historic survey of the entire town.

Mount Olive Township

Lands along the riverfront are comprised of public parklands and residential developments. State parklands comprise 54 percent of the river corridor in Mount Olive and there is little or no potential for additional development in the remaining river corridor lands. A comprehensive natural resources inventory of the township completed in 1988 identified the many critical features and limitations to development in the watershed. The township's critical areas ordinance prohibits development in critical wetlands, flood hazard areas, slopes in excess of 25 percent, and surface waters. The 1988 Master Plan indicates the Musconetcong watershed and river corridor as conservation and open space with many limitations due to natural features, groundwater recharge and quality, flood hazard and wetlands. The draft Open Space and Recreation Plan, dated May 1999, identifies the forested ridge above the Musconetcong River and the preservation of naturally vegetated corridors along streams, rivers and lakes as priorities. Undeveloped parcels in the watershed below Saxton Falls are zoned for rural residential (1DU/ five acres).

Washington Township, Morris County

The Township master plan and reexamination adopted in 1995 include the following goals and objectives: establish a center in the northwest portion of the township; develop a greenways plan and a system of hiking, bicycle and equestrian routes; provide for conservation easements for critical features; recognize and protect unique views and vistas; and establish a ridge protection ordinance. The designated center in the northwest portion of the township includes Hastings Square and Peachtree village and is adjacent to Hackettstown, a regional center. This area along the Musconetcong River is served by public sewer and water and is zoned for multi-family residential, golf course, commercial and industrial/office uses. This section of the river was determined not to be eligible for designation as wild and scenic.

The remainder of the riverfront downstream from Schooleys Mountain Road (Route 24) is zoned for residential use (R3, minimum lots of less than three acres), with the exception of the municipal wastewater treatment plant and three existing hamlets, zoned R20 (minimum lots of less than one-half-acre). There is one property enrolled in the farmland preservation program in the river corridor in Washington Township.

Two municipal parcels along the corridor are designated for water treatment use. A proposed expansion of the existing wastewater treatment plant would increase the design capacity from 1.65 to 3.3 MGD to serve the township and portions of five surrounding municipalities.

A Greenways Plan and Trails Map were both adopted in 1999, however the Musconetcong River corridor was not specifically identified in either plan. The Greenways Plan provides for an overlay district in large portions of the township which encourages protection of critical features and consideration of linkages through clustering of development. Additional overlay districts are provided for Agricultural Use, Carbonate Area Restrictions and Historic Preservation. The Historic Preservation Overlay zone does not include any areas of the Musconetcong watershed.

Washington Township also requires that developers convey conservation easements to the township for steep slopes, ridgelines, streams and wetlands. Watercourses and other waterbodies are protected by a minimum setback of 95 feet on each streambank. The riparian area is dedicated to the township and is restricted from removal of vegetation, topsoil or mineral excavation, erection of structures, and the placement of fill. Steep slopes and ridge protection is provided by ordinance. All activities on slopes 15 to 25 percent are subject to township review. Only transitional grading is permitted on slopes 25 to 30 percent and no disturbance is permitted on slopes in excess of 30 percent. Within 100 feet of the ridgeline no buildings or structures with heights above the ridgeline are permitted. No structures or disturbance other than access are permitted within 60 feet of the ridgeline.

The township has a strong Erosion and Sediment Control ordinance with provisions for local enforcement by the township engineer, and a Stormwater ordinance designed to address water quality as well as the typical water quantity concerns. New ordinance are being developed to address forest management and stream buffers.

Lebanon Township

Lebanon Township clearly states its intent to protect natural resources within its boundaries through its master plan. In 2001 the township adopted a Land Use Element and Conservation Plan Element, followed by the adoption of a Farmland Preservation Element and Open Space and Recreation Plan in 2002. The township open space tax generated \$253,000 in 2001 and 2002 and residents approved an increase in the tax to .04/\$100 in the November 2002 election.

The master plan lists specific limitations to development as being "groundwater, septic, base flows, steep topography, floodplains, swamps, and poor soils." It also cites the importance of streams for trout spawning and is one of few municipalities to include watershed protection language. "Preserving the ecological value and scenic beauty of these streams will require careful land use management in their watersheds." Anyone proposing a major development or land disturbance will find a clear intent on the part of the township to protect sensitive environmental features coming into the process. However, the actual level of protection for resources in certain land development ordinances leaves natural resources at risk. This is particularly true for the floodplain regulations, stormwater requirements, and erosion control for construction.

Most of the river corridor in Lebanon Township is zoned R5. This zoning designation allows for five-acre lots. In 2002 some of the R5 zone was changed to Resource Conservation (RC) requiring a minimum of 7.5 acres for each lot. Within the river corridor this rezoning affected lands immediately adjacent to Point Mountain Park as well as the Agricultural Development District located downstream from Forge Hill Road. An amendment to the general ordinance in 2002 also establishes development standards for open lands subdivisions, cluster subdivision and lot averaging. In the RC zone a minimum of 65% open space is required with a minimum of 60% important soils, forest or unconstrained lands. In the R5 zone a minimum of 50% open space is required with a minimum of 60% important soils, forest or unconstrained lands. In the R5 zone a minimum of 50% open space is required with a minimum of 61% open space is required with a minimum of 50% open space is required with a minimum of 50% open space is required with a minimum of 50% open space is required with a minimum of 50% open space is required with a minimum of 50% open space is required with a minimum of 50% open space is required with a minimum of 50% open space is required with similar resource protection goals. There are limited areas of R 1 1/2 comprised of the villages of New Hampton and Changewater, and a limited R3 area exists around Penwell.

Lebanon Township has over 337 acres of public land in the river corridor, accounting for 29 percent of the corridor lands in the township.

Because the river flows more closely to the mountain within the Lebanon Township portion of the Musconetcong valley, there is less level land than in most of the other townships bordering the river. A Tree Ordinance prohibits tree cutting on slopes of 25 percent or more with the stated purpose being to "control drainage and soil erosion."

Land Subdivision Ordinance (17-8.5b) "Drainage and Conservation" offers strong language for resource protection: "where a subdivision is traversed by a watercourse, drainageway, channel or stream, or where it is desirable to preserve other areas within a subdivision because of soil conditions, rock outcroppings, tree masses, wildlife habitat, vistas, or other significant horticultural, environmental or natural features, there shall be provided a drainage and/or conservation easement of sufficient area and width to protect and preserve the aforementioned features."

The ordinance further sets forth limitations on vegetation removal (except where there is a forest management plan), topsoil removal, and filling.

The above ordinance can potentially be an effective tool to protect the river and its related resources. However, since there are no specific standards, mechanisms or responsibilities set for identifying sensitive resources, or for determining what level of protection is needed, the ordinance relies on the ability of the township to negotiate on a case-by-case basis with developers for adequate protection of natural resources.

The floodplain ordinance references the state regulations and allows for

building in the floodplain if the engineer determines the first floor is above flood level. The later seems to contradict the aforementioned "Drainage and Conservation" ordinance.

Hampton Borough

Riverfront lands in Hampton include a Borough park, a small zone of Highway commercial along Route 31, and two residential zones. The majority of the riverfront which lies downstream from the Route 31 bridge is zoned Rural residential (RR5). This area is the source of the local water supply, an aquifer recharge area over a limestone formation susceptible to groundwater contamination. The town well is located in this zone. Minimum lot size is five acres and cluster development with a 45 percent open space provision permitted. The remaining riverfront area upstream from Route 31 is zoned residential (R2) and allows for two-acre lots. Limiting factors to development in this area include clay soils which limit the use of septic systems.

Natural features ordinances address stormwater control and development of steep slopes. The rate of stormwater runoff must not be increased and groundwater recharge capacity must not be decreased with development. Detention must be designed to contain any excess post-construction volume of runoff. The steep slope development control applies only to the R5 zone at the higher elevations in Hampton. This ordinance discourages development on slopes greater than 30 percent and limits impervious surface to 50 percent permitted on slopes 11 to 19 percent and 20 percent of that permitted on slopes 20 to 29 percent.

Bethlehem Township

Bethlehem Township provides protection for the Musconetcong River and its immediate corridor through a combination of techniques including zoning, open space acquisition, and the Farmland Preservation Program. Of the latter category, 281 acres of farmland within the river corridor are currently protected through agricultural easements. Moreover, a substantial wooded buffer exits along much of the Agricultural Preservation stretch of the river.

The township also purchased the Vliet Farm, which fronts the river just above Bloomsbury, protecting 115 acres within the river corridor. State lands within the corridor total 167 acres resulting in approximately 28 percent public ownership of the river corridor in this township.

Those areas not protected through farmland preservation or municipal open space are zoned as Agricultural Residential (AR). This zoning designation allows for six-acre zoning or optional cluster building with a 70 percent open space requirement. A small area across from the village of Asbury is designated Manufacturing which reflects the existence of the graphite mill along the river. A Residential, Office, Manufacturing district (ROM) exists just above Bloomsbury. Virtually the entire river corridor lies within a Carbonate District Overlay which carries with it additional protection in the form of a Limestone Features ordinance.

Protection of the Musconetcong tributaries is critical to maintaining water quality within the river itself. Bethlehem Township has adopted a Mountain Residential District (MRD) designed to protect steep slopes. The MRD calls for five-acre zoning with mandatory clustering and 70 percent open space, as well as a minimum 100-foot buffer for streams and wetlands. While the MRD requirement does not apply to the river corridor, it does afford significant protection for several tributaries and their headwaters on Musconetcong Mountain.

The township land use and development ordinance (1997) includes a Natural Features ordinance that covers floodplains, wetlands, steep slopes and limestone features. The township does not have ordinances covering stormwater management and erosion control.

The township completed a re-examination of its master plan and land use and development ordinance in 2000. A Farmland Preservation Plan Element and a Greenway and Open Space Plan were adopted in 1999. The plan was developed to "set guidelines to preserve open space including farms and environmentally sensitive areas." The plan identifies two methods for open space preservation. "First, the Plan will be incorporated into the Bethlehem Township Master Plan requiring all future developments in the township to be designed in a fashion that is consistent with the objectives of the Open Space Plan. Second, open space will be preserved through acquisition of specific properties...that are critical to the achievement of the goals of the Open Space Plan."

The plan identifies twelve priority areas for acquisition including the establishment of a Musconetcong River Trail Greenway and restoration of the West Portal Brook stream corridor. The plan also contains the following goals for the protection of stream corridors where new development is proposed.

- Bethlehem Township shall establish 150-foot greenway on each side of trout production and maintenance streams.
- Where natural vegetation is lacking, the reforestation of these areas should be required as a condition of site plan approval.
- Areas within the 150 feet greenway shall be designated as conservation easements subject to passive public use at time of subdivision approval.
- Measures to protect conservation easements from post development disturbance shall also be required to the greatest possible extent as part of the subdivision approval.

The township also increased the open space tax in 1999 from .02 to .05/\$100.

Bloomsbury Borough

Approximately one half of the riverfront lands in the Borough are currently medium density residential or commercial uses. The east end of the Borough is zoned for Planned Urban Development (PUD). Development in this district allows a net density of three DU/acre for single-family units and 10 DU/acre for multi-family units. A minimum of 20 percent common open space is required. The master plan also indicates that the flood hazard area, and open space along the river should be included in this open space. A setback of 100 feet along streams is required by ordinance in residential districts. Development of the PUD zone can be compatible with protection of the resource values of the river corridor if the setbacks and open space provisions are implemented in the site design.

The remaining riverfront land is zoned agricultural conservation (AC) and agricultural residential (AR). The AC district includes 61 acres of state owned natural area and approximately nine acres of municipal open space according to the NJ Highlands data. Unprotected lands within this zone allow a minimum five-acre lot, while the AR district requires a minimum three-acre lot. Both districts allow for a cluster option.

No sewer systems are present or planned within the Borough.

Greenwich Township

All riverfront lands in the township are zoned agricultural and open space preservation residential (R7). This district is designed to preserve prime agricultural soil and open space for recreation and conservation. This provides a sending zone for transfer of development rights to designated town centers. The minimum lot size is seven acres with options for open space communities, residential hamlets, and density bonus for preservation or rehabilitation of historic structures. To the right of Route 173 is a Research Office and Manufacturing zone which allows for 10-acre lots with a floor area ratio of .15. A new sewer treatment plant and discharge to the Musconetcong is proposed with the development of this manufacturing zone.

Environmentally sensitive areas in the R7 zone are to be protected by conservation easement. An environmental inventory included in the Master Plan Update (dated 1998) identified wetlands, floodplains and steep slopes in excess of 25 percent. A historic survey of the township was completed identifying historic or potentially historic sites in the area of Route 173 and I-78 as well as along Route 173 within the river corridor. The Park, Recreation and Greenway Plan identifies the proposed greenway along the Musconetcong River. The master plan also includes a Historic Preservation Plan element and Community Design Guidelines.

Greenwich Township also amended their land use regulations with a stream corridor protection section requiring a building setback and limit to disturbance within 250 feet of the Musconetcong and other significant streams in the township. These riverfront lands are to be included in a conservation easement as lands along the river are developed.

There are presently no public or privately protected lands in the river corridor in Greenwich Township. Approximately 23 percent of the river corridor is wetland, wetland transition area or floodplain regulated by the state.

Franklin Township

Riverfront lands within the township are zoned primarily rural conservation (RC), with the exception of Asbury which is zoned village residential, and an area across from Bloomsbury Borough which is zoned industrial park (IP). The rural conservation district was designed to address the goals of protecting groundwater quality, scenic rural character, and promoting agricultural use. The RC district allows for one dwelling unit per five acres and provides options for lot averaging and clustering. Minimum buildable areas exclusive of steep slopes (> 25 percent), floodplains, karst features,

and drainage or conservation easements must be met. These performance criteria do not apply to the IP zone.

The entire township is identified as a carbonate area and residential development capacity in the township is based on a nitrate dilution model. The Carbonate Area District ordinance requires special investigations and may impose special construction techniques. There is no sewer service existing or planned for the township, however public water service is planned for Asbury village and the IP district.

Objectives noted in the Land Use plan element of 1999 include: protect steep slopes; maintain and enhance groundwater and surface water quality; preserve prime agricultural soils; identify and manage stream corridor buffer areas; preserve the Morris Canal; adopt a stormwater management plan and preserve historic buildings. The Historic Plan Amendment adopted in March 2000 recommends that the Asbury Historic District should receive attention in the land development ordinances. A master plan re-examination, adopted in 2000, recommends the incorporation of an Open Space and Recreation Plan, a Farmland Preservation Plan, a survey of historic sites, and expansion of village commercial uses in Asbury with opportunity for adaptive reuse of historic buildings.

The township has land development ordinances related to the following features: Chapter 113 Soil Erosion and Sediment Control, follows the county guidelines and regulations are to be enforced by Warren County Soil Conservation District; Chapter 80 Flood Damage Prevention, requires a township permit for construction in the floodplain; Chapter 73 Farming, establishes a municipal farm preservation program. There are no specific natural features ordinances.

Approximately 15 percent of the river corridor is state or municipal lands. Approximately 253 acres of preserved farmland along Maple Avenue and east of Wolverton Road protect additional acreage of the river corridor, representing 24 percent of the land. In addition, outside those protected areas 14 percent of the corridor is wetland, wetland transition area or floodplain regulated by the state.

The historic village of Asbury is essentially built out and the majority of the riverfront is zoned for low-density residential use. The township's requirement for dedication of right-of-way with subdivisions along the Morris Canal will provide for protection and future recreational use. The build out of the IP zone presents a potential threat to the river corridor. Development pressure in this area is currently low due to lack of suitable highway access, lack of water and sewer services, and slopes. One parcel in the IP is under consideration for farmland preservation.

Washington Township, Warren County

The 1994 draft master plan update included a conservation element, recreation plan and historic preservation plan. An environmental resource inventory was completed in 1991 and an open space inventory in 1992 by the environmental commission. A re-examination of the master plan was adopted in 2001. Some objectives stated in the master plan included: retain rural atmosphere while allowing appropriate development and growth; protect historic resources; protect unique environmental features; provide adequate recreation facilities; new development should not adversely affect ground or surface water; and encourage farmland and open space preservation. Environmental constraints mapped include steep slopes, floodplains, wetlands, unsuitable soils, agricultural soils, sensitive geologic features, and scenic features. Scenic features are described as wooded hillsides, agricultural valleys and stream corridors. Stream corridors are also the focus of the conservation element. An overlay zone is recommended to provide a 150-foot buffer along streams. The buffer width is based on the goals of sediment control and nutrient removal. Residential development capacity in the township is based on a nitrate dilution model. Conservation easements are recommended for greenways. Historic structures within the river corridor include seven structures in Imlaydale, and three in Changewater. Zoning and buffering are recommended to protect historic resources.

There is no public sewer or water service along the river currently. Expansion of sewer service was proposed in the 1994 master plan update within a proposed development boundary along Route 31. In 2001 the riverfront zoning was changed from Rural Residential (RR) to Valley Residential (VR) reducing residential density to 1 unit /4 acres to reflect the limitations of the limestone valley for development. All of the riverfront lands are zoned VR with the exception of a small Office Research (OR) district along Route 31 at the river crossing.

There are 74 acres of state owned lands in the river corridor.

Mansfield Township

The land use along the river corridor in Mansfield Township is currently a mix of agricultural, residential and open space uses with high-density development centered in Beattystown and Port Murray. The township's master plan directs additional growth to lands surrounding Beattystown and Port Murray, particularly along the Route 57 corridor paralleling the river. Expansion of sewer and water service is planned for two areas along the river; from Airport Road downstream for approximately one mile in the B1 district, and from Point Mountain Road downstream to the township line in the R2 district.

Lands along the river are zoned as R1 (1unit/ac) R2 (2 units/ac) business B1 (1 unit/ac) and highway commercial B2 (1 unit/ac). Recommendations for zoning changes in the re-examination report of April 2001 have not been adopted.

Mansfield Township recommends preservation of stream corridors and the establishment of a greenway and trail system along the Musconetcong in the open space element of their master plan.

The township contains 43 acres of county land and 48 acres of state owned land in the river corridor, protecting approximately 7 percent of the river corridor.

Pohatcong Township

The goals and objectives of the township Master Plan include preserving remaining open and forested land, natural features and farms and the

preservation and enhancement of existing stream corridors. An environmental resource inventory identifies wetlands, topography, depth to seasonal high water, soils, geology and critical geologic areas. A Farmland Preservation Plan element was adopted in 1999. Within the Musconetcong watershed this plan identifies two agricultural development areas (ADA), Silver Hills and Valley & Ridge. The plan indicates that 673 acres of farmland are slated for preservation in the Silver Hills ADA and 2022 acres in the Ridge & Valley ADA. One farm is currently preserved along the river corridor immediately upstream from Warren Glen. The township open space and farmland trust fund was increased in November 1999 from .02 per \$100 assessed property to .05 per \$100.

The villages of Warren Glen, Finesville, Siegletown, Rieglesville and Mt Joy are zoned as residential high-density villages (R4V). Limited areas in the river corridor adjacent to Warren Glen are zoned neighborhood business and industrial. All remaining riverfront in the township is zoned rural residential (R1) which allows five acre lots. An amendment to the zoning ordinance in 2000 deleted the R2 district and down-zoned some river front lands to R1. In addition, undersized lots in the vicinity of Finesville and Reiglesville were changed to R4V and R3.

There is no sewer service within the watershed currently and no plans for expansion to this area. Warren Glen and Reiglesville have public water service from Garden State Water Company. There are no plans for expansion of this service.

Holland Township

Riverfront land uses in the township include industrial and low density residential. The Musconetcong Gorge Nature Preserve, part of the Hunterdon County park system, parallels the river for approximately three miles. The residential district along the river is zoned R5 for five-acre lots and allows for three-acre lots with lot averaging or cluster options. This district was down zoned in 1998 from R3 to reduce the density based on the objectives of preserving agriculture and the physical and environmental limitations throughout the district including steep slopes, adverse soil and bedrock conditions, septic disposal limitations and limited groundwater yield. The area of Rieglesville is zoned village residential (VR) and designed to promote retention of existing buildings and preserve the historic character of the village. There are no sewer systems or plans for expansion into the river corridor. The Master Plan adopted in 2001 recommends a rural residential zoning district of 10-acre lots to preserve environmentally sensitive areas.

Approximately 10 percent of the river corridor is municipal open space and an additional 15 percent is privately preserved farmlands.

Municipal Land Use Regulation

ounty	Municipality	Floodplains	Steep Slopes	Vegetated Buffers	Woodlands	Wetlands	Storm water	Historic District	Cell Tower
urren	Allamuchy	X	×			X			x
unty	Hackettstown	X	×	×	X	X	×	×	
	Mansfield		X	×			X		X
	Washington	X					X		
	Franklin	X							X
	Greenwich	X	×	X			X	×	X
	Pohatcong	Х					Х		
irris	Mount Olive	Х	Х			Х			
unty	Washington	X	×	×			X	×	X
nterdon	Lebanon	X		×	Х		X		
unty	Hampton		Х				Х		Х
	Bethlehem	Х	Х			Х			
	Bloomsbury	Х		Х			Х		Х
	Holland	Х					Х		Х

Municipal Zoning in the River Corridor

county	Municipality	Commercial	Residential	Recreation	Agriculture	Industrial/ Office Research
Varren	Allamuchy		X	X		X
ounty	Hackettstown		X			X
	Mansfield	X	X			X
	Washington		X			X
	Franklin		Х			Х
	Greenwich		Х		Х	Х
	Pohatcong	Х	Х			X
Morris	Mount Olive		Х			Х
county	Washington		Х			Х
Hunterdon	Lebanon	Х	Х			
county	Hampton	Х	Х			
	Bethlehem		Х		Х	Х
	Bloomsbury	Х	Х		Х	
	Holland		Х			Х

Appendix E: Public Meeting Notes

Musconetcong Public Workshop Netcong Township, NJ January 16, 2002

Question (Q): Can we use the designation to curb development?

- **Response (R):** The designation under the Wild and Scenic Rivers Act only conserves the outstandingly remarkable values of the river. It really doesn't impact development. Local land use and zoning ordinances impact development.
- **Q:** Was it considered in the plan to include the counties on planning in the RMP?
- **R:** Yes, in fact county representatives are invited to all public workshops and the counties will be represented on the Musconetcong Post-Designation Musconetcong River Management Committee.
- **Q:** It was mentioned in the presentation that there is a private fishing club that has cordoned off part of the river so that they can fish there. Is that legal? And if so, how will it effect the management and designation of the river?
- **R:** I believe in the state of New Jersey landowners own the bottoms of rivers, and they can make claims to those bottoms.
- **Q:** If a visitor center is to be built or some other public building, will there be park rangers staffing it?
- **R:** It isn't likely. This project is being planned as a partnership river, and let me emphasize the National Park Service will own no land on either side of the river.

Musconetcong Public Workshop Mansfield Township January 26, 2002

- **Q:** Can ineligible sections be included at a later date? This question comes from Hackettstown which wants to establish a river-front commercial zone along the river through its Master Plan with a buffer requiring protection of the water's edge.
- **R:** The committee would be glad to have help developing such a component. The MWA is currently addressing this issue. According to the NPS representative, the Maurice River Plan includes an eco-tourism plan which includes a nature center, welcome center and ultimately a nature ferry. Conversely the White Clay Creek Wild and Scenic River Plan doesn't encourage eco-tourism because the local people don't want to encourage tourism. It is really up to the municipalities to be involved in developing the management plan that best describes their desires.

- **Q**: What are the costs, who pays and who enforces?
- **R:** The study process is budgeted from the NPS, not congressional funding and receives about \$100,000/yr. Regarding enforcement, NPS does no enforcement but must review State and Federal projects affecting the river. Designation increases the level of importance of the river in the response of DEP and EPA when complaints are made.
- **Q**: Are projects in the ineligible sections reviewed?
- **R:** Any impacts on the rivers can be considered under normal review process by NPS.
- **Q:** Do municipalities request an NPS review of a project, or is it automatic?
- **R:** State reviews are supposed to contact NPS. NPS responds to local requests for review. Their authority is weaker in areas not designated W&S. The state role is very important in enforcing the Wild and Scenic Act.
- **Q:** Since only 4% of the land is in farmland preservation, wouldn't it be better to pass state and municipal legislation to protect land rather than buy it? Sustainable agriculture is not viable in the face of value of the land to developers. Agriculture needs to change its philosophy and develop a regional point of view which is consistent with saving land.
- **R:** The management plan reflects the current zoning and the express interest of responses to a questionnaire. It may be possible to negotiate higher values for farmland preservation compensation in the Musconetcong Valley and create priority zoning if a "Plan" is adopted with a Management Committee.
- **Q:** New Jersey should look into qualifying for Federal Farmland Preservation Money.
- **R:** NPS is not familiar with this program.
- **Q:** There is no current communication between government agencies regarding river projects such as bridge improvements. Also, how is private property to be protected from trespassers, both government and individuals?
- **R:** The plan and designation would be an opportunity to unite varying government entities in the management of pertinent issues concerning the river. Protection should increase the values of the land and create State interest by cooperative efforts.
- **R:** Private property rights remain under this plan and permission must be obtained to enter private property, just as it is now.
- **Comment:** A farmer suggests that a buffer along the river be placed in farmland preservation with a premium, rather than an entire farm.

- **Q:** Is there another business model of similar projects including interests of various entities such as economic, private, residential, agricultural, etc.
- **R:** NPS cites the White Clay Creek Plan which is similar in the degree of development, agriculture and economic needs of the area as the Musconetcong.
- **Comment:** The plan should emphasize linear parks as a method of river protection.
- **Q:** Will the dams be removed?
- **R**: That depends on the state.
- **Q:** What can we do to make the river no longer an "attractive nuisance" problem for private land owners?
- **R:** Experience has shown that users are prone to police recreation areas. Local complaints can be addressed through the management committee. The management committee will follow up with respective police departments in areas where there has been trouble.
- **Q:** When will the process be finished?
- **R:** Probably less than five years.

Musconetcong Public Workshop Holland Township February 7, 2002

- **Q:** Please delineate the benefits of Wild and Scenic designation.
- R: Designation will bring federal funding for resource conservation projects such as bank stabilization projects even on private lands. The funds can also be leveraged to match grants. The adoption of a management plan will establish standards for municipalities to aim for such as protection ordinances. Cooperation and communication between communities will be fostered. Also, NPS has permitting authority for projects influencing the river (drainage outlets, bridges, etc.).
- **Q:** Are tributaries included in the designation?
- **R:** No, but impacts on tributaries can be reviewed since they impact the river.
- **Q:** Are tributaries in the management plan?
- R: No.
- **Q:** How do people find out about projects?
- **R:** Only after designation can the management committee determine how funds will be spent.

- **Q**: What is the designation process from here?
- **R:** Initially, the river management plan and a resolution supporting designation must be supported by municipalities. Then a study report has to be reviewed by federal agencies and the National Park Service. Then legislation has to be written and supported by Congress. If Congress passed the legislation, then a memorandum of understanding as to the implementation of the plan must be signed by the municipalities This all could be a two-three year process.
- Q: Must all municipalities be in agreement?
- **R:** No, however, all but one have agreed to participate in the study.
- **Q:** Will non-designated sections be monitored so that they won't degrade the river?
- **R:** NPS must review adverse impacts on the river whether it occurs in a designated section or not.
- **Q:** Will designation give additional regulatory powers to DEP for protection of the Musconetcong?
- **R:** Probably not. Generally waters in state parks get category 1 protection (and coastal waters under CAFRA) that requires more stringent review. However the MWA has identified areas of concern and are working with DEP and NRJCD to educate farmers about problems, such as fertilizer run off.

Appendix F

(NER P&P/NRP)

May 14, 2004.

Mr. David K. Dech Planning Director County of Warren Suite 111 165 County Road, Route 519, South Belvidere, New Jersey 07823-1949

Dear Mr. Dech:

The National Park Service (NPS) thanks you for your March 31, 2004 comments on the Draft Musconeteong River Stady Report. As you know, the Musconeteong River is being studied for inclusion into the National Wild and Secure Rivers System.

The NPS understands your concern that the Musconetcong River's designation into the National Wild & Scenic Rivers System may prohibit the replacement of historic bridges that cross the river, particularly when bridge safety and transportation needs must be considered.

Specifically, a sentence of concern referenced in your letter and in the report's page 22, reads: "These issues help to highlight the pressing need to inventory, document and protect the cultural sites and structures that help to define the Musconeteong River corridor." This sentence is changed and now reads: "These issues help to highlight the pressing need to inventory, document and protect the character of (my italies) the cultural sites and structures that help to define the character of (my italies) the cultural sites and structures that help to define the Musconeteong River corridor." Further, this change is consistent with river management plan geal 2, on page 23 of the study report.

Protecting the character of Musconeteong River Instoric structures has been a goal of the Musconeteong Advisory Committee during the length of the study process, and remains a goal in the Draft River Management Plan. Accommodating greater transportation needs and safety when a transportation project is proposed can be accomplished in part through examination of a range of transportation alternatives. Should the Musconeteong River be designated into the national system, we would be happy to work with applicants proposing river-crossing transportation projects on a case-by-case basis, according to the potential impacts such projects may have to the Musconeteong River's outstanding resource values.

Again, the National Park Service thanks you for your comments. Should you have any questions concerning our responses, please contact Paul Kenney at (215) 597-5823 or Paul Kenney@nps.gov.

Sincerely,

Charles Barsez Jr. Manager, National Rivers Program

P.Kenney/pk:5/14/04 (code c: MuscSTUBridge) General, Reading Comments on the Musconetcong River Wild and Scenic Rivers Study

General Commonts:

We note the Musconetcong River is located eatirely within the Highlands region.

The U.S. Forest Service, as the Musconexcong Study notes, published the "New York -New Jersey Highlands Regional Study" in 1992. The study was followed by the "New York - New Jersey Highlands Regional Study: 2002 Update." As NPS acrivities progress in the event the Musconetcong River is designated, maps and data from our recent work are available for reference and use. Contact Edward Boyer, Highlands Coordinator, at <u>ebover@fs.fcd.us</u> or by telephone at 570-296-9625 for assistance.

Specific Commenta:

I. Introduction and Background

On page 1, at the end of the first paragraph consider changing "... development pressures" to "land use change" to be more inclusive of the possible types of land use activities that can threaten river corridor values.

II. Description of Snidy Area Resources

On page 7, in the last paragraph, rewrite the third sentence to read, "The New Jersey Highlands were recognized as an area of national significance in a Congressionally authorized study of the region by the U.S. Forest Service (Michaels et al 1992)."

III. Eligibility and Classification.

On page 16, a discussion of how the river segments were established, what features recommended those segments deemed eligible and condomnod those excluded, would strengthen the report.

IV. Musconetcong River Management Plan

On page 17, in the second paragraph, there is a need to clarify the federal government's role in land acquisition. It may be better to state that the federal government will not buy or hold the title to any lands in the river corridor, but leave open the possibility of federal financial assistance for land and easement purchases to protect the river corridor.

On page 21, the section on Land Use and Development should be improved by inclusion of a statement that conversion to residential and commercial uses increases impervious surface, stormwater runoff, and pollution in order to better explain the issue of land use change.

On page 22, the section on Natural Resource Protection and Management should include a brief statement on setting priorities for protection and management. The U.S. Forest Service's 2002 study of the Highlands includes a conservation values ussessment that may inform a process of setting priorities for land and tiver management.



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1
Comments on the Musconetcong River Wild and Scenic Rivers Study

V. Suitability

On page 29, under the heading "Recommended Boundary," the draft report delineates an area that seems inadequate to fully protect the values of the river. Reference there to the Wild and Scenic Rivers Act, Section 7(a), implies a broad and inclusive scope of review for adverse impacts, yet the sentence that follows establishes an apparently arbitrary limit, a discontinuous 1/3 mile wide corridor. There is no discussion of the boundary's rationale or delineation.

There should be, in a river management plan, some acknowledgement that the Musconetcong has a basin, and that protecting many of its values depends on protecting the entire basin. Such a discussion need not lead to assertions of jurisdiction or commitments of resources that exceed the scope of an agency's writ. Consider discussing the watershed within which the river corridor is located and the protection of lands adjacent to watercourses that flow into the river. The concern being that land use activities beyond the one-quarter mile limit on each side of the river could adversely impact the values for which the river is designated if the source water is impaired.

Appendix B: Regulatory and Non-Regulatory Programs

On page 73, include material on the USDA Forest Service's conservation programs, such as: Forest Legacy, Forest Stewardship, Urban and Community Forestry, etc. Include material on the many USDA Natural Resources Conservation Service programs providing technical and financial assistance for land conservation.



Parties on Party des Proper

2



United States Department of the Interior

NATIONAL PARK SERVICE Northeast Region 2001 Chesmut Street Philadelphia, PA 19106-2878

IN PART (NEP)

May 14, 2004

U.S. Department of Agriculture Forest Service Ann: Kathryn P. Maloney, Area Director Northeastern Area State and Private Forestry 11 Campus Boulevard, Suite 200 Newtown Square, PA 19073

Dear Ms. Maloney:

Thank you for reviewing the National Park Service's Draft Musconetcong River Study Report dated October, 2003. As you know the Musconetcong River, located in Northwestern New Jersey, is being studied for possible inclusion into the National Wild and Scenic Rivers System. The Park Service is fortunate to be able to draw upon the Northeastern Area State and Private Forestry office's knowledge of the New Jersey Highlands region, the region through which the Musconsteong River flows,

Enclosed are responses to the Forest Service's April 8, 2004 comments to the Draft Musconstcong River Study Report.

Again, we thank the Forest Service for reviewing this report.

Sincerely,

Thanks Baron

Charles Barsez Jr. Manager, National Rivers Program

P.Kenney/pk:5/14/04 (code c: MuscSTUREPRESCOV) General, Reading

Eaclosure 1. NPS response to USFS comments on the Musconetcong River Draft Study Report

National Park Service Responses to Forest Service Comments

Section I. Introduction and Background

Forest Service Comment:

On page1, at the end of the first paragraph consider changing "... development pressures" to "land use change" to be more inclusive of the possible types of land use activities that can threaten river corridor values.

National Park Service Response:

We agree with the above comment, and we will change "development pressures" to "land use change" in the noted Section and paragraph.

Section II. Description of Study Area Resources

Forest Service Comment:

On page 7. in the last paragraph, rewrite the third sontence to read, "The New Jersey Highlands were recognized as an area of national significance in a Congressionally authorized study of the region by the U.S. Forest Service (Michaels et al 1992)."

National Park Service Response:

We agree with the comment and will rewrite the third sentence to read "The New Jersey Highlands was recognized as an area of national significance in a Congressionally authorized study of the region by the U.S. Forest Service (Michaels, et al 1992)."

Section III. Eligibility and Classification

Forest Service Comment:

On page 16, a discussion of how the river segments were established, what features recommended those segments deemed eligible and condemned those excluded, would strengthen the report.

National Park Service Response:

In response to your comment, this language will be added to the Study Report's page 16: "The Musconetcong River's Eligibility and Classification findings are the result of The Musconetcong River National Wild & Scenic River Study Resource Assessment and Eligibility & Classification Draft Report dated August, 1999,"

Section IV. Musconetcong River Management Plan

Forest Service Comment:

On page 17, in the second paragraph, there is a need to clarify the federal government's role in land acquisition. It may be better to state that the federal government will not buy or hold the title to any lands in the river corridor, but leave open the possibility of federal financial assistance for land and easement purchases to protect the river corridor.

National Park Service Response:

2

On page 18 of the study report, under the River Management Partnership section, federal assistance in land conservation is mentioned as a National Park Service expenditure, among other river management plan implementation expenditures. We will add an asterisk (*) to the land conservation expenditure and note this description of the asterisk beneath this section: * Will provide limited financial and technical assistance to management partners for land and easement acquisition.

Forest Service Comment:

On Page 21, the section on Land Use and Development should be improved by inclusion of a statement that conversion to residential and commercial uses increases impervious surface, stormwater runoff, and pollution in order to better explain the issue of land use change.

National Park Service Response:

Under Page 21's Land Use and Development subsection, this second sentence will be added to the last paragraph - "Conversion to residential and commercial uses increases impervious surface area, stormwater runoff and non-point source pollution."

Forest Service Comment:

On page 22, the section on Natural Resource Protection and Management should include a brief statement on setting priorities for protection and management. The U.S. Forest Service's 2002 study of the Highlands includes a conservation values assessment that may inform a process of setting priorities for land and river management.

National Park Service Response:

As this section broadly describes problems facing the watershed and the broad remedies to solve the problems, any detailed statement on setting priorities for protection and management would be inappropriate. Such detail can be found in the River Management Plan itself. There is value, however, in including a brief statement on the prioritization of watershed land for acquisition to protect the river corridor's resources. These sentences will be added as the third and second-to-last sentences of this section, respectively: "The counties, the Highlands Coalition and must of the municipalities through which the river flows have assessed and prioritized land for acquisition to protect the Musconetcong River. Additionally, the U.S. Forest Service's 2002 study of the Highlands includes a conservation values assessment that can aid local and county governments in prioritizing watershed land for conservation."

Forest Service Comment:

On page 29, under the heading "Recommended Boundary," the draft report delineates an area that seems inadequate to fally protect the values of the river. Reference there to the Wild and scenic Rivers Act, Section 7(a), implies a broad and inclusive scope of review for adverse impacts, yet the sentence that follows establishes an apparently arbitrary limit, a discontinuous $\frac{1}{2}$ mile wide corridor. There is no discussion of the boundary's rationale or delineation.

3

There should be, in a river management plan, some acknowledgement that the Musconetcong has a basin, and that protecting many of its values depends on protecting the entire basin. Such a discussion need not lead to assertions of jurisdiction that exceed the scope of an agency's writ. Consider discussing the watershed within which the river corridor is located and the protection of lands adjacent to watercourses that flow into the river. The concern being that land use activities beyond the one-quarter mile limit on each side of the river could adversely impact the values for which the river is designated if the source water is impaired.

National Park Service Response:

The Musconetcong River watershed is a sub-watershed of New Jersey's Watershed Management Area 1 (WMA 1). As discussed on page 5 of the Musconetcong Rivet Drafy Management Plan dated April, 2003, WMA 1 is a part of the state's implementation of the state's broader watershed management plan. A WMA 1 assessment will include the impacts of development on the watershed's water quality and on the Musconetcong river's tributaries. State, County and municipal governments are active in protecting watershed lands through a variety of Regulatory and Non-Regulatory Programs and municipal land use planning, all of which can be found in Appendices A and B of the River Management Plan, and B and D of the Study Report.

The rationale for the Musconeteong River's federal boundary is based upon the river's recreational, scenic, Historic and Pre-Historic, cultural, threatened and endangered species, habitat and fisheries resources found close to the river, and within a very narrow watershed. Generally, the watershed is only between 3.4 miles wide along its 42.5 mile-length. The Musconeteong Advisory Committee and the National Park Service agreed that a one quarter mile federal boundary from either bank to study for Wild and Scenic River designation consideration is sufficient. Additionally, the National Wild and Scenic River's banks.

The model of Musconeteong River resource management preferred by the Musconeteong Advisory Committee, is one that is dependent on local land use management to protect lands within the federal boundary. This model also provides guidance on how to manage rivers and tributaries in general, and should influence how municipalities evaluate their land-use planning in the watershed, and how such planning will affect the watershed and the Musconeteong River. The management model is further discussed as the preferred alternative in the Study Report's Environmental Assessment (page 40). An analysis of existing resource protection measures by the riverside municipalities can be found in Appendix D of the Study Report.

PLANNING DEPARTMENT COUNTY OF WARREN

BUTTE 111 185 COUNTY ROAD, ROUTE 519, SOUTH BELVIDERE, NEW JERGEY 97833-1949

DAVID K. DECH PLANNING DIRECTOR



Main (999) 475-6532 Administration (998) 475-6531 Internet planningdopi 900, warranin) ke Planning Fax (999) 475-6565 Engineering Fax (999) 475-6565

March 31, 2004

Mr. Paul Kenney National Park Service National Rivers Program 200 Cheatnut Street, 3th Floor Philadelphia, PA 19106

Dear Mr. Konacy

After reviewing the draft Study Report for the Muscometooag River Wild and Scenic designation the Warren County Planning Board wishes to comment on one effect that designation may have on needed repair and replacement of some of the bridges crossing the river. The report states on pages 21-22, "Portions of the river corridor, particularly between the historic hamtets of Beattystown and New Mampton, are facing increased development that may negatively impact the rural and historic character of the river corridor. Plans for the replacement of historic steel trues and stone arch bridges at several locations along the river corridor recently have also led to conflicts between local communities and transportation planners. These issues help to inventory, document and protect the cultural sites and structures that help to define the Muscometeous River Corridor (page 22)." On page 23 under goals, 2) it states, "preserve and protect the character of archaeological sites and historic structures, destricts, sites and landscapes in the river corridor."

The Report should recognize that people and vehicles need to safely move from one side of the river to the other. The replacement of single iane obsolete steel treas bridges that were built before the automobile was used with two lane bridges may be accessary to address the mobility needs over the next 50 to 70 years, the life of most bridges. Provisions should be provided in the Report to allow bridge replacements where the need extists. The replacement bridges can be of similar type and character of the over corridor yet built to sustain the requirements of modern day vehicles.

Thank you for the opportunity to comment,

Sincerely yours David K Dech

David K. Dech Planning Durector

шc

Board of Chosen Freeholders
S. Marvin, County Administrator

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Page 1 of 1

Fib Code: 3200 Date: April 8, 2004

Mr. Paul Kenney Project Manager, National Rovers Program. National Park Service 200 Chestnut Street, 3rd Floor Philadelphia, PA 19106

Deer Mr. Kenney:

Thank you for providing the US Forest Service, Northeastern Area State and Private Forestry, an opportunity to review the Musconstrong River National Wild and Scenic Rivers Study draft report. The Forest Service has been engaged in studies and resource conservation programs in the New Jersey Highlands, where the Musconstrong flows, since 1990. It is gratifying to learn of the river's nomination for eligibility as a wild and scenic river.

Pursuant to your request, Northeastern Area State and Private Forestry has reviewed the draft seport. Please find our comments enclosed

Allow me to repeat my thanks for being invited to seview the report.

Sincerely,

/S/NANCY R. MORGAN KATHRYN P. MALONEY Area Director

Eaclorure



Eligible River Segments





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Open Space & Recreation Lands

Public Open Space (NJDEP 1999)

Private Open Space & Preserved Farmland (NJDEP 1999, Hunterdon County 2002, North Jersey RC&D 2002)



Rivers System Boundary









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Data Source

NJ Department of Environmental Protection Heritage Conservancy

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New Jersey State Plan Policy Map Planning Areas Suburban Planning Area (PA2) Rural Planning Area (PA4) Rural Environmentally Sensitive Planning Area (PA4B) Environmentally Sensitive Planning Area (PA5) Park as delineated in Plan Cross Acceptance Park from NJDEP State Open Space 1998 Water (NJ DCA - Office of Smart Growth 2001) Eligible National Wild & Scenic Rivers System Boundary Watershed Boundary HERITAGE CONSERVANCY WISCOMPLONG WATERSHED ASSOCIATION 3 Miles Data Source

MUSCONETCONG RIVER

National Wild & Scenic Rivers Study

NJ Department of Environmental Protection Heritage Conservancy

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Land Use/Land Cover



Eligible National Wild & Scenic Rivers System Boundary Watershed Boundary



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Important Habitats & Natural Areas

- Forest Boundary
- Wild Trout Stream **A**
- Trout Maintenance Stream
- Trout Production Stream
- Natural Heritage Site

Grassland

111	Sui
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- table Habitat
- ate Threatened Species
- ate Endangered Species
- Federally Listed Species No Data

Emergent

- Suitable Habitat
- Non-Listed Priority Species
- State Threatened Species
- State Endangered Species
- Federally Listed Species
- No Data

Forested Wetland

- Suitable Habitat
- Non-Listed Species
- State Threatened Species
- State Endangered Species
- Federally Listed Species No Data
- Forest
 - Suitable Habitat
 - Non-Listed Priority Species State Threatened Species State Endangered Species Federally Listed Species No Data

(NJDEP 1999)



3 Miles

Data Source

NJ Department of Environmental Protection Heritage Conservancy

The map was developed using New Jerkey Department of Presence and All Probability Prographics Information Ny Jerkey. digital data, but this screendary product he by NUDEP and is not state-authorized.

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Musconetcong Watershed Association P.O. Box 113 Asbury, NJ 08802 www.musconetcong.org



Heritage Conservancy 85 Old Dublin Pike Doylestown, PA 18901 www.heritageconservancy.org



National Park Service Partnership Rivers Program 200 Chestnut Street, 3rd Floor Philadelphia, PA 19106 www.nps.gov